

Department of the Interior

2014 Strategic Sustainability Performance Plan

A handwritten signature in blue ink, appearing to read "R. Suh", is positioned above a horizontal line.

Rhea Suh
Assistant Secretary - Policy, Management and Budget
and
The Department's Senior Sustainability Officer

Date June 30, 2014

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Introduction

Agency Policy Statement

The Honorable Michael Boots
Acting Chair, Council on Environmental Quality
730 Jackson Place, N.W.
Washington, D.C. 20503

Dear Mr. Boots,

The Department of the Interior (Department) is fully dedicated, through its mission, to conserve and protect the nation's natural and cultural resources now and for future generations. Implementing sustainability in Department operations is consistent with and complementary to the Department's overarching mission. The Strategic Sustainability Performance Plan (SSPP) supports the Department's mission by integrating sustainability within Department operations and reducing our greenhouse gas (GHG) emissions which, in turn, further demonstrates the Department's commitment to conservation, protection, and the responsible use of natural and cultural resources.

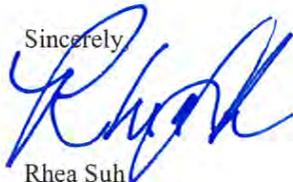
The Department is committed to meeting and or exceeding compliance with environmental and energy statutes, regulations, executive orders (EOs), and other applicable requirements. This commitment is evidenced by the implementation of a department-level environmental management system (EMS) to manage and track compliance with and progress on achieving the environmental and energy performance goals in EO 13514 and EO 13423.

The Department's Sustainability Council (Council) provides leadership and guidance for SSPP goal accomplishment. I chair the Council which is supported by bureau and office Senior Sustainability Officers, an implementation committee, and technical workgroups that include representatives from all bureaus and appropriate offices. The Council is the implementing and oversight body for the department-level EMS and SSPP. The Department is also committed to addressing climate change and has adopted a new Climate Change Adaptation Policy, currently being implemented, and the Secretary has made Climate Change an Agency Priority Performance Goal. The Department also has developed a Climate Change Adaptation Plan that focuses on both agency-wide and bureau-level actions in FY 13 and beyond. The Plan was updated this year and is included as an appendix in this SSPP.

The Climate Change Adaptation Plan includes guiding principles for the Department and its components to adhere to in order to anticipate and adapt to challenges posed by climate change. The recent Adaptation Plan update includes a discussion of bureau climate change vulnerabilities and plans to address these vulnerabilities, as well as opportunities to improve climate change adaptation and resilience, and departmental and interagency coordination for climate change adaptation activities. Our framework will help us prioritize the collection and integration of key data as indicators of how climate change is affecting resources.

The Department is serious and excited about the commitments we have made, the priorities we have set, and the resources we have identified to move us forward in our sustainability efforts. These efforts are integral to the Department's mission and we look forward to enhancing our ability to conserve, protect, and ensure the responsible use of our nation's natural and cultural resources. The dedicated employees of the Department are passionate about our stewardship responsibility for the resources and properties that we manage for the American People. To harness their creativity and energy, the Council will continue to foster opportunities for employees to submit their own ideas for improving sustainable practices at the Department. The creative input of all employees will continue to be invaluable as we work toward our ambitious sustainability goals.

Sincerely



Rhea Suh
Assistant Secretary
Policy, Management and Budget

U.S. Department of the Interior

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Vision

The Department integrates sustainability into its mission through leadership commitment and a fully implemented, ISO 14001 conformant department-level environmental management system (EMS) governed by the Sustainability Council (Council). The Department emphasizes the importance of sustainability by holding leadership accountable for sustainability goal accomplishment through annual evaluations. The Department is also committed to sustainability goal achievement through knowledge and technology transfer programs. These programs ensure that successful program implementation strategies and ideas are shared throughout the Department at all levels.

The Sustainability and Environmental Policy Statement signed by the Secretary on May 25, 2011, "... affirms our commitment to integrating sustainability into everything we do as a Department to protect America's great outdoors and power our future." The Statement was distributed to all Department employees and supports the sustainability ethic that its employees already embody in carrying out its mission to protect America's natural resources and heritage, honor its cultures and tribal communities, and supply the energy to power its future.

Sustainability goals are integrated throughout the Department using the department-level EMS as a management tool and the Council as the governing body. The Council is chaired by the Agency Senior Sustainability Officer (SSO) with a vision that it will "...serve as a forum for integrating sustainability practices into the operations of the Department in support of our mission, and will facilitate the exchange of ideas and information among Council members." The Council is a multidisciplinary, collaborative decision-making forum for sustainability and environmental compliance and works on strategies to implement the sustainability goals. Each bureau and applicable office is represented by a SSO and staff membership on an implementation committee and multiple sustainability goal specific technical workgroups. Compliance and progress on meeting the sustainability goals are reported and discussed at the annual EMS Management Review. Additionally, each bureau and applicable office is rated on how well it meets sustainability goals on the annual departmental Organizational Assessment.

The Department shares sustainability goal implementation best practices by highlighting the Department's Environmental Achievement Awards and the Department of Energy's (DOE) Federal Energy and Water Management Awards on the Department's internal and external communication sites. The Department's Environmental Achievement Awards can be accessed at: <http://www.doi.gov/greening/awards/2013/index.cfm>. In 2013, the Department was pleased to receive three DOE Federal Energy and Water Management Awards. The DOE Federal Energy and Water Management Award recipients can be accessed at: http://www.doi.gov/pam/programs/energy_management/upload/Awards_FY13.pdf, and the DOE's Federal Energy and Water Management Awards website can be accessed at: <http://energy.gov/eere/femp/federal-energy-and-water-management-awards>. The Department is very proud of the achievements it has made in integrating the sustainability goals into its mission and is committed to continue its positive progress towards meeting the goals through continual improvement.

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Leadership

Goal 1: Greenhouse Gas Reduction

Goal 2: Sustainable Buildings

Goal 3: Fleet Management

Goal 4: Water Use Efficiency & Management

Goal 5: Pollution Prevention & Waste Reduction

Goal 6: Sustainable Acquisition

Goal 7: Electronic Stewardship & Data Centers

Goal 8: Renewable Energy

Goal 9: Climate Change Resilience

Goal 10: Energy Performance Contracts

Exhibit 1: This table lists the Department's personnel and Offices that are responsible for implementation of the SSPP goals.

Agency Lead	SSPP Goal
Assistant Secretary - Policy, Management and Budget	1-10
Chief Information Officer	1, 2, 7
Deputy Assistant Secretary - Budget, Finance, Performance and Acquisition	1-8,10
Deputy Assistant Secretary - Policy and International Affairs	1, 2, 5, 7, 9
Deputy Assistant Secretary - Human Capital and Diversity	1, 2, 9
Deputy Assistant Secretary - Technology, Information and Business Services	1, 2, 7
Deputy Assistant Secretary - Water and Science	4
Director, Office of Acquisition and Property Management	1-8, 10
Director, Office of Environmental Policy and Compliance	1, 2, 5, 7
Director, Office of Financial Management	1, 2
Director, Office of Human Resources	1, 2
Director, Office of Occupational Safety and Health	9
Director, Office of Policy Analysis	9

Performance Review

Goal 1: Greenhouse Gas Reduction

The Department established a FY 2020 scope 1 and 2 Greenhouse Gas (GHG) emissions reduction goal of 20 percent relative to FY 2008. In FY 2013, the Department reduced scope 1 and 2 GHG emissions by 18.3 percent relative to FY 2008, which exceeded the FY 2013 goal of a 6 percent reduction.

The Department's scope 3 GHG emission reduction target is 9.0 percent by FY 2020 relative to the FY 2008 baseline. The Department's largest sources of these emissions are employee commuting, business travel by air and ground, and contracted municipal solid waste disposal. In FY 2013, the Department reduced scope 3 GHG emissions by 26 percent relative to FY 2008, which exceeded the FY 2013 goal of a 2.7 percent reduction.

Integration

Reducing GHG emissions is integrated with numerous federal mandates, initiatives, and the Department's strategic planning and budgeting processes. Statutory and Executive Order (EO) requirements to reduce building energy intensity, increase the use of renewable energy, implement on-site renewable energy generation projects, and reduce the use of fossil fuels in both buildings and fleet move the Department towards meeting its FY 2020 GHG goal. Administration initiatives such as the Fleet Management Plans, Energy Savings Performance Contracting, and Freeze the Footprint, challenge the Department to identify opportunities for additional efficiencies and improvements.

For scope 3 GHG emissions, increasing telework is one method of reducing employee commuting emissions and goals for telework were created as part of the GHG reduction effort. These efforts are supported by the Telework Enhancement Act of 2010 and efforts across the Federal Government to promote telework as a cost-saving (and space saving) approach. Also, due to budgetary constraints, there is a coordinated effort by the Department and all of the bureaus to limit business travel to those trips that are mission critical. Scope 3 GHG emissions from municipal solid waste disposal should also decrease as the Department works towards the EO 13514 goal to reduce solid waste and increase waste diversion.

Evaluation Measures

The Department utilizes the DOE Federal Energy Management Program's (FEMP) GHG Emissions and Sustainability Data Report to document progress in meeting the reduction goal, identify and target high emission categories and implement specific reduction actions. Data from the report is presented graphically to provide the Department's Senior Management a visual of the overall make-up of its GHG emissions as well as its progress.

In addition, the Department also employs the General Services Administration's (GSA) Commuter Survey to estimate employee commuter emissions, the time and attendance system to assess the percent of eligible employees who telework, data from GSA's Travel Management System and the Department's accounting systems to estimate travel expenditures and emissions. Results of an annual data call on solid waste and chemicals management are used to report the quantity of municipal solid waste disposed of and diverted each year.

Successes

The Department's bureaus strive to meet the plethora of sustainability goals, including the reduction of scope 1 and 2 GHG emissions. Energy, water, and renewable energy retrofits are implemented at existing buildings, when funding is available.

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The Bureau of Land Management (BLM), U.S. Geological Survey (USGS), and the National Park Service (NPS) have overcome many challenges and provide excellent examples for multi-site alternative financing success. BLM successfully completed its multi-phased, regional energy savings performance contract (ESPC) covering 12 states in FY 2011. It is anticipated that both USGS and NPS ESPCs will be awarded in FY 2014 and FY 2015. Additionally, the Office of Facilities and Administrative Services (OFAS) is working to award an ESPC at the Stewart Lee Udall Main Interior Building in FY 2015.

The Department has also exceeded its goal for scope 3 GHG emission reductions. Telework participation doubled from FY 2011 to FY 2012, and the Department met its goal for FY 2013. Business travel restrictions helped the Department to reduce its FY 2013 business air and ground travel emissions by 46.5 percent when compared with the FY 2008 baseline.

On March 27, 2014, the Department announced a Bicycle Subsidy Benefit Program. This new program allows employees who commute on a bicycle, to receive a bicycle subsidy transportation benefit, similar to the mass transit and federally-subsidized parking benefit programs. The Bicycle Subsidy Program furthers the Department's commitment to establishing an integrated strategy towards sustainability and the reduction of GHG emissions. This incentive promotes employee health and wellness and helps to conserve our nation's natural resources. The program provides \$20 per month reimbursement, not to exceed \$240 annually, for the purchase, improvements, repair, storage, and/or maintenance of a non-motorized bicycle that is used as a primary means of commuting to and from work.

Challenges

Many energy efficiency and renewable energy projects, and sustainable building construction projects, were initiated with funding from the American Recovery and Reinvestment Act of 2009. These projects and new buildings have been completed and have greatly contributed to the Department exceeding both the FY 2012 GHG reduction goal and energy intensity reduction goal. While this much needed funding was a boost to various programs, the appropriated funding forecast to continue progress appears bleak.

The Department's bureaus have made efforts to utilize alternative financing for energy and water savings projects; however, it has been difficult to attract the interest of energy service companies due to the Department's small facility size, remote locations, special requirements for historic and unique bureau missions, and inability to meet energy improvement investment thresholds, which are generally around \$1.5 million. Project bundling to implement alternative financing may not be feasible for every bureau. Many of the "low-hanging fruit" type of projects have been implemented, leaving longer return on investment projects, such as renewable energy components and building renovations needed to ensure high performance buildings. Some appropriated project funding is required for these types of projects as well as the completion of Energy Independence and Security Act (EISA) covered facilities evaluations. Additionally, overall personnel resources have remained stagnant, or have declined, while the reporting burden has increased. Many of the same personnel are involved in many of the sustainability, GHG and energy reporting. These reports have become very detailed and in depth, often with monthly or quarterly frequencies. Within the Department, many sustainability and energy management responsibilities are designated as collateral duty functions of staff already stretched to meet critical mission needs. At the field level, reporting requirements often constrain the time needed to implement energy and water conservation projects, which are integral to meeting the GHG goals.

Training and education are consistent challenges in reducing scope 3 GHG emissions. There is a need to educate managers about the benefits of telework and how to manage a mobile workforce. Department staff were informed that ground and air travel must be kept to a minimum and that all travel will be scrutinized to ensure it is necessary. For the largest source of scope 3 GHG emissions, employee commuting, changing behavior and lack of other commuting options available to employees due to job

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location and/or function are the biggest challenges. In the Department's efforts to encourage bicycle commuting, a lack of physical infrastructure, such as bicycle lanes, paths and parking, and workplace showers and lockers, has been a challenge in increasing bicycle commuting. There is also a need for increased and visible executive leadership support for telework at the Department level. The amount of municipal solid waste disposed of each year fluctuates greatly due to periodic mission critical land management activities such as storm debris removal or habitat restoration. Large quantities of waste from unexpected events can increase the Department's scope 3 GHG emissions.

Lessons Learned

Employee training and awareness further promotes the Department's efforts to reduce GHG emissions. Education, training focused on managers, and senior level support are key to the success of the telework program. Telework guidance must be useful and kept current.

For business travel, initial reductions in FY 2011 travel budgets resulted in employees taking more flights with connections and stopovers with lower fares instead of more expensive direct flights, resulting in an increase in business air travel emissions because most air travel emissions result from the take-offs and landings. However, additional budget reductions in FY 2012 and FY 2013 reduced the number of business trips, resulting in emission reductions.

Planned Actions

The Department's bureaus continue to make progress on completing EISA covered facility energy and water evaluations. Identified energy conservation measures (ECMs) will be implemented pending availability of funds. Metering appropriate buildings for electricity, natural gas, and steam has aided bureau knowledge regarding energy consumption within individual buildings. Metering appropriate buildings for natural gas and steam is on target for completion by October 2016.

A telework marketing plan is in place and being executed to provide success stories to mission (line) managers. The telework program continues to report the participation rate quarterly and for every pay period, as well as continuing briefings at meetings with bureau human capital officer. The Department reached its goal to have 11.9 percent of eligible employees telework in FY 2013, and will have 12.8 percent of eligible employees teleworking in FY 2014. The Department plans to continue to limit business air and ground travel as per its Temporary Duty Travel Policy (<http://www.doi.gov/pfm/fmm/upload/DOI-TDY-Travel-Policy.pdf>) issued March 2014. This policy requires employees to give preference to teleconferencing, web conferencing or video conferencing in lieu of business travel, and, when travel is absolutely necessary, to use public transportation and carpools to the extent possible. The Department anticipates that cost saving measures will lead to a successful outcome. In order to raise awareness of the Department's bicycle commuting program, the Department plans to establish an agency-wide bicycle outreach and communication campaign, entitled, "Transition to Clean, Safe, Healthy, and Affordable Transportation." The Department also participates in an interagency bicycle working group, and is evaluating progress and taking action to improve program effectiveness.

Goal 2: Sustainable Buildings

The Department's sustainable/targeted building inventory (greater than 5,000 gross square feet (gsf)) designated as sustainable for FY 2013 is 2.0 percent.

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Integration

The Department's Sustainable Building Implementation Plan specifies that compliance with the Guiding Principles for High Performance and Sustainable Building (GP) is mandatory for all new construction (greater than 5,000 gsf) and major renovations.

The Department's Budget Guidance states that all building projects, regardless of type, must follow all applicable mandatory energy and sustainable buildings requirements in the scope of the project.

Evaluation Measures

Evaluation measures for this goal include the Office of Management and Budget's (OMB) Sustainability and Energy Scorecard. The sustainable buildings goal is also an element included in the Department's annual Organizational Assessment sustainability rating. The Department calculates the percent of targeted buildings in compliance with the Guiding Principles on an annual basis through a sustainability data element in its Financial and Business Management System (FBMS). This data is uploaded to the Federal Real Property Profile (FRPP).

Successes

The Department is currently red on the OMB Sustainability and Energy Scorecard sustainable buildings rating. However, the Department successfully implemented the As Sustainable as Possible (ASAP) process throughout the Department to assess approximately 350 buildings with minimal environmental impact and presented the process and results to OMB and the Council on Environmental Quality (CEQ). As a result of ASAP, the Department better understands its targeted building inventory and the challenges of meeting 100 percent of the Guiding Principles at all buildings.

Challenges

The 15 percent model is a challenge and does not work for the Department's building inventory greater than 5,000 gsf as it does for other federal agencies because:

- Amount of new construction is low relative to the size of the Department's inventory. The Department does not build many new large buildings. These can achieve compliance with 100 percent of the GPs more easily than existing buildings which often require extensive renovation.
- Uniqueness of the Department's building inventory inhibits opportunities to comply with all of the GPs. For example, the Department's building inventory includes:
 - More than 20 percent of owned and leased buildings greater than 5,000 gsf that are historic properties, according to the FY 2013 FRPP. These assets are National Historic Landmarks, are listed on the National Register of Historic Places (NRHP), or have been determined eligible to be listed on the NRHP.
 - Many unique, large buildings which cannot possibly meet 100 percent of the GPs.
 - Many buildings that have minimal environmental impact as they are unoccupied, have minimal or no energy and water use, and provide little opportunity for sustainability improvement, or cost savings.

Lessons Learned

Given the major challenges the Department faces with regard to this goal, other agencies were contacted to see how they are addressing similar challenges. We found that other agencies are addressing the challenges in ways that make sense for their unique inventories. Because strict adherence with the GPs has made it impossible for the Department to meet the sustainable buildings goal, we are now addressing our challenges in a manner that acknowledges our unique inventory and still represents the intent and spirit of the goal.

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Planned Actions

The Department will:

- Continue to require compliance with the GPs in all new construction and major renovations.
- Continue to integrate sustainable practices to meet the GPs into planned renovations and ongoing operations and maintenance at existing buildings.
- Have the Council Sustainable Buildings Technical Workgroup address developing a metric to measure compliance with the Sustainable Locations for Federal Facilities.
- Work with DOE/FEMP to develop and deploy sustainable buildings awareness and assessment training.
- Work with OMB/CEQ to agree on a sustainable buildings strategy that addresses our unique inventory.
- Work toward increasing the number of sustainable buildings reported in the 2014 FRPP.

Goal 3: Fleet Management

The Energy Policy Act of 2005 (EPAct) established an annual 2 percent petroleum reduction that equates to a FY 2013 fleet petroleum use reduction goal of 16 percent compared to 2005 and a 20 percent reduction goal by 2015.

The Department exceeded the FY 2013 reduction goal by achieving a 17.7 percent reduction in petroleum use and is on track to meet the 20 percent reduction by 2015. These reductions contribute to the scope 1 and 2 GHG emissions reductions.

Integration

Reducing GHG emissions through the Department's fleet management program is integrated with numerous federal mandates, initiatives, and the Department's strategic planning process. Annual 2 percent petroleum reduction and 10 percent alternative fuel (AF) increase goals were established by the EPAct. These goals are tracked on the Department's OMB Sustainability Scorecard, the Annual Motor Vehicle Report in the Federal Automotive Statistical Tool (FAST) system, the Department's Annual Performance Plan and Report, and in reports to OMB, GSA, and DOE. The Department also continues to meet or exceed requirements established in the EPAct, EISA, EOs 13423 and 13514, and the GHG reduction efforts.

Evaluation Measures

The main source the Department uses to determine progress is the Annual Motor Vehicle fleet report as reported in the FAST system. The Department has deployed the Financial and Business Management System (FBMS) to serve as the Department's fleet management information system (FMIS). Evaluation measures and goals are tracked through the OMB Scorecard, GSA, DOE, and the Department's annual performance plan and review.

Successes

The Department has seen significant reductions in the number and size of vehicles in the fleet when compared to the FY 2005 baseline. The Department has reduced the fleet by over 13 percent, and has reduced petroleum consumption by over 17.7 percent, while increasing the use of AFs by over 100 percent in the same time period. The Department entered into partnership with the DOE Clean Cities program to implement the Clean Cities National Parks Initiative. This program supports transportation projects that replace aging, inefficient park vehicles with AF and advanced technology vehicles. The

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program is designed to educate park visitors on the benefits of reducing petroleum use and GHG emissions. In 2013 the DOE Clean Cities program announced seven grants for NPS projects that reduce petroleum consumption and GHG emissions.

The Department has increased its number of AF and hybrid vehicles to over 9,100 vehicles. This represents an increase of over 7,700 vehicles when compared to FY 2005. The Department has over 1,100 hybrid vehicles in the fleet, which reduce petroleum consumption, reduce carbon footprint, increases fuel-efficiency, and reduces our dependence on foreign oil.

Challenges

Some of the main obstacles to achieving the outlined goals include the lack of resources, both personnel and financial. The constrained budget outlook makes significant increases in fleet management efficiency difficult. Another obstacle to “greening” federal fleets is the limited availability of AFs due to lacking fueling infrastructure. Many of the Department’s remote locations preclude the consumption of large quantities of AFs because the fueling infrastructure is not present. Many departmental mission requirements, i.e., drivability through rugged terrain, extreme weather conditions and unpaved roads, make certain types of vehicles incompatible. Until the ‘market share’ and demand for AFs increase from the public at-large, the demand for the commercial market to provide AFs will remain low.

Lessons Learned

Annual reporting is not enough. With the deployment of FBMS, the Department will increase the internal scrutiny of its fleet management program. More data will be available through FBMS which will assist with making management decisions to make the fleet more efficient. This increased oversight into the program will give senior management and fleet managers more visibility into the program. Decisions will not be relegated to annual reports or through ad hoc data calls to bureaus. FBMS gives the Department the ability to change from inefficient practices to ones better suited to benefit the Department at more frequent intervals than annual reports.

Planned Actions

1. The Department plans to fully use all the capabilities of FBMS as an FMIS and decision making tool.
2. Continue to partner with GSA and DOE to plan, acquire, and place vehicles in locations where AFs are readily available.
3. Continue to partner with GSA to acquire more hybrid vehicles.
4. Plan and acquire more AFVs and hybrids, per the May 24, 2011 Presidential Memorandum.

Goal 4: Water Use Efficiency & Management

EO 13514 established the FY 2013 potable water intensity reduction goal of 12 percent relative to the FY 2007 baseline. In FY 2013, the Department reported potable water intensity at 54 gallons per gross square foot, which represents a 13.9 percent reduction relative to the FY 2007 baseline.

The Department’s non-potable water use is for mission related functions, such as, care and feeding of animals and wildlife including endangered species; establishment and propagation of wildlife habitats; power generation and the distribution of water as a result of water rights, contracts, or tribal agreements; and wildland firefighting, which are not subject to water reduction goals. The Department remains committed to the efficient use of non-potable water resources and will continue to make improvements in its delivery and use of water wherever feasible.

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Integration

Water use efficiency and management is integral to the Department's overall mission and strategic plan, as well as EOs and Presidential Memorandums. In 2010, the Department issued a Secretarial Order establishing a new water sustainability strategy for the United States called WaterSMART – Sustain and Manage America's Resources for Tomorrow.

Evaluation Measures

Progress on the potable water intensity goal is tracked through FEMP's GHG and Sustainability Data Report where water consumption is reported annually.

Successes

The Department's bureaus conduct water audits to ensure efficient use of water and identify opportunities for water use reductions. USGS's Northern Appalachian Research Laboratory in Wellsboro, Pennsylvania, has begun making major infrastructure changes to control and measure systems for water use reduction. The goal is to decrease water use about 40 percent or to pump only water needed for any ongoing studies. This modification may also reduce electricity use by 10 percent. In addition, bureaus design and install landscapes to reduce water use. The U.S. Fish and Wildlife Service (FWS) Headquarters Office Buildings at Panther Swamp National Wildlife Refuge (NWR), Mississippi and Yazoo NWR, Mississippi, have completed a 2,500 gallon rainwater harvesting system at each building that collects and stores rainwater in a cistern for flushing toilets and exterior hose use, saving approximately 40,000-60,000 gallons of water per year.

Challenges

Some mission-related water uses are dependent upon weather and cannot be quantified, such as care and feeding of animals and wildlife including endangered species; establishment and propagation of wildlife habitats; power generation and the distribution of water as a result of water rights, contracts, or tribal agreements; and wildland firefighting. In addition, at many of the Department's locations, water is supplied by on-site, unmetered wells.

Lessons Learned

The Department's bureaus utilize DOE FEMP Water Conservation Best Management Practices in new construction and building renovations where applicable, to meet potable water conservation goals. Specifically, bureaus design and install low-flow or ultra-low-flow plumbing fixtures in all new facilities. Landscaping design emphasizes the use of native plant species, minimization or elimination of artificial irrigation, and maximizing efficiency of necessary irrigation through the use of drip systems, precipitation detection systems, and optimal timing.

Employee training and awareness further promote the Department's efforts to achieve and sustain water conservation progress.

Planned Actions

The Department remains committed to the efficient use of water resources and will continue to make improvements in its delivery and use of water wherever feasible and practical. The Department's bureaus continue to make progress on completing EISA covered facility energy and water evaluations. Identified water conservation measures will be implemented pending availability of funding.

The USGS's National Center in Virginia will include water conservation measures as part of its ESPC which will be awarded in June 2014. Additionally, NPS is pursuing a regional ESPC in the National Capital Region which will include water use assessments to identify usage, needed repairs, and

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recommended water conservation measures. This multi-phased ESPC will be awarded in FY 2014 and 2015.

Goal 5: Pollution Prevention & Waste Reduction

In accordance with EO 13514, the Department has set goals to:

- Divert at least 50 percent of nonhazardous solid waste by FY 2015, excluding construction and demolition (C and D) debris
- Divert at least 50 percent C and D materials and debris by FY 2015

In FY 2013, the Department attained a 49 percent waste diversion rate for nonhazardous solid waste, excluding C and D debris, and a 88 percent waste diversion rate of C and D materials and debris.

Integration

Funding is requested annually to support the online database used to collect solid waste data. The Department's Sustainability Council Strategic Work Plan also contains a proposed project to fund the online database. In addition, solid waste data are used to estimate GHG emissions in the Department's annual GHG and Sustainability Data Report.

Evaluation Measures

Solid waste data are collected annually through an online database. Almost 1,300 of the Department's facilities are asked to enter solid waste data each year. The facilities' data are rolled-up and approved at the regional, bureau, and Department levels. The system collects detailed information on the commodities recycled and whether waste is disposed of through waste-to-energy facilities. Waste diversion rates for non-hazardous C and D waste and non-hazardous, non-C and D waste are calculated annually. In addition, data on the amount of waste that goes to composting and waste-to-energy are collected.

Successes

Diversion of non-C and D waste has far exceeded the 50 percent goal for several years, due to successful recycling of road and parking lot asphalt. The Department achieved an 88 percent waste diversion rate for C and D waste for FY 2013. The Department continued to compost large amounts of waste with 10,826 tons composted in FY 2013.

The Department continues to be one of the few agencies to report data on releases of mixed refrigerants and other fluorinated gases, including hydrofluorocarbons (HFCs). This will allow the Department to assess the impact of fluorinated gases on its overall GHG emissions and prioritize reducing those emissions accordingly. The Department will also include HFC awareness training in its quarterly Green Procurement training.

Challenges

Due to the natural resource management mission of the Department, it will be very difficult to meet the goal of 50 percent diversion of non-C and D, non-hazardous solid waste. There are various resource management activities including habitat restoration projects involving brush and debris removal and cleanups of illegal dumping, visitor waste, and debris from natural disasters, which produce large amounts of non-hazardous solid waste (tens of thousands of tons) that cannot be economically recycled. A goal of 50 percent waste diversion for municipal solid waste would be more achievable for the Department since it would include conventional office trash and not these other sources.

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The lack of availability of recycling and commercial composting facilities is also a challenge. Facilities would compost more material if there were more commercial composting facilities with the capacity to take their waste, and more compost/organic waste haulers to pick-up compostables. Many Department facilities are in extremely remote locations, where the nearest recycling center might be hundreds of miles away, making it inefficient to haul materials the long distance to be recycled, especially with rising fuel costs.

Improved training, education and outreach are needed to increase employee participation in recycling efforts, but there is a lack of financial and personnel resources to implement these programs.

Lessons Learned

Outreach and education are key. Achieving the 50 percent waste diversion goal completely relies on decisions and programs that are run at the facility level. Also, quantities of waste reported can vary widely from year to year depending on the activities taking place at Department sites.

Planned Actions

Through FY 2014, the Department will continue to work towards improving the Department's nonhazardous, non-C and D waste diversion rate through the Lifecycle Management Technical Workgroup. The Department also aims to continue to achieve waste diversion rates in excess of 50 percent for C and D waste. The Greening the Department of the Interior website will continue to be updated to provide best practices for waste management.

Goal 6: Sustainable Acquisition

EO 13514 established a sustainable acquisition goal to ensure that 95 percent of new contract actions comply with green procurement requirements. The Department achieved a 100 percent compliance rate in the third quarter and a 99 percent compliance rate in the fourth quarter of FY 2013.

Integration

The Department's sustainable acquisition program dovetails with EO 13514, the 2002 Farm Bill, the Resource Conservation and Recovery Act of 1976, and Federal Acquisition Regulation (FAR) Part 23. The Department established a sustainable acquisition goal to ensure that 95 percent of new contract actions, including task and delivery orders, are energy efficient, water efficient, bio-based, environmentally preferable, and use non-ozone depleting substances, and contain recycled content or are non-toxic or less toxic alternatives. Procurement personnel are offered quarterly training on the requirements

Evaluation Measures

The Department conducts semi-annual data calls to review and measure contract actions to ensure that 95 percent comply with green purchasing requirements.

Successes

The Department continued promoting the goal of including green purchasing requirements in 95 percent of new contract actions in FY 2013 as set out in EO 13514. The Department attributes this success in part to the commitment of the workforce, its unique mission and its training program. The Department's quarterly training and training on-demand is available not only to procurement personnel, but is also provided to program offices and charge card holders. The Department also has a Life Cycle Management Technical Work Group which provides a forum for discussion among procurement and solid waste subject matter experts from all bureaus/offices. End users/program managers are also encouraged to take

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part. Understanding how these program areas are interrelated drives a holistic look at the lifecycle of products and services being procured and the benefits of acquiring green products and services. The Department will continue to promote sustainable acquisition (with a special emphasis on biobased products) through setting and monitoring EMS goals and objectives and continuing to provide comprehensive training available to all of the Department's personnel.

Challenges

A more robust version of the Federal Procurement Data System – Next Generation, (FPDS-NG) which addresses reporting of all green product attributes and mirrors reporting requirements, would assist all agencies and would also benefit OMB. Agencies would benefit from saving time required to collect raw data and OMB would benefit from having access to real time data available upon request. Changes to the FPDS-NG have to be initiated by OMB.

