

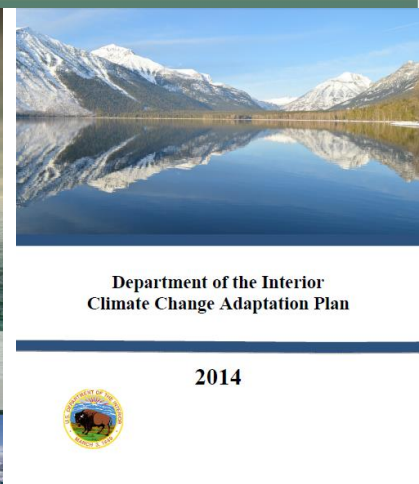
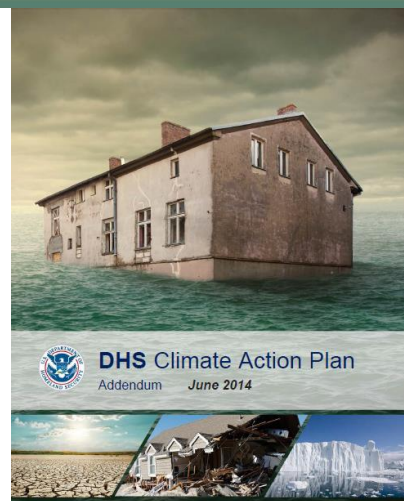
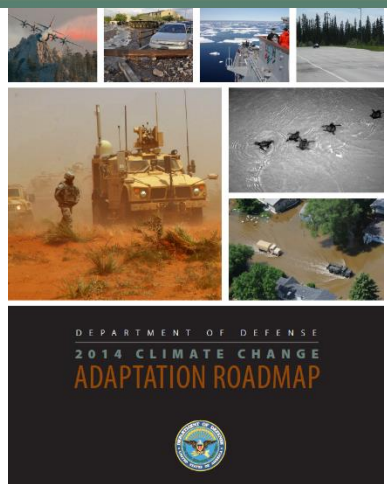
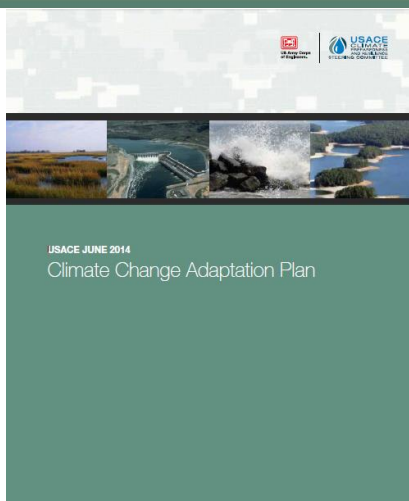


# COMPARISON OF 2014 ADAPTATION PLANS

Report providing comparison of adaptation plans  
submitted to the White House in 2014

Hannah Conners, Kathleen D. White, Jeffrey R. Arnold

June 2015



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## **COMPARISON OF 2014 ADAPTATION PLANS**

### **REPORT PROVIDING COMPARISON OF ADAPTATION PLANS SUBMITTED TO THE WHITE HOUSE IN 2014**

June 10, 2015

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## Preface

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The release of the President's Climate Action Plan (PCAP) in June 2013, and Executive Order (EO) 13653, *Preparing the United States for the Impacts of Climate Change*, in November 2013, brought with them new requirements for agencies to improve climate change preparedness and resilience. Among these are requirements to engage in partnering and information sharing to improve the efficiency and effectiveness of adaptation planning and implementation. This comparison of 2014 Adaptation Plans was undertaken to provide USACE staff with information about other agency climate preparedness and resilience actions to facilitate partnering and information sharing, identify actions taken by agencies with aligned missions and operations that could be useful to us, and support a gap analysis to guide future actions. It is not intended to be a comprehensive comparison, rather an information resource to combine with other more detailed data. This report has two components: a compilation of individual agency adaptation plan highlights and a crosswalk between the USACE 2014 Adaptation Plan and the 37 other Adaptation Plans submitted in 2014.

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## List of Acronyms

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AMC	Amplitude Modulation Companding
APHIS	Animal and Plant Health Inspection Service
ASPR	Assistant Secretary for Preparedness and Response
BBG	Broadcasting Board of Governors
CC	Climate Change
CCWG	Climate Change Working Group
CDC	Centers for Disease Control and Prevention
CEQ	Council on Environmental Quality
CFTC	Commodity Futures Trading Commission
COOP	Continuity of Operations
DHS	Department of Homeland Security
DoD	Department of Defense
DOE	Department of Energy
DOI	Department of the Interior
DOJ	Department of Justice
DOL	Department of Labor
DOS	Department of State
DOT	Department of Transportation
ECB	Engineering Construction Bulletin
EM	Engineer Manual
EPA	Environmental Protection Agency
ERDC	Engineering Research and Development
FEMA	Federal Emergency Management
FTC	Federal Trade Commission
GSA	General Services Administration
HAISS	Healthcare-Associated Infections and Influenza Surveillance System
HHS	Health and Human Services
HUD	Department of Housing and Urban Development
HVAC	Heating, Ventilation, and Air Conditioning
IT	Information Technology
IWG	Interagency Working Group
LEED	Leadership in Environmental Design
LIHEAP	Low Income Home Energy Assistance Program
MOU	Memorandum of Understanding
NARA	National Archives and Records Administration
NASA	National Aeronautics and Space Administration
NCA	National Climate Assessment
NCEZID	National Center for Emerging and Zoonotic Infectious Diseases
NCPC	National Crime Prevention Council
NCR RSF	Natural and Cultural Resources Recovery Support Function
NEF	National Essential Functions
NIEHS	National Institute of Environmental Health Services

NIH	National Institute of Health
NIOSH	National Institute for Occupational Safety and Health
OMB	Office of Management and Budget
OPM	Office of Personnel Management
OSHA	Occupational Safety and Health Administration
SBA	Small Business Administration
SERDP	Strategic Environmental Research and Development Program
SLC	Sea Level Change
SLR	Sea Level Rise
SSP	Site Sustainability Plans
TVA	Tennessee Valley Authority
USACE	US Army Corps of Engineers
USDA	US Department of Agriculture
USGCRP	US Global Change Research Program
USPS	United States Postal Service
VISTA	Volunteers in Service to America
WG	Working Group

## Introduction

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The release of the President's Climate Action Plan (PCAP) in June 2013, and Executive Order (EO) 13653, *Preparing the United States for the Impacts of Climate Change*, in November 2013, brought with them new requirements for agency reporting on activities supporting climate change preparedness and resilience. These new requirements are contained in the 1 December 2013, *Guidance on Preparing Federal Agency Climate Change Adaptation Plans provided by Council on Environmental Quality (CEQ) In Accordance with Executive Order 13653*.

The PCAP reinforces previous actions to conserve energy and reduce the greenhouse gas emissions that drive anthropogenic climate change (climate change mitigation), acknowledges that we must prepare for adverse impacts of climate change (climate change adaptation), and stresses international leadership and collaboration for both mitigation and adaptation plans and actions. The PCAP notes that climate change is causing some aspects of weather to become more extreme, and this trend can be expected to continue into the future as climate continues to change. The economic and public health consequences of these climate-forced extremes require us to act now. Therefore, the highest priority in the PCAP is to prepare for the impacts of climate change by building stronger and more resilient communities and protecting natural resources based on sound science.

EO 13653 supplements EO 13514 *Federal Leadership in Environmental, Energy, and Economic Performance*, which has since been revoked by EO 13693, *Federal Leadership in Greenhouse Gas Reductions*. EO 13653 contains very specific language, goals, and objectives to prepare the Nation for the impacts of climate change by undertaking actions to enhance climate preparedness and resilience. EO 13653 requires agency policy to engage in partnering and information sharing, support risk-informed decision-making and associated tools, incorporate adaptive learning so that experience informs and guides adjustments to future actions, and undertake climate preparedness planning. In doing so, agencies are to modernize federal programs to support climate resilient investment and manage lands and waters for climate preparedness and resilience. Specific requirements for agency Adaptation Plans are described. A State, Local, and Tribal Leaders Task Force was convened to make recommendations to improve climate preparedness and resilience for states, local communities, and tribes.

This comparison of 2014 Adaptation Plans submitted to the CEQ and the Office of Management and Budget (OMB) was undertaken to provide USACE staff with information about other agency climate preparedness and resilience actions to facilitate partnering and information sharing required under EO 13653. This information also allows us to identify actions taken by agencies with aligned missions and operations that could be useful as we continue to make progress. This comparison also supports a gap analysis to guide us as we expand our efforts beyond immediate needs identified through our earlier high-level vulnerability assessments. This report has two components: a compilation of individual agency adaptation plan highlights and a crosswalk between the USACE Adaptation Plan and the 37 other adaptation plans submitted to CEQ and OMB<sup>1</sup>. The crosswalk is categorized by the major components of the PCAP. We also identified agency points of contact (Appendix A) and listed agency needs (Appendix B) to help better focus our own future collaborative activities. Additional topics of interest that are addressed in more detail are resilience (Appendix C), adaptation activities underway in the Arctic (Appendix D), interagency efforts (Appendix E), and references to Hurricane Sandy (Appendix F). Note that some agencies included sustainability and energy topics (e.g., climate change mitigation, see EO 13693) efforts in their adaptation plans.

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<sup>1</sup> Plans are available at <http://www.globalchange.gov/browse/federal-adaptation-resources>



## Section 1: Individual 2014 Adaptation Plan Highlights

The meaningful collaboration and information sharing required by EO 13653 requires that we have reasonable knowledge of the significant actions being undertaken by other agencies. We analyzed each of the thirty-seven adaptation plans submitted to CEQ and OMB in 2014 to identify significant actions being taken by other agencies. Section 1 of this report focuses on highlights for the thirty-seven different adaptation plans submitted, in alphabetical order, as shown in the table below. Each highlight provides a page number where the highlight was mentioned in the particular agency plan. All page numbers listed reflect the page number displayed in the white box of the .pdf document, or the page number referred to as page #/## within the .pdf document, not necessarily the page number at the bottom of each page within the Adaptation Plan. Some listings also include information about the plan and lists department of agency components. This section focuses on actions that are:

- **Current** – Future or proposed adaptation actions are not listed in this section, though Appendix B contains a list of identified agency needs.
- **Specific** – General approaches such as establishing communities of practice, educating employees on climate change, conducting risk and vulnerability assessments, forming internal working groups, joining interagency working groups, and supporting pilot studies are not the focus of this “Highlights” section.

### U.S. AGENCIES THAT SUBMITTED 2014 ADAPTATION PLANS

Armed Forces Retirement Home	Environmental Protection Agency
Broadcasting Board of Governors	Farm Credit Administration
Commodity Futures Trading Commission	Federal Trade Commission
Corporation for National Community Service	General Services Administration
Department of Agriculture	National Aeronautics and Space Administration
Department of Commerce	National Archives and Records Administration
Department of Defense	National Capital Planning Commission
Department of Education	Nuclear Regulatory Commission
Department of Energy	Office of Personnel Management
Department of Health and Human Services	Peace Corps
Department of Homeland Security	Pension Benefit Guaranty Corporation <sup>2</sup>
Department of Housing and Urban Development	Railroad Retirement Board
Department of the Interior	Small Business Administration
Department of Justice	Smithsonian Institution <sup>3</sup>
Department of Labor	Social Security Administration
Department of State	Tennessee Valley Authority
Department of the Treasury	U.S. Army Corps of Engineers <sup>4</sup>
Department of Transportation	US Postal Service
Department of Veterans Affairs	US Agency for International Development

Table 1-1 Listing all 38 Adaptation Plans Submitted in 2014 to the CEQ and OMB

<sup>2</sup> Part of Department of Labor

<sup>3</sup> This plan, while it was included with those submitted in 2014, is dated September 2013

<sup>4</sup> The USACE Adaptation Plan can be accessed here: <http://corpsclimate.us/20141031news.cfm>

## Armed Forces Retirement Home

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\*12 pages<sup>5</sup>

### Highlight(s):

- ▢ Bio-retention pond, designed as a flower garden (p.57)

## Broadcasting Board of Governors

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9 pages

### Highlight(s):

- ▢ Mitigation rather than adaptation: Energy-saving technology such as amplitude modulation compounding and “black heating” implemented on shortwave transmitters (p.6)

## Commodity Futures Trading Commission

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5 pages

### Highlight(s):

- ▢ General actions being taken include conducting vulnerability assessments, providing climate change (CC) education to employees including training, and attending CEQ interagency climate change workshops (various pages)

## Corporation for National and Community Service

Senior Corps, AmeriCorps, Social Innovation Fund, United We Serve

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16 pages

### Highlight(s):

- ▢ Implementing a climate change taxonomy to categorize and measure climate adaptation impact of current efforts (p.3)
- ▢ 24 AmeriCorps Volunteers in Service to America (VISTA) programs focused on environmental stewardship including weatherizing and retrofitting housing units and conducting energy audits (p.6)
- ▢ Focusing on building community resilience in California (p.7)
- ▢ Prioritizing disaster programming (p.7)
- ▢ Together with Department of Homeland Security, implemented FEMA Corps (p.13)

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<sup>5</sup> Document posted includes both the Sustainability Plan and the Adaptation Plan. Adaptation Plan starts on page 50

## Department of Agriculture

Agricultural Marketing Services (AMS), Agricultural Research Service (ARS) (p.61-75), Animal and Plant Health Inspection Service (APHIS) (p.39-60), Center for Nutrition Policy and Promotion (CNPP), Economic Research Service (ERS), Farm Service Agency (FSA) (p.76-79), Food and Nutrition Services (FNS), Food Safety and Inspection Service (FSIS), Foreign Agricultural Service (FAS) (p.80-94), Forest Service (FS) (p.95-126), Grain Inspection, Packers and Stockyards Administration (GIPSA) (p.127-132), National Agricultural Library (NAL), National Agricultural Statistics Service (NASS) (p.133-136), National Institute of Food and Agriculture (NIFA) (p.137-148), Natural Resources Conservation Service (NRCS) (p.149-174), Risk Management Agency (RMA) (p.175-190), and Rural Development (RD) (p.191-200)

200 pages<sup>6</sup>

### Highlight(s):

- ▢ Conducted basic and applied research on the interacting effects of climate change on endemic and exotic pests, weeds and diseases, and their resistance to management actions designed to control these types of species. (p.9)
- ▢ Requested sub-agencies to assess their risk and vulnerability to CC. (p.13)
- ▢ Evaluating new Hardiness ZoneMap published by Agricultural Research Service. (p.14)
- ▢ Hosted soybean rust working group, hosted by the USDA Office of Pest Management Policy (p.15)
- ▢ Established 7 regional climate hubs. These *USDA Regional Climate Hubs* deliver science-based tools, strategies and practical information to farmers, ranchers and forest landowners within each region of the United States to support decision-making related to climate change. Hubs three goals are to: (1) provide technical support, assist with (2) assessments and regional forecasts, and (3) assist with outreach and education. (p.20, 34)
- ▢ Working to develop a solid, spatially detailed baseline of current and past conditions related to land resources, climate, and land use and farmer decision-making. (p.21)
- ▢ Ongoing research on the role of USDA programs in farmer adaptation to drought risk. Also exploring potential water shortages in the United States under changing climate conditions and the implications of such shortages for regional agricultural resilience to climate change. (p.21)
- ▢ Revised the Florida Citrus Fruit Crop Policy for the 2014 and succeeding crop years; excess wind is now allowed to be an insurable cause of loss for both citrus fruit insured as fresh citrus and juice. (p.22)
- ▢ Implemented the Global Change Task Force, which holds a monthly meeting for all USDA agencies and offices (p.22)
- ▢ Working to establish a National Soil Moisture Network with an emphasis on expansion into underserved regions and vulnerable populations. (p.24)
- ▢ Continued climate adaptation and resilience initiatives in several areas, including: sustainable buildings and locations, fleet management, sustainable procurement and bio-preferred products. (p.24)
- ▢ Validates building's performance as 30 percent more energy efficient than the industry standard for each new construction and major renovation project. (p.25)
- ▢ Began a \$250 million loan program to assist rural utilities in financing energy efficiency and renewable generation. (p.25)
- ▢ Working to develop a Biogas Roadmap to broaden greenhouse gas reductions incentives. (p.25)
- ▢ Bio-Preferred program has issued over 1,600 voluntary USDA Certified Product labels to help create consumer demand for bio-based products. (p. 26)
- ▢ Geographically placed Plant Materials Centers provide information on regionally-adapted plants (p.30)
- ▢ Central data and information portals linking climate change information (p.30)
- ▢ Various databases, listed on page 30, including the Snow Survey and Water Supply Forecasting (SNOTEL) automated snow survey network in western U.S (p.30)
- ▢ Loan program initiated to make loans targeted to energy efficiency and renewable generation (p.31)
- ▢ Initiating and signing charter for a Climate Smart Agriculture Alliance (p.32, 35)

<sup>6</sup> Document includes individual USDA agency plans for 11 of the 17 agencies under USDA. Those plans (pages 39-200) were not analyzed.

