

# **American Reinvestment and Recovery Act of 2009**

## **Department of Commerce**

### **Program Plan Updates**

May, 2010



# **American Reinvestment and Recovery Act of 2009**

## **Department of Commerce Program Plan Update**

**May, 2010**

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# **American Reinvestment and Recovery Act of 2009**

## **Department of Commerce Program Plan Update**

**May, 2010**

### ***Agency Plan Excerpts:***

#### **Broad Recovery Goals**

The U.S. Department of Commerce received \$7.9 billion in American Recovery and Reinvestment Act of 2009 (ARRA) funding. This investment includes funding for business development, innovative research, construction projects, expanding broadband services, and other programs that will create jobs in a broad range of occupations and industries and spur economic activity.

- The Economic Development Administration (EDA) received \$150 million to provide grants to economically distressed areas across the Nation to generate private sector jobs. Priority consideration was given to those areas that experienced sudden and severe economic dislocation and job loss due to corporate restructuring. Funds will support efforts to create higher-skill, higher-wage jobs by promoting innovation and entrepreneurship and connecting regional economies with the worldwide marketplace.
- To ensure a successful 2010 Decennial Census, the Bureau of the Census received \$1 billion to hire new personnel for partnership and outreach efforts to minority communities and hard-to-reach populations, increase targeted media purchases, and ensure proper management of other operational and programmatic risks.
- The National Institute of Standards and Technology (NIST) received a total of \$610 million, including:
  - \$220 million for NIST laboratory research, measurements, and other services supporting economic growth and U.S. innovation through funding of such items as competitive grants; research fellowships; and advanced measurement equipment and supplies;
  - \$360 million to address NIST's backlog of maintenance and renovation projects and for construction of new facilities and laboratories, including \$180 million for a competitive construction grant program for funding research science buildings outside of NIST;
  - \$20 million in funds transferred from the Department of Health and Human Services for standards-related research that supports the security and interoperability of electronic medical records to reduce health care costs and improve the quality of care;
  - \$10 million in funds is provided from the Department of Energy to help develop a comprehensive framework for a nationwide, fully interoperable smart grid for the U.S. electric power system.

- The National Oceanic and Atmospheric Administration (NOAA) received \$830 million with \$230 million slated for habitat restoration, navigation projects and vessel maintenance; \$430 million for construction and repair of NOAA facilities, ships and equipment, improvements for weather forecasting and satellite development; and \$170 million to be used for climate modeling activities, including supercomputing procurement, and research into climate change.
- The National Telecommunication and Information Administration (NTIA) received \$4.7 billion to establish a Broadband Technology Opportunities Program (BTOP) for awards to eligible entities to develop and expand broadband services to rural and underserved areas and improve access to broadband by public safety agencies. Of these funds, \$250 million will be available for innovative programs that encourage sustainable adoption of broadband services; at least \$200 million will be available to upgrade technology and capacity at public computing centers, including community colleges and public libraries; and up to \$350 million of the BTOP funding is designated for the development and maintenance of statewide broadband inventory maps.
- \$650 million for the TV Converter Box Coupon Program to allow NTIA to issue coupons to all households who were, at the time the Act was signed, on the waiting list, to mail coupons via first-class mail and to ensure vulnerable populations were prepared for the transition from analog-to-digital television transmission. Following the successful conversion, \$128 million of the original amount appropriated was rescinded in Sec. 1013 of P.L. 111-118, the Department of Defense Appropriations Act, 2010.

### **List of Recovery Programs within the Agency**

Bureau of the Census – Periodic Censuses and Programs

Economic Development Administration

Economic Development Assistance Programs

Salaries and Expenses

National Institute of Standards and Technology

Construction of Research Facilities

Scientific and Technical Research and Services

National Oceanic and Atmospheric Administration

Procurement, Acquisition, and Construction

Operations, Research, and Facilities

National Telecommunications and Information Administration

Digital-to-Analog Converter Box Program

Broadband Technology Opportunities Program

### **Funding Table**

See attached.

## **Competition on Contracts**

The following represents the historical competition achievements reported to OMB for the past six years in the annual Competition Advocate Report:

FY 04 – 68% of available dollars competed  
FY 05 – 75% of available dollars competed  
FY 06 – 76% of available dollars competed  
FY 07 – 79% of available dollars competed  
FY 08 – 78% of available dollars competed  
FY 09 – 85% of available dollars competed

Thus far in FY 10, 95% of available ARRA dollars have been competed.

At this time, 80.942% of contract dollars are anticipated to be awarded on a competitive basis. Only 18.051% have been identified as being planned to be awarded with other than full and open competition. For 0.897% of the planned acquisition dollars, the acquisition strategy is undetermined at this time. Market research is on-going for these acquisitions to assist with reaching the appropriate acquisition strategy decision. This projection is based on acquisition plans that have been developed by Department of Commerce bureau's receiving ARRA funds. The management oversight process in place for both ARRA-funded and non-ARRA funded acquisitions, specifically addresses whether or not an acquisition will be competed and, if competition is not planned, the basis for that decision have been and will continue to be scrutinized to ensure the decision is supported by market research and the decision is documented to clearly identify the justification for processing on other than a full and open competition basis. DOC has been and will continue conducting program reviews of planned ARRA acquisitions which specifically address acquisition strategy. Any acquisition planned to be other than full and open competition has been and will continue to be fully scrutinized by the Department's Acquisition Review Board. The Office of Acquisition Management has been and will continue monitoring all acquisition awards to monitor execution.

## **Contract Types**

The following represents the historical record of dollars awarded on a fixed priced basis as recorded in FPDS-NG:

FY 04 – 63% of contract dollars awarded on a fixed price basis  
FY 05 – 67% of contract dollars awarded on a fixed price basis  
FY 06 – 68% of contract dollars awarded on a fixed price basis  
FY 07 – 60% of contract dollars awarded on a fixed price basis  
FY 08 – 56% of contract dollars awarded on a fixed price basis  
FY 09 – 47.53% of contract dollars awarded on a fixed price basis

Thus far in FY 10, 45.64% of contract dollars have been awarded on a fixed-price basis.

What is not reflected in these numbers is the increasing number of contracts that are a combination of both fixed-price activities and other than fixed price activities (\$32.7M in FY 2004 vs. \$151.3M in FY 09). Using a combination-type contract allows those elements of complex acquisitions that are appropriately priced on a fixed-price basis to do so while also utilizing other contract types (cost reimbursement, time and material, labor hour) where appropriate based on the specific requirement under that contract. There is no system that gathers information on the breakdown of these combination contracts, so it is not possible to parse out those dollars awarded on a fixed-price basis under a combination-type contract without a 100% review of every contract awarded in this manner.

Based on acquisition plans at this time, 74% of planned acquisitions have been and will continue to be awarded on a fixed-price basis. Additionally, 18% of planned acquisitions dollars have been and will continue to be awarded on “combination” contracts where some contract line items have been and will continue to be awarded on other-than-a-fixed-price basis and other contract line items will be awarded on a fixed-price basis. Less than 6% has been and will continue to be planned to be awarded on a time and materials basis, 0% has been or will be awarded on a cost-reimbursement basis and 1% of planned acquisitions dollars have not yet been classified by planned contract type. Market research and requirements development is on-going which will inform the decision on contract type.

DOC has been and will continue conducting program reviews of planned ARRA acquisitions which specifically address acquisition strategy. Any acquisition planned to be other than fixed price has been and will continue to be fully scrutinized by the Department’s Acquisition Review Board. The Office of Acquisition Management has been and will continue to be monitoring all acquisition awards to monitor execution.

## **Accountability Plan**

The Department of Commerce has existing accountability mechanisms in place which are being used to review plans, progress and performance results for ARRA-funded activities. Additionally, DOC has put in place ARRA-specific mechanisms for oversight of ARRA implementation activities.

1) The Senior Accountable Official (SAO) and the Office of the Inspector General (OIG) ARRA Task Force Manager evaluated risk across ARRA-funded programs. Approximately 40% of the total ARRA funds the Department received were appropriated to existing programs with existing oversight at the program, bureau and Department level. However, the NTIA Broadband program, which received almost 60% of all Department of Commerce ARRA funds (\$4.7 billion of the total \$7.9 billion) and did not exist prior to ARRA, was deemed to require additional accountability and risk management oversight. In addition to weekly program reviews conducted at the operating bureau level, the program is reviewed by the Office of the Secretary every two weeks for progress against milestones and budget, as well as a review of the risk mitigation status.

2) Senior Management Council (SMC) provides leadership and oversight for internal control assessments under OMB Circular A-123 Management's Responsibility for Internal Control. The SMC is co-chaired by the Deputy Chief Financial Officer and the Director, Office of Management and Organization, and is composed of all bureau Chief Financial Officers, the Chief Information Officer, and the heads of Human Resources, Acquisition Management, Budget and Administrative Services offices. The Department also has a Senior Assessment Team (SAT) which is responsible for conducting day-to-day A-123 activities, including review, documentation, and testing of internal controls. The SAT is composed of representatives from bureaus and offices that have a material impact on the Department's financial reporting. The SAT was tasked to identify the programs that will receive the ARRA funding; re-evaluate the risk assessment based on the new dollars coming in to the programs; determine if the programs will follow existing procedures or new procedures; determine if the existing controls will be sufficient to handle the new projects; test any new controls that will be put in place; and evaluate any none routine processes to determine if the processes should be modified.