Lessons Learned

In order to give the Department's bureaus several weeks to conduct their review of contracts to determine if 95 percent of contracts contain green purchasing requirements, the Department now sends out the green procurement data calls earlier, prior to receiving the latest request for information from OMB/CEQ. The Department has also learned that training is a constant ongoing requirement which will be necessary for the long-term success of sustainable acquisition.

Planned Actions

The Department will continue to improve its strategies and actions through the Department's EMS to meet the sustainable acquisition goals as required by EO 13514. The Department will also continue its training, education, and acquisition management reviews and the quarterly training programs with a special emphasis on biobased products and services that promote biobased products. The Department will continue to pursue increasing its biobased product usage and will highlight success stories to encourage both its acceptance and usage.

Goal 7: Electronic Stewardship & Data Centers

EO 13514 established goals to promote electronic stewardship including ensuring procurement of Electronic Product Environmental Assessment Tool (EPEAT)-registered, Energy Star, and FEMP designated electronic products; implement policies to enable power management, duplex printing, and other environmentally preferable features on eligible electronic products; use environmentally sound practices for disposition of excess or surplus electronic products; and implement best management practices for energy-efficient management of servers and data centers.

The Department has implemented mandatory Department-wide use of enterprise procurement solutions to ensure that laptops, desktops, and monitors are EPEAT-registered and energy efficient; is developing power management and duplex printing policies; uses only Responsible Recycling (R2) and e-Steward recyclers for excess or surplus electronic products, and has successfully consolidated 65 data centers, with 17 additional data centers consolidating by the end of FY 2014. These numbers are well ahead of the OMB commitment schedule.

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The breakdown of data center consolidations per year beginning in FY 2011 is:

Current OMB Reporting	Fiscal Year				
Component Organization	2011	2012	2013	2014	Current Totals
Bureau of Indian Affairs (BIA)	11	0	0		11
Bureau of Land Management (BLM)		15	4	2	21
Bureau of Safety and Environmental Enforcement (BSEE)					0
Bureau of Reclamation (BOR)	1			1	2
Fish and Wildlife Service (FWS)	2	1	5	1	9
National Business Center (NBC)			2		2
National Parks Service (NPS)		2	3	2	7
Office of Historical Trust Accounting (OHTA)		1			1
Office of Surface Mining (OSM)	4	2			6
Office of Special Trustee			1		1
US Geological Survey (USGS)	1	2	2		5
DOI Reported Consolidations	19	23	17	6	65

The Department awarded its Foundation Cloud Hosting Services (FCHS) Indefinite Delivery/Indefinite Quantity (IDIQ) contract to allow subcomponent organizations and other Federal agencies to utilize in support of the Federal Cloud First Strategy. This vehicle, which the Department has made a mandatory use contract, will greatly assist in meeting goals associated with electronic stewardship and providing more cost and energy efficient solutions.

Integration

On August 31, 2012 the Department issued policy adopting the NASA Solutions for Enterprise Wide Procurement, Army Computer Hardware Enterprise Software and Solutions, and Army Desktop and Mobile Computing contracts as being mandatory sources for the Department. These contracts provide EPEAT registered and ENERGY STAR qualified products. In October 2012, the Department implemented the Interior Asset Disposal System (IADS) to report excess personal property. On Earth Day 2013, the Department implemented the United States Federal Recycling Program (from the National Strategy on Electronic Stewardship document, July 2011). The program provides a free, safe and environmentally-friendly method for the disposal of sanitized non usable federal electronic assets. As of April 2014, 450 Department employees have registered and they reported over 1,200 Federal Electronic Assets (FEA). The certified recycler was able to reuse 51 percent versus 49 percent destroyed. Finally, UNICOR, a Responsible Recycling (R2) provider has for over a decade provided a full service recycling program that is an integrated part of a Department's e-scrap solution.

Evaluation Measures

All personal property recycled, donated, sold, or exchanged is reported on the annual non-federal recipient or the sale/exchange reports to GSA. The electronics stewardship program is also evaluated via the OMB Sustainability/Energy Scorecard and the Data Center Closure reports to OMB.

Successes

Major achievements in FY 2013 include the following: 1) continued use of the Department's policy adopting the NASA Solutions for Enterprise Wide Procurement, Army Computer Hardware Enterprise Software and Solutions, and Army Desktop and Mobile Computing contracts; 2) continued use of GSA Bulletin B-34, Disposal of Federal Electronic Assets, guidance on reporting recyclable surplus equipment to R2 and e-Steward certified recycler; 3) continued use of the Interior Asset Disposal System (IADS) to report excess personal property; 4) and successfully consolidating data centers. 5) Within one year since signing the Memorandum of Understanding with the United States Postal Service, the Department has

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over 450 federal employees registered. 6) Finally, the Office of the Chief Information Officer (OCIO) completed the hosting study which evaluated hosting services to include data center facilities, hosting personnel and the types of applications and services being hosted. As a result of the study, recommendations were made and provided to Department Executive Management. A decision is pending related to the strategic direction the Department should take related to hosting services. The Department also identified 6 Core Data Centers per an OMB directive, those data centers identified as Core were submitted to OMB in Q3 FY 2013. The Department Core Data Centers are:

- Denver Data Center – OCIO Managed (Mansfield Location)
- BLM Data Center – BLM Managed (Bldg 53, Denver Federal Center)
- Bureau of Reclamation (BOR) Data Center – BOR Managed (Sacramento, CA)
- Bureau of Indian Affairs (BIA) Data Center – BIA Managed (Albuquerque, NM)
- Reston Data Center – OCIO Managed (Reston, VA)
- EROS Data Center – USGS Managed (Sioux Falls, SD)

Challenges

The main focus for data centers has been on consolidation and not enhancing power metering facilities in data centers that could be shutting down. Non-core data centers have been identified; however, the schedule for closing 40 percent of the non-core data centers has yet to be developed. As part of the hosting study, the OCIO is evaluating which data centers will stay open and what resources are available to implement metering. Since FPDS-NG currently does not collect EPEAT data and FPDS-NG is the Department's system of record, the Department currently cannot accurately collect EPEAT compliance data. It is also a challenge to develop a measurement to ensure that 100 percent of all Federal Electronic Assets (FEA) are sent to R2 and/or e-Steward certified recyclers.

Lessons Learned

Communicating with and educating employees are the key to achieving the objectives remaining on Goal 7, Electronic Stewardship and Data Centers (core/non-core). Also, coordinating, collaborating, and forming partnerships with departmental groups and subject matter experts such as property management, Electronics Stewardship Technical Workgroup (ES-TWG) representatives, and Sustainability Council members' helps to communicate electronics stewardship requirements.

Planned Actions

In February and May 2014, the ES-TWG chair emphasized the goals and objectives listed on the ESIP that are left to complete. In August 2014, bureaus and offices will be submitting their first electronic stewardship memorandum to the Office of Environmental Policy and Compliance (OEPC) in accordance with the issued Electronic Stewardship Implementation Plan (ESIP) for FY 2013 - 2015. In FY 2014, the Department will coordinate training for newly registered employees to use the USPS Federal Recycling Program for disposing of their FEA. In FY 2014, the Department will meet with EPA's Energy Star Program Manager to better understand options for implementing computer power management for desktop and laptop (plugged-in) computers. With recent funding, the Department is now taking its first steps in its strategic planning of a deployment of an Enterprise-wide System Center Configuration Manager (SCCM) system. The SCCM can provide for global power management configuration. Bureaus have accepted and agreed upon the following assignments:

- Reston Powell NPS data center - NPS (Installation completed) – Migration delayed until early 2015 (waiting to update their current SCCM environment);
- Denver OCIO data center - BLM, FWS (Installation completed) - migrating in June;

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- Albuquerque BIA data center - BIA, Office of the Special Trustee for American Indians, Office of the Solicitor, Bureau of Safety and Environmental Enforcement/Office of Natural Resources Revenue/Bureau of Ocean Energy Management (Installation completed);
- Lakewood Interior Business Center (IBC) data center - IBC/Office of the Secretary/Office of Hearings and Appeals, BOR, Office of Surface Mining Reclamation and Enforcement, Office of Inspector General, (TBD) - migrating in June (Installation completed); and
- Sioux Falls USGS data center - USGS - migrating in May.

Goal 8: Renewable Energy

The Department is dedicated to fulfilling the renewable electricity goals of EAct and EO 13423 by purchasing and generating electricity from renewable sources. In FY 2013, the Department used 59,248.7 Megawatt-hours (MWh) of renewable electricity from self-generation with on-site bonus and through the purchases of renewable electricity and renewable energy certificates. This represents 10.1 percent of the Department's total facility electricity use and exceeds the EAct 2005 goal of 7.5 percent of facility electricity use. Of the 10.1 percent, 5.2 percent represents on-site renewable energy generation; 1.9 percent represents renewable electricity purchased through the utility company; and 2.98 percent represents the purchase of renewable energy certificates. The use of on-site renewable energy sources is encouraged if the development of the resource is economically, environmentally, and technically feasible.

Integration

Implementing renewable energy projects or purchasing renewable energy is integral to meeting the GHG emissions reduction and energy intensity reduction goals. The Department participates in the Defense Logistics Agency's (DLA) solicitation for renewable energy certificates.

Evaluation Measures

Progress on the renewable energy goal is tracked through FEMP's GHG and Sustainability Data Report where renewable energy generation and consumption is reported annually.

Successes

The bureaus have implemented many remarkable on-site renewable energy projects. The FWS constructed a 70 kilowatt (kW) off-grid photovoltaic (PV) system at Vieques NWR in Puerto Rico. The system consists of 280 PV panels, each 245 watt (W) or 255 W, in four arrays that charge a central deep-cycle battery bank for on-demand drawdowns. FWS also completed the Headquarters and Visitor Center at Upper Mississippi River National Wildlife and Fish Refuge - La Crosse District, Wisconsin, which includes a 35.9 kW solar PV system, a 75 ton geothermal heat pump, and a solar hot water system with a 96 square-foot solar collector. Many bureaus provide interpretive displays to educate the visiting public about renewable energy projects implemented on site.

Challenges

Budget constraints are ever present. Projects are screened for potential on-site renewable energy components throughout the planning and design process. Additionally, implementing renewable energy components through performance contracting often requires supplemental funding to buy down the financed amount.

Lessons Learned

Purchasing renewable energy certificates and renewable energy from utility providers are viable options to help meet the renewable energy goal when on-site implementation is limited.

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Planned Actions

In FY 2014, on-site renewable energy systems will be installed at NPS' Isle Royale National Park, MI through the ESPC. Additional on-site renewable energy systems will be incorporated in other ESPC awards.

Goal 9: Climate Change Resilience

The Department is taking action to prepare for anticipated climate change impacts and build the resilience of the resources it manages. The Department continues to implement its Climate Change Adaptation Policy and has developed its 2014 Climate Change Adaptation Plan, which provides more details about the Department's strategy for addressing climate change for 2014 and beyond. This report describes the Department's ongoing climate change adaptation and resilience activities, including the release of the 2014 Department Climate Change Adaptation Plan, which is appended to this report as Appendix 2.

Integration

The Department has implemented the Climate Change Adaptation Goal as an Agency Priority Goal with quarterly bureau reporting on performance measures that align with the Resilience Goal strategies. FY 2014 is the second year for the Climate Change Resilience Goal in the SSPP, and the Department will continue to implement the same strategies for the Goal that were identified in FY 2013.

The Department's climate change adaptation efforts have been integrated with numerous initiatives, including but not limited to the interagency Climate Preparedness and Resilience Council, the U.S. Global Change Research Program, the National Ocean Policy, the Landscape Conservation Cooperatives, the Climate Science Centers, and the National Fish, Wildlife, and Plants Climate Adaptation Strategy. The Department's FY 2014 Climate Change Adaptation Plan and the Department's Climate Change Adaptation Policy emphasize the importance of integrating and collaborating with related efforts by other groups.

Climate change adaptation is addressed in the Department's strategic planning and budgeting processes, and is built into the mission areas in the Department's Strategic Plan for FY 2014-2018.

Evaluation Measures

Mainstreaming climate change into decision making for agency-wide programs is the Department's overarching strategy under the Climate Change Resilience Goal and aligns with the Department's Climate Change Adaptation Policy (Departmental Manual (DM), Part 523, Chapter 1, <http://elips.doi.gov/elips/0/doc/3741/Page1.aspx>). All other strategies that the Department is pursuing under Goal 9 are incorporated into this overarching strategy. Evaluation measures for the Department's strategies are listed in Table 9: Goal 9 Strategies – Climate Change Resilience.

Successes

The Department has a number of successful initiatives, including:

- Completion of a report to the Secretary of the Interior entitled, *A Strategy for Improving the Mitigation Policies and Practices of the Department of the Interior*. The Department's mitigation approach will be instrumental for addressing climate change impacts.
- The Department's 2014 Climate Change Adaptation Plan provides new details about its approach for implementing climate change adaptation, including additional information on bureau strategies for addressing climate change vulnerabilities and a framework for a coordinated Departmental response to climate change.

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- The Department continues to implement its ongoing strategies for addressing climate change, including implementation of the Department's Climate Change Adaptation Policy, the Landscape Conservation Cooperatives and the Climate Science Centers.

Challenges & Lessons Learned

The Department has made significant progress, yet challenges remain, including:

- Climate change adaptation involves ongoing assimilation of scientific and other information, integrating new knowledge into complex decision processes, and making decisions under substantial uncertainty.
- Evaluating climate change adaptation actions is hindered by the challenge of accurately quantifying reduced risk from events that may occur years or decades in the future.
- Climate change adaptation is relatively new to many individuals and entities which necessitates ongoing communication, training, and capacity building.

Planned Actions

The Department has identified five Climate Change Resilience strategies that it is pursuing under Goal 9:

- *Mainstream and integrate climate change adaptation.* This strategy aligns with the Department's Climate Change Adaptation Policy and encompasses the remaining four strategies under Goal 9.
- *Ensure agency principals demonstrate commitment to adaptation.* Commitment will be demonstrated through oversight of the Department's Climate Change Adaptation Policy, including regular reporting by bureau and office directors.
- *Ensure workforce protocols and policies reflect projected health and safety impacts of climate change.* The Department will provide guidance to bureaus for addressing pertinent climate change impacts to employee, volunteer and visitor safety and health.
- *Update agency external programs and policies to incentivize planning for, and addressing impacts of, climate change.* Bureaus will identify updates to programs and policies that incentivize planning for, and addressing impacts of, climate change. Bureaus will demonstrate progress and report on the status of these updates on a quarterly basis through the climate adaptation priority performance goal reporting requirements.
- *Ensure that investments in facilities and infrastructure account for the projected impacts of climate change.* The Department has established a Facilities/Infrastructure Climate Change Adaptation working group and plans to draft guidance on vulnerability assessments for real property across the Department.

Goal 10: Performance Contracting

The Presidential Memorandum of December 2, 2011, established a government-wide goal of \$2 billion in ESPC project awards by December 2013. Each federal agency was required to commit to a funding level award amount to be contributed to the \$2 billion goal. The Department's initial commitment was \$5 million in ESPC awards by the end of December 2013. NPS Isle Royale Phase 1 and Phase 2 ESPCs were awarded for a total of \$3.99 million. USGS's multi-site ESPC was delayed due to the nearly 3 week Federal Government shutdown in October 2013, and due to significant errors in the investment grade audit submission. A third quarter FY 2014 award is planned with an anticipated value of \$11 million. In response to the President's extended energy savings performance contracting challenge to December 2016, the Department committed to an additional \$15 million in ESPC awards.

Integration

The President's energy savings performance contract challenge stimulates government-wide efforts towards energy efficiency, water conservation, and increased renewable energy use. The Department is

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committed to meeting its statutory goals and continues to explore innovative solutions to energy management.

Evaluation Measures

Progress on the energy savings performance contracting challenge is measured monthly as information regarding each contract is entered into OMB MAX Collect. Upon completion of the investment grade audit, detailed energy, water, and cost savings data is also recorded.

Successes

The NPS Isle Royale Phase 1 and Phase 2 ESPCs were awarded for a total project value of \$3.99 million. This project will incorporate lighting upgrades, solar water heater and solar photovoltaic installations, appliance replacements, and implement various water conservation measures. The USGS will award a multi-site ESPC in FY 2014. The NPS is pursuing a region-wide ESPC within the National Capital Region. Additionally, the Department's Main Interior Building will undergo improvements utilizing an ESPC.

FEMP has been working with the NPS to implement the ESPC-ENABLE program. The Department anticipates ESPC-ENABLE awards within the next 12 months.

Challenges

Many of the Department's facilities are small in size and geographically dispersed. Implementing a bundled ESPC across jurisdictional and financial boundaries often requires significant additional coordination and time. Bundled projects can have higher development costs which can impact the cost-effectiveness and viability of the entire project.

Additionally, the Department's building inventory is made up of many historic buildings with complex requirements and may not be suitable for energy efficiency investments.

Lessons Learned

Project bundling requires additional time and personnel resources to ensure a viable ESPC project. In addition, employee training and awareness of alternative financing options and processes are vital to ensure successful use of ESPCs and Utility Energy Service Contracts (UESCs).

Planned Actions

The Department will continue to make progress on the Presidential ESPC Challenge. The USGS' multi-site ESPC will be awarded in third quarter FY 2014. NPS National Capital Region ESPC Phase 1 is anticipated for award before October 2014. The Department's Main Interior Building ESPC is expected to be awarded in early FY 2015.

Progress on Administration Priorities

Climate Change Adaptation Plans

The Department made significant advancements to its Climate Change Adaptation Plan for 2014. The 2014 Plan was designed and updated to meet the requirements of EO 13653 – Preparing the United States for the Impacts of Climate Change. The Department worked closely with interagency partners to address the EO 13653 requirements. The 2014 Plan includes new details about the bureaus climate change vulnerabilities and response strategies, opportunities to improve the Nation's resilience, and a framework for a coordinated Departmental response to climate change.

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The Department and its bureaus are also actively engaged in national-level interagency efforts such as the Climate Preparedness and Resilience Council, the U.S. Global Change Research Program, and the National Ocean Council to name a few. Many related regional and local programs and projects are underway with the Department's bureaus working with federal, state, tribal, and other partners. Two regional examples of note are Climate Science Centers and Landscape Conservation Cooperatives.

Fleet Management Plans

The Department uses its motor vehicle fleet to accomplish its diverse mission, often in remote locations throughout the country. The Department currently manages approximately 70,000 employees and 280,000 volunteers and owns and operates approximately 46,400 buildings, 106,300 structures, and 32,300 vehicles at 2,400 locations in over ½ billion acres across the United States, Puerto Rico, and U.S. Territories.

The Department implemented the fleet management improvement strategy in conjunction with the vehicle allocation methodology submission in March 2013. This fleet management plan outlines strategies to move the Department towards the goal of improved fleet management efficiency and effectiveness. The Department's fleet management program provides support to manage over 32,300 fleet motor vehicles nationwide, including nearly 8,000 AF vehicles and over 1,100 hybrid vehicles. As the plan is implemented, it will serve as a key tool to achieve fleet optimization and streamline the Department's fleet. The 2014 fleet management plan is included as Appendix 3.

Energy Savings Performance Contracts

The Presidential Memorandum of December 2, 2011, established a government-wide goal of \$2 billion in ESPC project awards by December 2013. Each federal agency was required to commit to a funding level award amount to be contributed to the \$2 billion goal. The Department's initial commitment was \$5 million in ESPC awards by the end of December 2013. NPS Isle Royale Phase 1 and Phase 2 ESPCs were awarded for a total of \$3.99 million. USGS' multi-site ESPC was delayed due to the nearly 3 week Federal Government shutdown in October 2013, and due to significant baseline errors in the energy service company's investment grade audit submission. A third quarter FY 2014 award is planned with an anticipated value of \$11 million.

In response to the President's extended energy savings performance contracting challenge to December 2016, the Department committed to an additional \$15 million in ESPC awards.

Biobased Purchasing Strategies

The Department actively embraces and promotes the biobased programs by undertaking a number of activities to increase its purchase of biobased products, offers live webinar-based training quarterly to contract personnel, charge card holders, and program managers, and specifically emphasizes the importance of accurately reporting biobased purchases through FPDS-NG. The Department is including biobased clauses in construction and janitorial contracts and adopting the promotion of biobased firearm cleaners Department-wide. Through these efforts, the Department is poised to increase its biobased consumption each year over the prior year. See Appendix 4 for a description of the Department's FY 2014/FY 2015 biobased procurement targets and strategies.

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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	70,003	67,337
Total Acres of Land Managed	500,000,000	500,000,000
Total Number of Buildings Owned	42,902	42,903
Total Number of Buildings Leased (GSA and Non-GSA Lease)	1,237	1,239
Total Building Gross Square Feet (GSF)	121,900,000	120,273,395
Operates in Number of Locations Throughout U.S.	2,372	2,372
Operates in Number of Locations Outside of U.S.	28	28
Total Number of Fleet Vehicles Owned	24,037	23,255
Total Number of Fleet Vehicles Leased	9,938	9,041
Total Number of Exempted-Fleet Vehicles (Tactical, Law Enforcement, Emergency, Etc.)	4,334	3,795
Total Amount Contracts Awarded as Reported in FPDS (\$Millions)	2,586	2,425

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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	Yes, FEMP's GHG emission report will continue to be used to identify and target high emission categories.
Reduce on-site fossil-fuel consumption by installing more efficient boilers, generators, furnaces, etc. and/or use renewable fuels	Yes	Yes	Yes, the Department's bureaus will continue to reduce on-site fossil-fuel consumption by installing energy efficient technologies and/or use renewable fuels.
Reduce grid-supplied electricity consumption by improving/upgrading motors, boilers, HVAC, chillers, compressors, lighting, etc.	Yes	Yes	Yes, the Department's bureaus will reduce electricity consumption by implementing energy efficient technologies.
Employ operations and management best practices for energy consuming and emission generating equipment	Yes	Yes	Yes, the Department's bureaus will employ operations and maintenance best practices to reduce energy consumption and GHG emissions.
Install building utility meters and benchmark performance to track energy and continuously optimize performance	Yes	Yes	Yes, building utility meters and benchmarking will continue to optimize performance.

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	Yes, the Department has set targets to continue to reduce employee business ground travel.
Reduce employee business air travel	Yes	Yes	Yes, the Department has set targets to continue to reduce employee business air travel.
Use employee commuting survey to identify opportunities and strategies for reducing commuter emissions	Yes	Yes	Yes, the Department will continue to deploy the employee commuting survey and distribute results to bureaus for them to identify strategies to reduce emissions.
Increase number of employees eligible for telework and/or the total number of days teleworked	Yes	Yes	Yes, the Department will continue to use the strategy set in these documents to increase telework participation throughout the Department.
Develop and implement bicycle commuter program	Yes	Yes	Yes, since 2011, the Department has implemented a bicycle commuter incentive program – offering 500 gift certificate codes – for employees in the Washington, National Capital Region to cover annual bicycle share membership fees. On March 27, 2014, the Department announced the implementation of a nationwide Bicycle Subsidy Benefit Program to reimburse employees for reasonable expenses

(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)
			associated with cycling to work.

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	Yes, the policy is included in the Department's Sustainable Buildings Implementation Plan (SBIP).
Redesign or lease interior space to reduce energy use by daylighting, space optimization, sensors/control system installation, etc.	Yes	Yes	Yes, the policy is included in the Department's SBIP.
Include in every construction contract all applicable sustainable acquisition requirements for recycled, biobased, energy efficient, and environmentally preferable products	Yes	Yes	Yes, the Department requires strict adherence to the Federal Acquisition Regulation for construction contracts.
Develop and deploy energy and sustainability training for all facility and energy managers	Yes	Yes	Yes, the Department has entered into an Agency Partnership with DOE FEMP to develop Sustainable Buildings assessment training.
Address our sustainable buildings goal challenges in a manner that acknowledges our unique inventory and still represents the intent and spirit of the goal	Yes	Yes	Yes, the Department will continue to work with OMB and CEQ on a strategy that acknowledges our unique inventory and still

(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)
			represents the intent and spirit of the goal.

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 vehicles to match local fuel infrastructure)	Yes	Yes	The Department will continue to use this strategy to assist with “right-sizing” the fleet. The goal is to reach the fleet optimization level outlined in the vehicle allocation methodology (VAM) by the end of FY 2015.
For light-duty vehicles, acquire only highly fuel-efficient, low greenhouse gas-emitting vehicles and alternative fuel vehicles (AFVs).	Yes	Yes	The Department has internal policy, and an agreement with GSA, to provide the smallest, most fuel-efficient vehicle which will meet mission requirements.
Increase utilization of alternative fuel in dual-fuel vehicles	Yes	Yes	The Department met the alternative fuel consumption goal for the seventh consecutive year.
Use a Fleet Management Information System to track fuel consumption throughout the year for agency-owned, GSA-leased, and commercially-leased vehicles	Yes	Yes	The departmental Financial and Business Management System (FBMS) is fully deployed at all bureaus
Increase GSA leased vehicles and decrease agency-owned fleet vehicles, when cost effective	Yes	No	In FY 2014, the Department entered into an agreement with GSA to acquire up to 300 leased hybrid vehicles

(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 replaced Department owned vehicles.

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	Yes, installed water efficient technologies will continue to be used.
Develop and deploy operational controls for leak detection including a distribution system audit, leak detection, and repair programs.	Yes	Yes	Yes, water evaluations/audits and other leak detection programs will continue to be utilized.
Design, install, and maintain landscape to reduce water use.	Yes	Yes	Yes, identifying strategies to reduce landscape water use will continue to be utilized.
Design and deploy water closed-loop, capture, recharge, and/or reclamation systems.	Yes	Yes	Yes, water reuse strategies will continue to be used.
Install advanced meters to measure and monitor (1) potable and (2) industrial, landscaping, and agricultural water use.	Yes	Yes	This strategy will continue to be utilized where cost effective and appropriate; however, since the Department is limited in the SSPP to only select the top 5 strategies each year, another strategy implementing water conservation measures within performance contracts was selected in

(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)
			Table 4: Goal 4 Strategies for 2014.

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)
Reduce waste generation through elimination, source reduction, and recycling	Yes	Yes	Yes, the Department will continue implementing its policy requiring that bureaus and offices maintain thorough recycling programs.
Implement integrated pest management and improved landscape management practices to reduce and eliminate the use of toxic and hazardous chemicals/materials	Yes	Yes	Yes, the Department will continue to implement its policy requiring integrated pest management.
Establish a tracking and reporting system for construction and demolition debris elimination	Yes	Yes	Yes, the Department will continue to maintain its tracking and reporting system for C and D debris.

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	Yes, the Department will continue this through workgroups, quarterly training and outreach opportunities.

(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)
Deploy corrective actions to address identified barriers to increasing sustainable procurements with special emphasis on biobased purchasing	Yes	Yes	Yes, the Department will continue the use of webinars, in-person training and outreach events to address barriers.
Include biobased and other FAR sustainability clauses in all applicable construction and other relevant service contracts	Yes	Yes	Yes, as part of the quarterly Department training, special emphasis is placed on the FAR sustainability clauses especially 52.223-2.
Use Federal Strategic Sourcing Initiatives, such as Blanket Purchase Agreements (BPAs) for office products and imaging equipment, which include sustainable acquisition requirements	Yes	Yes	Yes, the Department will continue to promote the use of the office supply contracts, multi-function printing devices and other contract vehicles that contain sustainable acquisition requirements.
Report on sustainability compliance in contractor performance reviews	Yes	Yes	Yes, the Department will continue its educational components for contracting officers (COs), contracting officer's representatives (CORs) and program/project managers (PPMs) to increase accountability for contractors.

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)
Identify agency "Core" and "Non-Core" Data	Yes	Yes	The Department will continue leveraging this strategy to ensure alignment of Federal Data Center Consolidation Initiative

(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)
			(FDCCI) with OMB's Portfoliostat tool. The identification of Core and Non-Core allows the Department to identify up to 40 percent of the Non-core for future consolidation. This also helps justify investment required to enhance Core Data Centers for metering, etc., to ensure facility viability for the more cost and energy efficient hosting services.
Optimize agency Core Data Centers across total cost of ownership metrics	Yes	Yes	OCIO provides OMB with quarterly Core Data Center metrics as required by OMB. This allows OCIO to proceed with planning the goal to consolidate 40 percent of the agency Non-core data centers.
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	No	No	OCIO received funding in beginning in 2014 to implement System Center Configuration Manager that will allow implementing standard configurations including power management.
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	Yes	Yes	Continue the use of the United States Postal Service (USPS) Federal Recycling Program, UNICOR and/or certified recyclers (R2 or e-Steward) for the disposal of Federal Electronic Equipment (FEA). 51

(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)
R2 electronic recyclers, and monitor compliance			percent of the disposal FEA sent through USPS Federal Recycling Program resulted in the re-utilization of the FEA rather than it being destroyed through recycling.
Ensure acquisition of 95% EPEAT registered and 100% of ENERGY STAR qualified and FEMP designated electronic office products	Yes	Yes	The Department adopted use of the GSA Federal Schedules for purchasing Imaging Equipment and intends to adopt the GSA Federal Schedule when BPAs become available for televisions.

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)
Purchase renewable energy directly or through Renewable Energy Credits (RECs)	Yes	Yes	Yes, renewable energy certificates will be purchased in FY 2014.
Install onsite renewable energy on federal sites	Yes	Yes	Yes, on-site renewable energy systems will be implemented through appropriated funding and alternative financing.
Develop biomass capacity for energy generation	Yes	Yes	Yes, biomass capacity will continue to be a source of renewable energy.
Utilize performance contracting methodologies for implementing ECMs and increasing renewable energy	Yes	Yes	Yes, an on-site renewable energy system will be incorporated at USGS's National Center utilizing performance contracting methodologies.

(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)
Work with other agencies to create volume discount incentives for increased renewable energy purchases	Yes	Yes	The Department participates in the Defense Logistics Agency - Energy solicitation for RECs along with numerous other federal agencies.

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)
Mainstream and integrate climate change adaptation 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.	Yes	Yes	Yes, the Department's bureaus have initiated implementation of this strategy. The Department will continue to monitor progress next year.
Ensure workforce protocols and policies reflect projected human health and safety impacts of climate change	No	No	Yes. Although the Department was not successful in implementing this strategy, the Department expects to meet the revised target contained in the Goal 9 Strategies table.
Update agency external programs and policies (including grants, loans, technical assistance, etc.) to incentivize planning for, and addressing the impacts of, climate change	Yes	Yes	Yes, the Department's bureaus have initiated implementation of this strategy. The Department will continue to monitor progress next year.
Ensure agency principals demonstrate commitment to adaptation efforts through	Yes	Yes	Yes, the Department's bureaus have initiated implementation of this strategy. The Department

(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)
internal communications and policies			will continue to monitor progress next year.
Design and construct new or modify/manage existing agency facilities and/or infrastructure with consideration for the potential impacts of projected climate change	Yes	Yes	Yes, the Department's bureaus have initiated implementation of this strategy. The Department will continue to monitor progress next year.