- Working to develop a national Wild Fire Potential Map (p.32)
- Providing technical assistance on carbon inventories and forests in developing countries (p.32)
- Through Feed the Future (FtF), increasing food security of partner countries with the goal of increasing their resilience to climate change impacts (p.35)
- Held National Drought Resilience Partnership workshop in Kansas City, MO; drafting a white paper detailing next steps (p.36)

## Department of Commerce

Bureau of Economic Analysis (BEA), Bureau of Industry and Security (BIS), Committee for the Implementation of Textile Agreements (CITA), Economics and Statistics Administration (ESA), Economic Development Administration (EDA), International Trade Administration (ITA), Minority Business Development Agency (MBDA), National Institute for Standards and Technology (NIST), National Oceanic and Atmospheric Administration (NOAA), National Technical Information Service (NTIS), National Telecommunications and Information Administration (NTIA), Bureau of the Census (BOC), U.S. Patent and Trademark Office (USPTO)

40 pages

### Highlight(s):

- Patent Prosecution Highway (PPH) - Allows for fast-tracked examination of patent applications for adaptation-related /green technologies (p.14)
- Tool for coral reef managers focused on Pacific (p.16)
- NIST programs focused on disaster resilient structures (p.17)
- Regional Drought Early Warning Information Systems (RDEWS) (p.20)
- Local Climate Analysis Tool (LCAT) (p.22)
- Sea level change (SLC) Sentinel Site Cooperatives: San Francisco, Hawaii, North Carolina, Chesapeake Bay, Northern Gulf of Mexico (p.23)
- Ecosystem status reports in the following three regions: Northeast, Alaska, Pacific Coast (p.24)
- Prototype system for assessing climate-related shifts in distribution of major fish stocks in U.S. marine ecosystems (p.24)

## Department of Defense

Defense Advanced Research Projects Agency (DARPA), Defense Commissary Agency (DeCA), Defense Finance and Accounting Service (DFAS), Defense Health Agency (DHA), Defense Information Systems Agency (DISA), Defense Intelligence Agency (DIA), Defense Logistics Agency (DLA), Defense Media Activity (DMA), Defense Security Cooperation Agency (DSCA), Defense Security Service (DSS), Defense Technical Information Center (DTIC), Defense Threat Reduction Agency (DTRA), Joint POW/MIA Accounting Command (JPAC), Missile Defense Agency, Washington Headquarters Services, National Guard Bureau (NGB), National Reconnaissance Office (NRO), Special Inspector General for Afghanistan Reconstruction (SIGAR), Special Inspector General for Iraq Reconstruction (SIGIR)

12 pages

### Highlight(s):

- Wrapping up high-level vulnerability assessment of 7,000 bases, installations, and other facilities (p.2)
- Working to address projected sea level rise (SLR) of 1.5 feet in the Hampton Roads region in Virginia which houses the largest concentration of U.S. military sites in the world (p.2)
- Establishment of Climate Change Adaptation Working Group (CCAWG) in December 2012 (p.5)
- Strategic Environmental Research and Development Program (SERDP) published report *Assessing Impacts of Climate Change on Coastal Military Installations: Policy Implications* (p.10)
- Researched how increased temperature trends and changes in the fire regime in interior of Alaska will impact thawing permafrost and effects on hydrology, access to training lands, and infrastructure (p.10)
- Arctic Strategy and Navy Arctic Roadmap (p.11)

- February 2014 Floodplain Management Policy (p.13)
- Shares earth-space environmental data such as weather observations and satellite-derived wind profiles (p.14)

## Department of Education

Education Publications Center (EDPUBS), Office for Civil Rights (OCR), Department of Education, Office of Elementary and Secondary Education (OESE), Office of Postsecondary Education (OPE), Office of Special Education and Rehabilitative Services (OSERS), Office of Vocational and Adult Education (OVAE), White House Commission on Presidential Scholars

12 pages

### Highlight(s):

- Hurricane Educator Assistance Program (HEAP) provides financial incentive to work for at least 3 years in a major disaster area affected by Hurricanes Katrina or Rita (p.4)
- Green Ribbon Schools program with CEQ and EPA (p.6)
- Urban Waters Federal Partnership effort to revitalize communities and waters (p.9)
- Sustainable Communities Initiative with HUD, DOT, and EPA (p.10)
- 'Education Built to Last' facilities best practices tour (p.11)
- Interagency Working Group on Ocean Education (p.11)

## Department of Energy

Energy Efficiency and Renewable Energy (EERE), Fossil Energy, National Laboratories (Energy Department), National Nuclear Security Administration, Nuclear Energy Science and Technology, Power Administrations, Public Affairs, Science Office (Energy Department)

22 pages

### Highlight(s):

- Report "The State of the Future for a Sustainable Tennessee: Grand Challenges and Grand Opportunities Under Changing Climate" (p.14)
- Operates Joint Global Change Research Institute (JGCRI) with University of Maryland (p.14)
- Coordinating partner for Mountain West Water Institute (MWWI) (p.14)
- Partner in the development of the Hampton Roads Energy Corridor (p.14)
- Helping boost resiliency of Hoboken, NJ's electric grid (p.15)
- Released report *US Energy Sector Vulnerabilities to Climate Change and Extreme Weather* (p.16)
- Atmospheric Radiation Measurement (ARM) Research Facility Program (p.17)
- Research on physical and stochastic nature of extreme events, focus on how anthropogenic forcing of climate leads to redistribution of extremes (p.17)
- Research on decadal scale ecological fields experiments at midlatitude and arctic sites (p.17)

## Department of Health and Human Services

Administration for Children and Families (ACF), Administration for Community Living (ACL), Agency for Healthcare Research and Quality (AHRQ), Agency for Toxic Substances and Disease Registry (ATSDR), Centers for Disease Control and Prevention (CDC), Centers for Medicare & Medicaid Services (CMS), Food and Drug Administration (FDA), Health Resources and Services Administration (HRSA), Indian Health Service (HIS), National Institutes of Health (NIH), Substance Abuse and Mental Health Services Administration (SAMHSA)

31 pages

### Highlight(s):

- *Interagency Special Report on Impacts of Climate Change on Human Health in the United States* (p.9)
- January 2013 “Extreme Weather, Climate, and Health: Putting Science Into Practice” meeting in DC (p.10)
- Documenting experience with implementing Building Resilience Against Climate Effects (BRACE) climate adaptation framework (p.10)
- Guidance documents: (p.11)
  - *Applying the Best Science for Adapting to Climate Change: The Principles of Evidence Based Public Health*
  - *Key Elements and Considerations for Preparing a Climate and Health Profile*
  - *Assessing Health Vulnerability to Climate Change: A Guide for Health Departments*
  - *Climate Models and Use of Climate Projections: A Guide for Health Departments*
  - *Determining climate change relevant exposure-response relationships*
  - *Projecting the magnitude of climate-sensitive diseases*
- Proposed Emergency Preparedness Rule: Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers (p.15)
- Provides information from nationwide network of integrated health and environmental data via the National Environmental Public Health Tracking Network system. Tracking network focuses on extreme heat (p.19)
- Ongoing Metadata Access Tool for Climate and Health (MATCH) effort is a searchable clearinghouse of publicly available data on climate change and health (p.20)
- Funding pilot project Disaster Research Response Project in collaboration with National Library of Medicine (NLM) (p.23)
- Five CDC LEED-certified buildings (Leadership in Environmental Design) (p.25)
- Health in Buildings Roundtable Conference (p.25)
- Awarding of Green Champion Awards (p.25)
- Identifying of Component Mission Essential Functions (CMEFs) (p.30)

## Department of Homeland Security

United States Citizenship and Immigration Service (USCIS), United States Customs and Border Protection (CBP), United States Coast Guard (USCG), Federal Emergency Management Agency (FEMA), Federal Law Enforcement Training Center (FLETC), United States Immigration and Customs Enforcement (ICE), Transportation Security Administration (TSA), United States Secret Service (USSS), Management Directorate, National Protection and Programs Directorate (NPPD), Science and Technology Directorate (S&T), Domestic Nuclear Detection Office (DNDO), Office of Health Affairs (OHA), Office of Intelligence and Analysis (I&A), Office of Operations Coordination and Planning, Office of Policy

21 pages

### Highlight(s):

- Arctic:
  - U.S. Coast Guard’s May 2013 Arctic Strategy (p.3)
  - Enhance Operation Arctic Shield (p.16)

- Recapitalize Polar Icebreaking (p.16)
- Improve arctic communications capabilities (p.16)
- Resilience Summit promoting building codes adoption in September 2013 (p.8)
- Assessing exposure of DHS facilities to flood risk (p.14)
- National Biosurveillance Integration Center (NBIC) monitors how climate change impacts may worsen conditions that influence or contribute to bio-threats (p.20)
- United States Citizen and Immigration Services (USCIS) identifying possibility to account for “environmental refugees” (p.21)

## Department of Housing and Urban Development

Federal Housing Administration (FHA), Multifamily Housing Office, Office of Community Planning and Development, office of Fair Housing and Equal Opportunity, Policy Development and Research (HUD), Public and Indian Housing

71 pages

### Highlight(s):<sup>7</sup>

- Working to update and distribute existing mold and mildew guidance (p.27)
- Working with American Indian and Alaska Native tribal governments, as well as the Department of Hawaiian Home lands to ensure a coordinated Federal response to potential hazards and disasters (p.29)
- Planning to brief state and local governments on HUD recovery activities pre-disaster (p.32)
- Focus on at-risk populations: Native Hawaiians (p.51, 55, p.62) and American Indians
  - Highlighted Risks:
    - Most tribal lands have never been mapped by FEMA for flood risk (p.57)
    - Many Indian tribes are located in remote areas prone to wildfire (p.58), extreme cold and frequent damaging ice storms, and severe thunderstorms and tornadoes (p.59)
    - American Indians suffer disproportionately from extreme heat; most HUD-assisted homes do not have air conditioning (p.62)
    - Almost all rural housing in Alaska subsidized by HUD is built on permafrost (p.63)
    - Cost of replacing homes in Hawaii is the highest in United States (p.67)

## Department of Interior

Bureau of Indian Affairs, Bureau of Land Management, Bureau of Ocean Energy Management (BOEM), Bureau of Reclamation, Bureau of Safety and Environmental Enforcement, National Park Service, Office of Surface Mining Reclamation and Enforcement, U.S. Fish and Wildlife Service, U.S. Geological Survey (USGS)

50 pages

### Highlight(s):<sup>8</sup>

- Focus: Discusses the 83% reduction in glaciers at Glacier National Park, Montana and the impacts of this change on its ecology (p.4)
- Policies and Strategies: (p.6)
  - Bureau of Indian Affairs Climate Change Adaptation Plan (2013)
  - National Park Service Climate Change Response Strategy (2010)
  - U.S. Fish and Wildlife Service Climate Change Strategic Plan (2010)

<sup>7</sup> A majority of actions listed in this adaptation plan were proposed actions, not actions that were underway or completed

<sup>8</sup> Adaptation Plan includes a “highlights” section starting on page 29.



- Focus on at risk populations: American Indians and Alaska Natives (p.9)
- Appalachia Regional Reforestation Initiative. (p.14)
- Established standard protocol for addressing effects of CC on proposed capital improvement projects (p.16)
  - Floating dock system accommodates SLR
- Landscape-level initiatives (p.16)
- Release of *A Strategy for Improving the Mitigation Policies and Practices of the Department of the Interior* (p.17)
  - Framework for incorporating landscape-scale approaches into development, conservation planning, and mitigation
- Developing plans for waterbirds that account for climate change, looking at climate driven changes in water supplies. (p.17)
- Southeast Climate Science Center's research project "Assessment of Terrestrial and Aquatic Monitoring Programs in the Southeastern United States." (p.20)
- Restoration and enhancement of Montana Wetland (p.23)
- Investment in Nez Perce Tribal Hatchery (p.26)
- Planning to release a Bureau of Reclamation Climate Adaptation Policy (p.30)
- Investment of new turbines that increase operational range and flexibility of hydropower operations at Hoover Dam (p.31)
- Improvements to the Roads Module of the Sea Level Affecting Marshes Model (SLAMM) system (p.31)
- Funding external climate adaptation activities, especially from Climate Science Centers (p.32)
- Initiated WaterSMART West-Wide Climate Impact Assessments (WWCRAs) evaluate risks and impacts of climate change to water resources in river basins across the West (p.33-34)
- Initiated WaterSMART Basin studies: Colorado River, Yakima River, and Santa Ana (p.33)
- FY 2014 pilot initiative to develop guidance for considering climate change information in reservoir operations (p.34)
- Greater Yellowstone Coordinating Committee's Whitebark Pine Strategy- using paleoclimate data to quantify whitebark pine/climate relationships over past 15,000 years and growth rates during extreme climate events over past 800 years (p.38)
- Working to develop management-level decision tools to incorporate carbon management and carbon accounting into routine resource management actions (p.45)
- Working to broaden drought program to help mitigate short-term impacts and address long-term impacts (p.45)

## Department of Justice

Bureau of Alcohol, Tobacco, Firearms and Explosive, Federal Bureau of Investigation (FBI), Drug Enforcement Administration (DEA), Federal Bureau of Prisons (BOP), U.S. Marshals Service

36 pages

### Highlight(s):

- Identified assets at risk for climate change impacts: 8 high-risk, 12 medium-risk, and 48 low-risk assets (p.11, 26)
- Working to identify current climate resiliency practices via lessons learned throughout the country where components have already experienced climate-related impacts (p.15)
- Perform cost/benefit analysis to determine the point at which maintenance costs to accommodate climate changes outweigh costs associated with facility relocation. (p.30)
- Develop a standard checklist to be used by all components to assess the climate vulnerabilities and adaptation requirements associated with potential new facilities and leased space. (p.32)
- Develop severe weather response plans for facilities deemed to be high risk from climate change. (p.32)