The SAT identified the new ARRA programs and documented the financial internal controls surrounding these programs. Additional testing procedures were implemented, and separate samples of ARRA transactions were selected in FY2009. The additional testing revealed that controls were in place and functioning as expected. We have and will continue our approach in FY2010 to pull separate samples and conduct additional testing phases for ARRA transactions. The final testing and assessment results will be incorporated in the internal controls assurance statement that will be published in the annual Performance and Accountability Report.

3) ARRA Working Group. The Department has formed several cross-bureau, cross-function work teams to plan and implement the Recovery Act across the Department. Our Departmental Work Team structure is as follows:

The Senior Accountable Official and associated staff are responsible for overall coordination and management at the Department level of ARRA implementation, including timely delivery of information on Recovery Act projects. The Senior Accountable Official oversees the ARRA Working Group which provides senior oversight and management to all sub-groups. The ARRA Working Group consists of the Recovery Implementation Steering Committee the Bureau Points of Contact Group and the team leads for the work groups for reporting, transparency and National Environmental Policy Act (NEPA). The ARRA Working Group is composed of senior managers from all Department-level Offices (Acquisition and Grants, General Counsel, Financial Management, Budget, Human Resources, Legislative and Intergovernmental Affairs, Public Affairs, Management and Organization, Policy and Strategic Planning and the Chief Information Officer) as well as a senior manager from the Office of Inspector General, who provided proactive advice and education during the initial and beginning phases of ARRA implementation. Members of the Steering Committee are responsible for providing guidance in their area of responsibility as well as coordinating communication and activities. They, in turn, work with the functional offices within each bureau to support specific activities. As programs

have progressed, meetings are held as needed with applicable functional groups to ensure milestones are met.

The Recovery Implementation Bureau Points of Contact (POC) Group consists of a single senior manager from each of the bureaus receiving funding (Census, EDA, NIST, NOAA and NTIA). These bureau POCs are responsible for coordinating and managing bureau efforts with Departmental efforts. Each bureau has its own internal team working on bureau-specific activities and oversight, and the bureau POC is the communication and management liaison to the Department.

Frequent interaction between the SAO designee and bureau CFOs of ARRA programs occur to ensure programs are meeting planned milestones along with meeting financial and recipient reporting requirements.

# American Recovery and Reinvestment Act of 2009

## U.S. Census Bureau

### 2010 Census Advertising Program Plan

May, 2010



# **American Recovery and Reinvestment Act of 2009**

## **U.S. Census Bureau**

### **2010 Census Advertising Program Plan**

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## ***Funding***

The American Recovery and Reinvestment Act provided \$1 billion to help the Census Bureau conduct a successful Census in 2010. This plan focuses on \$107.5 million being added to the advertising contract (a component of the 2010 Census Integrated Communications Campaign), which is used primarily to raise awareness and to educate residents about the 2010 Census and the importance of their response.

## ***Objectives***

The funding provided in the ARRA will support the following Department of Commerce goals:

- DOC Strategic Goal 1: “Maximize U.S. competitiveness and enable economic growth for American industries, workers, and consumers.”
- DOC Strategic Objective 1.3: “Advance key economic and demographic data that support effective decision-making of policymakers, businesses, and the American public.”
- Performance Outcome: “Provide benchmark measures of the U.S. population, economy, and governments (ESA/CENSUS)”.
- ESA/Census Outcome Measure: “Complete key activities for cyclical census programs on time to support effective decision-making by policymakers, businesses, and the public meet constitutional and legislative mandates.”

Funds for the 2010 Census Integrated Communications Campaign are primarily being used to increase our direct paid media purchases to increase the effectiveness of our efforts to reach the hardest-to-count populations, particularly through the local, specific media outlets they use the most. The remaining funds are being used to expand other aspects of the campaign that focus on the hard-to-count populations, such as the Census in Schools program.

The funds are also being used for the road tour, which was popular and successful in Census 2000. The road tour provides support to partners and a forum for generating earned media with a particular focus on hard-to-count populations. We are also using funds to increase our national and local events to help raise visibility and awareness about the 2010 census.

## ***Activities***

The Bureau is using numerous paid media sources such as TV, radio, online, magazines, newspapers, and outdoor and commuter media to reach individuals from all clusters and ethnic audiences.

## ***Characteristics***

A major focus of the increased advertising and other promotional activities is in minority communities and other areas that have historically lower-than-average initial response rates. Most of this communications campaign contract funding (\$252.8 million) is being used to support additional paid media, including local ad buys focused on hard-to-count populations. The remaining funds (\$67.1 million) are being directed to partnership support, public relations, the Road Tour and the "Census in Schools" program.

## ***Delivery Schedule***

September, 2008	Campaign Plan Finalized and Released
May, 2009	Entered "upfront" media market (national media)
June, 2009	Census in Schools Print Materials Available (Print/Online)
September, 2009	Produced advertisements
October, 2009	Launched Online Newsroom
January, 2010	Finalized Schedule for Media Purchases
May, 2010	Revised Media Buy Schedule

## ***Environmental Review Compliance***

N/A

## ***Savings or Costs***

N/A

## ***Measures***

All performance measures will be reported to the Department of Commerce on a quarterly basis and annual results will be published in the Annual Performance and Accountability Report.

## **Measure: Complete key activities for the combined 2010 Census Communications Campaign**

### **2009 Targets Using Base and Recovery and Reinvestment Act Funding:**

- Enter the "Upfront" market by May 2009. *Media purchases began May 2009.*
- Begin delivery of promotional items and materials to Partnership Specialists and Assistants at the Regional Offices. *Distribution of promotional materials began March, 2009.*
- Mail Principal kits to all schools (K-12) including Puerto Rico and Island Areas (public, charter, and Bureau of Indian Affairs). *The K-12 principal kits were mailed in August.*

### **2010 Targets Using Base Funding:**

- For the Awareness Phase, reach 95% of the population at least 10 times through the paid advertising. *The launch of the Awareness Phase of the campaign began on January 17, 2010. During the Awareness Phase we plan to reach 95%+ of the population at least 10 times. The 95%+ “reach” is the task to reach every individual through all the various paid media vehicles: TV, radio, print, outdoor advertising, online. The number of times the population will be reached or “frequency” is based on communications planning models for brands with low awareness and significant barriers such as a census taken every ten years. The actual reach and frequency figures will be determined following a post-media buy analysis that will be completed in the fall of 2010.*
- For the Motivation Phase, reach 95% of the population at least 20 times through the paid advertising. For the Support NRFU Phase, reach lowest responding population at least 3 times through paid advertising. *Ongoing -The Motivation Phase began on March 1, 2010 and the plan is to reach 95%+ of the population at least 20 times. The actual reach and frequency figures will be determined following a post-media buy analysis that will be completed in the fall of 2010.*
- For the Support NRFU Phase, the plan is to reach lowest responding populations at least 3 times through paid advertising. The actual reach figures will be determined following a post-media buy analysis that will be completed in the fall of 2010.

### **2010 Targets Using Recovery and Reinvestment Act Funding:**

- For the Awareness Phase, reach 95% of the population at least 5 more times above base target through the paid advertising. *The launch of the Awareness Phase of the campaign began on January 17, 2010. During the Awareness Phase the plan is to reach 95%+ of the population at least 5 more times. The actual reach and frequency figures will be determined following a post-media buy analysis that will be completed in the Fall of 2010.*
- For the Motivation Phase, reach 95% of the population at least 11 more times above base target through the paid advertising. *Ongoing -The Motivation Phase began on March 1, 2010 and the plan is to reach 95%+ of the population at least 11 more times. The actual reach and frequency figures will be determined following a post-media buy analysis that will be completed in the Fall of 2010.*
- For the Support NRFU Phase, the plan is to reach lowest responding population at least 2 more times through paid advertising. The actual reach figures will be determined following a post-media buy analysis that will be completed in the fall of 2010.

Although it is too early to know the exact “reach and frequency” of the 2010 Census advertising program, we strongly believe that our integrated communications campaign contributed much

## ***Monitoring/Evaluation***

The Census Bureau Chief Financial Officer's organization establishes and operates a comprehensive financial management and internal controls program for the agency. The robust accounting structure contains detailed coding that allows obligations and expenditures for all activities and operations to be individually tracked and monitored.

The Census Investment Review Board (CIRB) serves as the senior governance body for major investments. The board consists of senior program executives and is chaired by the Deputy Director. The Senior Advisor for Project Management facilitates the review of new initiatives and ongoing programs to identify and manage risks, and to monitor progress in achieving the desired program goals and objectives. The Census Bureau's major IT investments must also be presented to the Department of Commerce Investment Technology Review Board, which conducts periodic reviews of the major programs and projects across all agencies and bureaus within the Department.