Department of the Interior

Goal 1: Greenhouse Gas (GHG) Reduction

DOI Progress toward Scope 1 & 2 Greenhouse Gas Goals

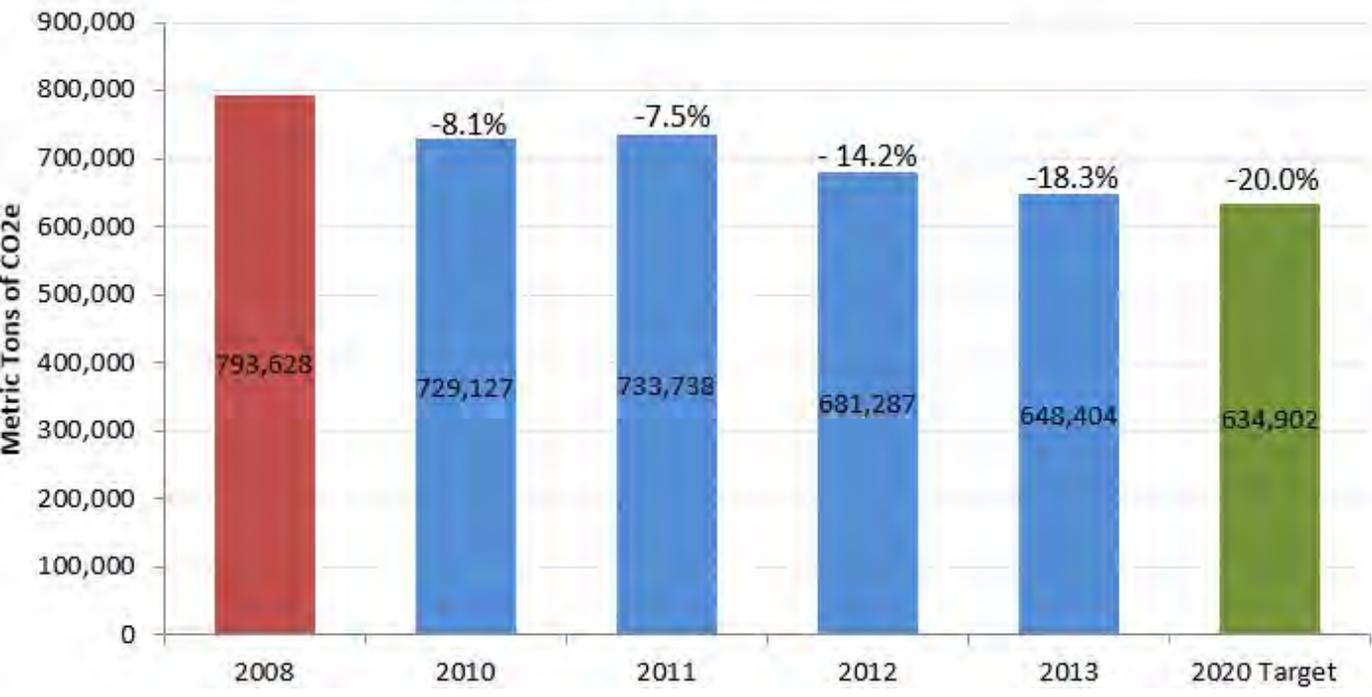


Table 1-1: Goal 1 Strategies - Scope 1 & 2 GHG Reductions

(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	The FEMP GHG and Sustainability Data Report is used to document the Department's progress in meeting the GHG reduction goal. Data from the report are presented graphically to provide the Department's senior management a visual of the Department's progress and the overall make-up of its GHG emissions.	In FY 2014, reduce Scope 1 and 2 GHG emissions by 10 percent relative to FY 2008
Ensure that all major renovations and new building designs are 30% more efficient than applicable code	No	The Department's bureaus design in accordance with 10 CFR 433 - 435 as appropriate. These building designs are reported in the FEMP GHG Data Report.	
Implement in EISA 432 covered facilities all lifecycle cost effective ECMs identified	No	Due to budget constraints, all identified ECMs are not implemented. Identified ECMs are prioritized and entered into bureaus' maintenance management systems and implemented when funding is available.	
Reduce on-site fossil-fuel consumption by installing more efficient boilers, generators, furnaces, etc. and/or use renewable fuels	Yes	The Department's bureaus strive to reduce on-site fossil fuel consumption through the implementation of energy efficient and renewable energy technologies. FWS completed the Headquarters and Visitor Center at Upper Mississippi River National Wildlife and Fish Refuge -	In FY 2014, reduce energy intensity by 27 percent relative to FY 2003.

(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
		La Crosse District, Wisconsin, which includes a 35.9 kW solar PV system, a 75 ton geothermal (ground source) heat pump, and a solar hot water system with a 96 square-foot solar collector.	
Reduce grid-supplied electricity consumption by improving/upgrading motors, boilers, HVAC, chillers, compressors, lighting, etc.	Yes	The Department's bureaus strive to reduce grid-supplied electricity consumption through the implementation of energy efficient and renewable energy technologies. The USGS partnered with GSA to install an innovative micro chiller to provide cooling to a laboratory in building 95, National Water Quality Laboratory, Denver, Colorado. The micro chiller will integrate with a solar hot water heater, which should reduce the electricity required to run the fan coil unit by 80 percent. The reduced pumps and compact size should result in reduced operating and maintenance costs.	In FY 2014, reduce energy intensity by 27 percent relative to FY 2003.
Employ operations and management best practices for energy consuming and emission generating equipment	Yes	The Department's bureaus employ best management practices to reduce energy consumption and GHG emissions.	Utilizing energy management best management practices has a positive impact on agency energy intensity metric as well as GHG emissions reductions. This practice is also reflected in the GHG metric - in FY 2014, reduce

(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
			Scope 1 and 2 GHG emissions by 10 percent relative to FY 2008.
Install building utility meters and benchmark performance to track energy and continuously optimize performance	Yes	The Department's bureaus install building utility meters - electricity, natural gas, and steam - in all appropriate buildings in accordance with the EPC Act of 2005 and EISA. Bureaus strive to benchmark metered buildings in accordance with Section 432 of EISA.	Meter all appropriate buildings for natural gas and steam by October 1, 2016.

DOI Progress toward Scope 3 Greenhouse Gas Goals

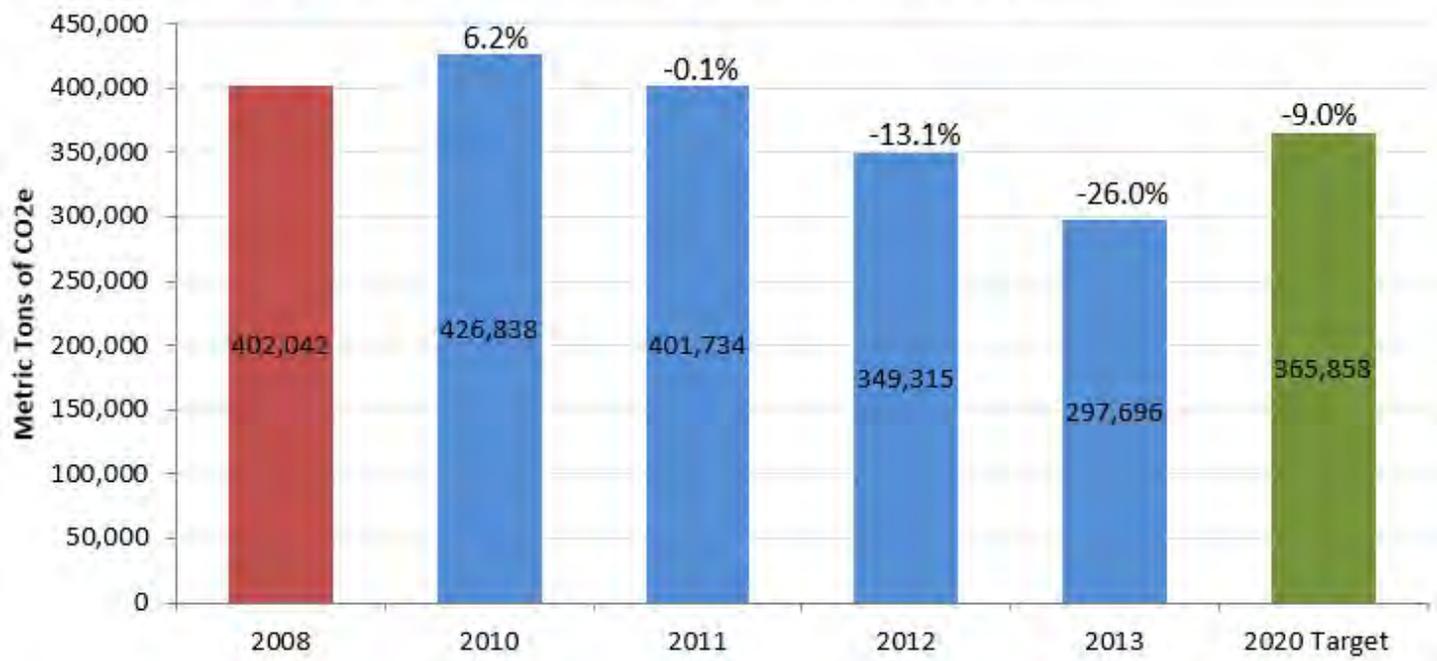


Table 1-2: Goal 1 Strategies - Scope 3 GHG Reductions

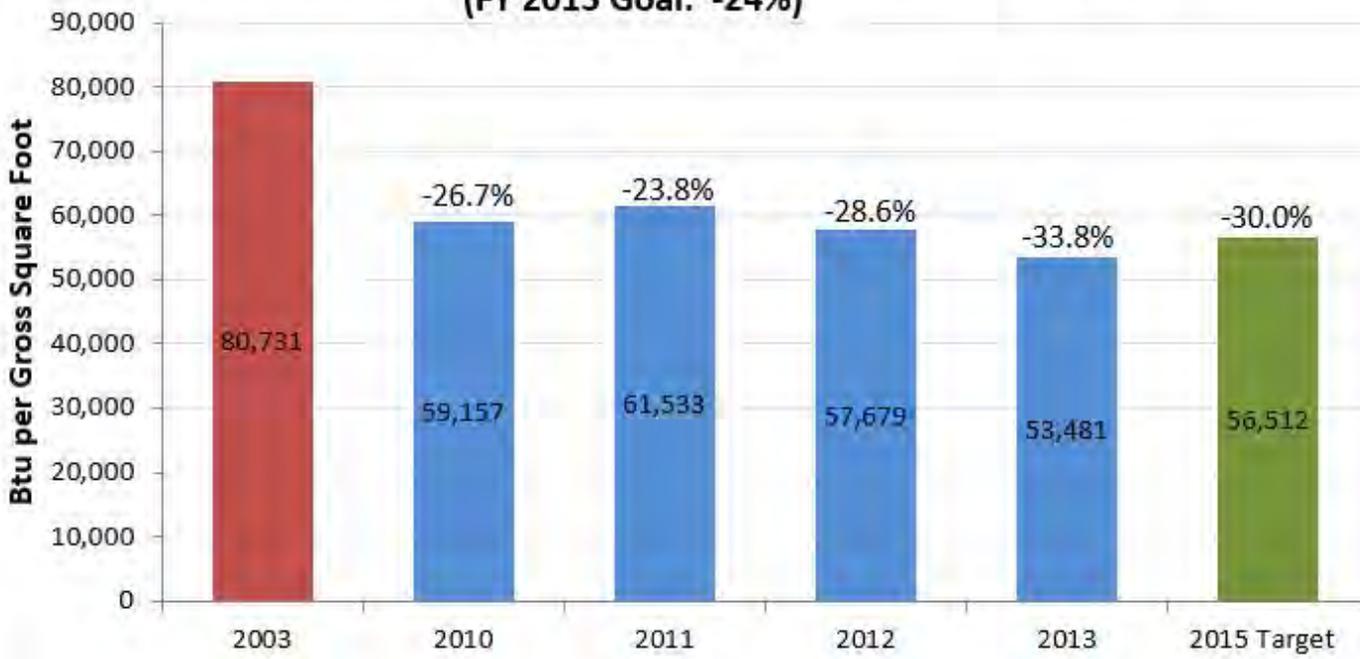
(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy Narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
Reduce employee business ground travel	Yes	<p>The Department has set policy requiring employees to give preference to teleconferencing, web conferencing or video conferencing in lieu of business travel. Employees wishing to attend conferences must justify why these technologies cannot be used. When travel is absolutely necessary, employees must use public transportation and carpools to the extent possible. Additionally, reductions in travel budgets along with travel budget caps have contributed to reductions in travel-related GHG emissions.</p>	<p>For FY 2014, the Department has set a target to maintain business air and ground travel expenditures 30 percent below the FY 2010 level in accordance with OMB Memorandum M-12-12.</p>
Reduce employee business air travel	Yes	<p>The Department has set policy requiring employees to give preference to teleconferencing, web conferencing or video conferencing in lieu of business travel. Employees wishing to attend conferences must justify why these technologies cannot be used. When travel is absolutely necessary, employees must use public transportation and carpools to the extent possible. Additionally, reductions in travel budgets along with travel budget caps have</p>	<p>For FY 2014, the Department has set a target to maintain business air and ground travel expenditures 30 percent below the FY 2010 level in accordance with OMB Memorandum M-12-12.</p>

(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
		contributed to reductions in travel-related GHG emissions.	
Develop and deploy employee commuter reduction plan	No	The Department has not developed an Employee Commuter Reduction Plan.	
Use employee commuting survey to identify opportunities and strategies for reducing commuter emissions	Yes	The Department has not established formal strategies for reducing commuter emissions at the department-level, but data are provided to bureaus, which may use the data to address employee commuting emissions.	Employee commuting is a component of the scope 3 GHG emissions total, which has a target reduction rate of 0.9 percent per year.
Increase number of employees eligible for telework and/or the total number of days teleworked	Yes	Continue to maintain Department guidance, continue reporting participation to organization leaders every pay period and quarterly, discuss at meetings of human capital officials, and make info available through a web page. The Department met its telework goal of 11.9 percent for FY 2013.	Metric is percent of eligible employees who telework: Goal for FY 2014-12.8 percent; FY 2015-13.7 percent; FY 2016-14.6 percent; FY 2017-15.6 percent; FY 2018-16.7 percent; FY 2019-17.9 percent; FY 2020-19.1 percent.
Develop and implement bicycle commuter program	Yes	The Department finalized a Departmental policy allowing employees to receive a bicycle commuting subsidy. The Department established a partnership with Capital Bikeshare, and, since 2011, has made 500 corporate-level gold memberships available to full-time employees in the	The Department finalized the DM chapter on the bicycle commuting subsidy on March 11, 2014. The policy handbook is pending departmental review and will accompany the Bicycle Subsidy Benefit policy. The Department aims to continue its high level of participation in the Federal Bike-to-Work Challenge.

(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
		<p>Washington, DC, area and provided bicycle safety training. After leading the Federal Government with the most overall riders in the 2013 Federal Bike-to-Work Challenge, the Agency SSO issued an All Employee email message encouraging employees to participate in the 2014 Federal Bike to Work Challenge.</p>	
<p>Provide bicycle commuting infrastructure</p>	<p>No</p>	<p>Facilities throughout the Department provide bicycle commuting infrastructure, though the number and status of these facilities is not tracked at the Department level. For example, commuter showers and secure bicycle parking are available in the Main Interior Building (MIB). Due to funding cuts, it is unlikely that additional bicycle commuting infrastructure will be added in FY 2014.</p>	<p>Funding for bicycle commuting "hard" infrastructure (physical networks) are cost-prohibitive, however the Department has identified a regional worksites that have Bicycle Friendly elements, "soft" infrastructures for measuring program success and effectiveness, e.g. Education: giving people of all abilities the skills and confidence to ride; Encouragement: creating a strong bike culture that welcomes and celebrates bicycling and; Evaluation & Planning: planning for bicycling as a safe and viable transportation option.</p>

Department of the Interior
Goal 2: Sustainable Buildings

DOI Progress toward Facility Energy Intensity Reduction Goals (FY 2013 Goal: -24%)



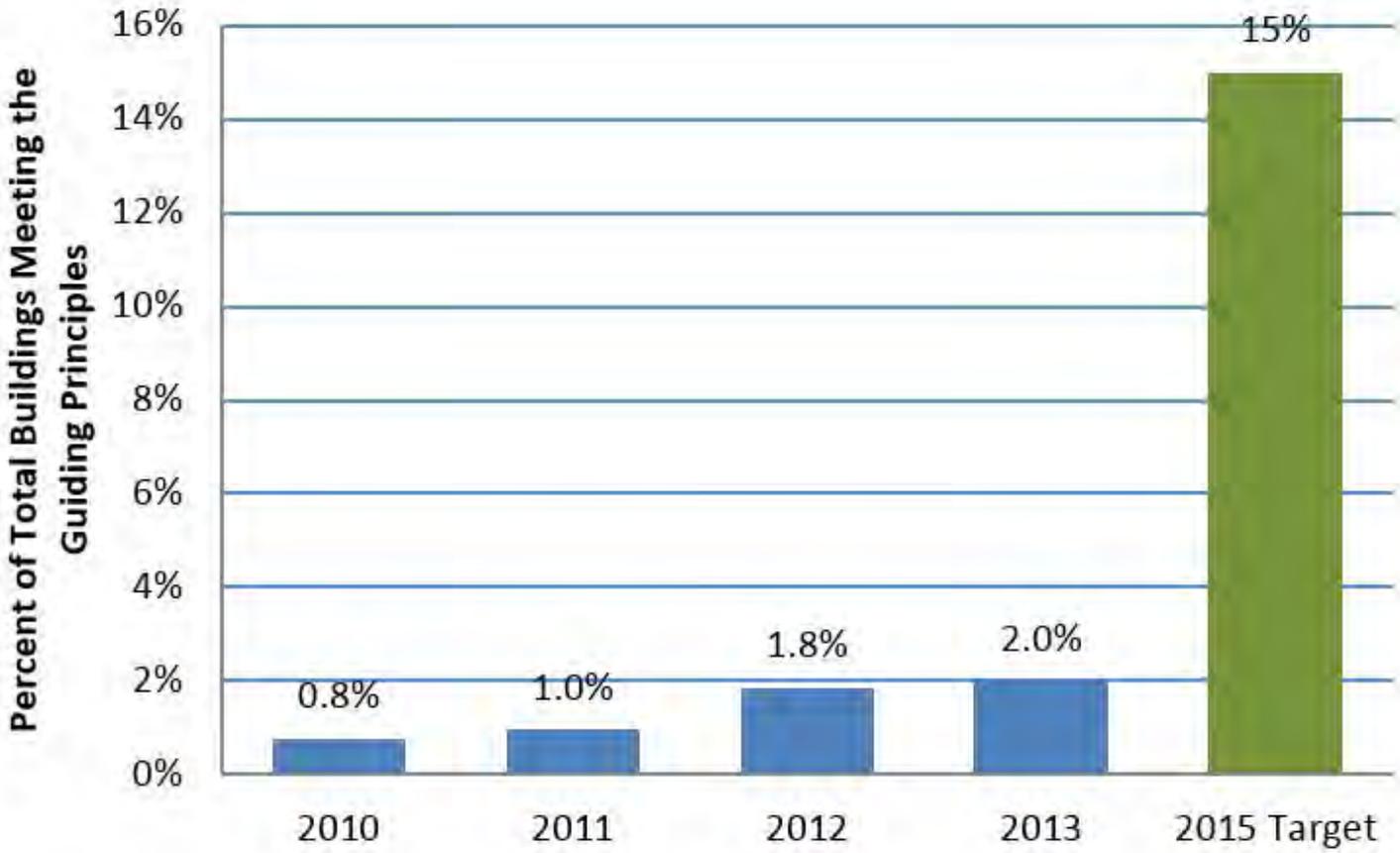


Table 2: Goal 2 Strategies &€“ Sustainable Buildings

(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
<p>Incorporate green building specifications into all new construction and major renovation projects</p>	<p>Yes</p>	<p>The Department issued policy that all new construction and major renovation projects above the capital asset threshold (greater than 5,000 gsf) will comply with the GPs. The policy is outlined in the Department’s Sustainable Buildings Implementation Plan (SBIP). The Department also developed a Sustainable Buildings Assessment and Compliance Tool (Tool) with checklists based on GP requirements, including a checklist with "Guidance for Renovations of Historic Buildings." The Tool was issued as part of the SBIP and was included in the Department’s Guidance for American Recovery and Reinvestment Act Requirements.</p>	<p>OMB Sustainability/Energy Scorecard: Percent of building inventory greater than 5,000 gsf that is sustainable.</p>
<p>Redesign or lease interior space to reduce energy use by daylighting, space optimization, sensors/control system installation, etc.</p>	<p>Yes</p>	<p>The Department has limited authority and resources to redesign GSA provided leased space. For direct leased space, the Department's SBIP outlines lease requirements for energy and other conservation measures. The BLM, the largest leaser of buildings in the Department, includes energy and other conservation requirements</p>	<p>OMB Sustainability/Energy Scorecard: Percent of building inventory greater than 5,000 gsf that is sustainable.</p>

(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
		in accordance with Department policy in their lease agreements.	
Deploy CEQs Implementing Instructions " Sustainable Locations for Federal Facilities	No	The Department supports and incorporates Sustainable Locations principles into Agency procedures for owned facilities, project selection, and execution. These principles support the Department's mission of protecting America's natural resources, heritage, and historic buildings. For example, many historic buildings were placed in sustainable locations. The largest centers of employee population are in large metropolitan areas; which are already planned, zoned, developed, and utilized in great accord with the GPs. The Department doesn't own buildings in these locations; but occupies space under agreements with GSA. Policy changes affecting these agreements are managed through GSA and the Federal Management Regulations.	
Include in every construction contract all applicable sustainable acquisition requirements for recycled, biobased, energy efficient, and	Yes	The Department requires strict adherence to the Federal Acquisition Regulations (FAR) as they pertain to construction contracts.	The Department conducts semi - annual green procurement data calls to measure whether 95 percent of Department procurement actions comply with

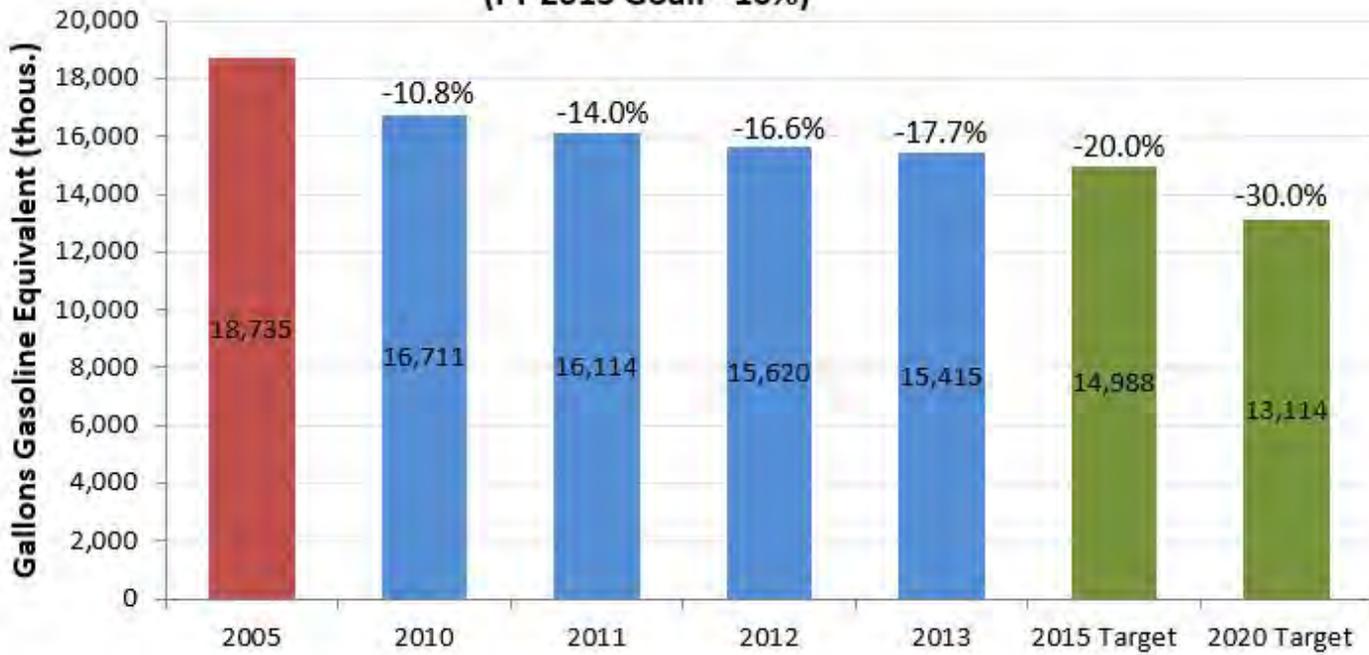
(A) Will the agency implement the following strategies to achieve this goal?	(B) Top 5? Yes/No/NA	(C) Strategy narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in the next 12 months
environmentally preferable products			sustainable acquisition requirements.
Develop and deploy energy and sustainability training for all facility and energy managers	Yes	The Department developed and deployed EMS Awareness Training targeted for the Council which includes many energy and facility managers. In addition, the Department publishes an energy management newsletter biannually (http://www.doi.gov/pam/programs/energy_management/Publications.cfm) which informs bureau energy managers of goals, policy issues, accomplishments, and training opportunities. An example includes the Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings at www.nps.gov/tps/standards/rehabilitation/guidelines/index.htm . Bureau energy and facility personnel take advantage of DOE/ FEMP training whenever possible, along with other types of free training opportunities.	The Department has entered into an Agency Partnership with DOE/FEMP to develop and deploy sustainable buildings awareness and assessment training.
Address our sustainable buildings goal challenges in a manner that acknowledges our unique inventory and still represents the intent and spirit of the goal.	Yes	Since many of our buildings cannot meet the GPs as defined due to their mission-related use and/or construction, we are now addressing building assessments in a manner that acknowledges our	Increase in the percentage of the Department's building inventory (greater than 5,000 gsf) that is designated as sustainable.

(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
		<p>unique inventory and still represents the intent and spirit of the goal. The strategy requires buildings to meet 100 percent of the applicable GPs to be counted as sustainable.</p>	

Department of the Interior

Goal 3: Fleet Management

DOI Progress toward Fleet Petroleum Reduction Goals (FY 2013 Goal: -16%)



DOI Progress toward Fleet Alternative Fuel Consumption Goals (FY 2013 Goal: +114.4%)

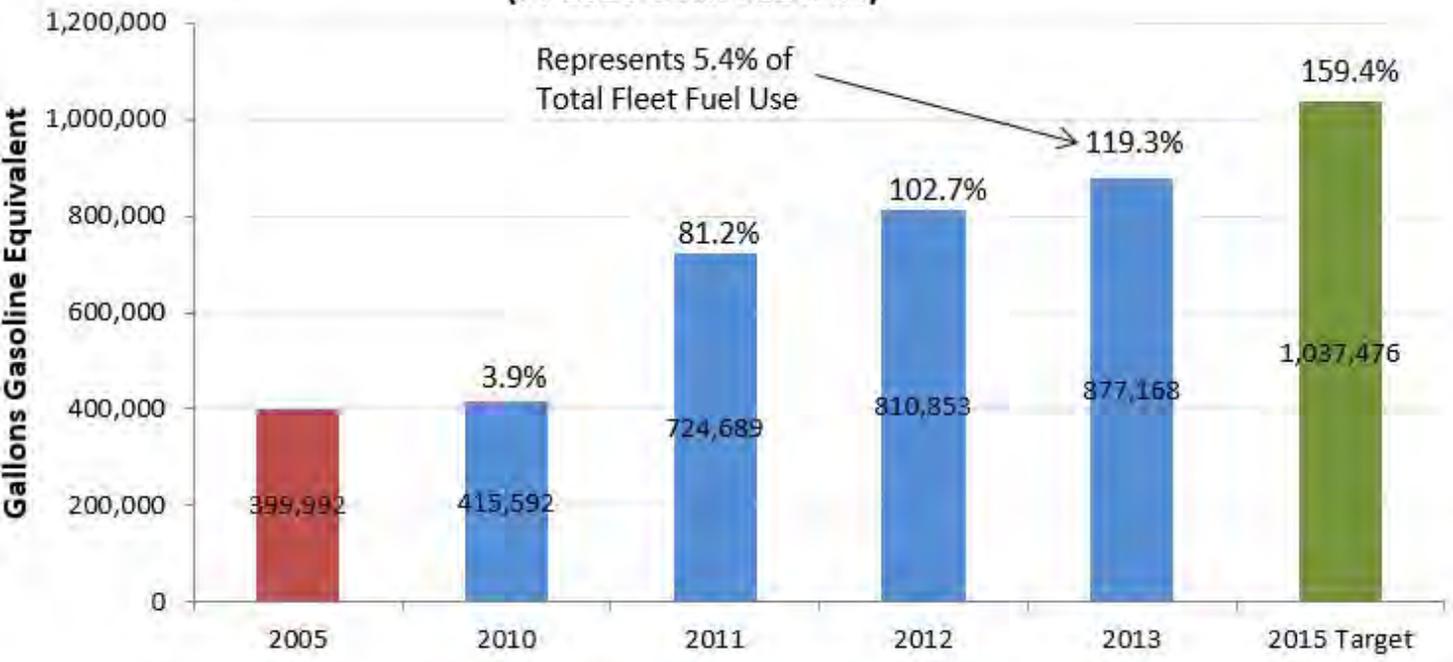


Table 3: Goal 3 Strategies & “Fleet Management

(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	The Department's fleet optimization/right-sizing requirements are contained in the Department's Fleet Management Policy (412 DM) and the Department's Fleet Management Handbook.	Bureau fleet inventory target goals will be set as per the VAM for optimum fleet size by September 30, 2014.
Reduce miles traveled (e.g., share vehicles, improve routing with telematics, eliminate trips, improve scheduling, use shuttles, etc.)	No	There is not a specific departmental goal to reduce the number of vehicle miles traveled. But, when fleet inventory reduction goals are realized, the Department anticipates a similar reduction in the number of miles traveled.	
For light-duty vehicles, acquire only highly fuel-efficient, low greenhouse gas-emitting vehicles and alternative fuel vehicles (AFVs)	Yes	The Department is striving to comply with the May 2011 Presidential Memorandum which indicates that after December 31, 2015, all light-duty acquisitions must be AFVs. The Department has held workshops with bureau personnel to discuss and develop strategies to achieve the goal. The goal is also identified in the Department's Fleet Management Plan which was created in accordance with the FY 2012 VAM analysis.	As per the May 2011 Presidential Memorandum, by January 2016, all light-duty vehicle acquisitions will be fuel efficient, low GHG-emitting, or AFVs.
Increase utilization of alternative fuel in dual-fuel vehicles	Yes	The Department is coordinating with DOE and GSA to place vehicles in	Train the Department's personnel on the DOE AF locator system to assist with

(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
		locations where the AF is available.	strategically placing AFVs and increasing use of AFs. The Department partners with GSA to forecast and determine the most strategic placement for AFVs. The Department uses DOE's alternative fuel locator website and mobile phone application as tools to share with Department personnel to locate refueling stations. The Department will continue to use the DOE/FEMP Fleet Dashboard to analyze the placement of AFVs.
Use a Fleet Management Information System to track fuel consumption throughout the year for agency-owned, GSA-leased, and commercially-leased vehicles	Yes	The Financial and Business Management System (FBMS) is the Department's FMIS.	All bureaus are fully deployed on FBMS.
Increase GSA leased vehicles and decrease agency-owned fleet vehicles, when cost effective	Yes	The Department is exploring the opportunities to increase the number of GSA leased vehicles. The Department entered into an agreement with GSA to replace owned sedans with GSA-leased hybrid ones.	The Department has agreed to replace up to 300 owned sedans with GSA-leased hybrids.