## Department of Labor

Office of the Secretary (OSEC), Administrative Review Board (ARB), Benefits Review Board (BRB), Bureau of International Labor Affairs (ILAB), Bureau of Labor Statistics (BLS), Center for Faith-Based & Neighborhood Partnerships (CFBNP), Employee Benefits Security Administration (EBSA), Employees' Compensation Appeals Board (ECAB), Employment & Training Administration (ETA), Mine Safety & Health Administration (MSHA), Occupational Safety & Health Administration (OSHA), Office of Administrative Law Judges (OALJ), Office of Congressional & Intergovernmental Affairs (OCIA), Office of the Assistant Secretary for Administration & Management (OACSIM), Office of the Assistant Secretary for Policy (OASP), Office of the Chief Financial Officer (OCFO), Office of Disability Employment Policy (ODEP), Office of Federal Contract Compliance Programs (OFCCP), Office of Inspector General (OIG), Office of Labor-Management Standards (OLMS), Office of Public Engagement (OPE), Office of the Solicitor (SOL), Office of Workers' Compensation Programs (OWCP), Ombudsman for the Energy Employees Occupational Illness Compensation Program (EEOMBD), Pension Benefit Guaranty Corporation (PBGC), Veterans' Employment & Training Service (VETS), Wage and Hour Division (WHD), Women's Bureau (WB)

15 pages

### Highlight(s):

- Primarily mitigation rather than adaptation:
  - Produces renewable energy using wind turbines at JCC sites: Pine Ridge, Angell, Cassadeage, Hawaii/Maui, Weber Basin (p.6)
  - Produces renewable energy using solar photovoltaic production at Job Corps Campus (JCC) sites: Westover, Edison, and Woodland. (p.6)
  - Produces renewable energy using solar hot water at Miami JCC (p.6)
  - Produces renewable energy using biomass boilers at Loring and Albuquerque JCCs (p.6)
  - Reducing energy footprint via closure of 13 non-core data centers with plans to complete close an additional 4 by end of 2014 (p.11)

## Department of State

Management Policy, Rightsizing and Innovation (M/PRI), Oceans and International, Environmental and Scientific Affairs/ Global Change (OES/EGC), and Special Envoy of Climate Change (SECC)

23 pages

### Highlight(s):

- Supported USGCRP's 2014 National Climate Assessment. (p.7), IPCC's Fifth Assessment Report. (p.7), and IPCC's Special Report on Extreme Events (p.7)
- Co-chaired Global Adaptation Partnership (p.7)
- Annual Greening Activities Inventory (p.8, 10)
- Using information gathered in the Integrated Logistics Management System (ILMS) to understand supply chain risks, including demand planning capabilities (p.9)
- All domestic leased or government-owned space over 5,000 square feet is LEED Silver certified. (p.10), including LEED platinum net-zero building in Charleston, South Carolina (p.10)
- 2<sup>nd</sup> edition of *Guide to Green Embassies: Eco-Diplomacy in Operation* provides direction for building and maintaining on-site wetlands and rain water catchments for irrigation purposes, and to lessen the Department's water usage footprint in vulnerable regions (p.10)
- Policy guidance that includes strategic goal of "Promoting the Transition to a Low-Emission, Climate-Resilient World while Expanding Global Access to Sustainable Energy" (p.12)
- Friends of the Nansen Initiative: examine protection needs associated with crossborder population movements linked to natural disasters, including climate change-related disasters (p.13)

- Active member of the Global Environment Facility's Least Developed Countries Fund (LDCF) and Special Climate Change Fund (SCCF) Council (p.14)
- Contributes funding to the Global Climate Observing System (GCOS) (p.15)
- Highlighted geographic locations at risk:
  - Africa (p.16-17) including Ethiopia (p.20)
  - East Asia and Pacific (p.17), including Maldives (p.19)
  - Central America (p.19)
  - Chile (p.19)
  - Canberra (p.20)
- International adaptation assistance targets: least developed countries, Africa, Small Island Developing States, and glacier-dependent countries through Least Developed Countries Fund and Special Climate Change Fund (p.18)
- Over 150 US diplomatic posts have active green teams focused on overall sustainability activities (p.20)
- Pilot of Capitals Forum program in Washington, D.C. area, with over 77 foreign diplomatic missions entering into a sustainability pledge with the local DC government (p.22)

## Department of Transportation

Federal Aviation Administration (FAA), Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), Federal Transit Administration (FTA), Federal Motor Carrier Safety Administration (FMCSA), Maritime Administration (MARAD), National Highway Traffic Safety Administration (NHTSA), Office of Inspector General (OIG), Office of the Secretary (OST), Pipeline and Hazardous Materials Safety Administration (PHMSA), Saint Lawrence Seaway Development Corporation (SLSDC), Surface Transportation Board (STB)

29 pages

### Highlight(s):

- Made State, Local, and Federal agency climate change adaptation planning and resiliency features of highway projects eligible for reimbursement under the Federal-Aid and Federal Lands Highway Programs (p.13)
- Notice of Funding Availability (NOFA) for \$3 billion in competitive resiliency grants for transit agencies affected by Superstorm Sandy (p.13)
- Transportation Investment Generating Economic Recovery (TIGER) NOFA grants explicitly considers resiliency as a selection factor for the grants (p.13)
- Gulf Coast Study: Multi-year program to assess the vulnerability of the Gulf Coast region to climate change, includes a detailed multimodal study of the Mobile, Alabama region (p.13, 19)
- Various climate education activities including: webinars, workshops, and panel discussions. (p.14)
- 15 airports received sustainability planning grants in FY 2013 (p.16)
- Analyzed select navigation infrastructure at 14 study areas along the East Coast, Gulf Coast, and in Hawaii for vulnerability to storm surge inundation from hurricane categories 1-4 (p.17)
- Developing tool: "Common Support Services – Weather (CSS-Wx)" which enables the efficient publication of high-resolution aviation weather data (p.17)
- Project to develop recommended engineering practices for identifying and evaluating project-level vulnerabilities from future extreme weather events and climate change, and designing solutions to respond and adapt to those vulnerabilities (p.19)
- Report: Assessment of the Body of Knowledge on Incorporating Climate Change Adaptation Measures into Transportation Projects (p.20)
- Transportation Climate Change Sensitivity Matrix - documents how different climate stressors affect several types of transportation infrastructure (p.20)
- Internal review of the mechanical, electrical and hydraulic systems at Eisenhower and Snell Locks (p.22)
- Draft Information Systems (DIS) provide real time projected under keel clearance information (p.23)

- Assess the risks of climate change and related factors as part of the Environmental Impact Statement (EIS) for the Northeast Corridor high speed rail study (p.23)
- Assess whether adaptation to climate change was incorporated in the design considerations of pipeline projects (p.26)
- Surface transportation reauthorization legislative proposal, the GROW AMERICA Act, would require state and regional long-range transportation plans to take into account the need to reduce risks from extreme weather events and create more resilient infrastructure (p.27)

## Department of Treasury

Alcohol and Tobacco Tax and Trade Bureau (TTB), Bureau of Engraving & Printing (BEP), Bureau of Fiscal Service, Community Development Financial Institution (CDFI) Fund, Financial Crimes Enforcement Network (FinCEN), Inspector General, Treasury Inspector General for Tax Administration (TIGTA), Internal Revenue Service (IRS), Office of the Comptroller of the Currency (OCC), U.S. Mint

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31 pages

### Highlight(s):

- Participation in participating in CEQ's workgroup to coordinate a federal response to drought conditions in California (p.15)
- Mint and BEP are implementing energy and water efficiency projects (p.17)
  - Installing a recycling plant at DC facility that will reduce water use for the BEP's production process by 90-95% (p.18)
- References USACE risk management framework (p.19)

## Department of Veterans Affairs

National Cemetery Administration (NCA), Veterans Benefits Administration (VBA), Veterans Day National Committee

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35 pages

### Highlight(s):

- Plans to execute a SLR Impact Study to assess the vulnerability of Veterans Affairs (VA) infrastructure to SLR and SLR-enhanced storm surge on a facility-level basis (p.6)
- Plans to develop SLR Guidance Material for facility designers based on the results of the SLR impact study (p.6, p.20)
- Deployment of Biosurveillance Program and Activities using the Healthcare Acquired Infection and Influenza Surveillance System (HAISS), which monitors Veterans Health Administration (VHA) system-wide electronic medical and laboratory records for emergence of new diseases and health risks (p.7, 27-29)
- Sustainable Design Manual (SDM) requires designers to consider implementing efficient on-site power generation and solar water heaters where practical (p.18)
- Recommendation that grantees of the Veterans Cemetery Grants Program deploy VA's irrigation guidance, including the use of xeric landscaping or low-volume irrigation systems to decrease the potentially substantial water demands of cemetery irrigation (p.24)
- Established stockpiles of critical medical supplies and pharmaceuticals (p.26)
- Working on plans for an upgraded HAISS 2.0. HAISS could be used to track the emergence and evolution of long-term climate-associated health impacts across the VA patient population, including documented impacts such as increased hospital and emergency room visits during heat waves, decreasing illness or injury associated with periods of extreme cold, or changes in morbidity as a result of exposure to degraded air quality (p.29)

## Environmental Protection Agency

Office of the Administrator (OA), Office of Administration and Resources Management (OARM), Office of Air and Radiation (OAR), Office of Chemical Safety and Pollution Prevention (OCSPP), Office of the Chief Financial Officer (OCFO), Office of Enforcement and Compliance Assurance (OECA), Office of Environmental Information (OEI), National Cemetery Administration

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64 pages<sup>9</sup>

### Highlight(s):

- Addition of a Climate Assessment Tool (CAT) to the BASINS tool used to perform watershed and water quality-based studies (p.43)
- Examining nonstationarity (p.47)
- C3, or Climate Change Collaboration, in Region 10 in Seattle, Washington. 13 agencies who realized they were redundantly working on the same issue now meet monthly. Similar efforts are happening in New England, Southeast, Great Lakes, and Gulf Coast (p.54)

## Farm Credit Administration

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10 pages

### Highlight(s):

- Mitigation rather than adaptation: reduced business travel by nearly 13% (p.6)

## Federal Trade Commission

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6 pages

### Highlight(s):

- Implementing new telework solution (p.4) and located 700 employees to a LEED-certified building (p.5)

## General Services Administration

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54 pages

### Highlight(s):

- Adaptation Plan section titled “Overcoming Barriers to Adaptation.” The section starts on page 29, and includes a section on policies or funding programs that limit or constrain options for adaptation on page 39
- Building a Climate Resilient National Capital Region Workshop Series (p.12)
- Regional Climate Scenario Sessions held in 2 regions: Capital Region and Heartland Region (p.13)
  - Climate scenario session was recognized by CEQ’s GreenGov Spotlight Community (p.14)
- Awarded a GreenGov Presidential Award in the ‘Climate Champion’ category for efforts around the National Capital Region Climate Risks Preparation and Adaptation Pilot (p.14)
- Working to create a climate preparation and adaptation plan for the IRS building and the surrounding Federal Triangle area. The plan is expected to be adaptable to many Federal building in the National Capital Region (p.14)
- Plans to create fact sheets for each of the eight National Climate Assessment (NCA) regions describing the climate vulnerabilities of data center and telecommunications equipment and services supply chains for each region (p.18)

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<sup>9</sup> Few specific examples, those are most likely in the Program and Regional Office Implementation Plans

- November 2013 *Supply Chain Resilience Survey*, which covered 519 respondents from 71 countries, noted "the primary sources of disruption were unplanned IT or telecom outages, with 55% stating they experienced high or some impact from this type of disruption" (p.26)
- Plans to determine Climate Protection Levels (CPLs) at the specific site and facility scale for mission-critical sites. CPLs are climate-based, expert determined benchmarks achieved through the implementation of design and performance standards with the express purpose of limiting the climate change risk exposure (p.27)
- GSA's Sustainable Facilities Tool: helps identify and prioritize cost-effective strategies to make office buildings and workplaces more sustainable (p.48)
- Climate Change Adaptation Self-Assessment, a brief survey that allows GSA to track each region, service, and business line's ongoing climate change adaptation management process (p.48, 49)

## National Aeronautics and Space Administration

18 pages

### Highlight(s):

- Climate Adaptation Science Investigator Workgroup (CASI): Includes NASA and external members. Engages NASA climate modelers, scientists, engineers, and institutional stewards to explore climate impacts and adaptation strategies for institutional stewards, with a special focus on NASA installations (p.7)
- Developed SLR scenarios and conducted modeling for Kennedy Space Center and surrounding Indian River Lagoon estuary (p.7)
- Assessed forest health surrounding Stennis Space Center (Mississippi) based on growth and decline observations compared to climate and weather observations and predictive models (p.8)
- NASA centers located along the coasts gathered for a workshop in 2013 to together explore adaptation strategies for their common vulnerabilities (p.9)
- Developing new rocket test stand thermal model that addresses concerns about structural changes on extremely hot days. Inputs include: solar flux, local surface albedo, and temperature record data (p.10)
- Kennedy Space Center's Dune Vulnerability Team constructed an inland dune in area of high beach erosion at Kennedy Space Center (p.10)
- Completed major beach replenishment project to protect launch capabilities at Wallops Flight Facility (WFF) on Wallops Island, Virginia (p.11)
- Analyzing impacts of sea level rise and extreme high tides to help size levees required for flood protection (p.11)
- Modeling to assess potential for SLR to damage communications building at Johnson Space Center in Texas (p.11)

## National Archives and Records Administration

\*89 pages \*Document posted includes both the Sustainability Plan and the Adaptation Plan, Adaptation Plan starts on page 60.