The Decennial program offices manage the 2010 Census program requirements, schedule and budget. Program management is centralized within the Decennial Management Division (DMD). The 2010 Census program is divided into projects, and a program manager is assigned to each of these projects. The program managers oversee the budgets of their assigned projects and work closely with the Census offices that participate in the projects to ensure that funds are being used to meet the project's requirements, and to address any cost or schedule issues.

Monthly briefings are held with senior officials of the Department of Commerce and Office of Management and Budget (OMB) on the status of the 2010 Decennial Census program. The Monthly Status Report (MSR), which is used as the basis of these briefings, includes information on status and progress of major decennial activities, including all major contracts being managed (including earned value metrics, schedule accomplishments, risks, and issues) as well as obligation and expenditure information.

Decennial management has established comprehensive project and contract management structures for the major Decennial contracts supporting the collection, tabulation, and dissemination of the 2010 Census data. Each contract has a senior Project Manager that leads a Project Management Office (PMO). They work closely with the budget and acquisition staffs in both the Census Bureau and the Department of Commerce to monitor the major contracts. The

PMOs monitor the cost, schedule, and technical performance milestones for each system and ensure that financial and contractual controls are in place. The PMOs conduct regular technical and cost reviews with each contractor that include discussions of actual and projected cost and schedule variances. These reviews enable the Census Bureau to anticipate and address any potential contract cost issues when they first occur. There is also a Program Integration Staff to ensure that all the contractor activities work with each other and with the efforts of government staff.

### ***Transparency***

The Census Bureau has established a new Treasury account to track the \$1 billion received from the ARRA. We have also established a financial structure, including unique coding that will allow us to separately track obligations and expenditures for each activity funded through ARRA and to aid in the transparency of these expenditures. All financial transactions associated with this funding will be captured and retained in the Census Bureau's Core Financial System.

The Census Bureau's ARRA spend plan is available to the public on the [recovery.gov](http://recovery.gov) website. In addition, weekly reports will be completed and posted on the [recovery.gov](http://recovery.gov) website.

### ***Accountability***

The Census Bureau has reporting requirements established by the Department of Commerce in response to guidelines established by OMB to monitor ARRA funding. The Census Bureau's Comptroller, according to those established guidelines, will monitor all ARRA funds.

The Acquisitions Program Management staff will also closely monitor work and progress on a daily basis. In addition, a task manager is assigned to each task under the contract. Budget and program staff conduct detailed monthly reviews of obligations compared to the operating plans, and Census Bureau Executive Staff members, including the Director and Deputy Director are briefed regularly. Budget spending reports are also sent monthly to the Department of Commerce.

Monthly briefings are held with senior officials of the Department of Commerce and Office of Management and Budget (OMB) on the status of the 2010 Decennial Census program.

### ***Barriers to Effective Implementation***

The Census Bureau did not face potential challenges with securing optimal slots in the up-front media markets.

### ***Federal Infrastructure Investments***

N/A

# American Recovery and Reinvestment Act of 2009

U.S. Census Bureau

## 2010 Census Early Operations Program Plan

May, 2010



# **American Recovery and Reinvestment Act of 2009**

## **U.S. Census Bureau**

### **2010 Census Early Operations Program Plan**

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## ***Funding Table***

The American Recovery and Reinvestment Act (ARRA) provided \$1 billion to help the Census Bureau conduct a successful Census in 2010. This plan focuses on \$745.1 million being provided for early 2010 Census Field Operations, which all occur in FY 10.

## ***Objectives***

The funding provided in the ARRA supports the following Department of Commerce goals:

- DOC Strategic Goal 1: “Maximize U.S. competitiveness and enable economic growth for American industries, workers, and consumers.”
- DOC Strategic Objective 1.3: “Advance key economic and demographic data that support effective decision-making of policymakers, businesses, and the American public.”
- Performance Outcome: “Provide benchmark measures of the U.S. population, economy, and governments (ESA/CENSUS)”.
- ESA/Census Outcome Measure: “Complete key activities for cyclical census programs on time to support effective decision-making by policymakers, businesses, and the public meet constitutional and legislative mandates.”

The ARRA funding is being used to conduct the following early 2010 operations:

1. Group Quarters (GQ) Operations include the enumeration of college dormitories, prisons, nursing homes, etc. These operations include:
  - Group Quarters Validation (GQV) Operation provides updated addresses and spatial information for use in the Group Quarters Advance Visit, Group Quarters Enumeration, Service-Based Enumeration, Military Group Quarters Enumeration, Enumeration at Transient Locations, and subsequent enumeration universes. The primary purposes of this operation are (1) to verify if a specific address is a Group Quarters, a housing unit, or non-residential, and (2) if it is a group quarters, determine the type of group quarters to help us plan the actual enumeration.
  - Group Quarters Advance Visit (GQAV) Operation informs the Group Quarters (GQs) contact person of the upcoming GQ enumeration, addresses privacy and confidentiality concerns, and identifies any security issues.
  - Group Quarters Enumeration (GQE) Operation visits group quarters (including military GQs), develops a control list of all residents, assigns an address status code, and distributes questionnaires for completion.

2. Update/Enumerate (U/E) Operation is a method of data collection conducted in communities with special enumeration needs and where many housing units may not have house-number-and-street-name mailing addresses.
3. Update/Leave (U/L) Field operation canvasses geographic areas where the type of the address does not indicate the location of the housing unit or the delivery point for receiving mail does not ensure that the mail gets to the correct unit (e.g., mailbox banks are broken and mail is left at a central location).
4. Local Census Office (LCO) Staffing Operation provides the personnel in all 494 LCOs necessary to support field operations. This staff does the behind-the-scenes work, like payroll, required for the 2010 Census to function.

## ***Activities***

1. Group Quarters (GQ) Operations:
  - The Group Quarters Validation (GQV) Operation supports the Census Bureau's efforts to compile the most accurate Census Bureau address file using improved methodologies for data collection and coverage. GQV verifies the address has the correct census geography, validates the address as a Group Quarter (GQ), housing unit, transient location, non-residential address, vacant unit, or address requiring deletion. If validated as a GQ, GQV determines the type of GQ and collects all pertinent information about the GQ.
  - The Group Quarters Advance Visit (GQAV) Operation is dependent upon the GQV Operation. Crew Leaders visit all GQs and meet with the designated contact person to verify the GQ name, address, contact name and phone number, and obtain an expected Census Day population count so that the correct amount of enumeration materials can be prepared, and arrange a date for the enumeration at the facility. The operation also researches potential GQ adds.
  - The Group Quarters Enumeration (GQE) Operation, census enumerators visit group quarters (including military GQs), develop a control list of all residents, assign an address status code, and distribute questionnaires for completion. Within a few days, the enumerator returns to the GQ to collect completed questionnaires, obtain information for any missing items, and obtain census information for any missing questionnaires based on the control list prepared at the initial visit.

Some types of facilities, such as jails and prisons, are "self-enumerated" facilities. These facilities use census procedures to conduct the enumeration, and the facility employees become special sworn census employees to protect the confidentiality of the census information.

2. The Update/Enumerate (U/E) Operation enumerators canvass assignment areas to update residential addresses, including adding living quarters that were not included on the address listing pages, update Census Bureau maps, and complete a questionnaire for each housing unit. For Census 2000, these areas included selected American Indian reservations, colonias (usually rural Spanish-speaking communities), and resort areas with high concentrations of seasonally vacant living quarters. Interviews are conducted using a paper questionnaire. Each housing unit is classified as Occupied, Vacant, or Delete. Completed questionnaires are shipped to the data capture centers. Registers and maps are shipped to National Processing Center (NPC) for data capture and digitizing.
  
3. Update/Leave (U/L) Field Operation enumerators canvass the blocks in their assignment areas, update the address list and census maps, determine if the housing unit is a duplicate or does not exist and needs to be deleted, and delivers addressed census questionnaires to each unit. They also prepare and drop off questionnaires to any added housing units that they find in their assignment areas not on existing census address lists. These questionnaires are mailed back by the respondent.
  
4. The Local Census Office (LCO) Staffing Operation recruits, hires, selects, and releases office and field staff; performs supervisory and non-supervisory functions for office activities and field operations; distributes training and procedural manuals for office staff; and trains employees and office staff for the field operations performed at the LCO.

### ***Characteristics***

The \$745.1 million is currently being used to support early 2010 operations and exclusively funds Federal in-house activities (primarily wages for temporary workers). We believe that allocating the ARRA funding in this manner, especially to early operations, reduces operational and programmatic risks at this critical stage in the life cycle.

### ***Delivery Schedule***

August 10, 2009 – October 23, 2009	Group Quarters Validation <sup>1</sup>
December 12, 2009 – March 19, 2010	Group Quarters Advance Visit
March 25, 2010 – May 21, 2010	Group Quarters Enumeration
January 11, 2010 – April 2, 2010	Update/Leave
February 22, 2010 – June 4, 2010	Update/Enumerate
October 1, 2009 – September 30, 2010	LCO Staffing Operation

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<sup>1</sup> ARRA Funding began October 1, 2009.