Department of the Interior

Goal 4: Water Use Efficiency&Management

DOI Progress toward Potable Water Intensity Reduction Goals (FY 2013 Goal: -12%)

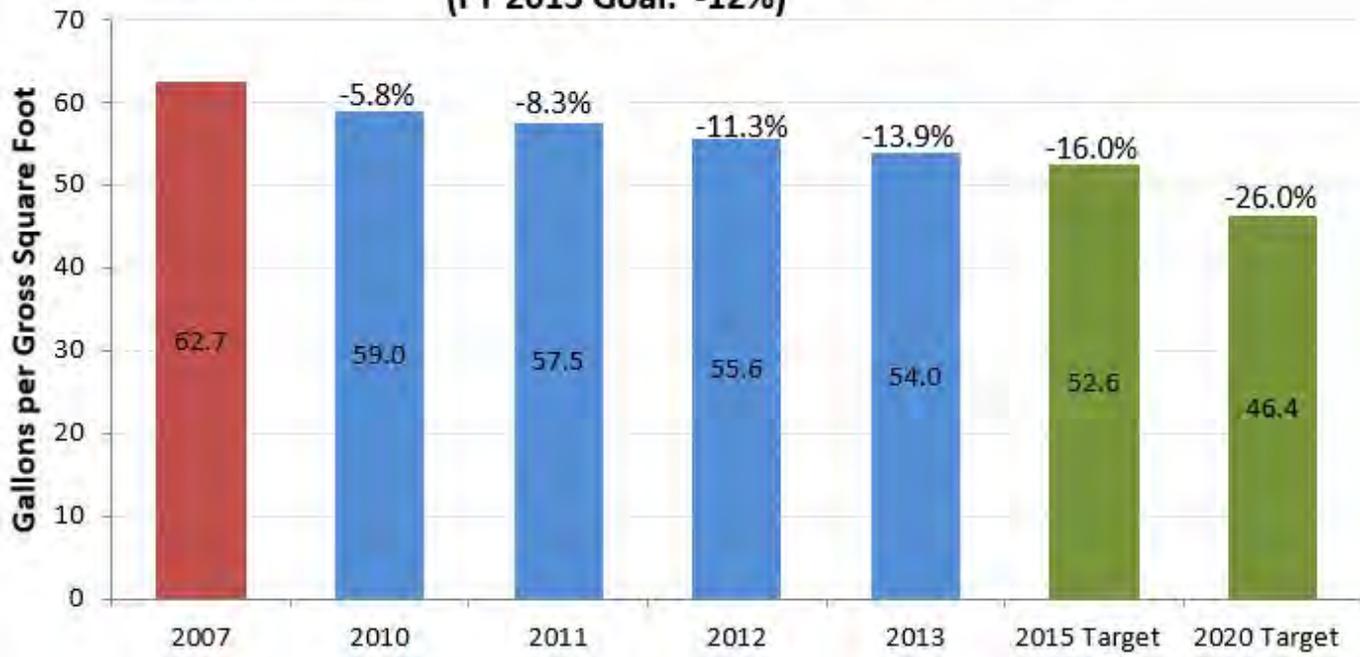


Table 4: Goal 4 Strategies & Water Use Efficiency & Management

(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 high efficiency technologies (e.g., WaterSense)	Yes	The Department's bureaus install water efficient technologies to reduce water use. In FY 2013, NPS Great Sand Dune National Park and Preserve completed a project to replace toilets and faucets in visitor facilities to reduce water usage.	Complete the renovation of Reclamation's Four Corners Construction Office which will incorporate low flow water fixtures throughout the project.
Develop and deploy operational controls for leak detection including a distribution system audit, leak detection, and repair programs	Yes	The Department's bureaus conduct water audits to ensure efficient use of water and identify opportunities for water use reductions. The NPS is pursuing a regional ESPC in the National Capital Region (NCR), which will include water use assessments to identify usage, needed repairs, and recommended water conservation measures.	Water audits are conducted for each EISA covered facility once every four years. The NPS NCR ESPC, which will include water conservation measures, will be awarded in FY 2014.
Minimize outdoor water use and use alternative water sources as much as possible	Yes	The Department's bureaus and offices minimize water use through landscaping and alternative water sources. Reclamation's Provo Area Office, Utah, is using xeriscaping techniques such as a drip irrigation system instead of sprinklers for approximately 40 percent of the outside area, mow strips, and rock gardens with plants and trees that use less water.	Complete the renovation of Reclamation's Four Corners Construction Office which will implement a system to capture rain water for watering landscaping around the building.

(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
Design and deploy water closed-loop, capture, recharge, and/or reclamation systems	Yes	The Department's bureaus are encouraged to identify, promote, and implement water reuse strategies and use of alternative water sources use, where applicable, to reduce water consumption. USGS Great Lakes Science Center completed a major wet-lab upgrade that replaces an older once-through well water system with a recirculating city water system. The old system required and then discharged 144,000 gallons/day of aquifer water, while the new recirculating system discharges about 1,000 gal/month to the wastewater system, saving approximately \$9,000 annually in stormwater discharge fees.	Reduce potable water intensity by 14 percent relative to FY 2007.
Install meters to measure and monitor (1) potable and (2) industrial, landscaping and agricultural water use.	No	Where appropriate and cost effective, the Department's bureaus install water meters to measure and monitor water use.	
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	A water asset management plan is not one of the Department's top five water reduction strategies.	
Develop and implement programs to educate	No	Facility managers working with high performance	

(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
employees about methods to minimize water use		sustainable buildings receive training regarding the appropriate methods to minimize water use.	
Assess the interconnections and dependencies of energy and water on agency operations, particularly climate changes effects on water which may impact energy use	No	While there are significant dependencies between water and energy on Department operations, this is not one of the top 5 strategies for this SSPP.	
Utilize performance based contracts to achieve water savings	Yes	Energy savings performance contracts will be utilized to achieve both energy and water savings. NPS Isle Royale ESPC Phase 1 began the installation of water efficient bathroom fixtures which is expected to save 272 thousand gallons of water annually.	USGS's National Center ESPC will incorporate water conservation measures in its ESPC which will be awarded in FY 2014.

Department of the Interior

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	No	Data on fugitive emissions are collected for the GHG and Sustainability Data Report. There is no Department-wide effort to reduce these emissions, but bureaus are managing them.	
Reduce waste generation through elimination, source reduction, and recycling	Yes	The Department maintains policy regarding the many different waste management programs and recycling initiatives that exist in the Department. It is the Department’s policy that each bureau and office shall develop, implement, and conduct a thorough recycling program. Due to the Department's land management mission, amounts of waste produced vary widely depending on what activities take place in any given year. The Department maintains an online solid waste management resource center, which promotes best management practices and provides information on recycling in remote locations.	Continue to make progress in improving the Department's waste diversion rate. The Department set a target of 48 percent waste diversion for non-hazardous, non-C and D, solid waste diversion for FY 2014. The Department's diversion rate was 49 percent for FY 2013.
Implement integrated pest management and improved landscape management practices to reduce and	Yes	517 DM 1 Integrated Pest Management (IPM) Policy provides departmental policy and requirements for	Facilities will continue to implement IPM, as per Department policy.

(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 the use of toxic and hazardous chemicals/materials		bureaus and offices to incorporate IPM into their pest management activities.	
Establish a tracking and reporting system for construction and demolition debris elimination	Yes	Solid waste data, including C and D waste data, are collected through an online database. Changes are made to the database annually to reflect changes in the data call. Almost 1,400 departmental facilities are asked to enter solid waste and green purchasing data each year. The facilities' data are rolled-up and approved at the regional, bureau, and departmental levels. The system collects detailed information on the commodities recycled and whether waste is disposed of through waste-to-energy facilities.	Continue to maintain waste diversion rates in excess of 50 percent for C and D waste.
Develop/revise Agency Chemicals Inventory Plans and identify and deploy chemical elimination, substitution, and/or management opportunities	No	The Department does not maintain an Agency Chemicals Inventory Plan. However, bureaus maintain Chemicals Inventory Plans as required by law. Bureaus have also undertaken steps such as developing toxic and hazardous chemicals reduction action plans and incorporating reviews for less and non-toxic alternatives when purchasing chemicals. Information on Environmental Protection Agency programs to reduce	

(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
		the use of toxic and hazardous chemicals, such as replacing non-ferver mercury thermometers, is routinely forwarded to bureaus for consideration.	
Take inventory of current HFC use and purchases	No	Bureaus are asked to report data on amounts of HFCs released as part of the annual GHG and Sustainability Data Report. However, a separate system to inventory the current use and purchase of HFCs does not exist and there are insufficient resources to create one.	
Require high-level waiver or contract approval for any agency use of HFCs	No	The Department currently does not have a policy requiring high-level approval for the use of HFCs.	
Ensure HFC management training and recycling equipment are available	No	The Department currently does not have a program that provides HFC management training or recycling equipment. If training were made available to federal employees, the Department would gladly promote it but does not have resources to develop and provide the training itself.	
Collect and report data on releases of HFCs in annual GHG and Sustainability Data Report	Yes	The Department and its bureaus report data on the release of HFCs in its annual GHG and Sustainability Data Report	The Department will assess the proportion of its GHG emissions from HFCs and determine whether further action to reduce the use and

(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 of HFCs will significantly reduce its GHG emissions.
Maintain a tracking and reporting system for non-hazardous, non-construction and demolition, solid waste data	Yes	Solid waste data are collected through an online database. Changes are made to the database annually to reflect changes in the data call. Almost 1,400 departmental facilities are asked to enter solid waste and green purchasing data each year. The data from individual facilities are rolled-up and approved at the regional, bureau, and departmental levels. The system collects detailed information on the commodities recycled and whether waste is disposed of through waste-to-energy facilities.	Improve the database to facilitate reporting and continue to make progress in improving the Department's waste diversion rate. The Department set a target of 48 percent waste diversion for non-hazardous, non-C and D, solid waste diversion for FY 2014. The Department's diversion rate was 49 percent for FY 2013.

Department of the Interior
Goal 6: Sustainable Acquisition

Percent Of Applicable Contracts Containing Sustainable Acquisition Requirements

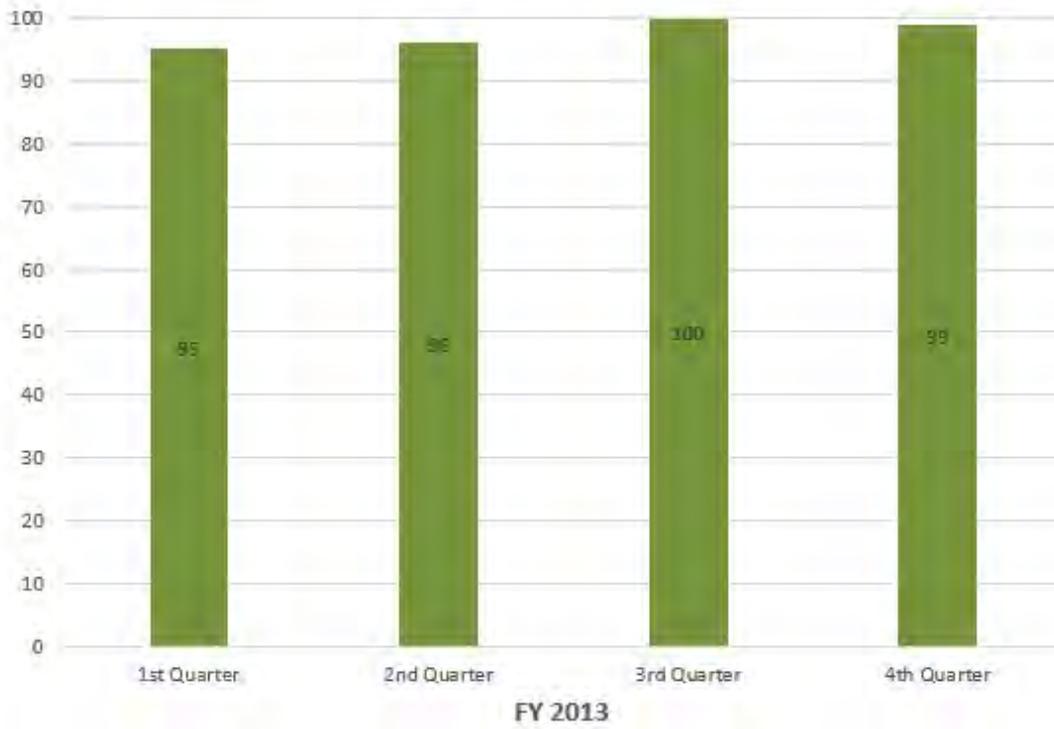


Table 6: Goal 6 Strategies &€“ Sustainable Acquisition

(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	The Department conducts monthly meetings of the Life Cycle Management Technical Workgroup. Through the workgroup, policies, procedures, and programs are discussed and developed. Quarterly training is provided to all of the Department’s employees and includes lessons learned from the workgroup members.	1) Success is measured through the ability to reach 95 percent compliance with green procurement requirements in contract actions, as required in the OMB Sustainability/Energy Scorecard. 2) Success will also be measured by the ability to reach biobased goals of 21 percent biobased procurements for FY 2014. 3) Department-wide training on green procurement will be offered four times in FY 2014.
Deploy corrective actions to address identified barriers to increasing sustainable procurements with special emphasis on biobased purchasing	Yes	Barriers are identified on a bureau by bureau basis. Corrective action is taken at the bureau level and is shared with other bureaus that have similar procurement needs. Training is provided quarterly by the Department, and bureaus conduct their own training frequently. Additionally, corrective actions are incorporated into the training.	As mentioned, training is a large part of the Department's success strategy. The Department will offer quarterly training on biobased procurement requirements during FY 2014 with guest speakers who have successfully deployed biobased products and services.
Include biobased and other FAR sustainability clauses in all applicable construction and other relevant service contracts	Yes	The Department requires the fulfillment of Chapter 23 of the FAR for all relevant product and service contracts.	The Department monitors procurements on a quarterly basis to measure success in meeting the 95 percent compliance with green procurement requirements in contract actions, as required in the OMB

(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
			Sustainability/Energy Scorecard.
Review and update agency specifications to include and encourage biobased and other designated green products to enable meeting sustainable acquisition goals	No	The Department does not retain ownership of any agency-wide specifications.	
Use Federal Strategic Sourcing Initiatives, such as Blanket Purchase Agreements (BPAs) for office products and imaging equipment, which include sustainable acquisition requirements	Yes	The Department has actively included green product attributes in its Strategic Sourcing Initiatives and those of GSA. The Department mandated the use of agency-wide Federal Strategic Sourcing Initiatives (FSSI).	The Department will continue to require the use of FSSI BPAs and include the information in the green purchasing training.
Report on sustainability compliance in contractor performance reviews	Yes	Contractors are required to report use of biobased products in accordance with the FAR. Failure to meet the green requirements in the contract statement of work will result in negative contractor performance reviews.	Contracting Officers/Contracting Officer Representatives will ensure that contractors meet their compliance performance as required by the FAR. The Department will continue to target 95 percent compliance with green purchasing requirements.

Department of the Interior

Goal 7: Electronic Stewardship&Data Centers

AGENCY	EPEAT	POWER MANAGEMENT	END-OF-LIFE
DOI			

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	Yes	The Department completed a hosting study to assist in the identification of "Core" data centers that could support the internal hosting of enterprise level applications and services. This also helps us determine which non-core data centers should be consolidated to support the additional OMB requirement of consolidating 40 percent of Non-core facilities.	OCIO provides OMB with quarterly Core Data Center metrics as required by OMB. This allows OCIO to proceed with planning the goal to consolidate 40 percent of the agency Non-core data centers.
Consolidate 40% of agency non-core data centers	No	Non-core data centers have been identified; however, the schedule for closing 40 percent of the non-core data centers has yet to be developed.	
Optimize agency Core Data Centers across total cost of ownership metrics	Yes	1) In May 2013, OCIO completed the hosting study to identify a direction to move towards hosting shared services. 2)The goal by the end of 2014 is to have completed the consolidation of 62 data centers (19 in FY 2011, 23 in FY 2012, 17 in FY 2013 and 3 for FY 2014 (as of 3/2014). 3) Identified Core Data Centers which will serve as enterprise level consolidation points for applications and services hosted in the Department's Non-core facilities.	1) The goal to close 20 additional data centers by the end of FY 2014 with the OMB data center commitment remaining being consolidated by the end of calendar year 2015. 2) The Department has instituted a data center consolidation strategy with a target of shutting down 95 data centers by the end of 2015. 3) Continue identifying applications and services that can leverage the DOI Foundation Cloud Hosting Services Contract.

(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 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	1) Power Management is being implemented. The Department is establishing an enterprise-wide SCCM system which will provide for global power management, configuration management and reporting. 2) Print Management: April 2013, distributed the GSA Bulletin B-37, Print Management to bureaus/offices for review and action. 3) Efficiency/environmentally-friendly options/features are enabled on electronics.	1) Report quarterly on Core Data Center Metrics related to power, personnel, etc. 2) Initial power management metrics will be available as the system is stood up and bureau SCCM servers are integrated. Estimated time to completion - FY 2014, fourth quarter. 3) The Department is developing policy following the guidance provided in GSA Bulletin B-37. 4) The Department is developing a policy to issue on print management.
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	The Department is continuing to use the GSA Bulletin B-34, Disposal of Federal Electronic Assets guidance on using R2/e-Steward certified recyclers. The Department updated the ESIP and EMS electronics stewardship action plan to reflect this requirement; and plans to continue to register additional Department federal employees to use the U.S. Postal Service (USPS) Federal Recycling Program.	Goals for calendar year 2014: 1) Continue 100 percent usage of R2 and e-Steward certified recyclers; 2) Submit a Non-Federal Recipient Report to GSA; 3) Report functional excess personal property for reuse or donation; 4) Submit an annual electronic Sales/Exchange Report to GSA; 5) Continue to register Department employees as participants to use of the USPS Federal Recycling Program.
Ensure acquisition of 95% EPEAT registered and 100% of ENERGY STAR qualified and FEMP designated electronic office products	Yes	Continue to use the Department-issued policy adopting the National Aeronautics and Space Administration (NASA) Solutions for Enterprise	Adopted the GSA Federal Schedules for Imaging Equipment and project to adopt GSA Federal Schedules when it becomes available for televisions.

(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
		Wide Procurement, Army Computer Hardware Enterprise Software and Solutions, and Army Desktop and Mobile Computing contracts as mandatory sources to provide EPEAT registered and ENERGY STAR qualified products.	

Department of the Interior

Goal 8: Renewable Energy

**DOI Use of Renewable Energy as a Percentage of Electricity Use
(FY 2013 Goal: 7.5%)**

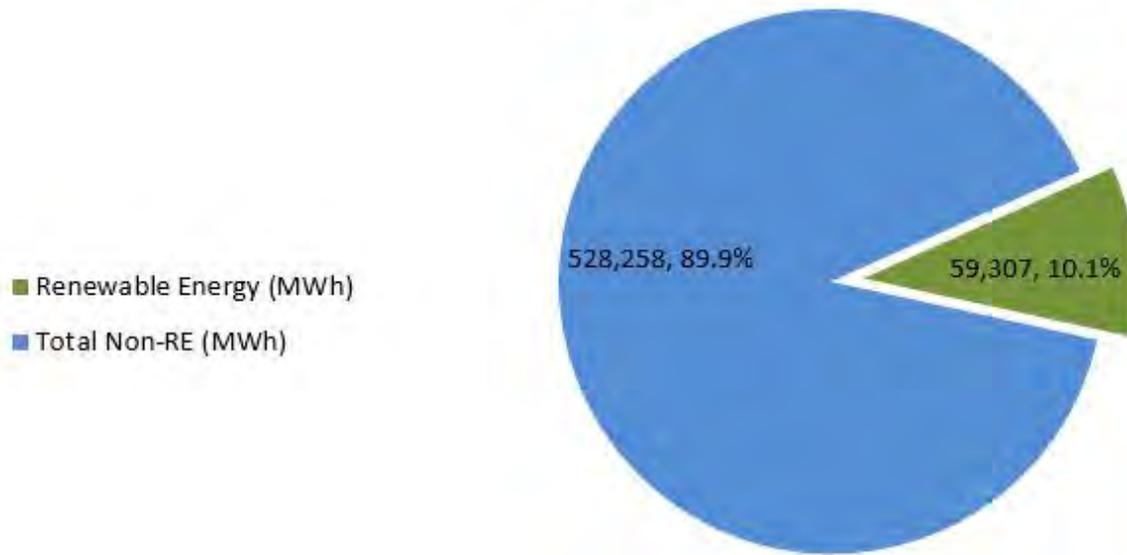


Table 8: Goal 8 Strategies &€“ Renewable Energy

(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	The Department purchases renewable energy and RECs to help stimulate the renewable energy market and meet its statutory renewable energy goals. In FY 2013, Interior bureaus purchased a total of 28,552 MWh of renewable energy from utility providers and through renewable energy certificates.	In FY 2014, 7.5 percent of facility electricity from renewable electricity sources and 50 percent of this requirement from new renewable resources. Continue to purchase RECs in FY 2014, amount dependent upon available funding.
Install onsite renewable energy on federal sites	Yes	The Department's bureaus continue to install on-site renewable energy projects including stand-alone and grid-connected PV systems, solar thermal projects, geothermal heat pumps, incremental hydropower, and wind projects. Recent examples include: BOR Socorro Field Division installed solar collectors for building heating at San Marcial Yard, which reduced heating costs by 70 percent. FWS completed the Headquarters and Visitor Center at Upper Mississippi National Wildlife and Fish Refuge - LaCrosse District, Wisconsin, which includes a 35.9 kW solar PV system, a 75 ton geothermal (ground source) heat pump, and a solar hot water system with a 96 square-foot solar collector.	Increase percentage of renewable energy contributed by on-site renewable energy projects. In FY 2013, 10.1 percent of the Department's total facility electricity use came from on-site renewable energy projects and the purchase of renewable electricity and RECs. Of the 10.1 percent, 5.2 percent represents on-site renewable energy generation.

(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
Lease land for renewable energy infrastructure	No	The BLM provides access to public lands for renewable energy development. The BLM authorizes wind, solar, biomass, and geothermal projects on BLM-managed lands, along with the electrical transmission facilities needed to deliver this energy to consumers.	Increase the approved capacity for production of energy from domestic renewable resources to support a growing economy and protect our national interests while reducing our dependence on foreign oil and climate changing greenhouse gas emissions. By September 30, 2015, increase approved capacity authorized for renewable solar, wind, and geothermal energy resources affecting Department managed lands while ensuring full environmental review to at least 16,500 megawatts (since 2009).
Develop biomass capacity for energy generation	Yes	The Department's bureaus will continue to utilize renewable energy generated from biomass fuels.	In FY 2014, 7.5 percent of facility electricity from renewable electricity sources and 50 percent of this requirement from new renewable resources. Renewable energy from biomass sources includes on-site heating systems and renewable energy certificates.
Utilize performance contracting methodologies for implementing ECMs and increasing renewable energy	Yes	The Department's bureaus that pursue ESPCs receive a renewable energy screening to determine the best renewable energy resources. Renewable energy technologies are implemented where economically, technically,	In FY 2014, NPS Isle Royale ESPC will begin the installation of on-site renewable energy systems, as well as other ECMs.

(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
		and environmentally feasible.	
Work with other agencies to create volume discount incentives for increased renewable energy purchases	Yes	The Department participates in the DLA solicitation for RECs along with numerous other federal agencies. In FY 2013, the Department purchased 17,500 MWh of RECs through this solicitation.	Participate in the DLA multi-agency solicitation for renewable energy certificates when funding is available.

Department of the Interior

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
<p>Mainstream and integrate climate change adaptation 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</p>	<p align="center">Yes</p>	<p>This overarching strategy aligns with the Department's Climate Change Adaptation Policy (December, 2012), which prioritizes incorporating climate change adaptation into planning processes and engagement at multiple levels with federal, tribal, and other partners, as well as existing collaborations. This strategy incorporates all other goal sub-strategies. This strategy is consistent with the National Fish, Wildlife, and Plants Climate Adaptation Strategy, (April 2013). The Department is demonstrating this strategy through its competitive Hurricane Sandy projects. To date, \$165 million has been allocated to Departmental projects and an additional \$100 million will be allocated to partner projects in June 2014.</p>	<p>The bureaus will demonstrate progress in advancing measures for this strategy, which align with the Departments Climate Change Adaptation Policy. Bureaus will report to the Department on a quarterly basis on their progress and achievements in implementing this strategy.</p>
<p>Update agency emergency response procedures and protocols to account for projected climate change, including extreme weather events</p>	<p align="center">No</p>	<p>With respect to emergencies, the Department works with other agencies, including the Federal Emergency Management Agency. Changes in procedures and protocols would be</p>	

(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
		undertaken in coordination with partner agencies.	
Ensure workforce protocols and policies reflect projected human health and safety impacts of climate change	Yes	Climate change may impact the health and safety of the Department's employees in various ways such as exposure to heat and cold, severe weather events, and disease risks. The Department's Office of Occupational Safety and Health (OSH) develops Department-wide policies and provides management and direction for departmental Safety and Health Programs in order to ensure the health, safety, and well-being of employees, volunteers, contractors, concessionaires and visitors.	By December 1, 2014, the Department will provide guidance to bureaus for addressing pertinent climate change impacts to employee, volunteer and visitor safety and health.
Update agency external programs and policies (including grants, loans, technical assistance, etc.) to incentivize planning for, and addressing the impacts of, climate change	Yes	The Department's Climate Change Adaptation Policy states: The Department will integrate climate change adaptation strategies into its policies, planning, programs, and operations.	Bureaus will identify updates to programs and policies that incentivize planning for, and addressing impacts of, climate change. Bureaus will demonstrate progress and report on the status of these updates on a quarterly basis through the climate adaptation priority performance goal reporting requirements.
Ensure agency principals demonstrate commitment to adaptation efforts through internal communications and policies	Yes	The Department's Climate Change Adaptation Policy identifies the Deputy Secretary as the Co-Chair of the Department's Energy	The Deputy Secretary will ensure compliance with the Department's Climate Change Adaptation Policy in part through annual

(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
		and Climate Change Task Force, as well as the responsible official for overseeing the Department's compliance with the policy.	reporting by bureau and office directors on their implementation of Section 1.5(C) of the Policy. See the Policy at: http://elips.doi.gov/elips/0/doc/3741/Page1.aspx .
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	No	The Department interprets "vulnerable communities" to include human communities as well as ecosystems. The Department's mission encompasses many types of communities that are vulnerable to climate change, including tribes, Alaska Natives, Native Hawaiians and other Pacific Islanders, communities and farmers that rely on water supply, ranchers, ecosystems and the species that comprise them, recreational visitors, and more. The Department sustains communities both economically and in their quality of life. The Department will work with the Interagency Working Group on Environmental Justice to address strategies for vulnerable communities.	The Department has conducted extensive vulnerability assessments that will be used as a source of information.
Ensure that agency climate adaptation and resilience policies and programs reflect best available current climate change science, updated as necessary	No	The Department's Climate Change Adaptation Policy states: Ensure that climate adaptation plans are grounded in the best available science and	

(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
		understanding of climate change risks, impacts, and vulnerabilities, incorporating traditional knowledge where available.	
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 Department's Climate Change Adaptation Policy directs bureaus and offices to "address the vulnerability of mission critical and mission dependent infrastructure and facilities."	The Department has established a Facilities/Infrastructure Climate Change Adaptation working group and plans to draft guidance on vulnerability assessments for real property across the Department.
Incorporate climate preparedness and resilience into planning and implementation guidelines for agency-implemented projects	No	The Department's Climate Change Adaptation Policy directs bureaus and offices to "review and update existing decision making processes and management plans to allow the integration of the principles and values identified in this policy."	The Department's Hurricane Sandy efforts are piloting in this area and will help to drive the changes in policy.