### Highlight(s):

- Plan to provide training through Association of Climate Change Officers (ACCO) (p.74)
- Storm Water Runoff: (p.83), including detaining 15% of runoff at many sites and installing green infrastructure to slow runoff and reduce pollutant loading
- Collaborating with Water Districts on Watershed Plans factoring climate changes and to use vacant land to manage storm water (p.85)

## National Capital Planning Commission

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7 pages

### Highlight(s):

- 2013 workshops on climate change vulnerability focused on areas with highest concentration of federal assets (p.3)
- Consider climate adaptation strategies in planned improvements for Potomac Park Levee across 17<sup>th</sup> Street, NW (p.5)
- Formation of Monumental Core Climate Adaptation Working Group in April 2013 (p.5)

## Nuclear Regulatory Commission

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1 page<sup>10</sup>

### Highlight(s):

- No highlights available: “The NRC believes that the effects of climate change will have little to no impact on how the Agency fulfills its mission to license and regulate nuclear materials.” (p.47)

## Office of Personnel Management

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10 pages

### Highlight(s):

- Policy directive, “Addressing Climate Change Impacts at the Agency in Operations and Programs” (p.6)
- 2014 Eagle Horizon continuity exercise: Worked with FEMA to examine what would happen if a region-wide incident rendered OPM’s “mission-critical” Theodore Roosevelt Building uninhabitable (p.7)

## Peace Corps

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26 pages

### Highlight(s):

- Utilizes Notre Dame Global Adaptation Index (ND-GAIN) tool to prioritize investments(p.3)
- Establishing data management system to track critical safety and security recommendations by posts and headquarters offices (p.14)

## Pension Benefit Guaranty Corporation

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17 pages

### Highlight(s):

- No current highlights identified<sup>11</sup>

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<sup>10</sup> This one page Adaptation Plan is the last page in the NRC 2014 Strategic Sustainability Performance Plan

<sup>11</sup> Part of Department of Labor

## Railroad Retirement Board

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8 pages

### Highlight(s):

- Working on sustainable design principles for Lipinski Federal building (p.6)

## Small Business Administration

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41 pages

### Highlight(s):

- Discussed ability to provide SBA disaster loans following an extreme event (p.6-9)
  - Objective is to restore property to its pre-disaster condition, even if pre-disaster condition was not resilient. Exceptions are made only on a case-by-case basis (p.24)
  - Only cover damage that is the direct result of any single declared disaster event, not damage that occurs over time. So, would cover extreme events, but not other CC “events” such as erosion (p.27)
- Development of enterprise risk management (ERM) program that addresses risks related to climate change (p.11)
- Conducted one-on-one meetings with offices that identified programs likely to be impacted by CC (p.12)
- Highlighted concern: CC impacts to agriculture and fisheries small businesses posing a risk to SBA’s loan guaranty portfolios (p.16)
- Discussed flood insurance. (p.28-29)
- Extreme events preparedness website: <http://www.preparemybusiness.org/> (p.29)
- Learned from Hurricane Sandy that allowing Small Business Development Centers to assist out of state businesses during the disaster recovery period was important to meeting the needs of the impacted communities (p.33)

## Smithsonian Institution

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24 pages

### Highlight(s):

- Key foci: atmospheric processes, ecosystem dynamics, observation of natural and anthropogenic environmental change on daily to decadal time scales, and definition of longer term climate proxies present in the historical artifacts and records of museums, as well as in the geologic records at field sites (p.5)
- Smithsonian Institution Global Earth Observatory (SIGEO) monitors growth and survival of 4.5 million trees (p.6)
- Smithsonian Environmental Research Center exploring effects of global change on vital tidal wetlands for over 4 decades: high levels of carbon dioxide creates new soil faster (p.6)
- Use of global climate models to project loss of species habitat in China (p.6)
- Tennenbaum Marine Observatories Network where permanent research sites where scientists can conduct long-term studies of changing marine biodiversity and coastal ecosystems (p.6)
- Department of Botany has been recording of first-flowering dates for spring-blooming plants- 90% of local species bloom earlier than they used to (p.6)
- Smithsonian Astrophysical Observatory program using GPS to gather data on 2 glaciers in southeastern Greenland (p.6)
- Center for Earth and Planetary Studies’ remote sensing program focused on urban forests is obtaining data on carbon exchange between the land and atmosphere (p.6)
- National Museum of Natural History's Arctic Studies Program conducts research on the interactions between humans and their environments from 40,000 years ago into modern times, and on the complex history of cultural adaptations to climatically-sensitive forest and tundra zones. (p.8)
- Research on urban waterways (p.8)



- After Action Reports (AARs) that formally collect lessons learned and needed improvements following an extreme event. Examples include: 2006 D.C. rain event, June 2012 derecho, Tropical Storm Sandy. Completed AARs are made available to all Smithsonian staff (p.12)
- 80,000 gallon capacity vault stormwater storage at National Museum of Natural History (p.12)

## Social Security Administration

21 pages

### Highlight(s):

- Continue to improve understanding of climate change risks through Interagency Initiatives
- Continue to improve understanding of climate change risks through coordination with GSA

## Tennessee Valley Authority

44 pages

### Highlight(s):

- Highlighted projects:
  - Climate Sentinel Monitoring: Collects biological, chemical and physical data in each of the five predominant eco-regions in the Tennessee Valley (TVA). (p.5, 28)
  - Aquatic Ecology Management: Focuses on enhancement of aquatic biological communities in TVA streams (p.5, p.29)
  - Stream and Tailwater Monitoring Program: uses biological monitoring to evaluate biological conditions and diversity that reflect watershed conditions. (p.6)
- Highlighted programs:
  - Tennessee Valley Clean Marina Program (p.7)
  - Reservoir Shoreline Stabilization/Riparian Management Program (p.8)
  - Nutrient Source-Watershed Identification and Improvement Program (p.8)
  - Northern Gulf of Mexico/Mississippi River Basin Nutrient Load Reductions Program (p.9)
- Water resource outreach campaign (p.7, 30)
- Plans to reduce overall water use in power generation facilities through eliminating all wet ash and gypsum storage and converting coal-fired power plants to dry storage (p.9, 34-35)
- Investments in science and technological innovation, or “Signature Technologies:” (p.15)
  - Small modular reactors (SMRs)
  - Grid modernization, or “smart grid” for transmission and distribution systems
  - Energy utilization technologies: specifically energy efficiency, load management, and electric transportation
- Natural Resource Plan (NRP): designed to enhance stewardship of public recreation facilities, water resources, wildlife and plants and historic and cultural sites. (p. 26)
- Reservoir Land Management Plans (p.26)
- Highlighted Assessments:
  - Identification of barriers that discourage investments that increase resilience to CC (p.31)
  - Assessments of funding programs that may increase vulnerability to CC related risks (p.32)
  - Identification of opportunities to support/encourage climate-resilient investments (p.33)
- Greenhouse gas reduction: retired 18 older coal-fired generation units at three power plants (p.35-36)



### Highlight(s):

- ▢ Established working groups – the Leases, Construction and Continuity of Operations group (p. 5-7), and the Humanitarian Assistance group (p. 7-11) – to evaluate current processes with respect to adaptation and make recommendations for future action
- ▢ Identified 35 concrete adaptation actions to be taken over next three years (p. 5, summarized in Appendix 1, p. 19-31), including
  - Developing technical guidance and tools to inform and integrate climate change adaptation (p. 11-12)
  - Providing training and capacity building to improve understanding of climate impacts and adaptation (p. 12-15)
  - Updating procurement to address climate adaptation (p. 15-16)
  - Improving climate resilience of owned and leased facilities (p. 16)
  - Explore incentives to emphasize adaptation (p. 16)
  - Conduct outreach and collaboration around adaptation (p. 17)
  - Conduct research and evaluation to improve knowledge of subject important to the agency (p. 18-19)
- ▢ Provided agency analysis of climate change risks and opportunities (p. 36-44)
- ▢ Provided vulnerability assessment of agency operations (p. 45-50).

## US Postal Service

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### Highlight(s):

- ▢ Set up a national mobile refueling contract designed for quick response to natural disasters (p.14)
- ▢ Continuing investment into and investigation of technology that can ease connection to the Postal Network (p.14)
- ▢ Validate that “higher ground” lot locations are re-verified as new flood map data are published by NOAA or as local staff identifies site-specific flooding risks that may not be captured in flood maps (p.15)
- ▢ Monitoring processing equipment performance to identify if extreme temperature may become a consideration for processing equipment and vehicle investment in the future (p.15)

## Section 2: Crosswalk with USACE Adaptation Plan

This section provides a crosswalk between the USACE Adaptation Plan and the other 37 adaptation plans submitted to the White House in 2014 and the President’s Climate Action Plan (PCAP). Similar to Section 1, this section focuses on efforts that are current and specific. Also, primarily PCAP sections that were addressed by at least a fourth of the agencies are included.

President’s Climate Action Plan
CUT CARBON POLLUTION IN AMERICA
I. Deploying Clean Energy
II. Building a 21 <sup>st</sup> Century Transportation Sector
III. Cutting Energy Waste in Homes, Businesses, and Factories
IV. Reducing Other Greenhouse Gas Emissions
V. Leading at the Federal Level
PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE
I. Building Stronger and Safer Communities and Infrastructure
II. Protecting our Economy and Natural Resources
III. Using Sound Science to Manage Climate Impacts
LEAD INTERNATIONAL EFFORTS TO ADDRESS GLOBAL CLIMATE CHANGE
I. Working with other Countries to Take Action to Address Climate Change
II. Leading Efforts to Address Climate Change through International Negotiations

Table 2-1: Outline of President’s Climate Action Plan

For a quick view at which agencies addressed each topic, please refer to the “General Progress” row, located at the top of each table. An 'X' indicates that specific examples are listed in the rows below, while a page number means that the adaptation plan mentioned the topic but a specific example is not provided. When specific actions or progress are mentioned, the page number where the information can be found is listed. All page numbers listed reflect the page number displayed in the white box of the .pdf document, or the page number referred to as page #/## within the .pdf document, not necessarily the page number at the bottom of each page within the Adaptation Plan.

- **Specific Examples of Progress** rows: After the “General Progress” row there are rows listed for specific examples of progress mentioned in the adaptation plan.

- A p.#(#) provides the page number within the report that the example was listed so users can readily access the adaptation plan for more information
  - A 'R' in this row indicates that mention of this area of progress was made in another agency's report, and therefore the page number can only be listed for the agency that mentioned the area of progress
- Leaders or "Hot Topics" in a particular category are shaded and defined solely by the number of specific mentions in the adaptation plan

## Cut Carbon Pollution in America

### II. Building a 21<sup>st</sup> Century Transportation Sector

CUT CARBON POLLUTION IN AMERICA <sup>12</sup>											
II. Building a 21 <sup>st</sup> Century Transportation Sector											
	Department of Agriculture	Department of Energy	Department of the Interior	Department of Labor	Department of Transportation	General Services Administration	National Aeronautics and Space Administration	National Archives and Records Administration	Smithsonian Institution	Tennessee Valley Authority	US Postal Service
<b>General Progress:</b>	X	p.10	X	p.5	X	p.10	X	X	p.60	X	p.13
Developed methods for sustainable biofuel production	p.7										
Close-loop fleet charge card program to better track and monitor vehicle alternative fuel use	p.26										
Eco-logical approach to early integration of ecological and transportation planning	R		R		p.28						
Emission reduction targets reflect use of alternative fuels in fleet vehicles							p.14				
Purchasing hybrid, electric, or higher mpg vehicles								p.8			
Reduced idle time and fuels by installing GPS monitors								p.8			
Reduced number of vehicles in fleet								p.8			
Switching to alternative fuels whenever feasible								p.8			
Report - <i>Energy-Water Nexus: Many Uncertainties Remain about National and Regional Effects of Increased Biofuel Production on Water Resources</i>										p.39	

**Table 2-2: Crosswalk: Building a 21st Century Transportation Sector**

<sup>12</sup> Generally mitigation rather than adaptation

### III. Cutting Energy Waste in Homes, Businesses, and Factories

CUT CARBON POLLUTION IN AMERICA																							
III. Cutting Energy Waste in Homes, Businesses, and Factories																							
	U.S. Army Corps of Engineers	Broadcasting Board of Governors	Department of Agriculture	Department of Commerce	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of the Interior	Department of Labor	Department of State	Department of Transportation	Department of Treasury	Department of Veterans Affairs	Environmental Protection Agency	General Services Administration	National Aeronautics and Space Administration	National Archives and Records Administration	National Capital Planning Commission	Office of Personnel Management	Small Business Administration	Smithsonian Institution	Tennessee Valley Authority
General Progress:	p.34	X	X	X	X	X	X	p.19	p.44	X	p.17	p.27	p.17	X	p.20	X	p.14	X	X	p.7	X	p.58	p.10
Amplitude Modulation Companding (AMC)		p.6																					
Black Heating		p.6																					
Energy Efficiency and Conservation Loan Program			p.31																				
Rural Energy for America Program			p.31																				
Renewable Energy and Energy Efficiency Advisory Committee				p.13																			
Green Ribbon Schools Program recognizes schools that save energy					p.6																		
Hampton Roads Energy Corridor seeks to create a more resilient region						p.14																	

# CUT CARBON POLLUTION IN AMERICA

## III. Cutting Energy Waste in Homes, Businesses, and Factories

	U.S. Army Corps of Engineers	Broadcasting Board of Governors	Department of Agriculture	Department of Commerce	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of the Interior	Department of Labor	Department of State	Department of Transportation	Department of Treasury	Department of Veterans Affairs	Environmental Protection Agency	General Services Administration	National Aeronautics and Space Administration	National Archives and Records Administration	National Capital Planning Commission	Office of Personnel Management	Small Business Administration	Smithsonian Institution	Tennessee Valley Authority
Improving efficiency of/upgrading: heating, cooling and/or lighting.							p.26											p.11					
Use of photovoltaics							p.25			p.6								p.80					
Producing domestic hot water using biomass										p.6													
Wind Turbines										p.6													
Low-flow/dual-flush toilets														p.19									
Energy Star Products																p.6							
Utility meters																		p.11					
Rooftop gardens																		p.80					
<i>SW Ecodistrict Plan</i> to reduce energy and water consumption in DC area																			p.5				
Economy, Energy, and Environment Program																					p.31		
Providing incentives for energy efficiency																						p.35	

Table 2-3: Crosswalk: Cutting Energy Waste in Homes, Businesses, and Factories

## Prepare the United States for the Impacts of Climate Change

### I. Building Stronger and Safer Communities and Infrastructure

Note: The most common general examples here were (1) incorporating climate change in Continuity of Operations (COOP) plans and (2) working with General Services Administration to identify assets vulnerable to climate change. These examples of building emergency preparedness are displayed in a later sub-section titled *Building Emergency Preparedness*.

PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE																
I. Building Stronger and Safer Communities and Infrastructure																
	U.S. Army Corps of Engineers	Corporation for National and Community Service	Department of Commerce	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of Treasury	Department of Veterans Affairs	General Services Administration	National Aeronautics and Space Administration	National Capital Planning Commission	Smithsonian Institution
<b>General Progress:</b>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Federal Efforts Under Way to Assess Water Infrastructure Vulnerabilities and Address Adaptation Challenges</i>	p.6								R							
<i>ECB Application of Flood Risk Reduction Standard for Sandy Rebuilding Projects</i>	p.13															
Infrastructure fragility research	p.24															
West Maui Watershed pilot study	p.48															
Cochiti Dam and Lake pilot study	p.52															
AmeriCorps National Civilian Community Corps		p.8														
Developing guidelines for safe buildings and infrastructure			p.18													
'Education Built to Last' facilities best practices tour				p.11												
Improved drainage ditches					p.8											

# PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE

## I. Building Stronger and Safer Communities and Infrastructure

	U.S. Army Corps of Engineers	Corporation for National and Community Service	Department of Commerce	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of Treasury	Department of Veterans Affairs	General Services Administration	National Aeronautics and Space Administration	National Capital Planning Commission	Smithsonian Institution
Planning guide <i>High Performance Sustainable Buildings</i>					p.12											
Site Sustainability Plans (SSPs)					p.12											
Low Income Home Energy Assistance Program						p.24										
Industrial water storage tanks that allow generation of steam and chilled water during a water outage/shortage						p.26										
Planning for a net-zero warehouse for critical supplies						p.26										
Taking CC into account for operations planning to ensure sustainment of National Essential Functions (NEFs)						p.29										
Resilience Summit promoting building codes adoption in September 2013							p.8									
Conducting focus groups to learn ways to promote building codes							p.9									
Assessing exposure of facilities to flood risk							p.14									
Developed set of resilient building standards								p.19								
Updated mold and mildew guidance								p.27								
Research report on accessibility and resilient building measures								p.42								
Facilities/Infrastructure CC Adaptation WG									p.41							



# PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE

## I. Building Stronger and Safer Communities and Infrastructure

	U.S. Army Corps of Engineers	Corporation for National and Community Service	Department of Commerce	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of Treasury	Department of Veterans Affairs	General Services Administration	National Aeronautics and Space Administration	National Capital Planning Commission	Smithsonian Institution
Cost/benefit analysis to determine the point at which maintenance costs to accommodate climate changes outweigh costs associated with facility relocation										p.30						
Standard checklist to assess climate vulnerabilities and adaptation requirements associated with potential new facilities and leased space										p.32						
Federal Triangle Flood Mitigation Study											p.15		R			
Workshop on potential risks to infrastructure and telecom systems in the event of extreme heat events and sea level rise in DC											p.15		R			
Workshop on climate change impacts on federal facilities in Washington, D.C.			R								p.15					
Waterproofing indoor pad-mounted electrical transformers											p.17					
Uninterruptible Power Supply (UPS) systems											p.18					
Creation of a SLR standard for new and renovated building designs												p.5				
Sustainable Facilities Tool													p.48			
New York City Panel on Climate Change														p.18		
<i>SW Ecodistrict Plan</i>															p.5	

PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE																
I. Building Stronger and Safer Communities and Infrastructure																
	U.S. Army Corps of Engineers	Corporation for National and Community Service	Department of Commerce	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of Treasury	Department of Veterans Affairs	General Services Administration	National Aeronautics and Space Administration	National Capital Planning Commission	Smithsonian Institution
Programs on design of sustainable buildings and infrastructure																p.62

Table 2-4: Crosswalk: Building Stronger and Safer Communities and Infrastructure

## Building Coastal Resilience

### PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE

#### I. Building Stronger and Safer Communities and Infrastructure

##### Building Coastal Resilience

	U.S. Army Corps of Engineers	Department of Commerce	Department of Defense	Department of Energy	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Transportation	Environmental Protection Agency	National Aeronautics and Space Administration	National Capital Planning Commission	Smithsonian Institution	United States Postal Service	U.S. Department of Agriculture
<b>General Progress:</b>	X	X	X	X	X	X	X	X	X	X	X	X	p.9	X
Coastal Risk Reduction and Resilience: Using the Full Array of Measures	p.12													
North Atlantic Coast Comprehensive Study	p.12	R		R	R	R			R		p.5			
<i>ECB Application of Flood Risk Reduction Standard for Sandy Rebuilding Projects</i>	p.13													
SLR Tool for Sandy Recovery	p.18	R			R									
<i>Resources for Evaluating and Monitoring Climate Change Adaptation Actions in Coastal Regions: An Annotated Bibliography</i>	p.19													
National Climate Assessment	p.20													
Risk Quantification for Sustaining Coastal Military Installation Assets and Mission Capabilities	p.23													
Comprehensive Evaluation of Project Datums	p.25													
Policy and Guidance: EC 1165-2-212, EM 1110-2-6056, and ERs 1100-2-8160 and 62	p.25													

# PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE

## I. Building Stronger and Safer Communities and Infrastructure

### Building Coastal Resilience

	U.S. Army Corps of Engineers	Department of Commerce	Department of Defense	Department of Energy	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Transportation	Environmental Protection Agency	National Aeronautics and Space Administration	National Capital Planning Commission	Smithsonian Institution	United States Postal Service	U.S. Department of Agriculture
Ocean Acidification research project		p.19												
Develop social indicators of vulnerability of US fishing communities		p.25												
Data maps for 32 coastal counties (coastal flood risk mapper)		p.27												
Provide 100 coastal counties with tech assistance in use of resilience assessment and planning data and tools		p.27												
Provide tech assistance to Great Lakes coastal communities: implement results of cost/benefit green infrastructure study		p.30												
Guide for considering potential CC effects on Coastal and Estuarine Land Conservation (CELCP) projects		p.37												
Report: <i>Assessing Impacts of Climate Change on Coastal Military Installations: Policy Implications</i>			p.10											
Thomas Jefferson National Accelerator Facility (TJNAF) pilot				p.15										
Conducting surveys with Resilience STAR pilot in Gulf Coast					p.9									

# PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE

## I. Building Stronger and Safer Communities and Infrastructure

### Building Coastal Resilience

	U.S. Army Corps of Engineers	Department of Commerce	Department of Defense	Department of Energy	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Transportation	Environmental Protection Agency	National Aeronautics and Space Administration	National Capital Planning Commission	Smithsonian Institution	United States Postal Service	U.S. Department of Agriculture
Programs: Indian Housing Block, Native Hawaiian Housing Block Grant, etc.						p.8								
Gulf of Mexico restoration program							p.13							
Analyses of SLR vulnerability using Sea Level Affecting Marshes Model (SLAMM)							p.39							
Gulf Coast Study								p.13						
Developed SLR scenarios and conducted sea level affecting marshes modeling for Kennedy Space Center and surrounding Indian River Lagoon estuary										p.7				
Dune Vulnerability Team construct inland dune in area of high beach erosion at Kennedy Space Center										p.10				
Tennenbaum Marine Observatories Network												p.61		
Chesapeake Bay Nutria Eradication Project														p.58

Table 2-5: Crosswalk: Building Coastal Resilience

## Building Emergency Preparedness

Note: As alluded to in the beginning of this section, *Building Stronger and Safer Communities and Infrastructure*, the most common general examples here were plans to incorporate climate change into existing emergency preparedness procedures/protocols (such as COOP plans), training, and data systems. Due to the amount of agencies that spoke to this topic in their adaptation plan, this table breaks up agencies alphabetically into two parts: Part 1: A through D, Part 2: E through Z.

PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE																
I. Building Stronger and Safer Communities and Infrastructure																
Building Emergency Preparedness: Part 1 – Agency Names A through D																
	U.S. Army Corps of Engineers	Commodity Futures Trading Commission	Corporation for National Community Service	Department of Agriculture	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of Labor	Department of State	Department of Transportation	Department of Treasury	Department of Veterans Affairs
<b>General Progress:</b>	p.12	X		X	X	X	X	X	X	X	X	p.6	X	X	X	p.32
Incorporate climate change into COOP plan		p.3	p.9	p.109	p.11		p.18	p.30	p.34	p.30	p.12			p.26	p.16	
Animal and plant health emergency frameworks				p.18												
Hosted 10 defense ministers of Association of Southeast Asian Nations to collaborate on non-traditional security challenges such as climate change					p.15											
Readiness and Emergency Management for Schools Program						p.4										

PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE

I. Building Stronger and Safer Communities and Infrastructure

**Building Emergency Preparedness: Part 1 – Agency Names A through D**

	U.S. Army Corps of Engineers	Commodity Futures Trading Commission	Corporation for National Community Service	Department of Agriculture	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of Labor	Department of State	Department of Transportation	Department of Treasury	Department of Veterans Affairs
Project School Emergency Response to Violence (SERV) helps recover from traumatic event						p.5										
Continuity Programs help sites plan for CC emergencies							p.12									
Office of the Assistant Secretary for Preparedness and Response (ASPR)'s National Disaster Medical System								p.7								
Go-Teams, inventories of resources, exit strategy										p.41						
Severe weather response plans for high risk facilities											p.32					
Member of President's Council on Climate Preparedness and Resilience													p.13			
Emergency Relief Program														p.21		

Table 2-6a: Crosswalk: Building Emergency Preparedness: Part 1

PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE

I. Building Stronger and Safer Communities and Infrastructure

**Building Emergency Preparedness: Part 2 – Agency Names E through Z**

	Environmental Protection Agency	Federal Trade Commission	General Services Administration	National Archives and Records Administration	Office of Personnel Management	Peace Corps	Pension Benefit Guaranty Corporation	Railroad Retirement Board	Small Business Administration	Smithsonian Institution	Social Security Administration	US Postal Service	US Agency for International Development
<b>General Progress:</b>	X	X	X	p.18	X	X	X	X	X	X	p.7	p.8	X
Incorporate climate change into COOP plan		p.3	p.32		p.7	p.9	p.15	p.7	p.10	p.66			p.8
Awards acquisitions and grants to support stakeholder emergency response	p.33												

**Table 2-6b: Crosswalk: Building Emergency Preparedness: Part 2**



## Building LEED Certified Buildings

PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE							
I. Building Stronger and Safer Communities and Infrastructure							
Building LEED Certified Buildings <sup>13</sup>							
	Department of Agriculture	Department of Defense	Department of Health and Human Services	Environmental Protection Agency	Federal Trade Commission	National Archives and Records Administration	U.S. Department of State
General Progress:	X	X	X	X	p.5	X	X
Requiring that all new construction be LEED Silver	p.72						
Mark Center Complex is LEED Gold		p.19					
5 CDC LEED-certified buildings			p.25				
LEED Silver building in Sabine Island, Florida				p.32			
New Presidential Libraries are built to LEED Platinum						p.7	
All new construction required to be LEED Silver at minimum						p.12	
LEED Platinum building in Charleston, South Carolina							p.10
Requiring LEED Silver for space over 5,000 square feet							p.10

Table 2-7: Crosswalk: Building LEED Certified Buildings

<sup>13</sup> Generally not a climate change adaptation measure

## II. Protecting our Economy and Natural Resources

PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE										
II. Protecting our Economy and Natural Resources										
	U.S. Army Corps of Engineers	Department of Agriculture	Department of Commerce	Department of Defense	Department of Energy	Department of Homeland Security	Department of the Interior	Environmental Protection Agency	National Aeronautics and Space Administration	Smithsonian Institution
<b>General Progress:</b>	X	R	X	R	X	R	X	R	X	X
Integrated Natural Resource Management Plan	p.15									
Climate Natural Resources Working Group	p.28	R	R	R		R	R	R		
Adaptation Pilot Study: West Maui Watershed	p.48		R					R		
Ecosystem status reports for Northeast, Alaska, & Pacific Coast			p.24							
Continue study of CC impacts on Bering Sea Marine Ecosystem			p.26							
Continue study of CC impacts on California Current Large Marine Ecosystem			p.26							
Complete <i>Management Plan for Coral Population Enhancement Activities</i>			p.27							
National Estuarine Research Reserve System (NERRS)			p.27							
Evaluate climate change and hydrosystem scenarios for Columbia River system			p.29							
Climate and Environmental Sciences Division's Environmental System Science research					p.17					
Ecosystem-Based Management							p.22			
Developed SLR scenarios and conducted sea level affecting marshes modeling for Kennedy Space Center and surrounding Indian River Lagoon estuary									p.18	
Monitors growth and survival of 4.5 million trees										p.61

PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE										
II. Protecting our Economy and Natural Resources										
	U.S. Army Corps of Engineers	Department of Agriculture	Department of Commerce	Department of Defense	Department of Energy	Department of Homeland Security	Department of the Interior	Environmental Protection Agency	National Aeronautics and Space Administration	Smithsonian Institution
Permanent sites where research long-term changing marine biodiversity and coastal ecosystems										p.61

Table 2-8: Crosswalk: Protecting our Economy and Natural Resources

## Protecting Fisheries/Fish Stocks

PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE										
II. Protecting our Economy and Natural Resources										
Protecting Fisheries/Fish Stocks										
	U.S. Army Corps of Engineers	Department of Agriculture	Department of Commerce	Department of Education	Department of Housing and Urban Development	Department of the Interior	Department of State	National Archives and Records Administration	Small Business Administration	Tennessee Valley Authority
<b>General Progress:</b>	X	X	X	X	p.61	X	p.17	p.68	p.17	X
Technical support to Mekong River Commission related to fish passages	p.34									
National Fish, wildlife, and plants climate adaptation strategy	p.50	p.28		p.11						
Prototype system for assessing CC related shifts in distribution of major fish stocks			p.24							
Assess vulnerability of fish stocks in Northeast region			p.25							
Develop social indicators of vulnerability of US fishing communities			p.25							
Continue study of CC impacts on Bluefin Tuna in Gulf of Mexico (and other pelagic fish stocks)			p.26							
Launch initiative to understand CC impacts on groundfish of Northeast Atlantic			p.26							
Complete designs for resilient salmon habitat restoration projects			p.28							
Develop climate-impact models for Snake River spring/summer Chinook salmon			p.29							
Investment in Nez Perce Tribal Hatchery						p.26				
Stream and Tailwater Monitoring Program										p.6

Table 2-9: Crosswalk: Protecting Fisheries/Fish Stocks

## Protecting the Health Sector

Note: Due to the amount of agencies that spoke to this topic in their adaptation plan, this table breaks up agencies alphabetically into two parts: Part 1: A through D, Part 2: E through Z.

PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE															
II. Protecting our Economy and Natural Resources															
Protecting the Health Sector: Part 1 – Agency Names A through D															
	Broadcasting Board of Governors	Corporation for National and Community Service	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Labor	Department of State	Department of Transportation	Department of Treasury	Department of Veterans Affairs
<b>General Progress:</b>	p.5	p.3	p.3	X	X	p.11	X	X	p.49	X	X	p.8	p.13	p.19	X
Reviewing health surveillance programs				p.12											
Green Ribbon Schools Program					p.6										
CDC's National Center for Environmental Health							p.7								
HHS Go Green Get Healthy							p.7								
Research program: <i>Climate Change and Health: Assessing and Modeling Population Vulnerability to Climate Change</i>							p.10								
<i>Assessing Health Related Vulnerabilities</i> document							p.13								
Disaster Technical Assistance Center's (DTAC) Disaster Behavioral Health Information Series							p.13								
<i>Healthcare Preparedness Capabilities: National Guidance for Healthcare System Preparedness</i> publication							p.16								

PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE															
II. Protecting our Economy and Natural Resources															
Protecting the Health Sector: Part 1 – Agency Names A through D															
	Broadcasting Board of Governors	Corporation for National and Community Service	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Labor	Department of State	Department of Transportation	Department of Treasury	Department of Veterans Affairs
Federal Community Health Resilience Coalition							p.18								
NIEHS's white paper: <i>A Human Health Perspective on Climate Change</i>							p.21								
NIH climate change and health grants							p.21								
Intramural research project: <i>Identifying Workers and Facilities to be Impacted by Severe Weather Events due to Climate Change</i>							p.23								
Community health planning templates							R	p.4							
Incorporate changing geographic distribution of insect vectors in biological event or forecasting reports of vector borne diseases								p.11							
Development of a Community Health Resilience Toolkit								p.20							
Monitor invasive species likely to harm human health										p.23					
OSHA campaigns, resources, and trainings											p.13				
HAIISS tracks climate-enabled vector-borne diseases															p.28

Table 2-10a: Crosswalk: Protecting Resilience in Health Sector: Part 1

PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE											
II. Protecting our Economy and Natural Resources											
Protecting the Health Sector: Part 2 – Agency Names E through Z											
	Environmental Protection Agency	Federal Trade Commission	General Services Administration	National Aeronautics and Space Administration	National Archives and Records Administration	National Capital Planning Commission	Office of Personnel Management	Small Business Administration	Smithsonian Institution	Tennessee Valley Authority	US Postal Service
<b>General Progress:</b>	X	p.5	p.8	p.5	p.85	p.7	p.8	p.16	p.69	p.31	p.10
Focus on life stages vulnerable to climate change	p.50										
Priority focus on children's environmental health	p.19										

Table 2-10b: Crosswalk: Protecting Resilience in Health Sector: Part 2

### III. Using Sound Science to Manage Climate Impacts: Part 1 – A through D

Note: Due to the amount of agencies that spoke to this topic in their adaptation plan, this table breaks up agencies alphabetically into two parts: Part 1: A through D, Part 2: E through Z.

PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE															
III. Using Sound Science to Manage Climate Impacts: Part 1 – Agency Names A through D															
	U.S. Army Corps of Engineers	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of Transportation	Department of Treasury	Department of Veterans Affairs	Department of State
<b>General Progress:</b>	X	X	X	R	X	X	X	R	R	X	p.14	X	p.2	p.10	X
Cold Regions Research Engineering Lab performs research	p.5														
North Atlantic Coast Comprehensive Study	p.12			R				R	R	R					
Federal Flood Risk Reduction Standard	p.13														
Researching Nonstationarity	p.16														
SLR Tool for Sandy Recovery	p.18														
USGCRP Science Working Group	p.19														
Climate Change and Water Working Group (CCAWG)	p.20			R						R					
National Climate Assessment	p.20														
Report: <i>Addressing Climate Change in Long-Term Water Resources Planning and Management...</i>	p.21									R					
Report: <i>Short-Term Water Management Decisions...</i>	p.21			R						R					
Archive of climate model outputs	p.22									R					



# PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE

## III. Using Sound Science to Manage Climate Impacts: Part 1 – Agency Names A through D

	U.S. Army Corps of Engineers	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of Transportation	Department of Treasury	Department of Veterans Affairs	Department of State
Engineer Research and Development Center (ERDC)	p.23														
Policy and Guidance: EC 1165-2-212, EM 1110-2-6056, and ERs 1100-2-8160 and 62	p.25														
Carbon sequestration studies	p.29														
Drought Contingency Plan portal	p.32														
Science, Technology, Engineering, and Mathematics (STEM) investments support climate change education for future leaders		p.11			p.7										
USDA Regional Climate Hubs			p.20												
COMET-Farm whole-farm greenhouse gas and carbon sequestration assessment			p.29												
Energy Tool for energy efficiency programs			p.29												
Nutrient Tracking Tool (NTT) for field-scale nutrient and sediment runoff			p.29												
Plant Hardiness Zone Map			p.29												
PRISM climate mapping system and web portal			p.29												
Virtual food resilience data portal and toolkit			p.32												
Carbon cycle science, climate change assessment modeling						p.14									

PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE															
III. Using Sound Science to Manage Climate Impacts: Part 1 – Agency Names A through D															
	U.S. Army Corps of Engineers	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of Transportation	Department of Treasury	Department of Veterans Affairs	Department of State
Researching carbon cycle science						p.14									
Atmospheric Radiation Measurement Research Facility program						p.17									
Ecological and subsurface terrestrial science						p.17									
CDC's National Institute of Environmental Health Sciences							p.7								
Climate Adaptation Science Investigator (CASI)															
Climate Science Centers										p.15					
Common Support Services – Weather (CSS-Wx) for aviation weather data												p.17			
CMIP Climate Data Processing Tool												p.20			
Vulnerability Assessment Scoring Tool												p.20			
Global Framework for Climate Services				R											p.15

Table 2-11a: Crosswalk: Using Sound Science to Manage Climate Impacts: Part 1

### III. Using Sound Science to Manage Climate Impacts: Part 2 – E through Z

PREPARE THE UNITED STATES FOR THE IMPACTS OF CLIMATE CHANGE										
III. Using Sound Science to Manage Climate Impacts: Part 2 – Agency Names E through Z										
	Environmental Protection Agency	General Services Administration	National Aeronautics and Space Administration	National Archives and Records Administration	National Capital Planning Commission	Office of Personnel Management	Small Business Administration	Smithsonian Institution	Tennessee Valley Authority	US Postal Service
<b>General Progress:</b>	X	X	X	p.19	X	p.4	p.4	X	X	p.11
Researching Nonstationarity	p.47									
RFI for applied climate science		p.21								
GSA's Sustainable Facilities Tool		p.48								
Climate Adaptation Science Investigator (CASI)			p.7							
North Atlantic Coast Comprehensive Study	R				p.5					
Center for Tropical Forest Science								p.61		
Four decades of research on the effects of global change on tidal wetlands: Smithsonian Environmental Research Center								p.61		
Permanent marine research sites where conduct long-term studies of changing coastal marine biodiversity								p.61		
Remote sensing program obtains data on carbon exchange between land and atmosphere								p.61		
Researching how glaciers move and are affected by tides, temperatures, and other factors								p.61		
Investments in small modular reactors, grid modernization, and energy utilization technologies									p.15	

**Table 2-11b: Crosswalk: Using Sound Science to Manage Climate Impacts: Part 2**

## Lead International Efforts

### I. Working with Other Countries to Take Action to Address Climate Change

LEAD INTERNATIONAL EFFORTS											
I. Working with Other Countries to Take Action to Address Climate Change											
	U.S. Army Corps of Engineers	Department of Agriculture	Department of Commerce	Department of Defense	Department of Energy	Department of Homeland Security	Department of the Interior	Department of State	Smithsonian Institution	United States Agency for International Development	US Postal Service
<b>General Progress:</b>	X	X	X	X	X	X	X	X	X		X
Greenland Ice Sheet Program (GISP)	p.5										
International Geophysical Year (IGY)	p.5										
2010 workshop on nonstationarity	p.15										
Engineering Technical Letter 1100-2-1	p.25										
Federal Support Toolbox provides models and tools intended to be shared with international water resources community to strengthen global resilience to climate change	p.30										
Alliance for Global Water Adaptation (AGWA)	p.33										
International Center for Integrated Water Resources Management (ICIWaRM)	p.33										
Workshops with NATO	p.33										
World Association for Waterborne Transport Infrastructure (PIANC) Permanent Task Group for Climate Change (PTGCC)	p.33										
<i>Global Climate Change, Food Security, and the US Food System</i> report		p.5									
Work to establish Climate Smart Agricultural Alliance		p.5									

## LEAD INTERNATIONAL EFFORTS

### I. Working with Other Countries to Take Action to Address Climate Change

	U.S. Army Corps of Engineers	Department of Agriculture	Department of Commerce	Department of Defense	Department of Energy	Department of Homeland Security	Department of the Interior	Department of State	Smithsonian Institution	United States Agency for International Development	US Postal Service
Coral Triangle Initiative (CTI)			p.34								
Halifax International Security Forum				p.3							
Hosted 10 defense ministers of Association of Southeast Asian Nations to collaborate on non-traditional security challenges such as climate change				p.15							
International Panel on Climate Change (IPCC) Fifth Assessment Report					p.17			p.13			
International Maritime Organization Polar Code Development						p.16					
Group on Earth Observations							p.42		p.68		
Friends of the Nansen Initiative								p.13			
International framework for observing the climate system								p.15			
Funded study titled <i>Working with a Changing Climate, Not Against It: A Survey of Lessons Learned for Resilient Adaptation to a Changing Climate</i>										p.11	
Partnered with the Inter-Governmental Authority on Development Climate Prediction and Application Center (ICPAC) in Kenya, the NMHSs and the WMO to implement a regional program to reduce vulnerability to climate-related disaster risks in the ten greater Horn of Africa countries										p.11	
Producing and distributing global, high-resolution, spatially-refined climate database called “CHIRPS” relevant for adaptation planning										p.12	

LEAD INTERNATIONAL EFFORTS										
I. Working with Other Countries to Take Action to Address Climate Change										
	U.S. Army Corps of Engineers	Department of Agriculture	Department of Commerce	Department of Defense	Department of Energy	Department of Homeland Security	Department of the Interior	Department of State	Smithsonian Institution	United States Agency for International Development
										US Postal Service
Three-year project, measuring principal features of Yemen's water budget, integrating information on CC drivers, and ultimately analyze and project Yemen's water future										p.12
Working with international non-governmental organization (NGO) in West Africa to identify likely nature, intensity, and future prognosis of climate change impacts in parts of Mali, Niger, and Burkina Faso, along the Niger River basin										p.12
Yearly presentation on greenhouse gas mitigation efforts through International Post Corporation										p.16

**Table 2-12: Crosswalk: Lead International Efforts to Address Global Climate Change**

## APPENDIX A: Points of Contact

This Appendix lists Points of Contacts for each adaptation plan submitted to CEQ and OMB in 2014, if they were provided.

AGENCY	POINT(S) OF CONTACT		
	Name	Email	Phone
Broadcasting Board of Governors	Clement Heincer	cheincer@bbg.gov	202.382.7363
Commodity Futures Trading Commission	Candace Turner	cturner@cftc.gov	202.418.5177
	Tommy Johnson	tjohnson@cftc.gov	202.418.5141
Corporation for National Community Service	Jeffrey Page	jpage@cns.gov	202.606.6632
	John Kelly	jkelly@cns.gov	202.606.6743
	Victoria Emerson	vemerson@cns.gov	202.606.6668
	Debra Forrestel	dforrestel@cns.gov	202.606.3610
Department of Housing and Urban Development	various	Resilience Council Members and Staff listed on p.69 in Appendix B.	
Department of the Interior	Jonathan Steele	Jonathan_Steele@ios.doi.gov	202.208.4839
Farm Credit Administration	Stephen G. Smith	smiths@fca.gov	Not provided
	Veronica McCain	mccainv@fca.gov	Not provided
National Archives and Records Administration	Mark Sprouse	mark.sprouse@nara.gov	Not provided
	Ngan Pham	ngan.pham@nara.gov	Not provided
	Kevin Anderson	kevin.anderson@nara.gov	Not provided
National Capital Planning Commission	Amy Tarce	amy.tarce@ncpc.gov	202-482-7241
Office of Personnel Management	Dean S. Hunter	dean.hunter@opm.gov	Not provided
	Mariano S. Aquino	mariano.aquino@opm.gov	Not provided
Peace Corps	Kirk Longstein	Not provided	Not provided
	James Pimpedly	Not provided	Not provided
Pension Benefit Guaranty Corporation	Laura Stitt	Stitt.laura@pbgc.gov	202.326.4150
	Mary Gibert	Gibert.mary@pbgc.gov	202.326.4150
	Cathy Kronopolus	Kronopolus.cathleen@pbgc.gov	202.326.4150
Tennessee Valley Authority	Brenda Brickhouse	Not provided	Not provided

### Appendix A: Points of Contact

## APPENDIX B: Agency Needs

This Appendix lists needs that were specified in adaptation plans submitted to CEQ and OMB in 2014.

Note: Page numbers listed reflect the page number displayed in the white box of the .pdf document, or the page number referred to as page #/## within the .pdf document, not necessarily the page number at the bottom of each page within the Adaptation Plan

AGENCY	NEED(S)
Broadcasting Board of Governors	<ul style="list-style-type: none"> <li>No inter-governmental coordination at this time. (p.7)</li> <li>“The agency is not staffed with any experts in the field of climate change adaptation.” (p.9)</li> </ul>
Corporation for National Community Service	<ul style="list-style-type: none"> <li>Flexible and mobile technology infrastructure (p.13)</li> </ul>
Department of Commerce	<ul style="list-style-type: none"> <li>Science to estimate carbon storage services of coastal habitats. (p.36)</li> <li>Coordinated US ocean observing system to track climate change. (p.36)</li> <li>Consistent guidance and approaches for incorporating CC information into federal planning and evaluation - CEQ’s NEPA guidance may address. (p.36)</li> </ul>
Department of Defense	<ul style="list-style-type: none"> <li>Shared use of training and testing assets. Collaboration on: sustainable infrastructure, encroachment challenges, best practices, and adaptation strategies. (p.15)</li> </ul>
Department of Education	<ul style="list-style-type: none"> <li>Providing high quality STEM instruction (p.8)</li> </ul>
Department of Energy	<ul style="list-style-type: none"> <li>Developing smarter, more resilient electric grid. (p.16)</li> </ul>
Department of Homeland Security	<ul style="list-style-type: none"> <li>Tools to make the economic case for change required for financing resilient investments. (p.17)</li> </ul>
Department of Housing and Urban Development	<ul style="list-style-type: none"> <li>Primary needs identified were statutory changes, additional staff and program funds.</li> </ul>
Department of the Interior	<ul style="list-style-type: none"> <li>Opportunities to engage youth on climate science education and awareness (p.17)</li> <li>Identify water management solutions to water shortage problems (p.34)</li> <li>Identify opportunities for pooling resources (p.44)</li> <li>Work to lift the SECURE Water Act Section 9504(a) appropriations ceiling (p.44)</li> <li>Contribute staff and other resources to Climate Science Centers (p.45)</li> </ul>
Department of Justice	<ul style="list-style-type: none"> <li>Potential collaborating agencies were identified. USACE was not listed. (p.20)</li> </ul>
Department of Labor	<ul style="list-style-type: none"> <li>Increase teleconferencing capability by using other agency facilities to enable remote hearings and meetings. (p.10)</li> </ul>
Environmental Protection Agency	<ul style="list-style-type: none"> <li>Eight data/information/research needs listed on page 20, including: characterization of local impacts to precipitation and hydrology for use in planning long-lived water infrastructure, monitoring shifts in water quality and aquatic ecosystems in watersheds, and the interactions between climate and the stratospheric ozone layer. (p.20)</li> <li>Assist coastal Inupiat village of Shismaref Alaska facing relocation due to flooding and erosion threats from SLR and decreased sea ice (p.36).</li> <li>Evaluate legal basis for considering CC impacts in setting standard/issuing permits under Clean Air Act and Clean Water Act (p.45)</li> </ul>



General Services Administration	<ul style="list-style-type: none"> <li>• Climate change translators who can effectively communicate with and train agency leadership and staff in climate risk management issues. (p.30)</li> <li>• Maps identifying facilities located in floodplains or along the coast (p.44)</li> <li>• “To plan and implement given the long-term challenges of climate change, the GSA climate team has found that non-routine problem solving skills and ex ante decision making are not typical components of GSA business processes, and thus agency staff have little experience with them. Staff must either be trained or hired in order to develop these skills within the agency.” (p.17) <ul style="list-style-type: none"> <li>○ Report Example: “Facility managers are focused on day-to-day operations and asset maintenance, usually in the near term. Our asset repair evaluations use a 5-year horizon for planning. Adaptation planning requires a much longer view, and the ability to assess physical infrastructure changes over a much expanded period requires skills and tools that GSA does not currently have.” (p.34)</li> </ul> </li> <li>• Open-source risk model and approach to monetizing the cost and payoff of risk management. (p.28)</li> <li>• There is a strong demand for guidance that translates the science of climate change into information that is useful for decision making. (p.30)</li> <li>• GSA also needs agency leadership to communicate the importance of climate adaptation planning and provide visibility on this topic to develop a culture of prevention and preparedness. (p.30)</li> <li>• Develop methods to identify and document causality between incremental climatic change and business disruption/downtime to make the issue of climate risk management more real and relevant. (p.31)</li> </ul>
National Archives and Records Administration	<ul style="list-style-type: none"> <li>• Increased need for cooling and humidity control. (p.67)</li> </ul>
Railroad Retirement Board	<ul style="list-style-type: none"> <li>• Work with agencies in Chicago area (p.6)</li> </ul>
Tennessee Valley Authority	<ul style="list-style-type: none"> <li>• “Establish partnerships that will collaboratively advance TVS’s water resource improvements, and also serve as potential sources of shared funding.” (p.29/30)</li> </ul>
U.S. Department of Agriculture	<ul style="list-style-type: none"> <li>• The “need to establish more long-term collaborations with federal funding agencies to provide research support to understand complex climate issues and develop the models and decision-making products essential for the sustainability of economic and natural resource systems.” (p.22)</li> </ul>

#### Appendix B: Agency Needs

## APPENDIX C: Resilience

This Appendix lists mentions of resilience in the adaptation plans submitted to CEQ and OMB in 2014.

Note: Page numbers listed reflect the page number displayed in the white box of the .pdf document, or the page number referred to as page #/## within the .pdf document, not necessarily the page number at the bottom of each page within the Adaptation Plan. Due to the amount of agencies that spoke about resilience in their adaptation plan, this table breaks up agencies that mentioned resilience alphabetically into two parts: Part 1: A through D, and Part 2: E through Z.