## ***Environmental Review Compliance***

N/A

## ***Savings or Costs***

N/A

## ***Measures***

All performance measures will be reported to the Department of Commerce on a quarterly basis and annual results will be published in the Annual Performance and Accountability Report.

**Measure: At least 90% of key activities will be completed on schedule.**

### **2010 Targets Using Base Funding:**

- Complete Group Quarters validation and Group Quarters Advanced Visit operations.
- Conduct the 2010 Census (Mail out/Mail back, Update/Enumerate, Update/Leave, UU/L, Group Quarter Enumeration, ME, Remote Alaska, SBE, and ETL).
- Conduct Census Operations in Puerto Rico and the Island Areas.
- Conduct Nonresponse Followup operations.
- Begin Coverage Measurement field operations.
- Conduct Coverage Followup field operations.

Mailout of Initial Questionnaires is complete. The operations listed above have either already been conducted, began on time, or are scheduled to begin as planned.

Note: There is no incremental change in activity related to the ARRA funding.

## ***Monitoring/Evaluation***

The Census Bureau Chief Financial Officer's organization establishes and operates a comprehensive financial management and internal controls program for the agency. The robust accounting structure contains detailed coding that allows obligations and expenditures for all activities and operations to be individually tracked and monitored.

The Census Investment Review Board (CIRB) serves as the senior governance body for major investments. The board consists of senior program executives and is chaired by the Deputy Director. The Senior Advisor for Project Management facilitates the review of new initiatives and ongoing programs to identify and manage risks, and to monitor progress in achieving the desired program goals and objectives. The Census Bureau's major IT investments must also be presented to the Department of Commerce Information Technology Review Board, which

conducts periodic reviews of the major programs and projects across all agencies and bureaus within the Department.

The Decennial program offices manage the 2010 Census program requirements, schedule and budget. Program management is centralized within the Decennial Management Division (DMD). The 2010 Census program is divided into projects, and a program manager is assigned to each of these projects. The program managers oversee the budgets of their assigned projects and work closely with the Census offices that participate in the projects to ensure that funds are being used to meet the project's requirements, and to address any cost or schedule issues.

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Decennial management has established comprehensive project and contract management structures for the major Decennial contracts supporting the collection, tabulation, and dissemination of the 2010 Census data. During the actual conduct of the Decennial Census (FYs 09, 10 and 11), the 2010 Census Program also uses a Cost and Progress System to monitor costs and work completed daily for all major field operations. This ensures that there are no surprises and gives us an early warning to take corrective action, if necessary.

### ***Transparency***

The Census Bureau has established a new Treasury account to track the \$1 billion received from the ARRA. We have also established a financial structure, including unique coding that will allow us to separately track obligations and expenditures for each activity funded through ARRA and to aid in the transparency of these expenditures. All financial transactions associated with this funding will be captured and retained in the Census Bureau's Core Financial System.

The Census Bureau's ARRA spend plan is available to the public on the [recovery.gov](http://recovery.gov) website. In addition, weekly reports will be completed and posted on the [recovery.gov](http://recovery.gov) website.

### ***Accountability***

The Census Bureau has reporting requirements established by the Department of Commerce in response to guidelines established by OMB to monitor ARRA funding. The Census Bureau's Comptroller, according to those established guidelines, will monitor all ARRA funds.

The Acquisitions Program Management staff will also closely monitor work and progress on a daily basis. In addition, a task manager is assigned to each task under the contract. Budget and program staff conduct detailed monthly reviews of obligations compared to the operating plans, and Census Bureau Executive Staff members, including the Director and Deputy Director are briefed regularly. Budget spending reports are also sent monthly to the Department of Commerce.

Monthly briefings are held with senior officials of the Department of Commerce and Office of Management and Budget (OMB) on the status of the 2010 Decennial Census program.

### ***Barriers to Effective Implementation***

Besides such longstanding challenges like the nation's increasing cultural diversity, the Bureau also faces newly emerging issues such as local anti-illegal immigration campaigns and a post-September 11 environment that could potentially heighten some groups' fears of government agencies.

### ***Federal Infrastructure Investments***

N/A

# American Recovery and Reinvestment Act of 2009

## U.S. Census Bureau

### 2010 Census Partnership Program Plan

May, 2010



# **American Recovery and Reinvestment Act of 2009**

## **U.S. Census Bureau**

### **2010 Census Partnership Program Plan**

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## ***Funding***

The American Recovery and Reinvestment Act (ARRA) provided \$1 billion to help the Census Bureau conduct a successful Census in 2010. This plan focuses on \$117.4 million that is being used to enhance the 2010 Census Partnership program.

## ***Objectives***

The funding provided in the ARRA supports the following Department of Commerce goals:

- DOC Strategic Goal 1: “Maximize U.S. competitiveness and enable economic growth for American industries, workers, and consumers.”
- DOC Strategic Objective 1.3: “Advance key economic and demographic data that support effective decision-making of policymakers, businesses, and the American public.”
- Performance Outcome: “Provide benchmark measures of the U.S. population, economy, and governments (ESA/CENSUS)”.
- ESA/Census Outcome Measure: “Complete key activities for cyclical census programs on time to support effective decision-making by policymakers, businesses, and the public meet constitutional and legislative mandates.”

More than 3,000 partnership staff supported a greater outreach to population groups that are at higher risk of not being counted in 2010. More staff resulted in additional contacts with community organization leaders, greater presence at community events, and better follow-through with partner organizations that have agreed to partner with the Census Bureau. Additional partnership staff can improve the census by informing the local census offices about potential barriers and related strategies that helps to improve coverage in hard-to-count population areas.

## ***Activities***

Partnership staff provided information and training about the 2010 Census to community-based organizations, religious leaders, educators, local businesses, and media outlets in designated hard-to-count areas. An expanded Partnership presence leads to greater support from community leaders for the 2010 Census. Residents in hard-to-count communities and neighborhoods have a greater likelihood of knowing about the census and why they need to complete and return their questionnaire, which should help raise their response rate.

## ***Characteristics***

Funds allocated for the 2010 Census Partner Support Program enabled the Census Bureau to hire more than 3,000 additional field partnership staff to support census outreach and promotion efforts with partners such as Complete Count Committees, religious organizations, schools, local and tribal governments and various community-based organizations. Funding also supported the purchase of promotional products that are being used by partnership staff to promote the 2010 Census.

## ***Delivery Schedule***

December, 2008	Launched Integrated Partner Contact Database (IPCD)
March, 2009	Held National Partners Kick-off Meeting
May 1, 2009	Partnership Specialists start work
June 1, 2009	Partnership Assistants start work
September 30, 2010	Partnership Assistants conclude work*
September 30, 2010	Partnership Specialists conclude work**

\* The majority of Partnership Assistants concluded work at the end of April.

\*\* The majority of Partnership Specialists will conclude work by the end of May.

## ***Environmental Review Compliance***

N/A

## ***Savings or Costs***

N/A

## ***Measures***

All performance measures will be reported to the Department of Commerce on a quarterly basis and annual results will be published in the Annual Performance and Accountability Report.

**Measure: Partnership staff effectively engage community leaders and organizations, particularly in hard-to-count areas, with a civic engagement campaign that positively affects mail response rates, undercount, and public cooperation.**

**2009 Targets Using Base Funding:**

- 680 Partnership Staff hired and trained and begin developing partnerships with local organizations. *All Partnership staff were hired, trained, and had begun developing partnerships.*
- Begin to identify locations for 30,000 Questionnaire Assistance Center and 40,000 Be Counted sites in hard-to-count areas. *Site identification began in the third quarter of FY 09.*
- Continue the formation and training of Complete Count Committees. *Complete Count Committees were formed and trained during FY 09.*

**2009 Targets Using Base and Recovery and Reinvestment Act Funding:**

- Partnership staff to establish partnerships and work with approximately 70,000 organizations (60% of expected 120,000 organizational partnerships for 2010 Census). *88,893 total partnerships were established.*
- 2,707 total Partnership Staff (100% hired) provide greater communication and follow-through with partner organizations. *2,971 total Partnership staff were on board by the end of FY 09*
- Continue identifying locations for 30,000 Questionnaire Assistance Centers and 40,000 Be Counted sites in hard-to-count areas (40% complete), and continue the formation and training of approximately 10,000 Complete Count Committees (50% complete). *9,062 QACs and 6,858 BC sites were identified by the end of FY 09.*

**2010 Targets Using Base Funding:**

- 680 Partnership staff spearhead public events with thousands of community partners during Action Phase (January through April 2010) to raise participation levels in 2010 Census. These events successfully took place, including a "March to the Mailbox" campaign with the participation of over 250,000 volunteers in 6,000 low responding tracts.
- Continue the formation and training of Complete Count Committees.
- 680 Partnership staff work with community partners to promote cooperation with enumerators ("Open Your Door" public campaign) during Non-response Follow-up phase (May through July) of 2010 Census.