Department of the Interior
Goal 10: Energy Performance Contracts

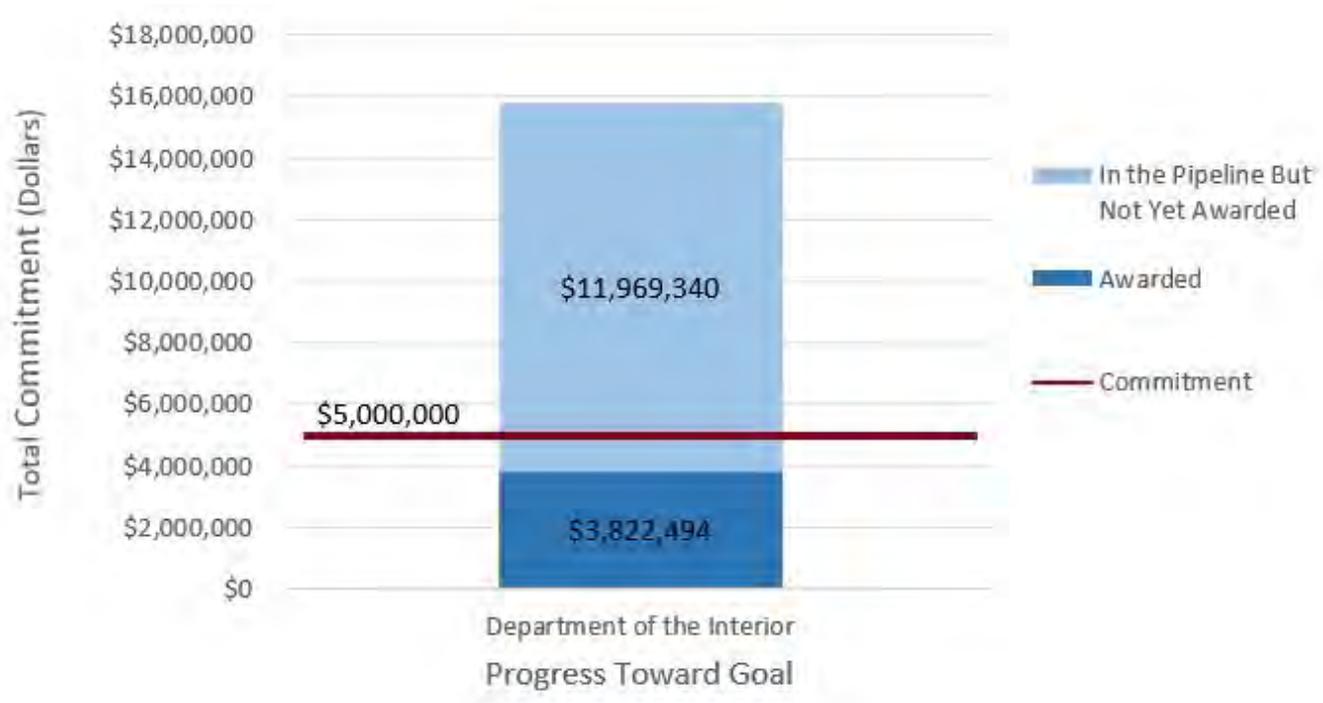


Table 10: Goal 10 Strategies - Energy Performance Contracting

(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 agency's most energy intensive buildings for use with energy performance contracts	No	Comprehensive energy and water evaluations are conducted on the Department's EISA covered facilities, which represent 75 percent of the Department's facility energy use. Bureaus are encouraged to utilize ESPC where cost effective.	
Prioritize top ten projects which will provide greatest energy savings potential	No	The Department's ESPC pipeline is less than 10 projects deep. Any facility interested in pursuing an ESPC is encouraged to explore the opportunity.	
Cut cycle time of performance contracting process by at least 25%	No	Due to the Department's small facility size and remote locations, bundling projects is required to achieve a viable energy savings performance contract. Project bundling across jurisdictional and financial boundaries often requires additional coordination and time.	
Assign agency lead to participate in strategic sourcing initiatives	Yes	The Department has an assigned lead to participate in strategic sourcing initiatives.	Continued participation in strategic sourcing initiatives.
Devote 2% of new commitments to small buildings (<20k sq. ft.)	No	Over 39,000 Department buildings are less than 20,000 square feet. While the majority of the Department's ESPCs include these small buildings, it is unlikely that	

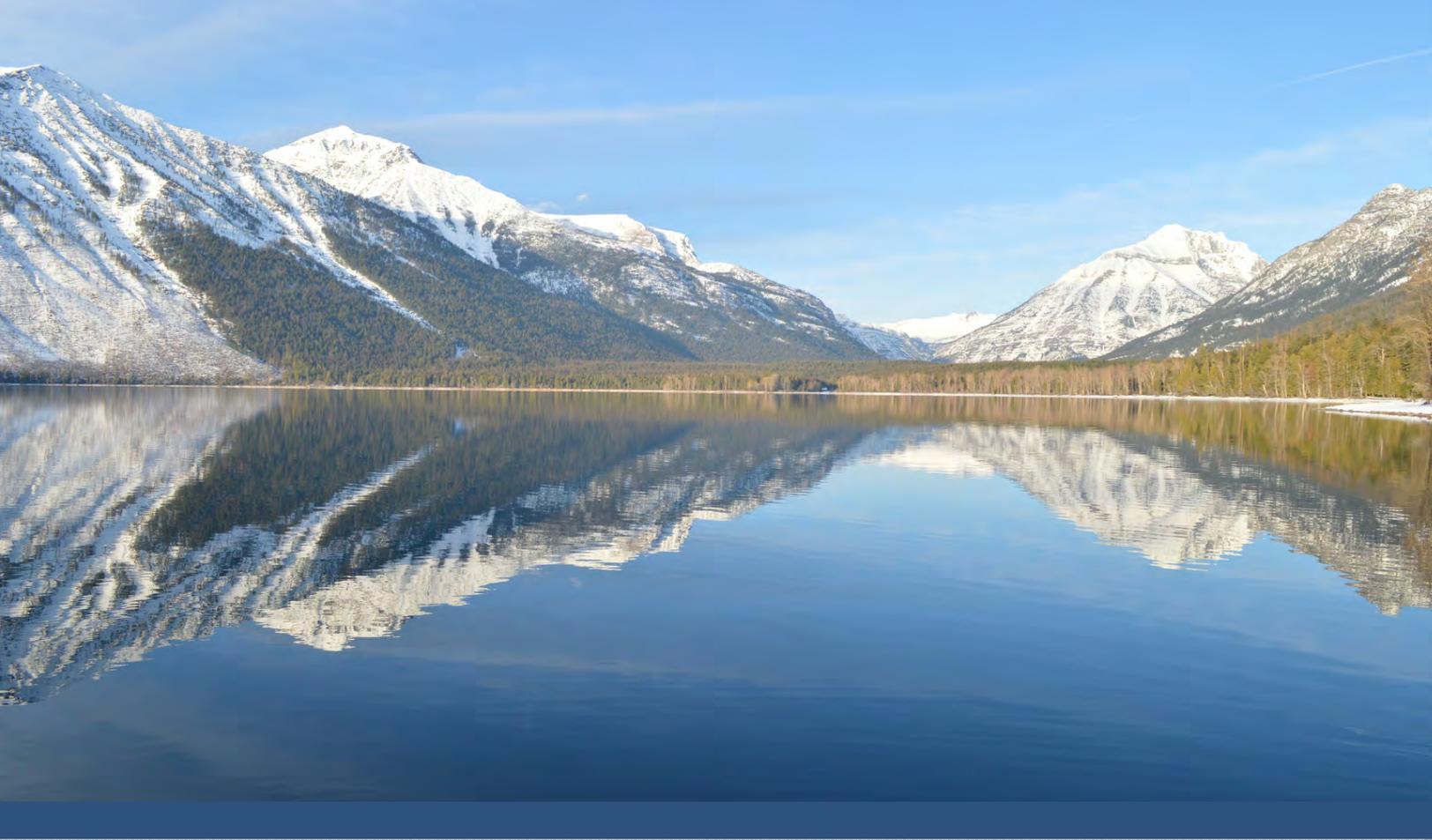
(A) Will the agency implement the following strategies to achieve this goal?	(B) Top Five? Yes/No/NA	(C) Strategy Narrative	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in next 12 months
		the Department will capture 2 percent of these buildings in new commitments.	
Identify and commit to include 3-5 onsite renewable energy projects in energy performance contracts	Yes	On-site renewable energy projects are implemented in energy performance contracts when economically and environmentally feasible.	On-site renewable energy projects will be installed for NPS Isle Royale Phase 1, NPS Isle Royale Phase 2 ESPCs in FY 2014. On-site renewable energy projects will be included in the FY 2014 award of USGS National Center ESPC and FY 2015 award of OFAS Main Interior Building ESPC.
Ensure relevant legal and procurement staff are trained by FEMP ESPC/ UESC course curriculum	Yes	Appropriate legal and procurement staff are trained by FEMP ESPC and UESC course curriculum.	NPS procurement personnel will receive training in FY 2014 regarding ESPCs.
Provide measurement and verification data for all awarded projects	Yes	Measurement and verification will be conducted on all awarded ESPC projects.	Measurement and verification of installed conservation measures will begin at NPS Isle Royale, MI.
Enter all reported energy savings data for operational projects into MAX COLLECT (max.gov)	Yes	All energy savings data for ESPC projects will be entered into MAX Collect.	Continue to report energy savings data in MAX Collect.

Appendix 1: List of Abbreviations and Acronyms

<u>Abbreviation or Acronym</u>	<u>Full Name</u>
AF	Alternative Fuel
AFV	Alternative Fuel Vehicle
BLM	Bureau of Land Management
BIA	Bureau of Indian Affairs
BOR	Bureau of Reclamation
BPA	Blanket Purchase Agreement
C and D	Construction and Demolition
CEQ	Council on Environmental Quality
Council	Sustainability Council
DLA	Defense Logistics Agency
DM	Departmental Manual
DOE	Department of Energy
ECM	Energy Conservation Measure
EISA	Energy Independence and Security Act
EMS	Environmental Management System
EO	Executive Order
EPA Act	Energy Policy Act of 2005
EPEAT	Electronic Product Environmental Assessment Tool
ESIP	Electronic Stewardship Implementation Plan
ESPC	Energy Savings Performance Contract
FAR	Federal Acquisition Regulations
FAST	Federal Automotive Statistical Tool
FBMS F	Financial and Business Management System
FCHS	Foundation Cloud Hosting Services
FDCCI	Federal Data Center Consolidation Initiative
FEA	Federal Electronic Assets
FEMP	Federal Energy Management Program
FMIS	Fleet Management Information System
FPDS-NG	Federal Procurement Data System - Next Generation
FRPP	Federal Real Property Profile
FSSI	Federal Strategic Sourcing Initiative
FWS	U.S. Fish and Wildlife Service
GHG	Greenhouse Gas
GP	Guiding Principles for High Performance and Sustainable Building
GSA G	General Services Administration
gsf	Gross Square Feet
HFC Hy	hydrofluorocarbon

Appendix 1

IADS	Interior Asset Disposal System
IBC Interior	Business Center
IDIQ	Indefinite Delivery / Indefinite Quantity
IPM	Integrated Pest Management
kW	Kilowatt
MIB	Main Interior Building
MWh	Megawatt-hours
NASA	National Air and Space Administration
NCR	National Capital Region
NPS	National Park Service
NRHP	National Register of Historic Places
NWR	National Wildlife Refuge
OCIO	Office of the Chief Information Officer
OEPC	Office of Environmental Policy and Compliance
OFAS	Office of Facilities and Administrative Services
OMB	Office of Management and Budget
OSH	Office of Occupational Safety and Health
PV	Photovoltaic
R2	Responsible Recycling
SBIP	Sustainable Building Implementation Plan
SCCM	System Center Configuration Manager
SSO	Senior Sustainability Officer
SSPP Strategic	Sustainability Performance Plan
Tool	Sustainable Buildings Assessment and Compliance Tool
TWG Technical	Work Group
UESC	Utility Energy Service Contract
USGS	U.S. Geological Survey
USPS	U.S. Postal Service
VAM	Vehicle Allocation Methodology
W Wa	tt



Department of the Interior Climate Change Adaptation Plan

2014



Cover photo: Lake McDonald, Glacier National Park, January 2014

Department of the Interior Climate Change Adaptation Plan

2014

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I. Overview

In 1850, Glacier National Park had more than 150 glaciers. Today, the park has only 25 glaciers – an 83 percent reduction in 164 years. Studies show that western Montana, where the park is located, is experiencing warmer summers and reduced winter snowpack. In addition, ancient patches of unglaciated snow and ice in the park are melting and receding at unprecedented rates. Since 1900, the average temperature for the Park region has increased by about 2.4°F. Experts predict that all of the park's glaciers could be gone by as early as 2030.

Climate change will continue to have significant consequences for the ecology of Glacier National Park, including impacts to high-elevation habitats such as the alpine meadows, likely impacts to wildlife such as bull trout, and a likely increase in invasive species. Reduced water storage in the snowpack will likely impact regional water supplies, agriculture and wildland fire management. Wildland fires may be larger and occur more frequently due to reduced moisture and hotter days. Climate change also threatens the ice patches that protect ancient cultural materials of the Blackfoot, Salish, Pend d'Oreille, and Kootenai Native American Tribes.¹

The climate change impacts at Glacier National Park are not unique. Throughout the country, climate change is affecting the balance of natural conditions that supports our communities and ecosystems. As noted in the third National Climate Assessment, climate change is expected to continue even with significant greenhouse gas emissions reductions.² At the Department of the Interior (Department, DOI), given the fundamental risk and ongoing impacts to many of the public lands, facilities, and resources for which we have responsibility, we are similarly situated to many communities affected by climate change. Accordingly, we recognize the importance of our mission in preparing the Nation for the impacts of climate change. This Climate Change Adaptation Plan (Plan) demonstrates our commitment to action and highlights ways that we will address these challenges.

Adaptation is the adjustments that society or ecosystems make to limit negative effects of climate change.³ The Department's approach to adaptation focuses on increasing the *resilience* of the Department's assets, program activities, and mission responsibilities in response to climate vulnerabilities. Resilience is the ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions.⁴

While the Department's 2013 Climate Change Adaptation Plan focused on assessing the Department's climate change related vulnerabilities, the 2014 Plan focuses more on the Department's work to address climate change through implementation of Executive Order 13653 and the Department's Climate Change Adaptation Policy (523 DM 1). Section II of this plan explains the Department's official Climate Change Adaptation Policy and provides additional guiding principles. Section III summarizes the Department's efforts to address climate related risks. Section IV demonstrates the Department's efforts to modernize programs to support climate resilience investment.

The Department of the Interior's Response to Climate Change

The Department's areas of responsibility are critical to the Nation's economic and social well-being. The Department manages 20 percent of the Nation's lands; supplies water and hydropower in 17 western states; conserves plants, wildlife and historic and cultural resources; provides geological, hydrological, and biological science; fulfills trust responsibilities to American Indians and Alaska Natives; provides financial and technical assistance for tribes as well as insular areas such as Guam and the U.S. Virgin Islands; and conducts leasing for renewable and non-renewable energy development on public lands and the Outer Continental Shelf. This broad spectrum of activities is managed by the Department's nearly 70,500 employees and more than 300,000 volunteers located in approximately 2,400 locations spanning 12 time zones.

In FY 2013, The Department's lands hosted over 400 million recreation visits, which is associated with \$25 billion in estimated value-added, supporting about 355,000 jobs. Total FY 2013 production and activities on the Department's lands were associated with nearly \$200 billion in estimated value added, supporting an estimated 2 million jobs. Given the Department's vast responsibilities, effectively responding to the impacts of climate change is fundamentally important to the interests of the American people.

As this Plan demonstrates, the Department is taking numerous actions to respond to climate change and prepare for future impacts. Climate change is predicted to have widespread impacts on the nation's natural resources, including sea level rise, significant wildlife habitat changes, increased risk of wildland fire and alterations to fresh water availability – all of which will have serious implications for the Department's operations and management responsibilities. A dedicated focus on increasing the resilience of resources and operations will help the Department better withstand these impacts in the pursuit of its mission.

It should also be clear that the Department's approach on climate change adaptation is evolving. Science is, and will continue to be, our North Star in the ongoing process of assessing impacts and developing strategies. The individual bureaus within the Department will maintain their principle role of identifying risks to missions and programs while the Department will continue to work closely with the bureaus in supporting efforts to develop cross-cutting priorities to effectively respond. These priorities include:

- Investing in research and supplying critical data and information;
- Working with communities that rely on the Department's lands, facilities, and resources to prepare for climate change impacts and develop measures to reduce future risks; and
- Implementing actions that highlight the benefits of new technologies, innovative resource management, and infrastructure improvements that will improve the resiliency of our communities and landscapes.

The Plan that follows highlights the challenges posed by climate change and provides an important update to the Department's efforts to identify priorities that are necessary to construct a comprehensive framework that meets this challenge head-on. The Department looks forward to working with all interested parties in this critical and ongoing effort.

Policy and Guidance

The Department's Climate Change Adaptation Policy (523 DM 1) was issued in December 2012 in response to the need to prepare for the impacts of climate change.⁵ The Policy articulates and formalizes the Departmental approach to climate change adaptation and provides guidance to bureaus and offices for addressing climate change impacts on the Department's mission, programs, operations, and personnel. The new policy also establishes clear Departmental leadership responsibilities for climate change adaptation implementation.

In November 2013, President Obama signed Executive Order 13653,⁶ which directs federal agencies to prepare for the impacts of climate change. Climate preparedness is one of three core elements of the President's Climate Action Plan. The Department will work with the White House and federal agency partners throughout 2014 and beyond to implement Executive Order 13653. The Department is also committed to several important interagency plans, including the *National Action Plan: Priorities for Managing Freshwater Resources in a Changing Climate*,⁷ released October 28, 2011; the *National Fish, Wildlife and Plants Climate Adaptation Strategy*,⁸ released March 26, 2013; and the *National Ocean Policy Implementation Plan*,⁹ released April 16, 2013. The Department also led the development of an interagency approach, called Integrated Arctic Management, for coping with the rapid and devastating changes taking place in the U.S. Arctic.¹⁰

Several of the Department's bureaus have developed or are developing bureau climate change adaptation policies and strategies. Examples of existing bureau policies and strategies include the Bureau of Indian Affairs Climate Change Adaptation Plan (2013), the National Park Service Climate Change Response Strategy (2010), and the U.S. Fish and Wildlife Service Climate Change Strategic Plan (2010).

Identification and Assessment of Climate Change Related Impacts

As highlighted in the third National Climate Assessment, climate change is happening now. Moreover, it is not occurring in isolation but is superimposed on a number of other stresses that are combining to create new challenges as described below. The Department's bureaus continue to actively assess climate related risks to their missions, programs, and activities. The Department will continue to work with partners to use the best available climate science, including the third National Climate Assessment, to develop, apply, and learn from more comprehensive and detailed vulnerability assessments. Vulnerability assessments are being used in conjunction with analyses of non-climate stressors to assess the overall vulnerability of resources and plan for needed management activities.

Vulnerabilities to climate change impacts vary widely across the Department's mission areas. Bureaus' climate change adaptation priorities are based on the particular vulnerabilities of their mission and assets. The following is a summary of the Department's climate change

vulnerabilities that threaten the ability of the Department to accomplish its mission, operations and programs.

Natural and Cultural Resources

The Department's key mission areas under this category are protecting natural, cultural, and heritage resources; improving land and water health; sustaining fish, wildlife, and plant species; providing critical water supplies and renewable hydropower; providing recreation and visitor experiences; and managing the impacts of wildland fire. At a general level, some major potential impacts (risks and opportunities) to these resources associated with climate change include:

- Increased temperature and evaporation may lead to increased numbers of large wildland fires due to decreased fuel moisture and increased lightning activity; longer wildland fire seasons; earlier spring melt of snowpack; loss of glaciers, melting of permafrost, and earlier melt to loss of Arctic sea ice; changing range for invasive species; and increased air and water temperatures that may stress, extirpate, and otherwise affect some species and cultural practices, and damage or destroy cultural and heritage resources. Increased temperature and evaporation will also reduce seasonal snow storage for water resources management, and will cause increased evaporation and transpiration that may affect public water supply and demand, lakes, streams, and cold water fisheries, and may stress timber and forage species. Rising ocean temperatures will also impact ocean ecosystems, including more frequent mass bleaching and infectious disease outbreaks on coral reefs.
- Changes in precipitation patterns may lead to dramatic changes in moisture and stream flow that impact species, ecosystems, and infrastructure, as well as lead to more severe wildland fire seasons that may alter ecosystems and threaten species and cultural resources. Changes in precipitation patterns may cause impacts to:

- Water resources and water quality (e.g., flooding in some areas, water scarcity due to prolonged droughts);
- Channels and stream banks, which may change erosion rates and raise stream beds which in turn changes floodplains;
- Stream flow that affects water supply and hydropower production (e.g., via changes in reservoir levels, low summer flow levels, and dewatering in some areas);
- Water infrastructure (e.g., droughts may reduce water levels, severe weather events may damage infrastructure);



Davis Dam, Nevada and Arizona

- Spawning and recruitment of native fish;
 - Livestock forage, wood products, tree and forage species distributions;
 - Restoration of areas used for production of energy and minerals;
 - Archaeological sites and sacred burial grounds; and
 - Access to DOI lands for economic use and public enjoyment.
- Sea level rise and higher storm surge may lead to inundation of, and damage to, coastal ecosystems and cultural and heritage resources.

Bureau examples

U.S. Fish and Wildlife Service: Climate impacts have been linked to observed changes in certain fish and wildlife populations related to habitat loss, range shifting, population declines, changes in timing of life history events, new migration patterns, and insect and disease outbreaks. It is clear that the lands and the species managed by the Service are vulnerable to these ecological changes.

Climate is one of the prime determinants of the distribution and abundance of species, and range shifting is of particular concern to the agency. As climatic changes are now occurring more rapidly than in the past, and confounding factors such as habitat fragmentation and the spread of invasive species are further hindering species' ability to adapt through range shifts, genetic changes, or other means, biologists are expecting profound impacts on the distribution and abundance of many species by the end of this century, heightening the risk of extinction for some. These shifts will likely affect the species present on national wildlife refuges, and will present challenges for the Service in continuing to maintain its trust species for the continuing benefit of people.

Bureau of Land Management: Ecological changes will have a significant impact on the productivity and diversity of the public lands, on public land users and on communities dependent on public lands. There will be changes in the composition of native plant communities, more uncertainty in sustainable forage production, and less water for fish, wildlife, domestic livestock, wild horses and burros. Furthermore, there will be less water available for energy production and increased competition for domestic water supplies. Extreme weather events and, in Alaska, permafrost thawing may adversely affect the infrastructure for energy and minerals production and transport and impact the traditional way of life for the Alaska natives. Additionally, it will likely become more difficult to reclaim land disturbed by energy and mineral extraction and other human activities as climate change impacts alter underlying natural conditions.

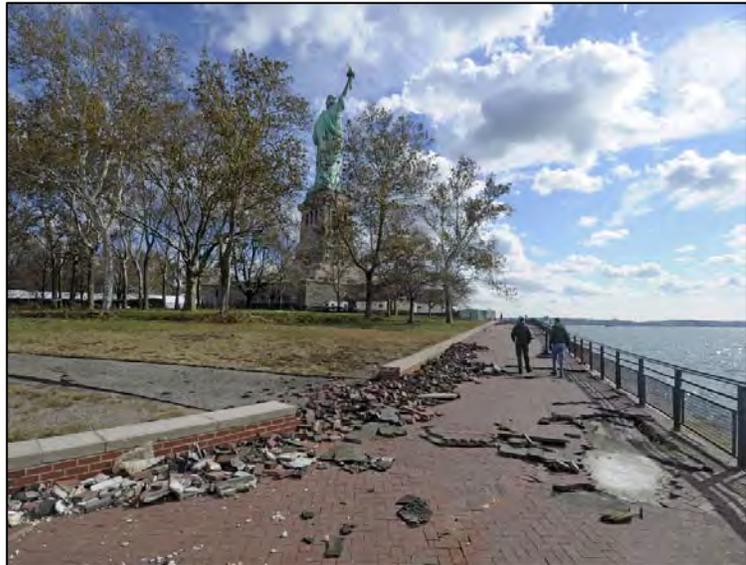
Bureau of Reclamation: Temperature increases have resulted in decreased snowpack, differences in the timing and volume of spring runoff, and an increase in peak flows for some western U.S. basins. The impacts to snowpack and runoff affect the timing and availability of water supplies. Warming is also expected to increase agricultural water demands and affect the seasonal demand for hydropower electricity. Longer-term and more frequent droughts and larger and more numerous floods are also projected. More extreme variations in climate make it more difficult to meet competing demands for water, increasing the

potential for conflicts. Many areas of the country are already facing severe water shortages that are projected to worsen with climate change. In the Colorado River Basin, for example, the years 2000 to 2013 represent the worst multi-year drought in approximately 100 years of our measured record, which dates back to 1906.

National Park Service: Climate change is now affecting, and will increasingly affect the ability of the NPS to conserve park resources in an “unimpaired” condition. In some cases, climate change will

fundamentally alter iconic features or resources of parks (e.g., potential loss of glaciers from Glacier National Park, and Joshua trees from Joshua Tree National Park). In other locations, effects of climate change may ultimately threaten particular parks as a whole (e.g., inundation of low-lying coastal parks due to sea level rise, resulting in the loss of significant historical and cultural features, as well as outstanding natural resource

values, habitat for threatened and endangered species, and recreation areas for park visitors.



Hurricane Sandy Impacts on Liberty Island

U.S. Geological Survey: Many of the climate change impacts mentioned above are the subject of completed or ongoing vulnerability assessments intended to inform climate change adaptation planning. To date, there is no available inventory of vulnerability assessments conducted in specific regions or on specific resources; this lack increases the likelihood that new assessments may be launched without knowledge of relevant ongoing or completed assessments. The U.S. Geological Survey is leading the development of an online, public Interagency Climate Change Vulnerability Assessment Registry so that existing vulnerability assessments may more readily be used to inform work across organizations, thereby increasing the value of each assessment. Partners in this effort include a large group of Federal and non-Federal (tribal, state, and NGO) organizations. The online registry is expected to launch early in FY 2015.

People and Communities

With responsibility for about 70,500 employees and more than 300,000 volunteers, service to 1.7 million American Indians and Alaska Natives, as host to about 400 million visitors each year, and as a source of electricity, water and other natural resources to significant sectors of the American economy and to communities adjacent to DOI-managed lands, the Department must understand and address the impacts of climate change on people. Much of the human activity of concern to the Department occurs outdoors, in places where climate change impacts will be felt

most acutely. The Department is also responsible for advancing government-to-government trust relationships with American Indians and Alaska Natives and honoring commitments to insular areas.¹¹ With respect to these responsibilities, vulnerabilities include:

- Changes in temperature and precipitation patterns may result in changes in the geographic range and incidence of diseases and health conditions affecting humans;
- Changes in frequency and intensity of weather-related events, such as heat-waves, precipitation events, and floods exacerbated by climate change may put lives, livelihoods, and homes and businesses at risk; and
- These impacts, as well as others such as sea level rise and higher storm surge may affect employee, volunteer, and visitor safety, and recreational opportunities and experiences, with resulting impacts on local employment and economies.
- Increased temperature would cause:
 - Changes in the incidence of heat-related illnesses and deaths and, in combination with changes in cloud-cover, may affect the incidence of adverse health outcomes related to poor air quality; and
 - Melting permafrost and reduced sea ice, threatening livelihoods of Alaska Natives.
- Sea level rise and higher storm surge will lead to inundation of and damage to shore ecosystems, dwellings, infrastructure, and cultural and heritage resources (inundation threatens the existence of low-lying island societies). Sea level rise and higher storm surge could ultimately result in disproportionate environmental, health, social, and economic conditions.
- Several climate change-related impacts such as drought, shortage of water supply, and increased wildfires may immediately threaten property and economic interests. Over the long-term, these impacts will likely threaten traditional ways of life and livelihoods that are tied closely to nature, such as farming and fishing, which are important to rural communities. Climate change impacts may also threaten plant and animal species of importance to native people and indigenous communities.

Bureau examples

Bureau of Indian Affairs: Like many small rural communities many tribes face infrastructure vulnerabilities due to increased storm frequency and intensity, and potential social and economic stresses from indirect climate impacts. Tribes have traditional, cultural, and spiritual ties to the land, and close relationships make them especially susceptible to impacts from climate change. Moreover, as governments, tribes manage not only their land and local ecosystems, but plan development, maintain infrastructure, address human service needs, and plan or implement emergency operations.

National Park Service: Visitation patterns are changing as warmer conditions enable longer “shoulder seasons” in northern latitude and mountain parks. Visitors are able to access areas of some parks that were historically inaccessible due to ice or perennial snow cover, while other parks are experiencing dangerous heat events during traditional peak use periods. Altered use patterns, and more difficult conditions associated with weather extremes challenge the ability of individual park units to budget for additional staff to cover longer seasons, and to respond to visitor injuries, heat stroke, etc., as the frequency or intensity of climate-driven events increases. Changing visitation patterns associated with increasing temperatures and altered precipitation regimes will also affect communities surrounding parks. The need to respond to emergencies associated with health and safety for staff and the public may increasingly result in less acute but chronic issues being pushed to the “back burner” as parks respond to expectations to protect personal property, access, and services within the parks and in gateway communities.

U.S. Fish and Wildlife Service: Providing hunting, fishing, and outdoor recreation opportunities to the American people is a central function of the agency, and the National Wildlife Refuge System provides some of the most outstanding hunting opportunities in the country. Because climate change is affecting wildlife, there are serious ramifications to the hunting, fishing, recreational boating and wildlife viewing industries, as well as the tribes who rely on these resources for cultural and subsistence purposes. Climate change will likely have negative effects on hunting and fishing guides, boating concessionaires, beneficiaries of license revenues, and industries that support hunters and anglers.

Infrastructure and Equipment

The Department has significant investments in infrastructure and equipment, including buildings, dams, water delivery systems, roads, vehicles, fences, scientific labs, and equipment. These assets typically require significant investments and long-term commitments, and modifications and repairs can be costly. Climate change impacts could alter the operations, efficiency, and safety of infrastructure and equipment, making it more difficult for the Department to achieve its mission and fulfill its responsibilities. Climate change impacts on infrastructure include:

- Sea level rise and higher storm surge may damage or reduce the effectiveness of offshore and coastal infrastructure, potentially eliminating access to coastal areas, for example;
- Changes in precipitation patterns and increased temperature in some areas may impact operations of buildings, vehicles, and other equipment, and may impact the capacity for dams to supply water and generate electricity;
- Flooding may damage buildings, roads, vehicles, and other equipment and dramatically alter water supply planning and management, and access to DOI lands; and
- Changes in intensity, timing, and location of weather events may disrupt use of DOI lands, including for water management, recreation, hunting, subsistence, energy exploration and development, mineral extraction, forestry and other commercial use, and may impose different stresses on the Department’s infrastructure, such as buildings, roads, and electrical systems.

Bureau examples

Bureau of Indian Affairs: Equipment vulnerabilities include interruptions in telecommunications and data services that support the mission critical operations or emergency management. For example, during significant weather events the employee emergency notification system is telecommunications dependent.

Bureau of Reclamation: Climate change impacts raise difficult questions about how best to operate Reclamation facilities to meet growing demands for water and hydropower now, and how to upgrade and maintain infrastructure to optimize operations in the future. The more extreme variations in climate will make it more difficult for Reclamation to meet competing demands for water, exacerbating tensions and increasing the potential for conflict. Increased intensity of droughts and floods also raise concerns about infrastructure safety, the resiliency of species and ecosystems to these changes, and the ability to maintain adequate levels of hydropower production.

Bureau of Safety and Environmental

Enforcement: Extreme weather events due to climate change, such as hurricanes could damage oil and gas infrastructure on the Outer Continental Shelf thereby increasing the risk of oil spills.



Offshore drilling platform

Departmental and Bureau Priorities

As discussed above, in confronting and addressing the risks posed by a changing climate, the Department will be guided by the science to build resilience into Bureau-managed lands and resources as well as carrying out its trust responsibilities. The Department will work with its bureaus to address the threats to missions and programs. Priority actions include:

- Investing in research and supplying critical data and information;
- Working with communities that rely on the Department's lands, facilities, and resources to prepare for climate change impacts and develop measures to reduce future risks; and
- Implementing actions that highlight the benefits of new technologies, innovative resource management, and infrastructure improvements that will improve the resiliency of our communities and landscapes.

Carrying out these priorities will require that the Department continue to develop a robust policy and guidance framework, build institutional capacity to effectively address the impacts of climate change; and conserve and restore resilient landscapes through large landscape conservation planning.

As the climate changes, Department and Bureau ongoing conservation and restoration initiatives become even more critical for their added benefits in effectively addressing and mitigating climate-related impacts and increasing resiliency in communities and landscapes across the country. These landscape conservation and restoration initiatives cut across many Departmental programs and bureaus and include:

- A proposal to increase stability in funding for Wildland Fire programs that ensures necessary resources for fire suppression while improving fuels management and landscape resilience programs;
- Coastal restoration and resilience programs such as Hurricane Sandy resilience investments and Gulf of Mexico restoration;
- Large-scale restoration efforts such as those ongoing in the Florida Everglades, California's Bay-Delta, and the Great Lakes Region;
- Drought resilience actions with state and local entities through WaterSMART and related programs (e.g., California's Central Valley and Colorado River Basin); and
- A proposal to increase and provide mandatory funding for the Land & Water Conservation Fund, which is critical to build resiliency by reducing habitat fragmentation and increasing the connectivity of important habitats.

In addition, the following is a list of climate adaptation priorities identified for each of the Department's bureaus.

Bureau of Indian Affairs

- Supporting to Tribes to address climate change.
- Creating policy to guide climate response.
- Demonstrating regional leadership for climate response.
- Connecting Tribes and climate change communities of practice.

Bureau of Land Management

- Conducting vulnerability assessments.
- Strengthening existing landscape level planning efforts.

Bureau of Ocean Energy Management

- Obtaining scientific data to inform evaluation and decision making.

Bureau of Reclamation

- Comprehensive climate adaptation planning.
- Increasing water management flexibility.
- Improving infrastructure resilience.

Bureau of Safety and Environmental Enforcement

- Assessing impacts to Bureau of Safety and Environmental Enforcement owned facilities.
- Coordinating with the Bureau of Ocean Energy Management on climate adaptation issues.
- Assessing Bureau of Safety and Environmental Enforcement regulations and policies to determine if climate change is addressed.

Office of Surface Mining Reclamation and Enforcement

- Using best available science to inform restoration planning and implementation.
- Ensuring human and environmental health and safety by incorporating climate considerations into regulations and policies for coal mining and restoration.
- Using existing Office of Surface Mining, Reclamation and Enforcement programs and activities to advance climate adaptation. Programs include the Technical Innovation and Professional Services program, GeoMine, the National Mine Map Repository, and the Appalachia Regional Reforestation Initiative.