RESILIENCE: Part 1 – Agency Names A through D																	
	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
USACE Committee on Climate Preparedness and Resilience (CCPR)	p.2																
USACE to mainstream climate change preparedness and resilience in all activities	p.4																
USACE <i>Climate Preparedness and Resilience Policy Statement</i>	p.7																
Strategy is to improve USACE knowledge for water resources management and infrastructure resilience	p.11																

## RESILIENCE: Part 1 – Agency Names A through D

	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
During 2013, USACE made progress on developing approaches, policy, guidance and tools to support infrastructure resilience	p.12																
In September 2013, USACE published <i>Coastal Risk Reduction and Resilience: Using the Full Array of Measures</i>	p.12																
Improving our knowledge for water resources management and infrastructure resilience	p.20																
Developing policy and guidance for infrastructure resilience	p.24																
USACE has a number of activities underway to increase climate change preparedness and resilience	p.27																
USACE participates in the CNRWG to better manage lands and waters for climate preparedness and resilience	p.28																
USACE is committed to continuing to share information, data, and tools for climate change preparedness and resilience	p.30																

## RESILIENCE: Part 1 – Agency Names A through D

	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
In FY14, USACE will establish a team to evaluate supply chain effects and possible responses to improve climate adaptation and resilience	p.32																
USACE currently collaborates with the USAID's Mekong-Building Climate Resilience in Asian Cities program	p.33																
Manage natural resources for resilience and adaptation	p.50																
Assessing coastal resilience in a changing climate	p.51																
Designed facility for resilience against extreme weather events		p. 9															
Invested \$2 million to implement projects focused on building community resilience in the face of climate change in California			p.7														
USDA has multiple pillars in its resilience strategies				p.4													

**RESILIENCE: Part 1 – Agency Names A through D**

	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
Resilience strategies outlined in Goal 9 of the <i>Strategic Sustainability Performance Plan</i> are in progress and being integrated into regional planning				p.23													
Currently USDA supports climate adaptation and resilience in multiple initiatives in the areas of Energy Management and Greenhouse Gas (GHG), Sustainable Buildings, Sustainable Locations, Fleet Management, Sustainable Procurement and Bio-Preferred products				p.24													
A partial listing of USDA accomplishments and ongoing activities in support of preparedness and resilience				p.29													
USDA will lead the Food Resilience theme within the Climate Data Initiative (CDAT)				p.30													
National Drought Resilience Partnership and Ecological Restoration & Resilience Policy				p.32													
Actions taken to manage climate risks in the short term and build resilience in the long term				p.51													

**RESILIENCE: Part 1 – Agency Names A through D**

	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
Actions taken to improve climate change adaptation and resilience as it relates to procurement and acquisitions				p.56													
NOAA Coral Reef Conservation Program is assessing resilience					p.16												
NIST working to predict disaster resilience at the building and community scale, developing a community-based resilience framework					p.17												
NOAA working to establish feasible solutions for resilience to ocean acidification					p.19												
Participation in development of cross-agency National Drought Resilience Partnership (NDRP)					p.20												
Assessing the climate vulnerability and resilience of fish stocks and fishing communities					p.25												

## RESILIENCE: Part 1 – Agency Names A through D

	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
NOAA implementing projects that increase understanding of current and future climate impacts on ocean and coastal resources (fish stocks, protected species) to help resource managers and the people that depend on them take action to increase resilience in a changing climate					p.25												
Introducing Green Infrastructure for Coastal Resilience training					p.26												
Partnering with FEMA to deliver trainings on Tsunami Awareness and Coastal Community Resilience					p.26												
Resilience assessment and planning data and tools					p.26												
Resilient salmon habitat restoration projects					p.29												
Developing natural infrastructure online tutorial to guide users in creating a spatial analysis work plan for identifying priority natural infrastructure for resilience to coastal hazards and sea level rise					p.30												

**RESILIENCE: Part 1 – Agency Names A through D**

	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
NOAA working through CZMA to support and encourage smarter, more climate-resilient investments of federal, state and local resources					p.36												
NERRS Procurement, Acquisition and Construction Guidance incorporates resilience					p.37												
Coastal Resilience Networks (CRest) Grant Program					p.37												
Working to assist state, industry and community efforts to increase resilience of protected species					p.39												
Working to assist state, industry and community efforts to increase resilience of coastal habitats					p.39												
Cooperation with partner nations to enhance planning, responses, and resilience to the effects of climate change						p. 15											
Efforts supporting healthier kids and communities							p.9										
Working with HHS to promote resilience of individuals and communities to climate-related health risk							p.12										



**RESILIENCE: Part 1 – Agency Names A through D**

	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
Work with GSA to increase office resiliency							p.12				p.35						
Leading national efforts to develop technologies to enhance the resilience of energy infrastructure								p.5									
Site Sustainability Plans (SSPs) include climate change resilience goal								p.12									
Building resilience in communities impacted by Hurricane Sandy								p.14									
Released 2013 report examining economic impact of increasing resilience of the U.S. electric grid								p.16									
Infrastructure Resilience Working Group -Council on Climate Preparedness and Resilience								p.18									
Considering need to improve integration of climate adaptation and resilience into procurement and real property decisions								p.19									

## RESILIENCE: Part 1 – Agency Names A through D

	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
Participation on the White House’s Council on Climate Adaptation and Resilience									p.7								
Building Resilience Against Climate Effects (BRACE) framework									p.10								
Public-private partnership to develop specific tools and information related to resilience of health care facilities in a context of climate change-exacerbated stressors									p.15								
Medical Reserve Corps build community resilience									p.17								
Community Health Resilience Working Group established to explore the concepts and issues concerning community health resilience									p.18								

## RESILIENCE: Part 1 – Agency Names A through D

	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
Research Grantee Community Resilience Coalition recurring teleconference discusses community resilience science as it relates to health and well-being, hears from thought leaders in the field, shares information among grantees, and explores opportunities for synergy and collaboration									p.18								
Federal Community Health Resilience Coalition									p.18								
Funded research to support long-term recovery and resilience efforts									p.23								
The U.S. Department of Housing and Urban Development (HUD) established an internal HUD Resilience Council to align new approaches involving key HUD programs with investments that enhance resilience to the effects of climate change and other natural disasters										p.4							
Work with other Departments to ensure that adverse effects of climate change on health are incorporated into the Community Health Resilience Initiative										p.5							

**RESILIENCE: Part 1 – Agency Names A through D**

	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
In September 2014, a Senior Level Exercise will take place to include members of the White House Council on Climate Preparedness and Resilience										p.8							
The National Institute of Building Science (NIBS), the Council on Environmental Quality (CEQ), and DHS hosted a Resilience Summit promoting building codes adoption on September 19, 2013										p.8							
DHS will study the Resilience STAR pilot program to determine applicability for infrastructure resilience more broadly										p.9							
National Drought Resilience Partnership with FEMA and other interagency partners with strategies in sectors such as agriculture, municipal water systems, energy, recreation, tourism, and manufacturing										p.18							
The HUD Resilience Council is focusing on three core activities											p.11						

## RESILIENCE: Part 1 – Agency Names A through D

	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
Update building standards to incorporate sustainability and resilience measures											p.18						
Develop guidance on building design, construction, and retrofit for sustainability and resilience											p.26						
Landscape resilience, coast restoration, and drought resilience programs												p.13					
Programs, policies and plans to manage climate risks and build resilience												p.28					
Supporting climate preparedness and resilience through its work to co-lead development of the <i>National Fish, Wildlife, and Plants Climate Adaptation Strategy</i>												p.37					
The DOI has invested Hurricane Sandy Supplemental Funding to increase the resilience of its coastal resources as well as communities in the Hurricane Sandy-affect region												p.40					
Considerations for climate adaptation and resilience improvements												p.41					

**RESILIENCE: Part 1 – Agency Names A through D**

	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
Modernizing programs to support climate resilience investment												p.42					
Barriers to climate resilience investments												p.43					
Incorporating available and relevant recommendations of the State, Local, and Tribal Leaders Task Force on Climate Change Preparedness and Resilience													p.10				
The DOJ will ensure that climate adaptation and resilience policies and programs reflect best available climate change science													p.14				
The DOJ will identify current climate resiliency practices via lessons learned by localities throughout the country where components have already experienced climate-related impacts													p.15				
The Justice Management Division will work with the grant components to update the grant making guidelines to promote climate resiliency													p.23				

**RESILIENCE: Part 1 – Agency Names A through D**

	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
The DOL capital equipment investment in information technology infrastructure and the move to the cloud increases resilience														p.6			
Conducted internal survey in 2014 for all functional, policy, program, and regional bureaus to organize and highlight climate resilience activities														p.9			
Incorporating climate adaptation and resilience into its broader strategic planning activities, including consideration for inclusion in the next iteration of the QDDR														p.16			
Laid out an objective with USAID in the FY15-FY17 strategic plan to assist countries in the East Asia Pacific region to increase climate resilience														p.17			
Strengthening resilience in small island developing states and glacier-dependent countries														p.18			

**RESILIENCE: Part 1 – Agency Names A through D**

	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
Planning to incorporate sustainability modules with resilience/adaptation components into select entry-level Foreign Service officer (FSO) orientation training courses														p.21			
Climate resilient actions through FY 17														p.22			
IRS has attended interagency workshops on Building a Climate Resilient National Capital Region															p.15		
IRS participates in the Treasury Climate Change Adaptation Workgroup to address resilience planning throughout Treasury															p.15		
Addressing vulnerabilities in existing infrastructure, new infrastructure, and system resilience																p.8	
FAA to develop guidance on airport climate adaptation and infrastructure resilience in FY 2014																p.17	
In FY 2014, FTA issued a NOFA for resilience projects																p.21	



**RESILIENCE: Part 1 – Agency Names A through D**

	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
Agency leadership is incorporating climate preparedness and resilience into planning and implementation guidelines for agency-implemented projects and regulatory initiatives																p.25	
Office of the Secretary of Transportation (OST) is actively taking steps to implement win-win solutions for climate resilience through its sustainability program																p.27	
Infrastructure resilience-building actions																	p.5
Health and healthcare resilience-building actions																	p.6
VA is incorporating climate resilience into all of its long-term planning, investments, construction, and training																	p.10
Policy statement on climate change resilience and adaptation																	p.12
VA actions to improve climate resilience of VA infrastructure (Table 1)																	p.17
Water conservation measures for building resilience																	p.19

## RESILIENCE: Part 1 – Agency Names A through D

	U.S. Army Corps of Engineers	Armed Forces Retirement Home	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Defense	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Justice	Department of State	Department of the Treasury	Department of Transportation	Department of Veterans Affairs
SCIP gaps/targets affecting agency resilience (Table 2)																	p.23
HAISS contributes to disease resilience																	p.29
VA is participating in four specific workgroups on infrastructure adaptation and healthcare facility resilience																	p.30
Bringing resilience into capital prioritization																	p.31

### Appendix C: Resilience: Part 1

**RESILIENCE: Part 2 – Agency Names E through Z**

	Environmental Protection Agency	Federal Trade Commission	General Services Administration	National Aeronautics and Space Administration	National Archives and Records Administration	National Capital Planning Commission	Nuclear Regulatory Commission	Office of Personnel Management	Peace Corps	Railroad Retirement Board	Small Business Administration	Smithsonian Institution	Social Security Administration	Tennessee Valley Authority	US Agency for International Development	US Postal Service
EPA developed tools, e.g., BASINS tool, to increase resilience of water resources to climate change	p.43															
Enhance the resilience of existing facilities in coastal areas to protect them from severe weather, flood damage, and sea level rise	p.44															
By 2015, EPA will build resilience to climate change by integrating considerations of climate change into five major grants, loan, contract, or technical assistance programs	p.57															
To build resilience in the long term, the FTC is implementing a new telework solution that is more robust than the agency's current telework technology		p.4														
IN FY13, GSA's Adaptation Team set strategic priorities for ensuring resilience			p.7													
Supply Chain Resilience Survey			p.26													
Include resilience factors in relevant facility, product, and service contracts			p.40													

## RESILIENCE: Part 2 – Agency Names E through Z

	Environmental Protection Agency	Federal Trade Commission	General Services Administration	National Aeronautics and Space Administration	National Archives and Records Administration	National Capital Planning Commission	Nuclear Regulatory Commission	Office of Personnel Management	Peace Corps	Railroad Retirement Board	Small Business Administration	Smithsonian Institution	Social Security Administration	Tennessee Valley Authority	US Agency for International Development	US Postal Service
GSA's interagency work to support climate preparedness and resilience			p.47													
Presidential Directive "Critical Infrastructure Security and Resilience"				p.4												
Strategic assets and capabilities risk assessment to identify where resilience planning can be improved				p.14												
Goal 9 strategies and climate change resilience					p.53											
Programs, policies, and plans to manage climate risks and build resilience in the near term						p.4										
NCPC can facilitate and encourage other federal agencies to improve their climate resilience						p.6										
Identify and remove barriers that discourage investments or actions to increase the Nation's resilience to climate change						p.7										
Goal 9 strategies for climate change resilience							p.43									
Preparedness, adaptation, and resilience							p.47									

## RESILIENCE: Part 2 – Agency Names E through Z

	Environmental Protection Agency	Federal Trade Commission	General Services Administration	National Aeronautics and Space Administration	National Archives and Records Administration	National Capital Planning Commission	Nuclear Regulatory Commission	Office of Personnel Management	Peace Corps	Railroad Retirement Board	Small Business Administration	Smithsonian Institution	Social Security Administration	Tennessee Valley Authority	US Agency for International Development	US Postal Service
To increase resilience, OPM has integrated the findings derived from the associated risk assessment into agency related plans, policies, and programs								p.6								
Improving climate adaptation and resilience								p.9								
OPM's Interagency efforts to support climate preparedness and resilience								p.9								
Evidence from the University of Notre Dame Global Adaptation Index (ND-GAIN) to improve resilience in countries where the Peace Corps serves									p.5							
The Peace Corps supports special programs and partnership initiatives that also contribute toward building resilience									p.10							
Influence and responsibility to increase resilience										p.2						
Collaborating with other agencies to integrate resilience										p.8						
Encouraging resilience in light of goals under EO 13653											p.4					

## RESILIENCE: Part 2 – Agency Names E through Z

	Environmental Protection Agency	Federal Trade Commission	General Services Administration	National Aeronautics and Space Administration	National Archives and Records Administration	National Capital Planning Commission	Nuclear Regulatory Commission	Office of Personnel Management	Peace Corps	Railroad Retirement Board	Small Business Administration	Smithsonian Institution	Social Security Administration	Tennessee Valley Authority	US Agency for International Development	US Postal Service
Using an assessment to inform future discussions with the GSA about the climate change resilience needs for SBA's leased facilities											p.21					
Supporting and encouraging climate change resilience											p.22					
Disaster loan program's insurance requirements may also improve the resilience of communities rebuilding after a disaster											p.27					
Barriers to national resilience to climate change											p.25					
Smithsonian research for building resilience into human-adapted ecosystems												p.60				
Refining and updating the CCAP to increase resilience												p.71				
Work with GSA to increase office resiliency													p.7			
TVA identified 3-5 preliminary priority actions to improve its capability to assess and build resilience to climate impacts														p.26		
Internal Adaptation Investment/Action to increase the Nation's resilience to climate change														p.31		

## RESILIENCE: Part 2 – Agency Names E through Z

	Environmental Protection Agency	Federal Trade Commission	General Services Administration	National Aeronautics and Space Administration	National Archives and Records Administration	National Capital Planning Commission	Nuclear Regulatory Commission	Office of Personnel Management	Peace Corps	Railroad Retirement Board	Small Business Administration	Smithsonian Institution	Social Security Administration	Tennessee Valley Authority	US Agency for International Development	US Postal Service
In 2012, DCHA led the process to develop the Agency's Policy and Program Guidance on <i>Building Resilience to Recurring Crisis</i>															p.9	
The guide "Toward Resilience: A Guide to DRR and CCA"															p.11	
FEWS NET is helping to inform resilience by NGOs															p.12	
Feed the Future course to include sessions on resilience															p.15	
Launch resilience challenge															p.19	
USAID has developed a partnership with Swiss Re to build resilience to climate change															p.61	
Climate Change Resilient Development (CCRD)															p.62	
Resilience in the Limpopo River Basin (RESILIM)															p.62	
USAID's Mekong Adaptation and Resilience to Climate Change Program															p.63	
USAID Water Resource Management and Flood Resilience Program															p.63	

## RESILIENCE: Part 2 – Agency Names E through Z

	Environmental Protection Agency	Federal Trade Commission	General Services Administration	National Aeronautics and Space Administration	National Archives and Records Administration	National Capital Planning Commission	Nuclear Regulatory Commission	Office of Personnel Management	Peace Corps	Railroad Retirement Board	Small Business Administration	Smithsonian Institution	Social Security Administration	Tennessee Valley Authority	US Agency for International Development	US Postal Service
The Postal Service's climate change adaptation planning with identify the policies and actions that support organizational resilience																p.4
Increasing our resilience is an important co-benefit to both climate adaptation planning and disaster management planning																p.13
Part of climate resilience is making investments to reduce recovery times and costs																p.15

### Appendix C: Resilience: Part 2



## APPENDIX D: Enhancing Coordination of National Efforts in the Arctic

In January 2015 Executive Order *Enhancing Coordination of National Efforts in the Arctic* was released. This Appendix lists actions listed in the adaptation plans submitted to CEQ and OMB in 2014 relating to this important polar region.