**2010 Targets Using Base and Recovery and Reinvestment Act Funding:**

- Maintain a diverse partnership staff of 2,707 with 100 languages spoken to reach hard-to-count populations in an effort to positively affect response rates. More than 3,000 Partnership staff on board speaking 146 languages.
- Partnership staff continue to establish partnerships and work with approximately 120,000 active partner organizations in support of the 2010 Census. 230,750 partnerships were established.

- 30,000 joint Questionnaire Assistance Centers (QAC) and Be Counted (BC) sites and 10,000 stand alone BC sites ready to assist citizens in hard-to-count areas. More than 50,000 potential joint BC/QAC sites and 20,000 potential stand-alone BC sites were identified among partner organizations. From these sites, we selected 26,637 joint sites and 11,704 stand-alone BC sites that met our needs based on location, access to the public, and who the organization served. Additional sites were held in reserve, if needed.
- 10,000 Complete Count Committees educate community on the importance of the 2010 Census and motivate residents to complete questionnaire. 10,251 Complete Count Committees formed and trained.
- Partnership staff thank community organizations and other partners for their help with the 2010 Census.

It is difficult to know how each component of our partnership program influenced people to take part in the Census, and a detailed assessment will be done later. However, we strongly believe that our integrated communications campaign contributed much to the American public's better than expected "participation" in the Census. Seventy-two percent of American households that received a census form in the mail returned the completed questionnaire. This matched the Census 2000 participation rate despite a more challenging census environment in 2010. The public's participation in all types of surveys has declined sharply since 2000. We are a larger, more diverse population, with more types of housing arrangements, and were subject to extensive household dislocations due to the severe economic downturn.

### ***Monitoring/Evaluation***

The Census Bureau Chief Financial Officer's organization establishes and operates a comprehensive financial management and internal controls program for the agency. The robust accounting structure contains detailed coding that allows obligations and expenditures for all activities and operations to be individually tracked and monitored.

The Decennial program offices manage the 2010 Census program requirements, risks, schedule and budget. Program management is centralized within the Decennial Management Division (DMD). The 2010 Census program is divided into projects, and a program manager is assigned to each of these projects. The program managers oversee the budgets of their assigned projects and work closely with the Census offices that participate in the projects to ensure that funds are being used to meet the project's requirements, to mitigate risks and to address any cost or schedule issues.

Monthly briefings are held with senior officials of the Department of Commerce and Office of Management and Budget (OMB) on the status of the 2010 Decennial Census program. The Monthly Status Report (MSR), which is used as the basis of these briefings, includes information on status and progress of major decennial activities, including all major contracts being

managed (including earned value metrics, schedule accomplishments, risks, and issues) as well as obligation and expenditure information.

Decennial management has established comprehensive project and contract management structures for the major Decennial contracts supporting the collection, tabulation, and dissemination of the 2010 Census data. During the actual conduct of the Decennial Census (fiscal years 2009, 2010 and 2011), the 2010 Census Program also uses a Cost and Progress System to monitor costs and work completed daily for all major field operations. This ensures that there are no surprises and gives us an early warning to take corrective action, if necessary.

### ***Transparency***

The Census Bureau has established a new Treasury account to track the \$1 billion received from the ARRA. We have also established a financial structure, including unique coding that will allow us to separately track obligations and expenditures for each activity funded through ARRA and to aid in the transparency of these expenditures. All financial transactions associated with this funding will be captured and retained in the Census Bureau's Core Financial System.

The Census Bureau's ARRA spend plan is available to the public on the recovery.gov website. In addition, weekly reports will be completed and posted on the recovery.gov website.

### ***Accountability***

The Census Bureau has reporting requirements established by the Department of Commerce in response to guidelines established by OMB to monitor ARRA funding. The Census Bureau's Comptroller, according to those established guidelines, will monitor all ARRA funds.

Budget and program staff conduct detailed monthly reviews of obligations compared to the operating plans. Census Bureau Executive Staff members, including the Director and Deputy Director are briefed regularly. Budget spending reports are also sent monthly to the Department of Commerce.

Monthly briefings are held with senior officials of the Department of Commerce and Office of Management and Budget (OMB) on the status of the 2010 Decennial Census program.

### ***Barriers to Effective Implementation***

The Census Bureau exceeded many of the targets established for the Partnership efforts. The anticipated challenges with recruiting partnership staff with the right skill sets, contacts, and abilities were not realized. We were able to recruit highly qualified partnership staff to secure agreements with partnership organizations that could effectively reach hard-to-count groups and exceed our target goals.

***Federal Infrastructure Investments***

N/A

# American Recovery and Reinvestment Act of 2009

U.S. Census Bureau

## 2010 Census – Coverage Follow-Up

May, 2010



# **American Recovery and Reinvestment Act of 2009**

## **U.S. Census Bureau**

### **2010 Coverage Follow-Up Program Plan**

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## ***Funding***

The American Recovery and Reinvestment Act (ARRA) provided \$1 billion to help the Census Bureau conduct a successful Census in 2010. This plan focuses on \$30 million that will be used to expand the Coverage Follow-Up (CFU) operation, which takes place from April to August, 2010.

## ***Objectives***

The funding provided in the ARRA, will support the following Department of Commerce Goals:

- DOC Strategic Goal 1: “Maximize U.S. competitiveness and enable economic growth for American industries, workers, and consumers.”
- DOC Strategic Objective 1.3: “Advance key economic and demographic data that support effective decision-making of policymakers, businesses, and the American public.”
- Performance Outcome: “Provide benchmark measures of the U.S. population, economy, and governments (ESA/CENSUS)”.
- ESA/Census Outcome Measure: “Complete key activities for cyclical census programs on time to support effective decision-making by policymakers, businesses, and the public meet constitutional and legislative mandates.”

The purpose of the CFU interview is to verify the household information provided in census forms that were mailed back by respondents, and make any corrections to that information as well as obtain any missing demographic information. The funding provided by the ARRA will allow the Census Bureau to follow-up on an additional 1.1 million cases (households) where there is some evidence of a potential coverage error. This volume is on top of the current baseline of 6.9 million cases, for a new estimated total workload of 8.0 million cases for CFU interviews. This follow-up will allow for their household information to be potentially corrected by verifying and/or providing additional information through telephone interviews by call center agents. The increase will also allow the Census Bureau to follow up on additional types of situations not initially planned.

## ***Activities***

In order to accomplish the work, we expanded a contract to hire and train approximately 1,250 additional temporary telephone interviewers. These interviewers will work from additional Commercial Call Centers for about 18 weeks in FY 10.

In this operation, telephone interviewers re-contact households where, based on specific criteria, we believe a person(s) may have been erroneously omitted or included in error on the census report form. When the households are contacted, interviewers verify the information on the census form, make corrections as warranted, and obtain any missing demographic

information. The Recovery Act funding allows for further follow up when there is evidence of potential coverage error.

### ***Characteristics***

The final negotiated award was \$25.7 million, which was added to the existing Decennial Response Integration System (DRIS) contract with the Lockheed Martin Corporation by a contract change proposal. The remaining \$4.3 million is being held as reserve for future coverage follow-up operations.

In addition, Lockheed Martin is required by contract to achieve 30 percent of their total contract value designated for small business. They may have to be excused from the small business requirement for this funding because of the limited number of additional commercial call centers available that are managed and staffed by small businesses.

### ***Delivery Schedule***

- February, 2009: Rough-order-of-magnitude (ROM) estimate provided by the DRIS Contractor
- March, 2009: Change Request processed through the Census Bureau's Investment Review Board (CIRB)
- March, 2009: RFP released by DRIS Contractor for the additional Call Centers
- May, 2009: DRIS contractor reworked their CFU Telephone models to determine staffing requirements based on increased workload
- September, 2009: Received Proposal
- October, 2009: Contract Modification completed
- April – August, 2010: Conducted Coverage Follow-up operation to include the additional 1.1 million additional cases worked

### ***Environmental Review Compliance***

N/A

### ***Savings or Costs***

N/A

### ***Measures***

All performance measures will be reported to the Department of Commerce on a quarterly basis and annual results will be published in the Annual Performance and Accountability Report.

**Measure: Complete 67% of Coverage Follow Up cases by the end of production.**

**2010 Targets Using Base Funding:**

- Coverage Follow-up training and production in progress.
- Complete 67% Coverage Follow-up Cases for approximately 6.9 million cases.

**2010 Targets Using American Recovery and Reinvestment Act Funding:**

- Complete 67% Coverage Follow-up Cases for approximately 1.1 million cases.

**Measure: Provide 7,000 Coverage Follow-up workers to support approximately eight million coverage follow up cases<sup>2</sup>.**

- Provide approximately 5,750 Coverage Follow-up workers to support approximately 6.9 million coverage follow up cases.
- Provide approximately 1,250 Coverage Follow-up workers to support approximately 1.1million coverage follow up cases.