National Park Service

- Developing guidance incorporating climate change science into park and strategic plans and implement at the field level.
- Building capacity in the workforce to apply climate smart conservation practices.
- Improving infrastructure resilience and sustainability.

- Communicating climate science, potential impacts, and strategies to 300 million park visitors.
- Implementing a comprehensive approach for evaluating risk and prioritizing adaptation actions to protect facilities, and cultural and historic resources.

U.S. Fish and Wildlife Service

- Facilitating sustainable landscapes through Landscape Conservation Cooperative-based collaborative planning and management.
- Building capacity in the workforce to apply climate smart practices.
- Developing a Service climate change policy framework.
- Incorporating climate change considerations in existing capital grant programs.
- Increased support for states and tribes to integrate climate adaptation into their conservation planning.
- Using the National Fish, Wildlife and Plants Climate Adaptation Strategy Joint Implementation Working Group to promote wildlife adaptation efforts across agencies and with the states and tribes.

U.S. Geological Survey

- Facilitating applied climate change research through the Climate Science Centers.
- Providing tools to access and use climate science research and data to inform planning and management.

Departmental Climate Adaptation Agenda

This Plan demonstrates numerous ongoing Departmental climate adaptation activities, as the Department simultaneously works with its bureaus to identify cross-bureau climate adaptation needs that could represent additional steps in an integrated Departmental climate adaptation agenda. The items below represent common bureau needs where additional Departmental direction and coordination may be warranted.

Development of Additional Policy and Guidance: Additional climate adaptation policies and guidance may be needed such as incorporating climate change into NEPA analyses, determining appropriate situations that may warrant novel adaptation strategies, including climate criteria into grant selection criteria, and incorporating climate change effects in planning and infrastructure design. In some cases, Department-level guidance may be necessary to create consistency across bureaus. The Department will work through the Energy and Climate Task Force, the Climate Change Working Group, and the network of climate adaptation practitioners to discuss and identify additional policy and guidance needs.

Create a Climate Literate

Workforce: A climate literate workforce is necessary to build the broad institutional capacity to effectively address the impacts of climate change on bureau programs and activities. The Department will explore options to build on existing training resources created by partnerships between bureaus, other Federal agencies and non-Federal partners. The Department will continue to support these partnerships and will encourage bureaus to take advantage of existing opportunities. In addition, the Department will work to incorporate relevant climate change content into existing curricula and training programs. The Department will also explore opportunities to improve communication technology, such as video and online training platforms, to enable larger numbers of people to benefit from training resources and materials.

Climate Change Incorporated into New National Park Service Facilities and Development Planning



**Pearce Ferry Rapid,
Lake Mead National Recreation Area**

The National Park Service created a standard protocol for addressing the effects of climate change on proposed capital improvement projects. As part of the Director's review process in 2013, subject matter experts from the Climate Change Response Program, Denver Service Center and NPS Directorates reviewed a total of 64 projects and provided recommendations with respect to climate change considerations. Examples include recommending a floating dock system that accommodates sea level rise in Salt River Bay National Historic Park, and highlighting the need for new culverts to accommodate potentially larger flood events in Lake Mead National Recreation Area.

Landscape Level Planning: Several bureaus have identified landscape level planning as an important mechanism for addressing climate adaptation. The Department has a number of landscape-level initiatives in progress that will address long-term resiliency in important habitats and will continue to make landscape level planning a priority for maintaining resilient landscapes that meet conservation and development goals. The network of 22 Landscape Conservation

Cooperatives (LCCs) and 8 Climate Science Centers (CSCs) represent the front lines of the Department's landscape level planning efforts.

In April 2014, the Department released *A Strategy for Improving the Mitigation Policies and Practices of the Department of the Interior*.¹² The Strategy provides a framework for incorporating landscape-scale approaches into all facets of development, conservation planning and mitigation. The Department will continue to work with LCCs, CSCs, bureaus and partners to explore additional landscape level planning opportunities.

In addition to the agenda items discussed above, the Department recognizes the need to engage youth on climate science education and awareness. The Department's bureaus have a unique opportunity to promote climate science understanding by demonstrating climate impacts on the landscape. The Department will continue to look for opportunities to build the climate science awareness of our next generation.

Departmental Climate Change Coordination

The Department coordinates climate adaptation activities primarily through two Department-wide groups. The Energy and Climate Task Force consists of the Department's assistant secretaries and bureau directors and is chaired by the Deputy Secretary. The Task Force serves as a leadership forum to discuss broad energy and climate policy issues, including climate adaptation. The Department's Climate Change Working Group consists of Departmental office and bureau staff, including those responsible for coordinating bureau climate adaptation activities. The Working Group meets monthly and serves as a forum to coordinate climate change policy, guidance and planning needs. The Associate Deputy Secretary chairs the Working Group.

The members of the Working Group also serve as the nexus of the Department's climate adaptation network by which information, best practices and coordination occurs between the Department and bureaus and among bureaus. Members of the Working Group

Planning for Climate Change in California's Central Valley



Black-crowned Night-Heron

In California's Central Valley, the California Landscape Conservation Cooperative is supporting a team led by the U.S. Geological Survey to develop plans for waterbirds that account for climate change. The team adapted a new model to look at climate driven changes in water supplies and several other factors. The work will help develop a holistic management approach for the Central Valley, where competing and often conflicting demands exist from urbanization, agriculture, and even other species, such as salmon.

also serve on interagency climate adaptation groups, including the Federal Interagency Climate Adaptation Community of Practice. Section IV of this Plan contains additional information about the Department's climate adaptation work with interagency partners.

Several bureaus also have existing internal climate change working groups or networks that work to develop policy and guidance, provide information and resources to employees, and coordinate climate change-related activities.

The network of 22 LCCs and 8 CSCs are the forum where both Department land managers and external partners can come together to address landscape issues. The LCC's bring together federal, state, and local governments along with Tribes and First Nations, non-governmental organizations, universities, and interested public and private organizations to integrate science and management to address climate change and other landscape scale issues. LCCs fill a critical need by providing a forum for connecting the conservation community within a defined geography and focusing investments and actions on shared priorities. LCCs help align large-scale conservation efforts such as climate adaptation planning to ensure federal efforts complement each other, and lead to more efficient and coordinated management across jurisdictions. The CSC's provide scientific information, tools, and techniques that land, water, wildlife, and cultural resource managers and other interested parties can apply to anticipate, monitor, and adapt to climate change impacts. Much of the information and tools provided by the CSCs, including physical and biological research, ecological forecasting, and multi-scale modeling, will be in response to the landscape-level priority needs identified by the LCCs, as well as the cross-sector needs of other agencies and communities in the region.

II. The Department of the Interior's Climate Change Adaptation Policy

The Department's Climate Change Adaptation Policy (523 DM 1) is available to the public on the Department's website. The following policy statement is taken directly from the official policy.

Official Policy

It is the policy of the Department to effectively and efficiently adapt to the challenges posed by climate change to its mission, programs, operations, and personnel. The Department will use the best available science to increase understanding of climate change impacts, inform decisionmaking, and coordinate an appropriate response to impacts on land, water, wildlife, cultural and tribal resources, and other assets. The Department will integrate climate change adaptation strategies into its policies, planning, programs, and operations, including, but not limited to, park, refuge, and public land management; habitat restoration; conservation of species and ecosystems; services and support for tribes and Alaska Natives; protection and restoration of cultural, archeological and tribal resources; water management; scientific research and data collection; land acquisition; management of employees and volunteers; visitor services; construction; use authorizations; and facilities maintenance.

Consistent with existing laws and regulations, it is the Department's policy to:

- Ensure that climate adaptation plans are grounded in the best available science and understanding of climate change risks, impacts, and vulnerabilities, incorporating traditional knowledge where available.
- Use the network of Landscape Conservation Cooperatives, Climate Science Centers, and other partnerships to increase understanding of climate change impacts; build upon and monitor existing response efforts; coordinate adaptation strategies across multiple sectors, geographical scales, and levels of government; and inform decision makers.
- Ensure consistent and in-depth government-to-government engagement with tribes, Alaska Natives, and Native Hawaiians to address climate change impacts on health, infrastructure, livelihoods, traditional practices, natural and cultural resources, and to apply adaptation strategies.
- Consider climate change when developing or revising management plans and making major investment decisions.
- Consider climate change when setting priorities for scientific research and assessments.
- Identify and avoid investments that are likely to be undermined by climate impacts, such as investing in infrastructure likely to be adversely affected by repeated severe weather events, floods or inundation, or planting/introducing species vulnerable to changes in temperature or precipitation patterns.
- Address the impacts of climate change on the U.S. territories and Freely Associated States.

- Use well-defined and established approaches, as appropriate, for managing through uncertainty, including: (1) vulnerability assessments, (2) scenario planning, (3) adaptive management, and (4) other risk management or structured decision making approaches. The Department’s Adaptive Management Implementation Policy is provided in 522 DM 1.

- Avoid “maladaptive” actions, that is, actions intended to avoid or reduce vulnerability to climate change that negatively impact or increase the vulnerability of other systems, sectors, or social groups.

- Promote landscape-scale, ecosystem-based management approaches to enhance the resilience and sustainability of linked human and natural systems.

- Advance approaches to managing linked human and natural systems that help mitigate the impacts of climate change, including:

- Protect diversity of habitat, communities and species;
- Protect and restore core, unfragmented habitat areas and the key habitat linkages among them;
- Anticipate and prepare for shifting wildlife movement patterns;

Climate Science in the Southeast United States



Secretary Jewell at Cape Romain National Wildlife Refuge with Refuge Manager Sarah Dawsey, discussing the impact of rising seas (11/20/2013)

The Southeast Climate Science Center is working on a research project, “Assessment of Terrestrial and Aquatic Monitoring Programs in the Southeastern United States,” which aims to support the efforts of multiple federal, state, and other organizations in the development of a comprehensive and integrated assessment of monitoring programs associated with atmospheric, stream, and terrestrial ecosystems. As part of this project, the Southeast Global Change Monitoring Portal was developed to provide a centralized, comprehensive catalog of observational networks associated with aquatic and terrestrial ecosystems in the southeastern United States that may be influenced by climate change.

- Maintain key ecosystem services;
 - Monitor, prevent, and slow the spread of invasive species (defined in Executive Order 13112 as alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health);
 - focus development activities in ecologically disturbed areas when possible, and avoid ecologically sensitive landscapes, culturally sensitive areas, and crucial wildlife corridors; and
 - Anticipate changes to access on DOI lands as a result of increases in severe weather events, changes in hydrologic processes (e.g., coast inundation, river flooding, stream bed aggradation, etc.) and other ecosystem changes (e.g., change in fire regime.)
- Routinely track, record, and report on the progress and results of climate change adaptation activities to help further public understanding, encourage the engagement of partners, promote the conduct of similar activities, and better inform decision making on a broader scale.

Guiding Principles

In addition to the Department’s policy, the Department and its component bureaus and offices adhere to the following Guiding Principles for climate change adaptation.¹³ Not all Guiding Principles apply to all components within the Department.

Science: The Department will use the best available social, physical and natural science to increase understanding of climate change impacts, to inform decision making, and to coordinate an effective response to impacts on land, water, wildlife, cultural, heritage, and tribal resources, and other assets. To ensure that climate science and services meet internal decision-making needs, bureaus should:

- Ensure that management decisions are informed by science, including projected impacts from climate change.
- Build or access regional and local capacity to identify vulnerabilities and interpret climate science to inform adaptation plans for infrastructure, natural and cultural resources and bureau operations.
- Develop and utilize scientific information and tools at a landscape scale to ensure a detailed understanding of current baselines and effectively track impacts associated with climate change.
- Coordinate with other regional science resources in order to inform adaptation plans and actions (e.g., leveraging, co-locating or integrating scientific efforts with regional climate

change science consortia such as the CSCs, the National Oceanic and Atmospheric Administration Climate Program Office Regional Integrated Science and Assessment Centers, and the Department of Agriculture Regional Climate Hubs).

- Ensure representation at the executive level on the Stakeholder Advisory Committee for each CSC and the Steering Committee for each LCC.
- Facilitate and support data integration across the physical and social sciences to enable broad use of scientific information for management decisions.
- Respectfully consider and incorporate Traditional Ecological Knowledge and long-term observational information as data sources.
- Ensure that scientific activities conform to appropriate laws, regulations and policies (e.g., Information Quality Act, the Department's Scientific and Scholarly Integrity Policy) and apply best scientific practices (e.g., peer review).

Ecosystem-Based Management: Integrating the management of natural and human systems and helping understand and display trade-offs is an essential management function in a changing environment. Ecosystem-based management (EBM) is a science-driven alternative to sector-based or species-based management approaches that are poorly suited to address such changes. Effective EBM allows decision makers to understand tradeoffs across different resources, provides guidance at multiple scales, and requires meaningful input from a broad range of stakeholders, including indigenous communities. While implementing EBM, bureaus should consider employing the following strategies:

- Bureaus should incorporate consideration of climate change impacts as a component of cumulative impacts. Climate change is a threat multiplier, in that it amplifies and adds complexity to existing impacts and the interactions among them.
- Risk management provides an effective means to assess and respond to climate change. The timing, likelihood, and nature of specific climate risks are difficult to predict. Risk management approaches are already used in many critical decisions (e.g., for fire, flood, and disease outbreaks), and can aid in understanding the potential consequences of inaction as well as options for risk reduction.
- Given the inherent uncertainties, it may be optimal to implement some climate change adaptation actions before completely understanding potential climate change impacts. Bureaus can use adaptive management, as appropriate, for managing resources in the face of uncertainty. Adaptive management can provide feedback to managers as conditions change, by setting project goals carefully and monitoring progress toward stated goals.¹⁴
- Bureaus should employ scenario planning to allow planners and managers to explore the effectiveness of various strategies across a range of plausible futures. Targeting a single preferred outcome under a single presumed future is not an adequate management strategy in a rapidly changing environment.¹⁵

- Use economic analysis to help evaluate the benefits, costs, and risks of alternative investments and strategies to address potential impacts and adaptation plans.

Ecosystems and Wildlife: Bureaus should implement the following general approaches in a cost-effective manner to enhance the ability of ecosystems and wildlife populations to absorb change and maintain key qualities and services:

- Protect diversity of habitat, communities, and species.
- Prioritize restoration efforts already moving forward that address current resource management issues but also build resiliency into landscapes facing long-term climate change challenges (e.g., Everglades Restoration, Trinity River Restoration).
- Develop adaptation plans that protect and restore contiguous blocks of un-fragmented habitat and enhance connectivity among habitat blocks.
- Identify and protect resilient ecosystems (i.e., places that can absorb change and maintain healthy community structure and function) and climate refugia (i.e., places that do not exhibit as much change as surrounding landscapes).
- Monitor invasive species (defined as non-native species whose introduction does or is likely to cause economic or environmental harm or harm to human health) and coordinate with other agencies to prevent new introductions and stop the spread of such species.

Habitat Restoration for Vulnerable Species



Restored Montana Wetland

From March 2013 to present, the Partners for Fish and Wildlife (PFW) Program in the U.S. Fish and Wildlife Service Mountain Prairie Region was able to restore or enhance 37 river miles of river and stream habitat to benefit high priority native fishes stressed by climate change. These projects also benefited many riparian obligate species, greater sage-grouse and amphibians. In addition, the PFW program restored, created or enhanced 4,555 acres of wetlands to benefit suites of high priority migratory birds, the imperiled Dakota Skipper, boreal toad, and many other wetland dependent species that have been shown to be impacted by climate change. The program also restored and/or enhanced 81,474 upland acres, benefiting suites of grassland-dependent birds, sagebrush obligate species, grizzly bear and other species in the Mountain Prairie Region.

- Consider the landscape context of adaptation actions: Bureaus should work together and with other partners to jointly identify large landscape features (e.g., core habitat, specific corridors, etc.) and mutual conservation goals for their protection.
- Reduce non-climate stressors that interact with climate change impacts (e.g., pollution, invasive species, habitat fragmentation, and human activities contributing to resource scarcity or degradation of natural resources).

These general approaches reflect “best practices” at the present time; they should be tailored to specific locations based on anticipated benefits, costs, and uncertainties maximize net benefits.

Energy, Mining, and Water: The Department is responsible for managing water supplies and leasing areas for mining and development of renewable and non-renewable energy sources. In addition to the implementation of EBM as described above, bureaus should ensure the sustainability of these efforts by adopting the following approaches:

- Employ a basin-wide approach to achieve sustainable water management and to address current and future water shortages, including the potential for decreased water availability due to drought and climate change.
- Where appropriate, consider opportunity costs of resources in management decisions and analysis of tradeoffs.
- Focus development activities in ecologically disturbed areas when possible, and avoid ecologically sensitive landscapes, culturally sensitive areas, and crucial wildlife corridors. Implement the mitigation hierarchy of avoid, minimize and mitigate for major development activities.
- Strengthen and enhance assessments of the vulnerability of water resources to climate change.
- Expand and encourage efficiency measures for water and energy use. Facilitate the development and use of management approaches that provide information about opportunity costs to users of DOI resources.

Cultural and Heritage Resources: Human societies have inhabited the areas that are now the United States, including affiliated states and insular areas, for many thousands of years. Consequently, many ecosystems and plant, fish, and wildlife species hold cultural significance, as do fixed-place cultural and heritage resources including archaeological sites, prehistoric and historical period structures, districts, cultural and sacred landscapes, and museums and curation facilities. In addition, there are various intangible cultural heritage resources, including inherited traditions or living expressions such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts.¹⁶ To address impacts to these resources and the information

they provide regarding long-term human interactions with variable environments, managing bureaus should:

- Integrate cultural resources into climate change vulnerability assessments to identify both inventoried resources and uninventoried areas (if any) at risk from projected impacts.
- Use projected climate change impacts, as determined by the National Climate Assessment and federal partners, as a factor to prioritize completion of cultural resource inventories pursuant to bureau responsibilities under the National Historic Preservation Act (NHPA) Sections 110 and 106, respectively.
- Evaluate planned capital investments in cultural resources and historic properties that are vulnerable to climate change, and focus on critical stabilization needs of those resources until long-term impacts from climate change are defined and inform broader restoration plans.
- Update or implement cultural resource monitoring systems to track environmental effects that may vary under altered climate regimes and adversely affect cultural resources. Some monitoring needs may overlap partially or fully with natural resource monitoring. For example, monitoring of changes in water tables can inform wetland and drainage issues as well as alteration of archaeological sites.
- Coordinate cultural resource preservation and research priorities across local, regional, and national scales (such as through LCC and DOI CSC networks).
- Engage indigenous communities in dialogue and incorporate traditional knowledge in assessing climate change effects on cultural, natural, and heritage resources and developing appropriate adaptation strategies.
- Engage minority populations and low-income populations in dialogue and through stakeholder outreach in assessing climate change effects on cultural, natural, and heritage resources and developing appropriate adaptation strategies.
- Engage federal stakeholders to coordinate requirements and processes of compliance with NHPA, such as programmatic agreements, for all climate change response actions.
- Incorporate cultural resource significance as a factor in management decisions and adaptation actions for vulnerable resources. Significance determinations may require stakeholder consultation.
- Incorporate knowledge from prehistoric and historic human adaptation (contained in cultural and heritage resources) into contemporary adaptation planning, decision-making, and communication.

Minority Populations and Low Income Populations: It is a priority of the Department and a responsibility under Executive Order 12898 to work with minority populations, and low-income

populations to anticipate and prepare for climate change impacts to their health, environment, and communities.¹⁷ To do so, bureaus should:

- Provide minority populations and low-income populations with the most recent climate change information and climate adaptation guidance.
- Participate in community capacity building, training, and outreach activities and provide technical assistance as appropriate for communities at greater risk.
- Expand and include minority populations and low-income populations and communities in science, mapping, research, data collection activities, and other studies as appropriate.
- Actively participate in the Intergovernmental Working Group on Environmental Justice.

American Indians, Alaska Natives, and Insular Areas: It is a priority of the Department to work with American Indians, Alaska Natives, and residents of Insular Areas to anticipate and prepare for climate change impacts to their lands, communities, and ways of life. To do so, bureaus should:

- Provide tribes, communities, and Insular Areas with the most recent climate change information and climate adaptation guidance.
- Respectfully solicit traditional knowledge from tribes, communities, and villages to complement existing scientific resources on past and present ecological and sociological changes.
- Ensure ongoing inclusion of indigenous groups in any EBM implementation by providing avenues for participation and soliciting information on areas of cultural value.

Salmon Hatcheries and Restoration Efforts



Nez Perce Tribal Hatchery. Credit: CRITFC

Salmon is culturally important traditional food for native people on the west coast and Alaska. Loss of snow pack due to climate change exacerbates stresses from land use change to threaten salmon survival and return rates. Tribes, states and the federal government have invested heavily in hatcheries and restoration efforts. Climate threats, habitat degradation, and other stressors all need to be part of the adaptation management considerations to minimize loss of this cultural and economically important species.

Coordination and Partnerships: Adaptation requires coordination across multiple sectors, geographical scales, and levels of government and should build on the existing efforts and knowledge of a wide range of stakeholders. Bureaus should:

- Coordinate and collaborate with federal, state, tribal, and local governments, nongovernmental organizations and with private landowners, in support of activities that contribute to effective management of endangered and other species, natural communities, cultural resources, lands, waters, infrastructure and other assets placed at risk by changing climate conditions.
- Ensure consistent and in-depth government-to-government engagement with tribes, Alaska and Hawaii Natives, and insular areas to address climate change impacts on natural and cultural resources and to apply adaptation strategies.
- Engage with the Landscape Conservation Cooperatives to ensure integration with local and regional climate adaptation priorities.
- Co-lead efforts to implement the National Fish, Wildlife, and Plants Climate Adaptation Strategy and coordinate with and undertake actions consistent with the National Ocean Policy Implementation Plan and the *National Action Plan: Priorities for Managing Freshwater Resources in a Changing Climate* (Freshwater Action Plan).
- Coordinate scientific activities and plans with the relevant DOI Climate Science Centers or the National Climate Change and Wildlife Science Center, and with federal, state, tribal, university, and other science partners to ensure maximum efficiency.
- Adjust partnerships to the scale of the adaptation action. For example, a local adaptation action will be most effective when driven by local interests, risks, and needs, but must also be congruent with regional or landscape-level actions.
- To the extent feasible, include participation from those charged with implementing adaptation plans.
- Support local capacity building since adaptation actions will mainly be implemented at the local level.
- Incorporate outreach efforts into adaptation strategies and actions; tailor adaptation communications to the local context. Communicate information about adaptation plans and projects to stakeholders using clear language that addresses local concerns.
- Provide training to bureau staff and managers on climate change, adaptation, and mitigation to increase climate change knowledge within the Department.
- Where possible, implement adaptation strategies and actions that complement or directly support other related management goals such as efforts to improve disaster preparedness, promote sustainable resource management, and reduce greenhouse gas emissions.

- Minimize maladaptation, that is, actions to avoid or reduce vulnerability to climate change that negatively impact, or increase the vulnerability of other systems, sectors, or social groups.
- Engage youth to provide educational opportunities to observe and understand the impacts of climate change occurring on the landscape and to help build the next generation of climate leaders, consistent with Secretarial Order 3332 – Engaging the Next Generation.

Human Health and Safety: The Department will anticipate, prepare for, and develop cost-effective approaches to ameliorate adverse impacts that climate change may have on the safety of employees, volunteers, visitors, contractors and others for whom it has special responsibilities.

Public Use and Enjoyment: Bureaus should consider climate change impacts on the public’s ability to recreate on, visit or use DOI-managed lands and waters. This may include impacts to infrastructure that supports visitor use, such as roads, visitor facilities (e.g., campgrounds, picnic areas, parking areas, trailheads, etc.), trails, and boat ramps. This may also include impacts to visitor experiences, such as viewing wildlife and scenery, hunting, fishing, boating, walking and hiking.

Infrastructure and Equipment: All components of the Department should consider potential climate change impacts when planning, designing, building, purchasing, leasing, upgrading, maintaining, and decommissioning infrastructure and equipment. The Department should systematically evaluate infrastructure investments in a benefit-cost context to help determine if such investments are justified.

III. Planning for Climate Related Risks

Programs, Policies and Plans to Manage Climate Risks and Build Resilience

The Department has numerous ongoing and planned activities to manage climate risks and build resilience. The Department developed a Climate Change Adaptation Priority Performance Goal to manage implementation of bureau climate resilience activities. The Priority Goal will measure bureau performance and achievements toward implementing climate change adaptation strategies, which were established in the 2013 Strategic Sustainability Performance Plan. The Climate Change Adaptation Priority Performance Goal will be used to target, track, and report progress on a quarterly basis over the next two years. Each bureau is required to identify actions under each of the following Priority Goal strategies. The information below was reported to the Department on March 31, 2014, and is current through the Second Quarter FY 2014.

Strategy 1: Mainstream and integrate climate change adaptation 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.

Bureau highlights

Responsible bureau: Bureau of Ocean Energy Management

Incorporate climate science into the Bureau of Ocean Energy Management's environmental reviews to support decisions that promote mitigation of and adaptation to climate change, including enhanced coastal resiliency through use of Outer Continental Shelf sand resources for beach and barrier island restoration.

- Climate risk/vulnerability: Sea level rise, coastal erosion
- Level of progress: Design underway or project activity initiated (Q1/FY2014)
- Milestones: 30% completed (FY2015/FY2016)

Responsible bureau: Bureau of Safety and Environmental Enforcement

Continue to explore ways to implement policies that enhance the safety of offshore platforms in the face of extreme weather events.

- Climate risk/vulnerability: Extreme weather events
- Level of progress: Implementation planning phase
- Milestones: Project initiation (Q3/FY2014)

Responsible bureau: U.S. Geological Survey

Establish Climate Science Centers, with stakeholder advisory committees, regional science plans, effective linkages between U.S. Geological Survey assets and partners. Establish national science strategy and national advisory committee.

- Climate risk/vulnerability: Multiple climate risks
- Level of progress: At least 90% of projects completed
- Milestones: 90% is the highest level of implementation measured in the Priority Goal.

Responsible bureau: U.S. Fish and Wildlife Service

Working through the LCCs and with the CSCs, develop shared climate change adaptation goals with conservation partners and develop resilient landscape designs to guide conservation efforts.

- Climate risk/vulnerability: Multiple
- Level of progress: Design underway or project activity initiated (Q1/FY2014)
- Milestones: Drafts available for 30% of LCCs (Q4/FY2015)

Strategy 2: Ensure agency principals demonstrate commitment to adaptation efforts through internal communications and policies.

Bureau highlights

Responsible bureau: Bureau of Ocean Energy Management

Incorporate science into Bureau of Ocean Energy Management's Environmental Studies Program research that enhances our understanding of actions and impacts related to climate change.

- Climate risk/vulnerability: Sea level rise, extreme weather events, etc.

- Level of progress: Design underway or project activity initiated (Q1/FY2014)
- Milestones: 30% completed (FY2015/FY2016)

Responsible bureau: Bureau of Reclamation

Development of Bureau of Reclamation Climate Adaptation Policy in response to 523 DM 1.

- Climate risk/vulnerability: Multiple climate risks
- Level of progress: Implementation planning phase
- Milestones: Project initiation (Q3/FY2014)

Responsible bureau: Office of Surface Mining and Reclamation Enforcement

Incorporate a climate change section into Office of Surface Mining and Reclamation Enforcement agency NEPA training. Training is given annually in April to OSM employees, state and tribal employees.

- Climate risk/vulnerability: Multiple climate risks
- Level of progress: Design underway or project activity initiated (Q1/FY2014)
- Milestones: 30% completed (Q3/FY2014)

Strategy 3: Ensure workforce protocols and policies reflect projected human health and safety impacts of climate change.

Bureau highlights

Responsible bureau: Bureau of Indian Affairs/Bureau of Indian Education

Design and implement administrative guidance to identify & address climate driven human health challenges in the Bureau of Indian Education (BIE) School Safety Plans, BIA facilities Continuity of Operations Plans (COOP), and national BIA All Hazards Emergency Response Operations (A-HERO) program.

- Climate risk/vulnerability: Extreme weather events, heat waves, etc.
- Level of progress: Implementation planning phase
- Milestones: Project initiation (Q3/FY2014)

Responsible bureau: Bureau of Safety and Environmental Enforcement

Provide support, education, and training for employees about preparedness and response to natural disasters and other impacts associated with climate change, including telework options at designated work sites.

- Climate risk/vulnerability: Extreme weather events
- Level of progress: Design underway or project activity initiated (Q1/FY2014)
- Milestones: 30% completed (FY2015/FY2016)

Responsible bureau: National Park Service

Include sea level rise and storm surge science into new & existing hurricane response plans for coastal parks in the Southeast and Northeast Regions.

- Climate risk/vulnerability: Sea level rise
- Level of progress: Design underway or project activity initiated (Q1/FY2014)

- Milestones: 30% completed (FY2015/FY2016)

Strategy 4: Design and construct new or modify/manage existing agency facilities and/or infrastructure with consideration for the potential impacts of projected climate change.

Bureau highlights

Responsible bureau: Bureau of Land Management

Review design criteria for climate change considerations in Bureau of Land Management capital improvement projects over \$1 million.

- Climate risk/vulnerability: Multiple climate risks
- Level of progress: Implementation planning phase
- Milestones: Project initiation (Q3/FY2014)



**Red Rocks Canyon National Conservation Area,
BLM Nevada**

Responsible bureau: Bureau of Reclamation

Installation of new turbines that increase the operational range and flexibility of hydropower operations at Hoover Dam.

- Climate risk/vulnerability: Impacts to water resources
- Level of progress: Design underway or project activity initiated (Q1/2014)
- Milestones: 30% completed (Q3/FY2014)

Responsible bureau: U.S. Fish and Wildlife Service

Implement continuing improvements of the Roads Module of the SLAMM (Sea Level Affecting Marshes Model) system.

- Climate risk/vulnerability: Sea level rise
- Level of progress: 30% completion
- Milestones: 90% completed (Q4/FY2015)

Strategy 5: Update agency external programs and policies (including grants, loans, technical assistance, etc.) to incentivize planning for and addressing the impacts of climate change.

Bureau highlights

Responsible bureau: Bureau of Land Management

Develop a program to help public land users understand how climate change may affect use and enjoyment of public lands.

- Climate risk/vulnerability: Multiple climate risks
- Level of progress: Implementation planning phase
- Milestones: Project initiation (Q3/FY2014)

Responsible bureau: National Park Service

Include provisions addressing climate change and related issues into grants from the Historic Preservation Fund to state, local, tribal grantees.

- Climate risk/vulnerability: Multiple climate risks
- Level of progress: Design underway or project activity initiated (Q1/FY2014)
- Milestones: 90% completed (Q4/FY2015)

Responsible bureau: U.S. Geological Survey

Provide funding for external climate adaptation activities, especially from Climate Science Centers.

- Climate risk/vulnerability: Multiple climate risks
- Level of progress: At least 90% of projects completed
- Milestones: 90% is the highest level of implementation measured in the Priority Goal.

Addressing Critical Climate Risks

Climate change will have a significant impact on the land and natural resources managed by the Department of the Interior. The following is a list of the Department's critical climate change risks and plans to address those risks.