Note: Page numbers listed reflect the page number displayed in the white box of the .pdf document, or the page number referred to as page #/## within the .pdf document, not necessarily the page number at the bottom of each page within the Adaptation Plan.

ENHANCING COORDINATION OF NATIONAL EFFORTS IN THE ARCTIC							
	Department of Commerce	Department of Defense	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of the Interior	Smithsonian Institution
<b>General Progress:</b>	p.22	X	X	X	X	X	X
Research on increased temperature trends and changes in the fire regime in interior of Alaska		p.10					
Research on decadal scale ecological fields experiments and understanding permafrost ecology and future risks of abrupt climate change			p.17				
NCEZID's Arctic Investigations Program conducts research on impact of climate change on the health of Arctic populations				p.11			
United States Coast Guard Arctic Strategy					p.3		
Create Arctic Fusion Center					p.16		
Establish Center for Arctic Strategy and Policy					p.16		
Improve Arctic communication capabilities					p.16		
Support of efforts to recapitalize Polar Icebreaking					p.16		
Led development of Integrated Arctic Management approach						p.6	

ENHANCING COORDINATION OF NATIONAL EFFORTS IN THE ARCTIC							
	Department of Commerce	Department of Defense	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of the Interior	Smithsonian Institution
National Museum of Natural History's Arctic Studies Program researches interactions between humans and their environments and the history of cultural adaptations to climatically-sensitive forest and tundra zones							p.63

**Appendix D: Enhancing Coordination of National Efforts in the Arctic**

## APPENDIX E: Interagency Efforts

This Appendix lists Interagency Efforts mentioned in the adaptation plans submitted to CEQ and OMB in 2014.

Note: Page numbers listed reflect the page number displayed in the white box of the .pdf document, or the page number referred to as page #/## within the .pdf document, not necessarily the page number at the bottom of each page within the Adaptation Plan.

INTERAGENCY EFFORTS																								
	U.S. Army Corps of Engineers	Commodity Futures Trading Commission	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Education	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Labor	Department of Treasury	Department of State	Department of Transportation	Department of Treasury	Department of Veterans Affairs	Environmental Protection Agency	General Services Administration	National Aeronautics and Space Administration	National Capital Planning Commission	Small Business Administration	Smithsonian	Tennessee Valley Authority	Other
General Progress:		X	X	X																				
North Atlantic Coast Comprehensive Study	p.12				R																			
Hurricane Sandy Rebuilding Strategy (HSRS)	p.13				p.35			p.9			R			R							R			
Nonstationarity Hydrology	p.15																p.47							
SLR Tool for Sandy	p.18				R			R																
State, Local, and Tribal Leaders Task Force on Climate Change Preparedness and Resilience	p.18																							

INTERAGENCY EFFORTS																								
	U.S. Army Corps of Engineers	Commodity Futures Trading Commission	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Education	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Labor	Department of Treasury	Department of State	Department of Transportation	Department of Treasury	Department of Veterans Affairs	Environmental Protection Agency	General Services Administration	National Aeronautics and Space Administration	National Capital Planning Commission	Small Business Administration	Smithsonian	Tennessee Valley Authority	Other
Climate Change and Water Working Group (CCAWWG)	p.20			R	R			R		R				R			R							
Climate and Natural Resources Working Group	p.28																							
National Fish, Wildlife, and Plants Climate Adaptation Strategy Joint Implementation Working Group (NFWPCAS)	p.50				p.34																			
Attended CC workshops sponsored by CEQ		p.4																						
AmeriCorps			p.11	R		R		R		R						R								
US Interagency Council on Homelessness (USICH)			p.11																					
Coordinating Council on Juvenile Justice and Delinquency Prevention			p.11																					
White House Council on Women and Girls			p.11																					

INTERAGENCY EFFORTS																								
	U.S. Army Corps of Engineers	Commodity Futures Trading Commission	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Education	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Labor	Department of Treasury	Department of State	Department of Transportation	Department of Treasury	Department of Veterans Affairs	Environmental Protection Agency	General Services Administration	National Aeronautics and Space Administration	National Capital Planning Commission	Small Business Administration	Smithsonian	Tennessee Valley Authority	Other
My Brother’s Keeper			p.11																					
Public-private collaboration supporting the 21st Century Conservation Service Corps (21CSC)			p.11																					
Hurricane Sandy Task Force			p.11																					
Interagency Methane Strategy				p.25																				
USDA Regional Climate Hubs				p.26	R					R														
National Integrated Drought Information Systems (NIDIS)				p.28																				
USDA and NOAA MOU to improve cooperation to advance climate sciences and delivery to agriculture, forestry, and other environmental resource areas				p.28	R																			

INTERAGENCY EFFORTS																								
	U.S. Army Corps of Engineers	Commodity Futures Trading Commission	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Education	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Labor	Department of Treasury	Department of State	Department of Transportation	Department of Treasury	Department of Veterans Affairs	Environmental Protection Agency	General Services Administration	National Aeronautics and Space Administration	National Capital Planning Commission	Small Business Administration	Smithsonian	Tennessee Valley Authority	Other
USDA Agricultural Air Quality Task Force (AAQTF)				p.28													R							
Joint Fire Science Program (JFSP)				p.29																				
National Interagency Fire Center (NIFC)				p.29	R			R		R														
National Drought Resilience Partnership	R			p.36	R			R		R							R							DOE
CCWG: US Coral Reef Task Force					p.16												R							
US Coral Triangle Initiative (USCTI)					p.34					R														
National Ocean Council (NOC)					p.35																			
Green Ribbon Schools Program						p.6				R							R							DOE
Urban Waters Federal Partnership						p.9																		

INTERAGENCY EFFORTS																								
	U.S. Army Corps of Engineers	Commodity Futures Trading Commission	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Education	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Labor	Department of Treasury	Department of State	Department of Transportation	Department of Treasury	Department of Veterans Affairs	Environmental Protection Agency	General Services Administration	National Aeronautics and Space Administration	National Capital Planning Commission	Small Business Administration	Smithsonian	Tennessee Valley Authority	Other
Crosscutting Group on Climate Change and Human Health (CCHHG)					R		p.8																	
Interagency Special Report on Impacts of Climate Change on Human Health in the United States					R		p.9										R							
Environmental Justice Interagency Working Group							p.13																	
Federal Community Health Resilience Coalition							p.18																	
Integrated Arctic Management										p.6														
Interagency Climate Change Vulnerability Assessment Registry										p.9														
Landscape Conservation Cooperatives										p.15													R	
Native Plant Materials Development Program (NPMDP)										p.38														

INTERAGENCY EFFORTS																								
	U.S. Army Corps of Engineers	Commodity Futures Trading Commission	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Education	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Labor	Department of Treasury	Department of State	Department of Transportation	Department of Treasury	Department of Veterans Affairs	Environmental Protection Agency	General Services Administration	National Aeronautics and Space Administration	National Capital Planning Commission	Small Business Administration	Smithsonian	Tennessee Valley Authority	Other
21st Century Conservation Service Corps										p.42														
Climate Science Centers										p.42														
Interagency Adaptation Community of Practice										p.42														
Interagency Land Management Adaptation Group										p.42														
Interagency Climate Change and Ocean Acidification sub-group										p.42														
U.S. Group on Earth Observations (USGEO)										p.42														
National Cohesive Wildland Fire Management Strategy										p.46														
Cancun Adaptation Framework													p.7											
Building a Climate Resilient National Capital Region Workshop Series																		p.12	R			R		



INTERAGENCY EFFORTS																								
	U.S. Army Corps of Engineers	Commodity Futures Trading Commission	Corporation for National and Community Service	Department of Agriculture	Department of Commerce	Department of Education	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Labor	Department of Treasury	Department of State	Department of Transportation	Department of Treasury	Department of Veterans Affairs	Environmental Protection Agency	General Services Administration	National Aeronautics and Space Administration	National Capital Planning Commission	Small Business Administration	Smithsonian	Tennessee Valley Authority	Other
National Capital Region Climate Risks Preparation and Adaptation Pilot					R										R		R	p.14	R		R			
Adaptation and Mitigation Nexus Affinity Group																		p.45						
Interagency Forum on Climate Change Impacts and Adaptation										R									p.12					
Monumental Core Climate Adaptation Working Group																				p.5				
Interagency Network of Enterprise Assistance Providers (INEAP)								R													p.21			
Economy, Energy, and Environment Program (E3)								R													p.32			
Regional Energy Resource Council (RERC)																							p.12	
Regional Resource Stewardship Council (RRSC)																							p.12	

Appendix E: Interagency Efforts

## APPENDIX F: Interagency Case Study: Hurricane Sandy

This Appendix lists actions mentioned in the adaptation plans submitted to CEQ and OMB in 2014 relating to Hurricane Sandy.

Note: Page numbers listed reflect the page number displayed in the white box of the .pdf document, or the page number referred to as page #/## within the .pdf document, not necessarily the page number at the bottom of each page within the Adaptation Plan.

INTERAGENCY CASE STUDY: HURRICANE SANDY														
	U.S. Army Corps of Engineers	Corporation for National and Community	Department of Agriculture	Department of Commerce	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Transportation	National Aeronautics and Space Administration	Small Business Administration	US Postal Service
<b>General Progress:</b>														
North Atlantic Coast Comprehensive Study	p.12			R										
Hurricane Sandy Rebuilding Strategy (HSRS)	p.13			p.38										
ECB 2013-33 <i>Application of Flood Risk Reduction Standard for Sandy Rebuilding Projects</i>	p.13													
Sea Level Rise Tool for Sandy Recovery	p.18			R				R						
Deployed AmeriCorps members to affected areas for disaster relief and volunteer coordination. Members remained for months helping to coordinate activities		p.11					R							
APHIS employed use of Emergency Leave Transfer Program, providing employees with donated leave to help them in recovery process			p.45											
Developing a revised federal flood risk reduction standard				p.35										
Green infrastructure				p.35										
Held Coastal Resilience Networks (CRest) Grant Program for communities impacts by Hurricane Sandy				p.37										
Provided funding information and assistance through Project SERV					p.6									

INTERAGENCY CASE STUDY: HURRICANE SANDY														
	U.S. Army Corps of Engineers	Corporation for National and Community	Department of Agriculture	Department of Commerce	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Transportation	National Aeronautics and Space Administration	Small Business Administration	US Postal Service
Preliminary Damage Assessment (PDA) Teams directed to assess DE site and restore services – site opened for business earlier than planned following Sandy						p.13								
Building resilience in communities impacted by Hurricane Sandy such as aiding city of Hoboken, NJ improve resiliency of its electric grid						p.14								
Working with the vulnerable worker populations following Super Storm Sandy through health and safety training focusing on recovery work and preparing them for future severe weather events							p.12							
ASPR awarded more than \$8 million in grants through Disaster Relief Appropriations Act of 2013 to support research to aid long-term recovery in areas hit by Super Storm Sandy							p.23							
Released pilot program guidance where grantees choosing to undertake an alternate, more resilient project, will not be subject to the 10% penalty where FEMA pays 10% less than eligible damages, giving communities greater flexibility in rebuilding more resilient infrastructure after disasters								p.18						
Hurricane Sandy Rebuilding Task Force									p.10					
Hurricane Sandy resilience investments										p.13				
Hurricane Sandy Supplemental Funding which seeks to increase 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										p.40				
Conducting a review of NCR RSF activities in response to Superstorm Sandy										p.40				

INTERAGENCY CASE STUDY: HURRICANE SANDY														
	U.S. Army Corps of Engineers	Corporation for National and Community	Department of Agriculture	Department of Commerce	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Transportation	National Aeronautics and Space Administration	Small Business Administration	US Postal Service
Conducting follow-up Superstorm Sandy Case Studies of New York/New Jersey area to identify lessons learned and improve future planning.											p.11			
Issued Notice of Funding Availability (NOFA) for \$3 billion in competitive resiliency grants for transit agencies affected by Superstorm Sandy											p.13			
Began Superstorm Sandy Case Study project in 2014 to evaluate the impacts of Sandy on FAA navigation infrastructure											p.17			
Launched project to leverage lessons learned from Sandy and other recent storms, as well as future climate projections, to develop feasible, cost-effective strategies to enhance the resiliency of the region's transportation system to climate change and extreme weather events											p.18			
Hosted webinar on lessons learned from Sandy											p.20			
Approved integrated resiliency and local priority resiliency activities in recipients' grants in response to Sandy											p.21			
Issued NOFA for resilience projects to protect public transportation infrastructure that has been repaired or rebuilt after Sandy or that is at risk of being managed or destroyed by a future natural disaster											p.21			
Developed tool and training materials for Hazard Mitigation Cost Effectiveness Analysis											p.21			

INTERAGENCY CASE STUDY: HURRICANE SANDY														
	U.S. Army Corps of Engineers	Corporation for National and Community	Department of Agriculture	Department of Commerce	Department of Education	Department of Energy	Department of Health and Human Services	Department of Homeland Security	Department of Housing and Urban Development	Department of the Interior	Department of Transportation	National Aeronautics and Space Administration	Small Business Administration	US Postal Service
Developed a plan for restoring coastal dune in an area of high beach erosion at Launch Complex 39 which was impacted by Sandy. Project included the removal of a portion of the beach rail line and the construction of an inland dune. Illustration of natural and built systems working together												p.10		
Completed major beach replenishment project following degraded beach expansion from Sandy												p.11		
Sent funds to SBA partners to ramp up existing counseling and training services. Funds provided in support of Sandy Recovery and Disaster Readiness effort totaled \$19,000,000													p.32	
Drafting language to amend Small Business Act to allow Small Business Development Centers to assist out of state businesses in the aftermath of officially declared disasters													p.33	
Staged emergency generators before the storm and deployed them as power outages occurred.														p.8

Appendix E: Interagency Case Study: Hurricane Sandy