***Monitoring/Evaluation***

The Census Bureau Chief Financial Officer's organization establishes and operates a comprehensive financial management and internal controls program for the agency. The robust accounting structure contains detailed coding that allows obligations and expenditures for all activities and operations to be individually tracked and monitored.

The Census Investment Review Board (CIRB) serves as the senior governance body for major investments. The board consists of senior program executives and is chaired by the Deputy Director. The Senior Advisor for Project Management facilitates the review of new initiatives and ongoing programs to identify and manage risks, and to monitor progress in achieving the desired program goals and objectives. The Census Bureau's major IT investments must also be presented to the Department of Commerce Investment Technology Review Board, which conducts periodic reviews of the major programs and projects across all agencies and bureaus within the Department.

The Decennial program offices manage the 2010 Census program requirements, schedule and budget. Program management is centralized within the Decennial Management Division (DMD). The 2010 Census program is divided into projects, and a program manager is assigned to each of these projects. The program managers oversee the budgets of their assigned

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<sup>2</sup> Coverage Follow-up workloads of 6.9 million for base funding and 1.1 million for ARRA funds are estimates. The total CFU workload is dependent on Census response.

projects and work closely with the Census offices that participate in the projects to ensure that funds are being used to meet the project's requirements, and to address any cost or schedule issues.

Monthly briefings are held with senior officials of the Department of Commerce and Office of Management and Budget (OMB) on the status of the 2010 Decennial Census program. The Monthly Status Report (MSR), which is used as the basis of these briefings, includes information on status and progress of major decennial activities, including all major contracts being managed (including earned value metrics, schedule accomplishments, risks, and issues) as well as obligation and expenditure information.

Decennial management has established comprehensive project and contract management structures for the major Decennial contracts supporting the collection, tabulation, and dissemination of the 2010 Census data. During the actual conduct of the Decennial Census (FYs 09, 10 and 11), the 2010 Census Program also uses a Cost and Progress System to monitor costs and work completed daily for all major field operations. This ensures that there are no surprises and gives us an early warning to take corrective action, if necessary. Each contract has a senior Project Manager that leads a Project Management Office (PMO). They work closely with the budget and acquisition staffs in both the Census Bureau and the Department of Commerce to monitor the major contracts. The PMOs monitor the cost, schedule, and technical performance milestones for each system and ensure that financial and contractual controls are in place. They use earned value metrics, which are tools to analyze program cost and schedule performance – evaluating current results and predicting future performance. The PMOs conduct regular technical and cost reviews with each contractor that include discussions of actual and projected cost and schedule variances. These reviews enable the Census Bureau to anticipate and address any potential contract cost issues when they first occur. There is also a Program Integration Staff to ensure that all the contractor activities work with each other and with the efforts of government staff.

### ***Transparency***

The Census Bureau has established a new Treasury account to track the \$1 billion received from the ARRA. We have also established a financial structure, including unique coding that will allow us to separately track obligations and expenditures for each activity funded through ARRA and to aid in the transparency of these expenditures. All financial transactions associated with this funding will be captured and retained in the Census Bureau's Core Financial System.

The Census Bureau's ARRA spend plan is available to the public on the [recovery.gov](http://recovery.gov) website. In addition, weekly reports will be completed and posted on the [recovery.gov](http://recovery.gov) website.

### ***Accountability***

The Census Bureau has reporting requirements established by the Department of Commerce in response to guidelines established by OMB to monitor ARRA funding. The Census Bureau's Comptroller, according to those established guidelines, will monitor all ARRA funds.

The Acquisitions Program Management staff will also closely monitor work and progress on a daily basis. In addition, a task manager is assigned to each task under the contract. Budget and program staff conduct detailed monthly reviews of obligations compared to the operating plans, and Census Bureau Executive Staff members, including the Director and Deputy Director are briefed regularly. Budget spending reports are also sent monthly to the Department of Commerce.

Monthly briefings are held with senior officials of the Department of Commerce and Office of Management and Budget (OMB) on the status of the 2010 Decennial Census program.

### ***Barriers to Effective Implementation***

The Census Bureau could face challenges with identifying sufficient staff to manage the Coverage Follow-Up workload in the Telephone Call Centers. In addition, the Census Bureau could face resistance from respondents, as coverage follow-up could be viewed as an additional burden.

### ***Federal Infrastructure Investments***

N/A

# **American Recovery and Reinvestment Act of 2009**

## **Economic Development Administration**

### **Program Specific Program Plan**

May, 2010



# **American Recovery and Reinvestment Act of 2009**

## **U.S. Census Bureau**

### **2010 Census Partnership Program Plan**

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## ***Funding Table***

The Economic Development Administration (EDA) received \$150 million in American Recovery and Reinvestment Act of 2009 (ARRA) funds for the Economic Adjustment Assistance Program, part of the Economic Development Assistance Programs (EDAP), which are available until September 30, 2010. As provided by ARRA, EDA transferred two percent of these funds (\$3 million) to salaries and expenses (S&E) to defray personnel costs associated with the selection, oversight, and administration of these awards.

Program Source/ Treasury Account Symbol: Agency Code	Program Source/Treasury Account Symbol: Account Code	Program		
	2051	2009/2010		
	0118	2009/2010		

Of the \$147 million allocated to EDAP, EDA funded \$141.3 million in “brick and mortar” infrastructure investments. EDA gave preference to projects that have the potential to quickly stimulate job creation and promote regional economic development, such as investments that support science and technology parks, industrial parks, business incubators, and other investments that spur entrepreneurship and innovation.

Since ARRA calls on EDA to “give priority consideration to areas of the Nation that have experienced sudden and severe economic dislocation and job loss due to corporate restructuring,” EDA allocated funding to the regional offices using a hybrid of its traditional allocation formula. Given the changing economic conditions, EDA utilized an allocation method that minimized the use of lagging indicators. The Agency utilized three-month unemployment<sup>3</sup> figures, as this represented the most contemporary data on unemployment that was available, and allowed EDA to ensure resources were being directed to area with greatest need.

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<sup>3</sup> Unemployment data from BLS as of 1/31/2009.

## ***Objectives***

1. Promote cost-effective, comprehensive, entrepreneurial and innovation-based economic development efforts to enhance the competitiveness of regions, resulting in increased private investment and higher-skill, higher-wage jobs in regions that have experienced sudden and severe economic dislocation and job loss due to corporate restructuring.
2. Promote accountability and transparency in the award and administration of ARRA grants and cooperative agreements, minimizing fraud, waste, and abuse, ensuring that economically disadvantaged regions receive the highest possible financial benefit from ARRA funds.
3. Promote investments that support science and technology parks, industrial parks, business incubators, and other investments that spur entrepreneurship and innovation.

## ***Activities***

ARRA funds are supporting the construction or rehabilitation of essential public infrastructure and facilities necessary to generate or retain private-sector jobs and investments, attract private sector capital, and promote regional competitiveness, including investments that expand and upgrade infrastructure (e.g., water, sewer, broadband) to attract new industry, support technology-led and other new business development (including business incubators), and enhance the ability of regions to capitalize on opportunities presented by free trade.

In addition, ARRA funds are being used to provide an integrated package of technical, planning, revolving loan fund, or construction assistance tailored to the unique needs of the applicant. For example, EDA made a \$2.7 million Revolving Loan Fund (RLF) investment to provide much-needed capital to businesses in Montana's timber and wood products industry. This investment is providing capital and technical assistance to borrowers, intermediaries such as economic development districts, and lenders to help them formulate and implement specific loan packages for targeted firms in an important regional cluster in the state.

## ***Characteristics***

EDA assistance was awarded through in the form of cooperative agreements totaling \$147 million; the vast majority of EDA awards were awarded in the form of grants.

To receive EDA funds, ARRA applicants had to be in one of the following categories: (i) District Organization; (ii) Indian Tribe or a consortium of Indian Tribes; (iii) State, city, or other political subdivision of a State, including a special purpose unit of a State or local government engaged in economic or infrastructure development activities, or a consortium of political subdivisions; (iv) Institution of higher education or a consortium of institutions of higher education; or (v) Public or private non-profit organization or association acting in cooperation with officials of a political subdivision of a State.

ARRA applicants were required to undertake a project located in a region that, on the date EDA receives the application for investment assistance, meets at least one of the following economic distress criteria: (i) an unemployment rate that is, for the most recent 24-month period for which data are available, at least one percentage point greater than the national average unemployment rate; (ii) per capita income that is, for the most recent period for which data are available, 80 percent or less of the national average per capita income; or (iii) a “Special Need,” as determined by EDA. A project may be eligible pursuant to a “Special Need” if the project is located in a region that meets one of the criteria described below:

1. Closure or restructuring of industrial firm(s) or loss of a major employer(s) essential to the regional economy;
2. Substantial out-migration or population loss;
3. Underemployment, meaning employment of workers at less than full-time or at less skilled tasks than their training or abilities permit;
4. Military base closures or realignments, defense contractor reductions-in-force, or Department of Energy defense-related funding reductions;
5. Natural or other major disasters or emergencies, including terrorist attacks;
6. Extraordinary depletion of natural resources;
7. Communities undergoing transition of their economic base as a result of changing trade patterns, as certified by the North American Development Bank (NADBank) Program or the Community Adjustment and Investment Program (CAIP); or
8. Other special need, as determined by the Assistant Secretary for EDA.