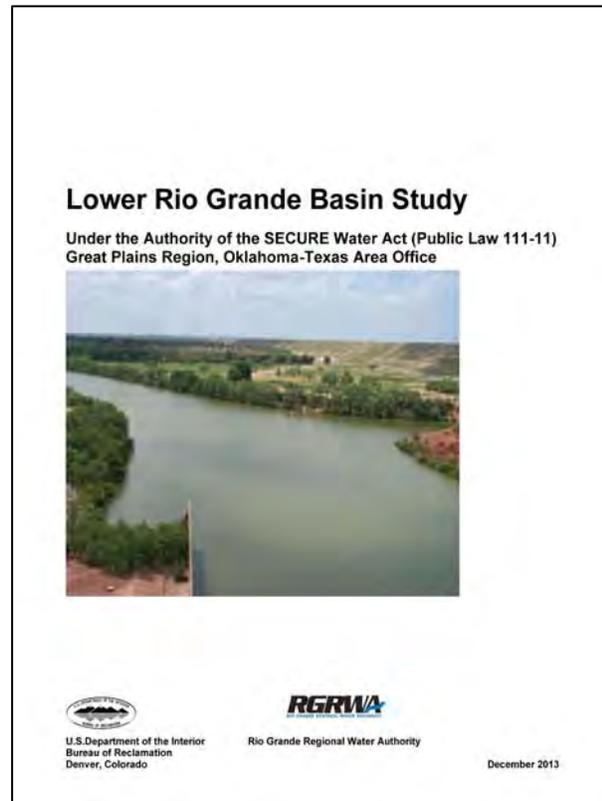
Water supply

Description: Changes occurring now are altering the historical weather and streamflow patterns that framed the development of water and power systems across the west. Temperature increases have resulted in decreased snowpack, differences in the timing and volume of spring runoff, and an increase in peak flows for some western U.S. basins. Collectively, these changes raise difficult questions about how best to operate Reclamation facilities to meet growing demands for water and hydropower now, and how to upgrade and maintain infrastructure to optimize operations in the future. The more extreme variations in climate will make it more difficult for Reclamation to meet competing demands for water, exacerbating tensions and increasing the potential for conflict.

Implemented and planned actions: Reclamation is taking a leading role to develop sound and actionable science and tools needed to better understand the impacts of climate change to water resources. Reclamation leads a partnership of eight federal, academic, and Non-Governmental Organizations that have made downscaled climate and hydrology projections available through a public website, available at http://gdo-dcp.uclnl.org/downscaled_cmip_projections/.

In 2009, Reclamation initiated the WaterSMART West-Wide Climate Impact Assessments (WWCRAs) to evaluate the risks and impacts of climate change to water resources in river basins across the West, as authorized in the SECURE Water Act, Subtitle F of P.L. 111-11. The WWCRAs are baseline assessments of the potential impacts of climate change to water supply and demand, and to Reclamation's operational responsibilities. The WWCRAs form the basis for a consistent evaluation across the eight major river basins in the west and provide information that can be utilized in the WaterSMART Basin Studies, which are focused on addressing climate change vulnerabilities.

In 2009, Reclamation initiated the WaterSMART Basin Studies and West-Wide Climate Impact Assessments (WWCRAs) to evaluate the risks and impacts of climate change to water resources and identify strategies to mitigate those impacts in river basins across the West, as authorized in the SECURE Water Act, Subtitle F of Title IX of P.L. 111-11. Through the Basin Studies, Reclamation partners with non-Federal stakeholders to evaluate the impacts of climate change to multiple water uses within a basin, and to identify adaptation strategies. To date, 22 Basin Studies have been selected in 15 western states. Reclamation has now completed 7 Basin Studies, including the Colorado River Basin Study; Yakima River Basin Study; and the Santa Ana River Watershed Basin Study.



These three completed studies provide examples of how Basin Studies serve to identify likely supply demand imbalances and generated collaborative efforts to plan for the future including:

- The Colorado River Basin Study, completed in December 2012, confirmed that there are likely to be significant shortfalls between projected water supplies and demands in the Basin in coming decades and generated collaborative teams to identify actions that have broad based support to address projected supply and demand imbalances.
- The Yakima River Basin Study, completed in December 2011, resulted in the Yakima River Basin Integrated Water Resource Management Plan, which is a comprehensive planning effort to address water resource and habitat challenges that can be met through collaborative local and regional solutions. One example of this is the Manastash Creek Project, which will convert 3.2 miles of unlined lateral to pressured pipeline conserving an estimated 1,300 acre-feet of water annually and providing improved local irrigation system reliability and access to approximately 25 miles of important habitat for steelhead, coho, bull trout, and spring Chinook.

- The Santa Ana River Watershed Basin Study, completed in September 2013, Reclamation developed a Green House Gas (GHG) Emissions Calculator that can be used by water managers in California to analyze the carbon footprint of potential water management decisions and is a vital tool for decision makers when developing water supply plans for the future.

In addition to Basin Studies, Reclamation analyzes the risks and impacts of climate change through WWCRAs. The WWCRAs are baseline assessments of the potential impacts of climate change to water supply and demand, and to Reclamation's operational responsibilities. The WWCRAs form the basis for a consistent evaluation across the eight major river basins in the west and provide information that can be utilized in the Basin Studies. Reclamation completed the first WW CRA Impact Assessment in 2013 in the Rio Grande river basin in partnership with Sandia National Laboratories and the U.S. Army Corps of Engineers. Three additional WW CRA Impact Assessments are currently underway. Reclamation also leads a partnership of eight Federal, academic, and Non-Governmental Organizations that have made downscaled climate and hydrology projections available through a public website, available at http://gdo-dcp.ucllnl.org/downscaled_cmip_projections/. Collectively, the WWCRAs, Basin Studies and science efforts will inform Reclamation's second report to Congress under the SECURE Water Act, to be completed in 2016.

Water conservation, water reuse and efficient water operations can help provide the flexibility that is needed to optimize water supplies in response to drought and to build resiliency to climate change by stretching water supplies further. The President's Climate Action Plan for the Nation (President's Plan) specifically highlights the contributions of WaterSMART Grants in providing funding to agricultural water users for more efficient practices to address long-term climate change. Since 2009, Reclamation has supported projects contributing over 730,000 acre-feet of conserved water under Interior's Priority Goal for Water Conservation through WaterSMART Grants, the Title XVI Water Reclamation and Reuse Program, and other conservation efforts. Water conserved through these programs has benefitted municipalities, agriculture, and the environment. Interior's goal is to enable additional water savings to increase the available supply by 840,000 acre-feet of water by September 2015.

In addition to supporting water conservation and reuse projects, Reclamation is collaborating with stakeholders in basins across the West to identify water management solutions to water shortage problems. In many basins, competing needs for water by farmers, endangered species, and municipalities are currently amplified by unprecedented drought conditions.

Looking forward, Reclamation has recently initiated several new efforts to improve the ability to address vulnerabilities from climate change in the future. In FY 2014, Reclamation is beginning a pilot initiative to develop guidance for considering climate change information in reservoir operations. Historically, uncertainties in weather prediction and assumptions of a stationary climate have resulted in general rules for reservoir management, often seasonal to annual in definition, in terms of allocating water resources. Reclamation plans to complete one pilot to evaluate how utilization of weather, hydrology, and climate change information could better inform reservoir operations at one Reclamation reservoir by the end of FY 2015. Contingent on

available funding, additional pilots targeting reservoir systems with different geographic and administrative conditions will be initiated in FY 2015.

The U.S. Geological Survey provides hydrologic and remote sensing science supporting the WaterSMART program, and brings to bear a number of science and data resources, including long-term records quantifying climate-linked changes in hydrologic regime; present-day measurements of groundwater supplies necessary to increase resilience to drought; and a growing set of near-real-time applications of Landsat and other remotely sensed data to support water resources management by Reclamation, by states, and by individual water users such as growers. The National Water Census effort, a component of WaterSMART, is well underway and provides the critical data underpinning to the ability of water managers to make smart decisions. Contingent on available funds, the U.S. Geological Survey has proposed to better quantify changes in streamflow, precipitation, and groundwater availability under drought conditions, to link these findings with data on the impacts of drought on ecological systems, and to work through the Climate Science Centers to inform adaptive management plans focused on the ecological and wildlife implications of severe or sustained drought.

Tribal resources

Description: The Department has an important role for supporting tribes as they address climate change impacts. Core to the Department's mission is trust responsibility for resources, as well as providing technical support across a wide range of services. Tribes have traditional, cultural, and spiritual ties to the land and may also have treaty and subsistence rights and interests off the reservation, and as such natural resource impacts are a serious concern. Further, tribal governance and resource rights are tied to their lands, and tribes cannot easily migrate to follow traditional subsistence animals moving due to changing habitats.

Implemented and planned actions: The Department is investing in data, technical and training needs for land managers and is committed to incorporating tribal needs into that investment. The Department is also committed to respectfully and appropriately incorporating traditional ecological knowledge into the body of knowledge that will underpin adaptation management. The Department's bureaus bring different technical skills and resources that can assist tribes. The BIA will work with tribes and other agency's tribal liaisons to help identify specific needs and direct support.

BIA activities to address climate change can be broken into two categories: *policy* and guidance to address climate challenges with the BIA structure, and *support for tribes* and trust managers (including BIA managers) as they address climate change challenges, both on a government scale and within specific programs.

The BIA is committed to mainstreaming climate change considerations into all programs through policy, guidance, training and manager support. BIA regional leaders are committed to developing a Climate Action Plan to serve as a regional roadmap for activities needed to mainstream climate considerations in all programs. Given regional differences in impacts and tribal areas of concern, the BIA is taking a regional approach to identification of policy needs,

communication, employee training, and tribal focus areas. Once the regions have set priorities and timelines, national priorities will be identified and addressed.

The BIA provides both management and technical support for tribes. Starting in 2014, BIA plans to provide support for five tribal liaison positions located at Climate Science Centers. These positions would provide translational linkages between CSC scientists and tribal adaptation planners. Under self-determination, tribes can set their own management agendas and priorities. BIA or tribal managers then develop plans, objectives and management guidelines to reach those priorities. Given the crosscutting nature of climate change, the BIA Cooperative Landscape Conservations (Climate Change) program coordinates BIA climate change funding and technical support for tribes.

Species and habitat

Description: Climate change acts upon large landscapes and ecosystems and exacerbates the impact of other stressors such as habitat fragmentation or loss due to land use changes, invasive species, fish and wildlife disease, wildfire, floods, and drought. The lands and the species managed by the U.S. Fish and Wildlife Service (Service) and other bureaus within the Department are vulnerable to these ecological changes.

Accelerated climate change is impacting many species right now, and is contributing to changes in the character and functionality of habitats upon which species depend to breed, migrate, and over-winter. Climate change is affecting wildlife diseases, is facilitating the spread of detrimental invasive species, and is disrupting critical relationships between certain species and their food sources. As the climate changes, habitat areas for many species will likely expand while habitat available for other species will likely shrink or otherwise be altered. Species' distribution shifts can lead to a number of new challenges for state, tribal and federal natural resource managers, such as the arrival of new pests, the disruption of ecological communities, and the loss of species particularly valued by people from some areas.

Implemented and planned actions: Through its cooperative conservation programs, the Service works with many other entities to provide technical and financial assistance and outreach for habitat restoration efforts. Two such programs include the Partners for Fish and Wildlife Program and the Coastal Program. Each year, the Service completes more than 3,500 public-private partnership habitat restoration projects under these programs, which also help support local communities and create thousands of jobs each year. Habitat restoration can be an important strategy to address climate change vulnerabilities not only to resist ecosystem change, but also to establish ecosystems that are resilient in a changing climate, focusing on rehabilitation of ecosystem functions rather than necessarily restoring the original composition of species.

Beginning with the 2008 listing of the polar bear as a threatened species under the Endangered Species Act (ESA), the Service has routinely considered various aspects of climate change vulnerability in its assessments of the status of species. In addition, new and revised recovery plans for species already listed under the ESA also are considering the various components of climate change vulnerability of species and habitat, so that appropriate actions can be planned and implemented to help conserve these species.

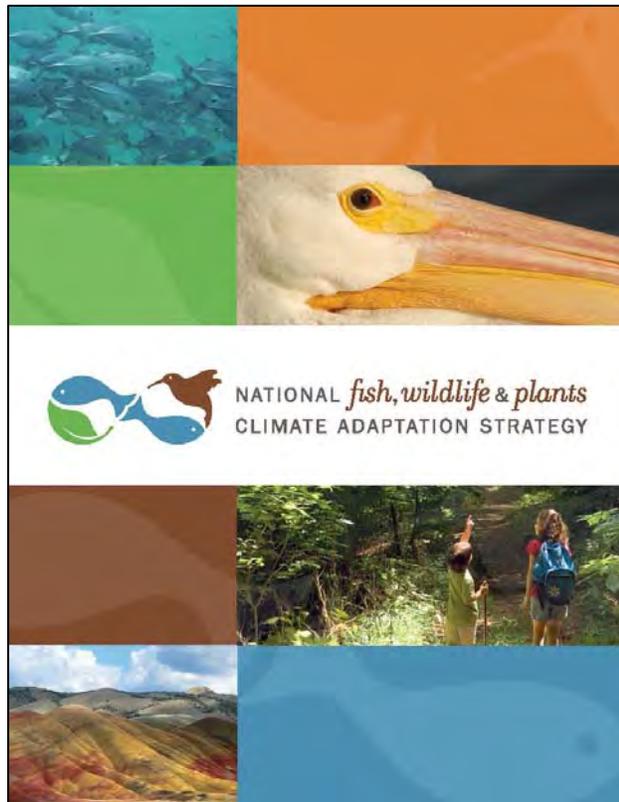
The Service has also made a major contribution to coordinated interagency efforts to support climate preparedness and resilience through its work to co-lead development of the *National Fish, Wildlife, and Plants Climate Adaptation Strategy* (Strategy).

The Strategy was published in 2013, and involved representatives from 15 federal agencies, ten states, and six tribal agencies. It is currently the only adaptation strategy in the United States that was developed collaboratively by all relevant levels of government. Many of the activities described in this Climate Adaptation Plan are called for in the Strategy.

In addition to these programmatic and regional efforts, the Service is continuing to lead, in partnership with NOAA and the state of California, the Joint Implementation Working Group (JIWG) formed to promote interagency implementation of the Strategy and report on implementation progress. The JIWG is composed of representatives from essentially the same federal, state and tribal organizations that worked together to produce the Strategy. Membership is voluntary. The first meeting of the JIWG was held in late November 2013, and its first report on Strategy implementation is expected by fall of 2014.

A robust inventory and monitoring program is also an important part of assessing Service vulnerabilities to climate change. The nationally-coordinated Refuge System Inventory and Monitoring (I&M) initiative works with partners to assess the status of refuge lands, waters, plants and animals, including recording the impacts of environmental stressors such as climate change. Every refuge is currently developing an I&M plan, selecting and documenting surveys and protocols, storing and managing data, and standardizing methodologies across stations.

Through Fish and Aquatic Conservation habitat restoration programs and Fish and Wildlife Conservation Offices, the Service works to remove aquatic barriers across the country. Not only does this provide habitat connectivity benefits for species impacted by climate change, but it

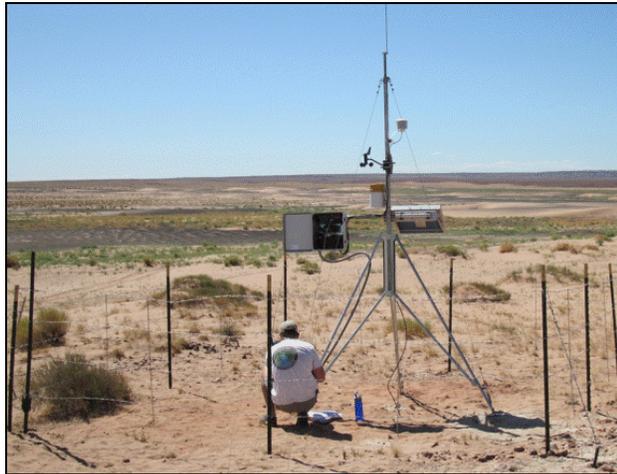


provides additional benefits to local communities by restoring natural function to riverine systems increasing their resiliency to flood events.

Under the national leadership of the Bureau of Land Management Plant Conservation Program, the interagency Native Plant Materials Development Program (NPMDP) has been working since 2001 to develop high quality seeds and seedlings of America's native plant species for restoration, rehabilitation, and reclamation. Ecoregional programs have been established to prioritize research and guide the development of restoration seed needed within each ecoregion. The goal of the program is to increase capacity with the federal agencies and private sector for ecologically appropriate native seed. The work of the NPMDP supports action 2.3.4 in the Strategy.

The Climate Science Centers provide a number of examples of the close coordination between science and management that is required to address the effects of climate on species and habitats. For example, the North Central Climate Science Center is coordinating science and decision support for the implementation of the Greater Yellowstone Coordinating Committee's Whitebark Pine Strategy. Whitebark pine is a keystone and candidate endangered species undergoing rapid die-offs under changing climate conditions. Partners in the development of the implementation plan include the Montana State University, University of Montana, U.S. Geological Survey Rocky Mountain Science Center, Great Northern Landscape Conservation Cooperation, National Park Service, GYCC & GYCC WBP Subcommittee (Bridger Teton National Forest, National Park Service, and Yellowstone National Park). Planned outcomes of the collaboration include: Ecosystem processes and whitebark pine habitat suitability are being forecast under future climate scenarios to 2100. Paleoclimate data will be used to quantify whitebark pine/climate relationships over the past 15,000 years and growth rates during extreme climate events over the past 800 years. Four management alternatives will be developed in a workshop using the North Central CSC's Resource for Advanced Modeling. These alternatives

U.S. Geological Survey Land Change Science Program



Automated Digital Imaging in Southwest U.S.

The Land Change Science (LCS) Program is focused on understanding the types, rates, causes, and consequences of land change. LCS scientists conduct studies of the land cover and disturbance histories of the United States and overseas areas to determine the reasons for and the impacts of land-surface change. They seek to answer questions such as “What kinds of changes are occurring and why?”, and “What are the impacts of these changes on the land for environment and society?” Recording any type of land change requires the characterization of land features at two or more times. However, a long-term, scientific perspective of land change requires continued, periodic monitoring of the land surface.

will be evaluated relative to whitebark pine viability and ecosystem function, costs of implementation, and public valuation of change in ecosystem services. Recommendations will be derived in a scenario planning workshop, and can be immediately acted upon by the Greater Yellowstone Area management community. The methods will be readily applicable to the several other tree species that are undergoing die-offs under changing climate.

Seeds of Success (SOS) is the national native seed collection program, also led by the Bureau of Land Management in partnership with a variety of federal agencies and non-federal organizations. As the first step of the NPMDDP, the SOS mission is to collect wildland native seed for research, development, germplasm conservation, and ecosystem restoration. To date, SOS partners have made of 16,000 collections of about 5,000 species of native plants from across the United States. As plant communities are altered by climate change, the seed and plant resources developed by these programs and used in restoration will be essential to support plants, animals, and sustain resilient ecosystems.

Coastal resources

Description: The Department manages, protects and provides access to significant ocean and coastal resources, including:

- 34 million acres in 84 marine and coastal National Parks,
- more than 35,000 miles of coastline,
- 180 marine and coastal National Wildlife Refuges,
- energy and mineral development on 1.7 billion underwater acres of the Outer Continental Shelf,
- nearly all federal land, and the majority of all land in the U.S. Arctic,
- hundreds of thousands of square miles in Marine National Monuments, and
- 1,100 miles of California coastline.

Significant climate impacts are expected for coastal areas, including sea level rise, more frequent and more intense coastal storms and flooding. According to the National Climate Assessment, coastal ecosystems are particularly vulnerable to climate change because many have already been dramatically altered by human stresses. Climate change will result in further reduction or loss of the services that these ecosystems provide, including potentially irreversible impacts.¹⁸

Implemented and planned actions: The Department's bureaus are actively implementing and planning actions to prepare their coastal resources for the impacts of climate change. For example, the U.S. Fish and Wildlife Service has conducted analyses of sea level rise vulnerability using the Sea Level Affecting Marshes Model (SLAMM) to project the effects of sea-level rise on coastal marshes and related habitats for all coastal Refuges, and is actively working to build resilience and help slow and offset habitat loss through a variety of habitat restoration and other projects. The National Park Service is designing criteria and guidance to promote a thorough analysis of facility location and design features in all coastal park units so that agency staff can make wise decisions regarding facility location, replacement, and construction designs. The Bureau of Ocean Energy Management's Marine Minerals Program, which provides sand for coastal restoration and resilience projects, is analyzing data, conducting

studies, and using tools such as Geospatial Information Systems (GIS) and the Multipurpose Marine Cadastre to manage risks associated with climate change. The U.S. Geological Survey is bringing a number of scientific resources to bear on the issue of coastal change, combining existing expertise with the opportunity to build on recent studies funded by the Hurricane Sandy supplemental. These U.S. Geological Survey resources include the Coastal and Marine Geology Program's work to develop improved forecasts and assessments of vulnerability of coastal lands and resources to future extreme storms and sea-level rise, the Land Change Science Program's developing studies on the impacts of coastal land use change on community risk and vulnerability to sea-level rise and storm surges, the Climate Science Centers' work to incorporate structured decision-making approaches that integrate the latest sea-level rise projections to refuge and other land managers, and a number of regional studies by the National Cooperative Geologic Mapping Program and the Climate Research and Development Program, focused on the geologic record of past sea level and past storms.

The Department has invested Hurricane Sandy Supplemental Funding to increase the resilience of its coastal resources as well as communities in the Hurricane Sandy-affected region to sea level rise and more frequent and intense extreme weather and will evaluate the impacts of these investments to inform federal, state, tribal and local decisionmakers into the future. The Department is engaged with several federal agencies and the five Gulf of Mexico states in a major restoration initiative that will protect coastal communities and their way of life as the climate changes. The Department is also working with federal partners on National Ocean Policy coordination to address coastal climate impacts.

Disaster response – Natural and Cultural Resources Recovery

Description: The Department is responsible for coordinating federal efforts of the Natural and Cultural Resources (NCR) Recovery Support Function (RSF) established by the Natural Disaster Recovery Framework (NDRF). Under this Framework, the NCR RSF helps FEMA assist local, State and Tribal authorities restore and recover natural and cultural resources that have been damaged by natural disasters, including those caused by

climate- or weather-related extreme events. The NCR RSF also helps reduce vulnerability of such resources to similar future events, were they to recur. The NCR RSF is one of six RSFs that may be mobilized in the wake of a natural disaster.



**Hurricane Katrina Impacts at
Big Branch National Wildlife Refuge, Louisiana**

The Department is conducting a review of NCR RSF activities in response to Superstorm Sandy. While the review recognizes numerous accomplishments, several opportunities for improvement were also noted. A robust program is an important component of National climate preparedness for protecting natural and cultural resources after catastrophic events.

Implemented and planned actions: Options for improving the NCR RSF include:

- Advanced planning prior to any disaster declaration, including assembling “Go-Teams” composed of qualified and trained individuals to staff and manage NCR RSF activities at JFOs and in headquarter and regional offices.
- Improvements in communications and information dissemination within JFOs, NCR RSF agencies, and among the various RSFs and partners.
- Development of inventories of affected natural and cultural resources, including their nature, locations, and extent of damage.
- Development of an exit strategy following demobilization or ramp-down of the JFO.
- Post-deployment follow-up to capture lessons learned, and ensure continuing improvement in NCR RSF performance.

Additional resources will likely be required to successfully implement the options above.

Considerations for Climate Adaptation and Resilience Improvements

The Department will continue to work with its bureaus and interagency partners to identify opportunities to improve climate adaptation and resilience. The Department is working to develop an approach for evaluating the costs and benefits of resilience improvements for agency suppliers, supply chain, real property investments, and capital equipment purchases such as updating agency policies for leasing, building upgrades, relocation of existing facilities and equipment, and construction of new facilities. The Department will continue to work with the General Services Administration (GSA) and other interagency partners to develop consistent approaches and guidelines for evaluating potential resilience improvements.

The Department of the Interior owns more than 42,000 buildings and 75,000 structures. The Department has established a Facilities/Infrastructure Climate Change Adaptation working group to assist bureau efforts to address vulnerabilities of mission critical and mission dependent buildings and structures to climate change.

In FY 2013, the Department of the Interior funded more than \$470,000,000 in actions made both directly and indirectly against GSA schedule contracts. The Department will partner with GSA to stratify these actions into mission critical and mission dependent actions to address vulnerabilities to climate change, as well as extreme weather incidents.

In FY 2013, the Department of the Interior occupied space provided by GSA in more than 300 locations. The Department will partner with GSA to address the vulnerabilities of these sites and facilities to incremental climate change and variability.

Interagency Coordination on Climate Preparedness and Planning

The Department and its bureaus are involved in numerous efforts to support climate preparedness and resilience at all levels of government, including collaborative work across agencies' regional offices and hubs, and through coordinated development of information, data, and tools. Examples of collaborative climate adaptation efforts with active Departmental involvement include:

- leading the Landscape Conservation Cooperatives (federal, state, tribal, and local governments along with First Nations, non-governmental organizations, universities, and interested public and private organizations);
- leading the Climate Science Centers (located at partner universities and are often comprised of multi-institution consortia, including other universities, tribal partners, and federal research labs);
- co-leading the Joint Implementation Working Group for the *National Fish, Wildlife, and Plants Climate Adaptation Strategy*;
- co-chairing the federal Interagency Adaptation Community of Practice;
- active multiple-bureau involvement in the Interagency Land Management Adaptation Group;
- involvement in the Interagency Climate Change and Ocean Acidification sub-group (National Ocean Policy implementation);
- co-chairing the U.S. Group on Earth Observations, which assesses and coordinates to support the Nation's critical Earth science data collection efforts, including the U.S. Geological Survey's Landsat satellites and streamgage network, among other Departmental programs, and works to enhance the availability and usability of data underpinning natural resource decisionmaking; and playing a leadership role in the U.S. delegation to the international Group on Earth Observations, which similarly coordinates to improve data collection and provision across national boundaries; and
- engaging youth in community resilience activities through interagency involvement in the 21st Century Conservation Service Corps.

IV. Modernizing Programs to Support Climate Resilience Investment

The Department is working with its bureaus to:

- identify and seek to remove or reform barriers that discourage investments or other actions to increase the Nation's resilience to climate change while ensuring continued protection of public health and the environment;
- to identify policies and federal funding programs that may, perhaps unintentionally, increase the vulnerability of natural or built systems, economic sectors, natural resources, or communities to climate change related risks; and
- identify opportunities to support and encourage smarter, more climate resilient investments by States, Tribes, and local communities, including by providing incentives through agency guidance, grants, technical assistance, performance measures, safety considerations, and other programs.

The Department's bureaus have completed initial reviews of programs and activities and have identified opportunities to modernize federal programs under their authorities. The Department continues to work with bureaus to ensure that the list of opportunities to improve climate resilience is comprehensive. The Department will also take into consideration the advice and recommendations of the Climate Preparedness and Resilience Council, the Council's four working groups, and the State, Local, and Tribal Leaders Task Force

The Department's bureaus identified the following as potential opportunities to improve the Nation's climate resilience. The initial action needed, timing, and additional resources required generally reflect the first level of action required to address the barrier.

Barriers to Climate Resilience Investments

Water rights for trust resources

- **Description:** The third National Climate Assessment projects an increased prevalence of drought in the Western United States due to climate change,¹⁹ which could reduce water availability for fish, wildlife and plant habitats. The lack of sufficient water supplies for trust resources is a potential barrier to climate resilience. Increased federal prioritization for the acquisition and protection of water rights for trust resources will likely be needed to ensure sufficient water supply.
- **Action:** Conduct review of legal, programmatic and policy considerations.
- **Timing:** Q4/FY2014, Q1/FY2015
- **Additional resources needed:** Undetermined

Streamlining land acquisition procedures

- **Description:** Climate change is projected to impact species habitat in a number of ways including range shifts, habitat fragmentation and spread of invasive species. Acquisition of new habitat –via fee simple or easement – will likely become an important tool for vulnerable species protection. Current land acquisition projects often require several years to complete from start to finish – years that may not be available for species in certain situations. New streamlined tools for land acquisitions under existing authorities would help improve climate resilience for vulnerable species.
- **Action:** Examine the Department's implementation of the Land and Water Conservation Fund and other land acquisition mechanisms to identify opportunities to develop streamlined procedures.
- **Timing:** Q4/FY2014, Q1/FY2015
- **Additional resources needed:** Undetermined

Facilitating pooling of resources across agencies for common needs

- **Description:** Many climate change adaptation actions addressing natural resource management will involve multiple federal agencies. While some tools currently exist for agencies to pool resources to address common needs, there are likely more that could be developed. Having better tools to pool resources across agencies for common climate adaptation needs would enhance the Department's ability to increase resilience.

- Action: Work with the Department’s bureaus and partner agencies to identify opportunities for pooling resources.
- Timing: FY2015
- Additional resources needed: Undetermined

Funding for proactive approaches to wildfire management such as prescribed fire and fuel treatments

- Description: The third National Climate Assessment projects increased wildland fire activity for areas in the Western United States due to increased drought.²⁰ Additional funding for proactive approaches to wildfire management could help manage wildland fire fuels and reduce the risk of catastrophic fires.
- Action: Work with the Office of Management and Budget and Congress to explore mechanisms to fund additional proactive wildland fire management activities.
- Timing: FY2015 and beyond.
- Additional resources needed: Undetermined



Prescribed Fire at Yosemite National Park

Lifting the SECURE Water Act Section 9504(a) Appropriations Ceiling:

- Description: Section 9504(a) of the SECURE Water Act is a critical tool for engaging stakeholders and creating incentives to address climate change adaptation strategies, and is the basis for important programs such as the Bureau of Reclamation’s WaterSMART Grants program; the Water Conservation Field Services Program; grants in California under the Bay-Delta Restoration Program (including both CALFED Water Use Efficiency Grants and Agricultural Water Conservation and Efficiency Projects implemented in coordination with the Natural Resources Conservation Service); including the grants highlighted in the President’s Climate Action Plan (Section II, “Protecting our Economy and Natural Resources”) as key to maintaining agricultural sustainability in the face of drought and long-term climate change. Section 9504 authorizes the appropriation of \$200 million to carry out cost-shared financial assistance. Reclamation’s current estimate is that sufficient ceiling remains for FY 2014, but is insufficient to support the full suite of activities proposed in the President’s FY 2015 Budget.
- Action: Congressional action is necessary to increase the appropriations ceiling.
- Timing: Immediate
- Additional resources needed: Undetermined

Implement science-based carbon management

- Description: The lands and waters managed by DOI and its partners could provide increased benefits for carbon storage, both globally by absorbing atmospheric carbon and locally by addressing soil and water quality issues, if appropriate carbon management strategies are employed. The U.S. Geological Survey has completed carbon assessments for the Lower 48 states; Alaska and Hawaii are in progress. The U.S. Geological Survey is currently working with the U.S. Fish and Wildlife Service and other partners to develop management-level decision tools to incorporate carbon management and carbon accounting into routine resource management actions, and to put climate change adaptation and mitigation actions into a single decision framework so as to decrease the likelihood of policies and management actions with contradictory effects.
- Action: Consider incorporating a formal policy requirement for DOI bureaus to incorporate carbon storage as an explicit element of resource management plans.
- Timing: Policy review to begin immediately. Implementation within one year.
- Additional resources needed: Undetermined

Support full implementation of Climate Science Centers

- Description: Climate Science Centers were designed to provide scientific information to support adaptation planning. Current funding levels are approximately half of planned levels, resulting in an inability to meet stakeholders' needs for both science and cross-partner consultation. The President's budget has requested substantial increases over the two most recent fiscal years, and early plans had called for contributions of staff or resources from other DOI bureaus. The July 2014 announcement of BIA's contribution of tribal staff to Climate Science Centers is a positive step toward the vision of Climate Science Centers supporting the science and decision-support needs of all of the Department's responsibilities.
- Action: Work with the Office of Management and Budget and Congress to increase the appropriations levels. Seek avenues to increase interactions with other bureaus, including by co-locating staff at Climate Science Centers.
- Timing: Immediate
- Additional resources needed: An annual budget of approximately \$50 million

Reform Policies and Programs that May Increase Climate Vulnerabilities

Reform Reclamation's Drought Program

- Description: Historically, earmarked funding and limitations in program authority have created an incentive to use Drought program funding for drilling wells, and a disincentive to use funding for contingency planning to identify a range of other drought mitigation actions that might be more effective in the long-term. Reclamation is in the process of reformulating this program to implement drought actions and comprehensive drought planning that incorporates climate change and involves collaboration by a broader range of stakeholders than in the past.
- Action: Broaden the Drought program from providing emergency support for wells, to identifying a suite of strategies and actions that will help mitigate the short-term impacts

of drought, and address the longer-term impacts of adapting to more severe and more frequent droughts.

- Timing: Immediate
- Additional resources needed: Undetermined

Reduce incentives for development in fire-prone areas

- Description: The third National Climate Assessment projects the prevalence of wildland fires to increase in the western United States while development in those areas is expected to expand.²¹ The recently issued National Cohesive Wildland Fire Management Strategy and accompanying Action Plan identifies collaborative actions for all levels of government and partners that can assist in creating fire-adapted communities.²²
- Action: Support the National Cohesive Wildland Fire Management Strategy and its collaborative actions. Conduct a review, with all appropriate stakeholders, of policies/procedures for fire prevention, suppression and disaster assistance payments.
- Timing: FY2015/FY2016
- Additional resources needed: Undetermined

Opportunities to Support and Encourage Smarter, More Climate Resilient Investments by States, Tribes, and Local Communities

WaterSMART Grants (Bureau of Reclamation)

- Description: Through the WaterSMART Grants, Reclamation provides cost-shared assistance on a competitive basis for water and energy efficiency improvements, including projects that save water, increase energy efficiency and the use of renewable energy in water management, address endangered species and facilitate transfers to new uses. Reclamation prioritizes WaterSMART Grant proposals that implement a climate adaptation strategy identified in a WaterSMART Basin Study or that explain other ways that the project would contribute to sustainability (e.g., addressing water shortages due to climate variability or addressing an issue that could potentially result in an interruption to the water supply).
- Action: Continue to make funding available for projects that contribute to climate resilience.
- Timing: FY2014
- Additional resources needed: Undetermined

CALFED Water Conservation Grants (Bureau of Reclamation)

- Description: CALFED is a combined State of California and Federal program focused on the restoration of the Sacramento-San Joaquin Delta's fragile ecosystem while improving water supply reliability for urban and agricultural water users.
- Action: Continue to make funding available for projects that improve water supply to better prepare for the impacts of climate change.
- Timing: FY2014
- Additional resources needed: Undetermined

Title XVI Water Reclamation and Reuse Program (Bureau of Reclamation)

- Description: Through the Title XVI Water Reclamation and Reuse Program, Reclamation provides funding for projects that reclaim and reuse municipal, industrial, domestic or agricultural wastewater and naturally impaired ground or surface waters. Water recycling through the Title XVI Program provides flexibility, helps to diversify the water supply, and reduces the pressure to transfer water from agricultural to urban uses. Reuse is often a drought-resistant supply, since sources such as treated municipal wastewater continue to be available during periods of water shortage. Reclamation prioritizes Title XVI projects that address water supply shortages due to climate variability.
- Action: Continue to make funding available for projects that contribute to climate resilience and explore opportunities to strengthen consideration of climate resilience in project planning.
- Timing: FY2014/FY2015
- Additional resources needed: Undetermined

Appalachian Regional Reforestation Initiative (Office of Surface Mining Reclamation and Enforcement)

- Description: A cooperative effort by the states of the Appalachian Region with the Office of Surface Mining to encourage restoration of high quality forests on reclaimed coalmines in the eastern USA. The Appalachian Regional Reforestation Initiative continues to focus on establishing productive forests on reclaimed mine lands to aid restoration of ecosystem services provided by forests – services such as watershed protection, water quality enhancement, carbon storage and native wildlife habitat.
- Action: Explore opportunities to expand climate resilience strategies.
- Timing: Q4/FY2014
- Additional resources needed: Undetermined

State Wildlife Grants Program (U.S. Fish and Wildlife Service)

- Description: The State Wildlife Grants Program provides federal grant funds for developing and implementing programs that benefit wildlife and their habitats, including species not hunted or fished. Priority is placed on projects that benefit species of greatest conservation need. Grant funds must be used to address conservation needs, such as research, surveys, species and habitat management, and monitoring, identified within a State's Comprehensive Wildlife Conservation Plan/Strategy. The Service has been working to integrate climate change into the competitive portion of this program to help incentivize adaptation planning at a variety of scales.
- Action: Explore opportunities to further integrate climate change adaptation into the Program, overall.
- Timing: Q4/FY2014
- Additional resources needed: Undetermined

Cooperative Landscape Conservation (Climate Change)

- Description: BIA created the Cooperative Landscape Conservations (Climate Change) Program to coordinate climate change funding and technical support for tribes. Support can be categorized into 6 areas: coordination; expanding climate knowledge and capacity; participating in the climate communities; developing science and tools; cultivating the

next generation of tribal climate experts; and enabling Tribes to prepare for climate resilience through direct support of tribal government adaptation planning, development of vulnerability assessments, supplemental monitoring, and identification and implementation of pilot projects.

- Action: Continue Program in FY2014.
- Timing: FY2014
- Additional resources needed: Undetermined

V. Conclusion

This climate change adaptation plan describes the Department of the Interior's ongoing and planned activities to address climate change by building resilience in natural and cultural resources and the communities that are impacted by the Department's management and operations. Climate change adaptation is a long-term endeavor requiring a scientific understanding of vulnerabilities and a sound, yet flexible, plan to address the impacts. The Department is committed to incorporating adaptation into planning and operations and looks forward to working with federal and nonfederal partners to improve understanding, develop effective tools, and identify and implement best practices.

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Acknowledgment

The 2014 Department of the Interior Climate Change Adaptation Plan was prepared by the Department's Office of Policy Analysis in collaboration with the Department's Climate Change Working Group. For questions about the Plan, contact Jonathan Steele by phone at 202-208-4839, or by email at Jonathan_Steele@ios.doi.gov.

FY 2014 FLEET MANAGEMENT PLAN AND BUDGET NARRATIVE

Developing a Fleet Management Plan is critical to an agency in defining and describing how the motor vehicle fleet serves their mission needs. A Fleet Management Plan maps out over a number of years a systematic approach to vehicle acquisition, use, maintenance, refueling, and replacement. This plan anticipates changes in mission, organization, and resulting vehicle demand. The plan must establish a strategy for achieving 100 percent compliance with mandates to acquire alternative fueled vehicles, utilize alternative fuels including bio-based fuels, acquire low greenhouse gas vehicles, and reduce petroleum. The plan must also define how vehicle selection is determined to advance sustainable acquisition, achieve maximum fuel efficiency, and limit motor vehicle body size, engine size and optional equipment to what is essential to meet the agency's mission. The plan should guide the programming of funds necessary to continue fleet operations.

This document provides the template for Executive Branch agencies to prepare and update Fleet Management Plans to obtain an optimal fleet inventory and document the steps being taken to operate those fleets most effectively and efficiently. Agency adherence to this guidance will ensure compliance with the May 24, 2011, Presidential Memorandum's requirement to develop a Fleet Management Plan to achieve optimal inventory targets, and incorporate it into the agency Annual Strategic Sustainability Performance Plan prepared in compliance with Executive Order 13514. It will also satisfy the instructions in OMB Circular A-11 entitled "Fleet Data Reporting in FAST" for a narrative section to explain and support inventory and cost data.

Instructions: Address each of the 12 areas listed below clearly and completely. Take as much space as needed. Please view this as your opportunity to tell your agency's story, to profile your agency's fleet operations, to explain its unique challenges, and to present its successes and failures. Read the introductory material carefully and address all of the questions. If something does not apply to your agency, say so; if the question misses something important that sheds light on your agency's fleet, add it. Be aware that not everyone reading your document may be a fleet expert so communicate clearly as if writing for the layman. You may leave the questions in place, or delete them once you have addressed each of the 12 areas.

**FY 2014 FLEET MANAGEMENT PLAN AND BUDGET NARRATIVE
FOR
(US Department of the Interior)**

(A) Introduction that describes the agency mission, organization, and overview of the role of the fleet in serving agency missions.

- (1) Briefly, what is the agency's primary/core mission and how is the fleet configured to support it?
- (2) Please describe the organizational structure and geographic dispersion of your fleet.
- (3) What are the ancillary missions, such as administrative functions, and how are they supported?
- (4) How are vehicles primarily used, and how do mission requirements translate into the need for particular vehicle quantities and types?

The Department of the Interior uses its motor vehicle fleet to accomplish its diverse mission, often in remote locations throughout the country. DOI currently manages approximately 70,000 employees and 280,000 volunteers and owns and operates approximately 46,400 buildings, 106,300 structures, and approximately 32,000 vehicles at 2,400 locations in over one-half billion acres across the United States, Puerto Rico, and U.S. Territories.

The Department's fleet management program provides support to the management of over 32,000 fleet motor vehicles nationwide, including nearly 8,000 alternative fueled vehicles and over 1,100 hybrid vehicles. The DOI's fleet serves a vital supporting role in DOI mission accomplishment. Vehicles are used by Interior employees and authorized volunteers to support multiple mission activities, many in remote areas. The vehicles are used to support and transport Agency staff, scientific and mission-related equipment, law enforcement, emergency response, maintenance, and off-road and on-road collection of scientific data. Some vehicles use haul trailers and carry heavy loads of specialized equipment.

Due to the nature of DOI mission requirements, rugged terrain and remote locations, the DOI fleet has and continues to mainly consist of light and medium-duty trucks, vans and sport-utility vehicles (approximately 81 percent). Approximately 11 percent of the DOI fleet are heavy-duty trucks over 16,000 lbs. Light-duty passenger sedans account for the remaining 8 percent of the DOI fleet. DOI has passenger buses, used to transport school children and park/refuge/recreation site visitors. Due to these usages, DOI owns approximately 72 percent of its vehicles. Many vehicles DOI uses in its operations are more economical and available as owned vehicles rather than GSA-leased. GSA-leased vehicles play a vital role in the composition of the DOI fleet, when the right size and type vehicle are available. DOI bureau/offices conduct cost analysis prior to making purchase versus lease decisions. Vehicles are purchased from the most cost effective source. If there is a need for a commercial leased vehicle, it is only due to the vehicle, or a comparable substitute, not being provided by GSA Automotive or Fleet.

In some locations, government vehicles are provided to support service contractors. The average operational location has fewer than 10 employees, several of whom are

out in the field each day, using a government vehicle to get from their office to their work site. Interior manages its diverse fleet with guidance, policy, and oversight provided at the Department level. DOI has established a portfolio management approach to operating the motor fleet program.

(B) Criteria for justifying and assigning vehicles (including home-to-work vehicle assignments).

- (1) What are the factors and considerations used for assigning vehicles?
- (2) Are vehicles assigned to individuals, offices, job classifications?
- (3) What alternatives are considered to meet mission requirements before adding a vehicle or vehicles to the fleet?
- (4) How are home-to-work vehicles justified, assigned, and what steps are taken to limit HTW use?

In the Strategic Sustainability Performance Plan (SSPP) and in the vehicle allocation methodology (VAM) analysis, the Department requires that all vehicles be tied to specific agency/bureau mission. The Bureaus justify each vehicle in accordance with its mission requirements. Each Bureau is required to develop, implement, and update its Bureau-level Fleet Management Plan to improve efficiencies and effectiveness in their respective fleet programs. Bureaus must complete a vehicle justification document detailing the need for the vehicle and how the vehicle will fulfill specific mission requirements. These needs must be determined prior to the acquisition of a new or additional vehicle. DOI has also developed a Lease vs. Purchase analysis that is available to Bureau to assist with the decision process. Adjustments to the DOI/Bureau fleet size and composition are made according to this analysis. Adjustments are recorded in this DOI Fleet Management Plan, Bureau fleet management plans, SSPP, and VAM.

The Secretary on a limited basis only approves home- to-work authorizations. The approval process goes through many management chains, including the Assistant Secretary for Policy, Management and Budget and the Solicitor's Office prior to being presented for Secretarial approval. Employees are encouraged to use means other than Home-to-Work to accomplish mission requirement.

(C) Vehicle Allocation Methodology (VAM) target development and explanation for reported fleet size and cost changes or not meeting agency VAM targets.

(1) Provide information on the methods used to produce your agency's VAM targets. (Recommendation #2 from GAO report: GAO-13-659. See FMR Bulletin B-30 for guidance on conducting a VAM study and developing VAM targets)

- (a) From your most recent VAM study, what was the specific utilization criteria used to determine whether to retain or dispose of a vehicle? Provide the miles, hours, vehicle age or other means used to make this determination. If a different criterion was used in different bureaus or program areas, provide the criteria for each.
- (b) From your most recent VAM study, what were the questions used to conduct the VAM survey? If different questions were used in different bureaus or program areas, provide the questions for each.

(2) Provide an explanation for any measurable change in fleet size and/or cost or if you are not meeting your annual VAM targets. What are the plans to correct any deficiencies, and indicate factors that hinder attainment of your annual VAM targets (e.g., budgetary, other resource issues, mission changes, etc.)?

DOI has improved its fleet management program review over the past decade, and specifically during these VAM reporting cycles. Bureaus have reduced its fleet vehicle size during these reporting cycles. The performance measures DOI implemented have realized a marked increase in the size and efficiency of the fleet. DOI has also had the ability to strategically place vehicles in locations where they will be most efficient and effective. DOI is trending towards attaining its optimal fleet size by the end of FY 2015. With further reductions in vehicles and increased efficiencies, DOI will attempt to realize further costs savings with regards to the fleet management program in future reporting cycles.

DOI will eliminate vehicles between the FY11 baseline and the end of FY15. DOI will monitor Bureau fleets, future acquisitions, and disposals to meet the goals we have identified through the VAM analysis.

DOI will use this information for acquisition planning, making decisions for vehicle replacement process based on funding or current vehicle conditions. Some Bureaus identified no reductions or increases in fleet size due to increased mission requirements, including new parks and refugees, and new employees. DOI will realize overall reductions and costs savings by offsetting any Bureau increases with Bureau reductions in other areas.

(D) Description of efforts to control fleet size and cost.

- (1) How and why have the size, composition, and cost of your agency's fleet changed, and how are they projected to change in the future?
- (2) Does the agency ever acquire vehicles from other than the most cost-effective source and, if so, explain why?
- (3) Discuss any trends toward larger, less fuel-efficient vehicles and the justifications for such moves.
- (4) Discuss the basis used for your reported future cost projections (published inflation estimates, historical trends, flat across-the-board percentage increases, mission changes, etc.)

The size of the DOI fleet has decreased as a result of the VAM analysis. This annual snap-shot into the DOI fleet has given the Agency a method to reflect on the size and composition of the fleet, look at historical trends in a manner where DOI can make adjustment to the fleet in future years, and allowed DOI the ability to target areas of inefficiency. The VAM process has resulted in DOI setting a goal of a 5 percent reduction in the fleet size over the analysis period.

The first two cycles of the analysis afforded DOI the opportunity to see directly where we could make improvements in the efficiency and effectiveness of the fleet, while setting the parameters for "right-sizing" the fleet in future years. DOI realized significant reduction in our fleet size in FY 2013. This directly correlates to the implementation of past performance measures designed to achieve DOI's fleet optimization level.

DOI policy states that Bureaus must acquire the smallest, most efficient vehicle, which will meet mission requirements. As stated previously due to the nature of the DOI mission and the locales where DOI operates vehicles, DOI's fleet mainly consists of light, medium and heavy-duty truck. These vehicles do not have the efficiency of smaller passenger vehicles. The justification for the composition of the fleet can be

seen on the terrain and locations where DOI manages. DOI will only acquire a larger, less-efficient vehicle if the smaller option is not a viable option due to mission requirements.

The costs estimates provided during this cycles are largely estimates based on the best knowledge fleet managers have at this time. DOI anticipates more accurate estimates may be provided during the normal budget submission timeframe at the end of the end. DOI Bureaus and Offices are still in the formulation stages for the FY2016 budget.

(E) Explanation of how law enforcement vehicles are categorized within the agency (See FMR Bulletin B-33).

- (1) Does your agency use the law enforcement (LE) vehicle classification system described in GSA Bulletin FMR B-33?
- (2) Does your agency exempt only Level 1 LE vehicles from Energy Policy Act and VAM reporting?
- (3) If your agency does not use the LE vehicle classification system, explain how LE vehicles are categorized and which are exempted from Energy Policy Act and VAM requirements.

DOI does not exempt any vehicles from VAM analysis, including vehicles used for law enforcement purposes.

(F) Justification for restricted vehicles.

- (1) If your agency uses larger than class III (midsize) vehicles, is the justification for each one documented?
- (2) Are executive fleet vehicles posted on your agency's website as required by the Presidential Memorandum of May 2011?
- (3) If your agency reports limousines in its inventory, do they comply with the definition in GSA Bulletin FMR B-29?
- (4) For armored vehicles, do you use the ballistic resistance classification system of National Institute of Justice (NIJ) Standard 0108.01, and restrict armor to the defined types?
- (5) Are armored vehicles authorized by appropriation?

DOI has identified two (2) executive vehicles in the fleet, which are posted on the DOI website. These vehicles are used solely for the Secretary and Deputy Secretary. Interior does not have limousines in the fleet. Any "large" vehicles are used for law enforcement purposes. Most Bureaus do not have vehicles larger than the Class III (midsize) vehicle. DOI has no armored vehicles, but has identified cost for vehicle reinforcement and retrofitting to enable the vehicle to sustain in rough terrain.

(G) Description of vehicle replacement strategy and results.

- (1) Describe the schedule the agency will follow to achieve its optimal fleet inventory, including plans for acquiring all light duty Alternative Fueled Vehicles (AFVs) by December 31, 2015.
- (2) Describe agency plans and schedules for locating AFVs in proximity to AFV fueling stations.
- (3) What is the agency's approach in areas where alternative fuels are not available?
- (4) Are AFVs that are not dependent on infrastructure, such as electric vehicles and qualifying low greenhouse gas (LGHG) vehicles, being placed in such areas?
- (5) Describe the agency's vehicle sourcing decision(s) for purchasing/owning vehicles compared with leasing vehicles through GSA Fleet or commercially. When comparing cost of owned vehicles to leased vehicles, compare all direct and indirect costs projected for the lifecycle of owned vehicles to the total lease costs over an identical lifecycle. Include a rationale for acquiring vehicles from other than the most cost effective source.

Bureaus implement best practices to ensure the fleet is operating at the most efficient level. Each Bureau has developed a motor vehicle baseline to ensure that vehicle size is kept at a minimum. Interior has developed vehicle useful life tables to best determine the age composition of the fleet. The Department assisted Bureaus with developing vehicle replacement strategies to optimize the size and efficiency of the fleet. Replacement strategies and guidelines are included in Bureau fleet management plans. During this cycle of the VAM process, DOI has begun to realize the benefits of the groundwork developed in the first two VAM cycles. DOI reduced the size of its fleet by 5 percent between FY2012 and FY 2013. This reduction is the result of DOI implementing the methodology and working closely with the Bureaus to work towards reductions.

DOI and its Bureaus will further develop strategic plans in conjunction with DOI and Bureau specific fleet management plans, which will address the acquisition, placement and reallocation of vehicles in the Bureau.

Bureaus have identified measures in their fleet management plans to realize the requirement to purchase 100 percent AFVs for light-duty operations beginning in January 2016. DOI has also identified the following measures to ensure fleet efficiency:

- Identify fleet reductions in excess of 5 percent by the end of FY15
- DOI monitors Bureau vehicle acquisition, and works closely with GSA to place vehicles in locations where the alternative fuel is available
 - DOI assist with identifying alternative fueling stations in area at time of the vehicle purchase in Auto Choice
 - Placing vehicles in close proximity of areas with AFV fuel station(s)
- Bureaus opt to purchase and modify vehicles over leasing in most cases when vehicles need specialized equipment
 - Fleet vehicles not needing specialized equipment are leased from GSA
- DOI is partnering with GSA to conduct a study to assist with determining optimal fleet size, composition for one of DOI largest Bureau fleets
 - This study will assist with determining Lease vs. Purchase criteria, and help to right-size the fleet
- DOI Fleet manager collaborates with the bureau office/headquarters on fleet vehicle purchases.
- Install alternative fuel station in locations where there are concentrations of AFVs
- DOI uses the Department of Energy Dashboard to assist with the decision making process of efficiency, placement, and to determine which vehicles to acquire

DOI has implemented measures to increase the use of alternative fuels. Although the infrastructure for alternative fuels is limited, DOI has and will continue to use alternative fuels wherever possible. Specifically, DOI has/ will implement strategies to increase alternative fuel use. As the Agency of the environment, DOI is dedicated to acquiring alternative fuel vehicles and promoting the use of alternative fuels. DOI has nearly 8,000 AFVs in its fleet. DOI has also met or exceeded the alternative fuel consumption goal for the past seven reporting years. DOI acknowledges that reaching this goal for an eight year will be extremely challenging due to the constraints on alternative fuel infrastructure. In order to mitigate the uncertain of achieving this goal in future years, DOI will continue to implement the current strategy of working with GSA, DOE and forming other public and private partnerships to assist with the placement of AFVs in locations where the alternative fuel is available.

DOI constantly shares information with its bureaus regarding the locations for alternative fuel stations. DOI will redouble its efforts to partner with the DOE to use the fleet optimization tool and the fleet Dashboard to make more strategic placements for alternative fuel vehicles. DOI checks vehicle orders to ensure they meet GHG requirements, and place the most fuel-efficient vehicle. DOI also commits to:

- Update and implement the AFV acquisition plan annually, or as needed
- Request additional funding to increase the infrastructure for alternative fueling stations at DOI fueling sites

Develop public and private partnerships to increase the availability and use of alternative fuel and fueling stations

As stated above, due to the nature of DOI mission requirements, rugged terrain and remote locations, the DOI fleet has and continues to mainly consist of light and medium-duty trucks, vans and sport-utility vehicles (approximately 81 percent). Approximately 11 percent of the DOI fleet are heavy-duty trucks over 16,000 lbs. Light-duty passenger sedans account for the remaining 8 percent of the DOI fleet. DOI has passenger buses, used to transport school children and park/refuge/recreation site visitors. Due to these usages, DOI owns approximately 72 percent of its vehicles. Many vehicles DOI uses in its operations are more economical and available as owned vehicles rather than GSA-leased.

Many vehicles DOI uses in its operations are more economical and available as owned vehicles rather than GSA-leased. GSA-leased vehicles play a vital role in the composition of the DOI fleet, when the right size and type vehicle are available. DOI bureau/offices conduct cost analysis prior to making purchase versus lease decisions. Vehicles are purchased from the most cost effective source. If there is a need for a commercial leased vehicle, it is only due to the vehicle, or a comparable substitute, not being provided by GSA Automotive or Fleet.

(H) Description of the agency-wide Vehicle Management Information System (See FMR 102-34.340)

Appendix 3

- (1) Is there a vehicle management information system (MIS) at the Department or Agency level that:
 - (a) Identifies and collects accurate inventory, cost, and use data that covers the complete lifecycle of each motor vehicle (acquisition, operation, maintenance, and disposal); and
 - (b) Provides the information necessary to satisfy both internal and external reporting requirements, including:
 - Cost per mile;
 - Fuel costs for each motor vehicle; and
 - Data required for FAST reporting (see FMR 102-34.355.)
- (2) If the agency does not have such a system, what is being used to capture vehicle information, or is there no MIS at all?
- (3) If there is no MIS, what obstacles are preventing implementation and compliance with §102-34.340, "Do we need a fleet management information system?"

The Department-wide Financial and Business Management System (FBMS) is DOI's Fleet Management Information System. The system is fully deployed Department-wide. The system has the capability to complete all the required reporting elements detailed in FMR 102-34.340.

(I) Plans to increase the use of vehicle sharing.

- (1) Describe efforts to share vehicles internally or with other Federal activities.
- (2) Describe pooling, car sharing, and shuttle bus consolidation initiatives.
- (3) Describe efforts to reduce vehicles assigned to a single person.

Many DOI bureaus share vehicles between offices in the same geographic locations. Bureaus also share fleet vehicles between offices and districts in most states, whenever possible. In Washington, DC, DOI shares shuttle bus service both inter and intra-Agency for locations in the Washington, DC area. DOI will increase the use of vehicle sharing, nation-wide, whenever feasible. DOI is interested in partnering with Federal, state, local governments to increase the use of vehicle sharing and shuttle bus program expansion. DOI has two vehicles that are assigned to a single person(s); the vehicles are provided for the Secretary and the Deputy Secretary.

(J) Impediments to optimal fleet management.

- (1) What obstacles does the agency face in optimizing its fleet?
- (2) In what ways is it hard to make the fleet what it should be, operating at maximum efficiency?
- (3) If additional resources are needed, have they been documented and requested?
- (4) Do you feel hampered by specific laws, Executive Orders, GSA's government-wide regulations or internal agency regulations, budget issues, or organizational obstacles? What exactly are they and how do they constrain you? Be specific and include examples. If you have a solution, describe it and indicate whether we can share the solution with other agencies as a potential best practice.

Interior has a decentralized fleet operation. The improvement plan calls for the Department to centralize more fleet function for improve efficiency, reporting and accountability. Consolidating the fleet program into a more central operation is a significant cultural and fundamental change to normal business practices. The rising costs of fuel, vehicles, and the maintenance costs to maintain the fleet continue to rise with diminishing budgets.

The remote nature of fieldwork poses challenges to fleet management. Many Bureaus have seasonal missions, with the majority of work done during summer months and vehicle usages are determined by seasonal and climate changes making it difficult to maintain vehicle balances. Consequently, DOI will have more vehicles in the inventory on September 30 than in February when the VAM analysis is conducted.

Alternative fueling infrastructure continues to be the primary reason for the lack of use of alternative fuels. Alternative fuel vehicles (AFV) fueling stations are often not available in remote and rural areas making AFV purchases difficult. The exponential increase in the alternative fuel consumption goal has been particularly challenging. The alternative fuel infrastructure is not adequate to continue to meet mandates.

When fleet initiatives are implemented, they are skewed towards making federally owned sedan more efficient. For instance, the recent initiative by GSA to swap out an owned vehicle for a GSA leased one would have been more beneficial to DOI if there was a SUV or small truck available. The universe of inefficient DOI sedans is relatively small compared to the opportunities to make a real difference if there were other options available. Lastly, the growing number of DOI employees and the increase in mission requirements makes it challenging to realize further reduction in the fleet management program.

(K) Anomalies and possible errors.

- (1) Explain any real or apparent problems with agency data reported FAST.
- (2) Discuss any data fields highlighted by FAST as possible errors that you chose to override rather than correct. Examples would be extremely high annual operating costs or an abnormal change in inventory that FAST considers outside the normal range, or erroneous data in prior years causing an apparent discrepancy in the current year.
- (3) Any flagged, highlighted, or unusual-appearing data within FAST should be explained.

The timing of this report created significant challenges for DOI. The traditional timeframe for the A-11 submission give sufficient to time for the appropriate fleet/program managers, departmental and bureaus budget officers, and senior level management to review the data and to provide solid request for funding expenditures and projections. Many of the budget forecasts may need to be amended during the normal A-11 budget cycle in July/August.

The trends for DOI vehicles reported in the FAST system are on the upward trend on out-years. This error will be corrected in the FY2014 FAST submission.

Any other budget related errors will be corrected in the July/August submission.

(L) Summary and contact information.

Who should be contacted with questions about the agency fleet? Provide the name and contact information for the agency headquarters fleet manager and the budget office reviewing official. Indicate whether the budget officer participated in the VAM and A-11 processes.

Appendix 3

Each bureau submitted explanatory narratives to the DOI fleet manager to better define their fleet management program. In the FY 2005 FAST reporting cycle, the Department required each Bureau complete the bulk data upload for their GSA-leased vehicles.

In the Exhibit 33, the Bureaus are reporting their GSA-leased vehicles. Consequently, historical data in FAST may not be accurate. Each year, the reporting data improves and errors in reporting are held at a minimum. Even with improved reporting, historical reporting errors may linger in this report. Bureau reporting continues to improve with each report.

There are also errors relating to the calculation of depreciated costs. Some Bureaus included depreciated costs into their overall fleet management program costs. Again this year, there are a number of new Bureau level fleet managers reporting this information for the first year. As in prior years, DOI request training in the future to ensure data reported can be more accurate. Budget officials in DOI are vital to the VAM and A-11 process.

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**Department of the Interior Addendum to the 2014 Strategic Sustainability Performance Plan:
Responding to the President's Memorandum on Promotion of Biobased Markets**

On February 21, 2012, President Obama signed a Memorandum, *Driving Innovation and Creating Jobs in Rural America through Biobased and Sustainable Product Procurement*. The memorandum requires all federal agencies to undertake a number of activities to increase their purchase of biobased products. The Department of the Interior is moving aggressively to implement the Presidential Memorandum requirements.

Accomplishments to date include:

- Live Webinar biobased training is offered quarterly to contracting personnel, charge card holders and program managers in FY 2014 and will be offered again throughout FY 2015. Live training is also offered on demand to bureaus for groups or teleconferences. Training is based on that offered at www.biopreferred.gov, while also emphasizing DOI specific opportunities to include biobased as well as a special emphasis on FPDS-NG and proper coding of element 8L.
- Including biobased clauses and requirements in all janitorial and construction contracts Department-wide.
- Biobased firearm cleaners are being adopted for use DOI wide.

FY 2014/FY 2015 Target/Compliance Goal:

- The goal for FY 2014 was set at 21%. DOI plans to continue to expand the goal in FY 2015 by increasing purchases to 25%. One area of concern is that DOI purchases many biobased products via the charge card due to the nature of the items being purchased. Although some portions of DOI manually log all charge card purchases, we mainly rely on J P Morgan for our charge card data which does not fully reflect biobased purchases.

Strategies for Improving Compliance:

The Department of the Interior strategy for improving compliance--full incorporation of requirements and clauses for biobased products in relevant and appropriate contracts and follow on activities to ensure compliance is achieved--includes the following elements:

- Department of the Interior will generate and disseminate agency level reports on biobased compliance using data from newly created biobased reporting elements in the Federal Procurement Data System--Next Generation.
- Biobased training is offered during each quarter of FY 2014. The live webinar biobased training will be offered to contracting personnel, charge card holders and program managers. Training is based on that offered at www.biopreferred.gov, while also emphasizing DOI specific opportunities to include biobased as well as a special emphasis on FPDS-NG and proper coding of element 8L.

Required Specification Reviews : The Department of the Interior is unaware of any agency specifications that the agency sets or has control of.