Once applicant eligibility was determined, EDA evaluated all applications competitively based on EDA’s investment policy guidelines and funding priorities. More information on EDA’s investment policy guidelines and funding priorities can be found online ([www.eda.gov/InvestmentsGrants/Inpolguideline.xml](http://www.eda.gov/InvestmentsGrants/Inpolguideline.xml)) and in the body of the Funding Opportunity Announcement for the American Recovery and Reinvestment Act of 2009 ([www.eda.gov/PDF/FY09%20ARRA%20FFO%20-%20FINAL.pdf](http://www.eda.gov/PDF/FY09%20ARRA%20FFO%20-%20FINAL.pdf)).

Although private businesses are not eligible for EDA assistance, they may be beneficiaries. For example, an EDA investment may fund a business incubator in which a private business may locate.

### ***Delivery Schedule***

#### Milestone #1

- All \$147 million in grants/cooperative agreements are obligated.
- Completion date: September 30, 2009.

## Milestone #2

- All temporary hiring authorized by ARRA is completed, and temporary staff are in place to assist permanent EDA staff with grant processing and oversight.
- Expected completion date: September 30, 2010.

## ***Environmental Review Compliance***

EDA has a robust policy for ensuring that all projects comply with the National Environmental Protection Act (NEPA) and the National Historic Preservation Act (NHPA). All applicants are required to provide adequate environmental information and contact Federal and State regulatory agencies, including the designated State Historic Preservation Officer or Tribal Historic Preservation Officer (SHPO/THPO), as appropriate. In addition, applicants for construction assistance are required to complete a detailed environmental narrative (available online, [www.eda.gov/PDF/single\\_app\\_narrative\\_111008.pdf](http://www.eda.gov/PDF/single_app_narrative_111008.pdf)) and may be required to provide EDA with an environmental impact statement. NEPA regulations require EDA to provide public notice of the availability of project-specific environmental documents, such as environmental impact statements, environmental assessments, findings of no significant impact, and records of decision, to the affected public. For a copy of EDA's internal policies pertaining to NEPA and NHPA, please see Appendix A.

## ***Measures***

See Appendix B for ARRA measures.

## ***Monitoring/ Evaluation***

EDA has a thorough set of policies and procedures in place to manage risk and minimize fraud, waste, and abuse throughout the award cycle. These policies and procedures have been implemented by EDA in the course of administering awards made with regular and supplemental appropriations, but can easily be expanded to encompass awards made under ARRA.

In the pre-award process, numerous internal controls have been put in place. First, all EDA assistance applications, including those for ARRA funds, are reviewed and evaluated by regional office staff for consistency with EDA regulations and programmatic requirements. As applications are reviewed and documentation from the applicant is received and evaluated, regional office staff record appropriate milestones in EDA's grants management system, the Operations Planning and Control System (OPCS), to ensure procedures are being followed in the appropriate sequence. Subsequently, EDA regional office staff hold an Investment Review Committee (IRC) meeting to discuss the merits of projects deemed eligible (refer to Characteristics section, above, of this document) and minimally consistent with EDA funding

priorities. The Regional Environmental Officer attends the IRC to weigh in on any possible environmental issues, if construction is involved, and the Regional Counsel typically attends as

well to highlight any potential legal issues. The IRC then makes a recommendation to the Grants Officer, who will make a decision. The Grants Officer's decision is sent to Headquarters for a quality assurance/quality control review. During this review, EDA Headquarters staff review the proposed award to determine if it is consistent with EDA's award criteria and perform a search of the Dun & Bradstreet database to determine if the applicant has any problems in their financial history. In addition, EDA is developing a policy to require staff to review the recipient's OMB Circular A-133 audits submitted to the Federal Audit Clearinghouse prior to making an award, as these audits often reveal important information about the recipient's internal controls and other critical management and bookkeeping practices. Since new grantees are considered higher risk than repeat grantees, greater scrutiny is given to applicants with no previous history of EDA financial assistance.

In the post-award process, EDA staff review required financial and progress reports in order to identify and follow up on any performance issues. In addition, staff review the recipient's OMB Circular A-133 audits to address problems and work with the recipient to put in place a corrective action plan, if required. For construction projects, EDA engineers review weekly payroll records, progress reports, and other required documentation to ensure that Davis-Bacon wage rates are paid, required environmental permits have been issued, construction is proceeding on schedule, and cost overruns are minimized to the extent possible. EDA engineers enter construction-related milestones into OPCS to assist with project monitoring. EDA staff also conduct site visits as travel funds permit.

On a broader programmatic and management level, EDA has also put in place vigorous policies and procedures. EDA's annual Operational Guidance, as well as its Revolving Loan Fund Program and Policy Guidance and its Post-Approval Procedures Manual for construction projects, provide bureau-wide guidance on issues related to grants management and oversight. EDA's financial statements are audited annually by external auditors, and EDA employs both internal and external auditors to conduct OMB Circular A-123 reviews. Corrective action plans are prepared for all findings and implemented accordingly. In addition, EDA has worked closely with the Office of Inspector General (OIG) to implement audit recommendations pertaining to EDA's Revolving Loan Fund Program (part of the Economic Adjustment Assistance Program) and will continue to work closely with the OIG in any future audits.

EDA carefully tracks expenditures to verify that funds are used for their designated purpose. Construction grants do not receive advance payments, and appropriate grant spending reports must be prepared by grantees for cost reimbursement.

EDA's existing information technology systems - the Commerce Business System (CBS) and OPCS - have sufficient capacity to track and manage ARRA funds. These systems are in compliance with Department of Commerce (DOC) information technology (IT) security requirements and include many of the data elements that must be captured, classified, and aggregated for analysis and reporting to meet Recovery Act requirements. EDA uses functionality within CBS to monitor funds control; EDA prepares status of funds reports on at least a monthly basis to determine if funds are being obligated according to the spending plan. Reports are prepared by budget staff and reviewed by accounting staff before they are submitted to management. EDA Grants Officers' performance plans address the requirement to obligate funds according to spending plans. EDA has established separate Treasury Account Fund Symbols to clearly distinguish ARRA funds.

EDA has developed clarifying guidance for EDA staff and grantees on Section 1512, (recipient reporting) and Buy American provisions. EDA has created a robust mechanism for ensuring compliance with recipient reporting requirements, as outlined in Appendix C. EDA has created working groups with members from all offices to ensure effective dissemination of information and consistent oversight of guidance. Additionally, EDA has procedures in place for reconciling data in CBS to OPCS on a monthly basis and preparing and reviewing the weekly ARRA Financial and Activity Report.

EDA has also implemented procedures to provide adequate oversight of ARRA-related hiring. EDA determined its hiring needs based upon allocation of funds to regional offices and additional reporting ARRA requirements. EDA is using all available staffing tools to hire ARRA staff. Except for IT Specialists, new positions will use existing Position Descriptions and Performance Plans. New positions are being tracked so costs are charged correctly to ARRA accounts, and administrative costs other than salaries and benefits will be reviewed on a weekly basis by Budget Division staff to ensure they are charged correctly. The National Institute of Standards and Technology (NIST) performs acquisition and accounting services for EDA's S&E account.

Longer-term program evaluation will be conducted by EDA as it compiles Government Performance and Results Act (GPRA) data for all projects, including those awarded with ARRA funds. Under GPRA, EDA tracks the creation of jobs (not including short-term construction jobs) and private investment after award in three-, six-, and nine-year intervals.

Finally, to coordinate all policies, procedures, and special reporting requirements pertaining to ARRA, EDA has established a governance body consisting of the following individuals:

- Deputy Assistant Secretary of Commerce for Economic Development/Chief Operating Officer
- Chief Financial Officer/Chief Administrative Officer
- Chief Counsel
- Chief Information Officer
- Director, Legislative Affairs
- Director, Public Affairs

### ***Transparency***

EDA collects and stores information on individual grant awards in OPCS and will report each grant award to [www.usaspending.gov](http://www.usaspending.gov) on a monthly basis. Grant-level performance data will be based on information collected and stored in OPCS, and employ EDA's existing data quality, verification, and validation protocols. Grant-level performance data will be included in EDA's FY 09 Annual Report, which will be posted on EDA's website upon publication.

EDA also ensures that ARRA data is reported to [FederalReporting.gov](http://FederalReporting.gov). EDA has established a robust procedure for ensuring the veracity of all data reported to this website, See Appendix C.

EDA will neither collect nor report on classified data, personal data, or data pertaining to intellectual property.

### ***Accountability***

EDA's six regional offices (Atlanta, Austin, Chicago, Denver, Philadelphia, Seattle) manage grant selection, oversight, and administration under the Public Works and Economic Development Facilities Program and the Economic Adjustment Assistance Program. Accordingly, the six regional directors were the selecting officials for all awards made with ARRA funds.

Each regional director has a detailed performance plan with specific objectives tied to strategic goals that are closely linked to ARRA performance:

1. Increase private enterprise and job creation in economically distressed communities;  
and
2. Improve community capacity to achieve and sustain economic growth.

These performance plans also hold regional directors accountable for obligating and awarding funds in a timely manner, implementing sufficiently effective internal controls to avoid OMB Circular A-123 review findings, and implementing the OIG's recommendations pertaining to its March 2007 audit of EDA's Revolving Loan Fund program (which is part of the Economic Adjustment Assistance program), including enhanced scrutiny of recipients' OMB Circular A-133 audits.

### ***Barriers to Effective Implementation***

EDA's Recovery Act task force, consisting of representatives from EDA's regional offices as well as the Office of Chief Counsel, has identified the following potential barriers to effective implementation:

1. EDA recognizes the implicit trade-off between giving priority consideration to areas that have experienced sudden and severe economic dislocation or corporate restructuring and giving priority consideration to projects that are "shovel ready." The areas hardest hit by economic restructuring are often those with the fewest "shovel ready" projects, either because of diminished public sector resources and staffing or because rapidly shifting economic conditions have rendered project plans obsolete.
2. Recipients may encounter challenges when attempting to track job creation for both ARRA and non-ARRA portions of an EDA project. To eliminate this difficulty, EDA has determined that it will not use ARRA funds to process amendments or Revolving Loan Fund recapitalizations. Instead, it will only make ARRA awards for new projects. If an existing Revolving Loan Fund recipient successfully petitions for additional funds from ARRA, EDA will require these funds be administered completely separate from the original award.
3. EDA expects difficulty assisting recipients with the Central Contractor Registry (CCR), based on a history of numerous complaints received from applicants that attempted to register with CCR in order to obtain a Grants.gov user id and password. EDA will attempt to mitigate this barrier by covering CCR registration in its post-award construction management conference; for non-construction awards, it will arrange an equivalent post-award informational session. In some instances, EDA may elect to discuss CCR registration with an applicant prior to making an award.
4. EDA and recipients may struggle to determine the number of full-time equivalent positions (FTEs) on EDA-funded construction sites. While not impossible, calculating the number of FTEs will be labor-intensive given that construction workers typically are on the job site for a limited time, often working irregular hours. Recipients will therefore have to track man-hours in order to calculate FTEs. EDA will attempt to mitigate this barrier by covering recipient reporting requirements in its post-award construction management conference with the recipient.
5. EDA may experience obstacles to informing all recipients and their auditors about the requirement to list ARRA and non-ARRA funds separately on the *Schedule of Expenditures of Federal Awards* (SEFA) on the recipient's single audit. EDA will

6. EDA may find it difficult to enforce the Buy American provision in ARRA. While it is relatively straightforward to determine the provenance of the iron, steel, and other manufactured goods used in a construction project, as these will be specified in the contract documents, it will be much more difficult to evaluate waiver requests from recipients. Specifically, it will be difficult to determine whether “iron, steel, or relevant manufactured goods are not produced in the United States in sufficient and reasonably available quantities and of satisfactory quality” or that “inclusion of iron, steel, or manufactured goods produced in the United States will increase the cost of the overall project by more than 25 percent.” EDA is currently studying proposals developed by regional office staff to mitigate this barrier by: (a) providing training to EDA engineers/construction managers (the staff that will be responsible for approving such waiver requests) on the implementation of this provision; (b) covering this provision with recipients during the post-award construction management

conference; and (c) adding a special award condition to require bids with alternates for both US-produced and foreign-produced iron, steel, and manufactured goods. EDA may refine these procedures and/or develop additional procedures as consultations with engineering staff continue.

7. EDA may find it challenging to attract qualified applicants for temporary positions. In addition, timely hiring could be affected by extensive Office of Personnel Management (OPM) requirements and lengthy approval process for using hiring authorities to fill vacancies.

### ***Federal Infrastructure Investments***

Not applicable. EDA is not authorized to invest in federal infrastructure with the ARRA funds.

## ***Appendix A—EDA’s Internal Policy to Ensure Compliance with NEPA and NHPA***

### **Compliance with the National Environmental Policy Act (NEPA)**

Failure to properly manage the NEPA review process can have serious ramifications for EDA, including significant project delays and protracted legal challenges. For example, a court-ordered Environmental Impact Statement (EIS) for an industrial park cost EDA over \$500,000 and thousands of hours of staff time, led to more than a year of protracted legal negotiations, and ultimately resulted in the termination of the award. Other EDA awards that have led to prolonged legal battles include a water and wastewater project, a sewage treatment outfall, and a technical assistance award for a dredging study. To avoid these issues, it is imperative that all regional offices strictly comply with EDA’s NEPA responsibilities.

NEPA requires federal agencies to independently review all federal actions (a concept that includes the award of financial assistance) for potential environmental impacts before the federal action is taken<sup>4</sup>; consult and coordinate with all relevant federal agencies on projects with the potential for environmental impacts; and allow for public comment on projects of an environmentally sensitive nature. EDA procedures for complying with these requirements are outlined in EDA NEPA Directive 17.02-2 (dated October 14, 1992). Other relevant directives include the EDA Directive for Floodplains and Wetlands No. 17.04 (dated November 9, 1992) and the EDA Directive for Hazardous Waste Liability No. 17.01(dated March 18, 1998).

### ***Planning and technical assistance awards***

All planning awards and most technical assistance awards may be categorically excluded under NEPA. However, technical assistance awards that are related to the planning or design of a construction project may not be eligible for a categorical exclusion under NEPA. (See EDA Directive 17.02-2 for further guidance on when a project may be categorically excluded.) When a project is categorically excluded from NEPA review, the Regional Environmental Officer<sup>5</sup> must record the exclusion in the Operations Planning and Control System (OPCS). In addition, he/she should also either a) print out the OPCS record documenting the categorical exclusion and place this documentation in the official project file, or b) prepare a brief memorandum to the official project file documenting why the project was deemed eligible for categorical exclusion.

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<sup>4</sup> For the purposes of NEPA for federal grants, agency action means the award of federal funds and in the context of EDA’s award process, NEPA reviews must be undertaken before award approval. See 40 C.F.R. § 1508.18.

<sup>5</sup> For the purpose of this section, the term ‘Regional Environmental Officer’ includes EDA project officers that perform NEPA compliance functions, as outlined in this document.

Regional office staff involved in administering planning awards should note that while planning awards may be categorically excluded under NEPA, EDA's Comprehensive Economic Development Strategy (CEDS) requirements obligate recipients of partnership planning awards to identify environmental factors and constraints affecting regional economic development in their CEDS. These factors and constraints may include floodplains, wetlands, sensitive habitats, underground drinking water aquifers, historic and archaeological sites, contaminated soils, etc.

#### Construction projects

*For all awards with a construction component (except for those deemed eligible for a categorical exclusion by the Regional Environmental Officer and approved by the Deputy Assistant Secretary of Regional Affairs (DAS/RA) or his/her designee), the Regional Environmental Officer must, at a minimum, prepare an Environmental Assessment (EA) and participate in the regional office's Investment Review Committee (IRC) for that particular project.* (When in-person participation is infeasible due to an extended absence, the Regional Environmental Officer may instead submit written comments to the IRC panel in advance of the meeting or participate via teleconference.) The EA must include information provided by the applicant, including the applicant's responses to specific questions posed by the Regional Environmental Officer, as well as the findings and recommendations of all federal, state, and local agencies consulted by EDA during the review. The source of all information included in the EA must be carefully documented, and the length of the EA should be commensurate with the complexity of the project and the extent of the environmental issues. In general, the EA should follow the outline of the environmental narrative posted on EDA's website at <http://www.eda.gov/InvestmentsGrants/PublicWorks>. Each EA must include:

- A brief discussion of the need for the proposed project;
- A brief discussion of the alternatives, as required by section 102(2)(E) of NEPA, which states that an agency must "study, develop, and describe appropriate alternatives to recommended courses of action when there are unresolved conflicts concerning alternative uses of available resources." Note that the definition of environmental resources encompasses man-made features (e.g., ponds, caves) that now provide habitat for wildlife.
- A brief discussion of the environmental impacts of the proposed project and of the alternatives previously described, including both the cumulative and the indirect effects of the proposed project. Note that EDA must also consider the cumulative or indirect impacts of projects funded by EDA's partners in conjunction with the EDA project.
- A list of all agencies, experts, and persons consulted. Agencies that should be consulted include but are not limited to:

- The U.S. Fish and Wildlife Service (for projects with the potential to affect endangered species and sensitive habitats)
- The U.S. Army Corps of Engineers (for section 404 of the Clean Water Act wetlands permits)
- The USDA/Natural Resource Conservation Service (for projects affecting prime farmland preservation)
- FEMA (for floodplain issues)
- State Historic Preservation Office (for projects involving sites that may have historic, cultural, architectural, or archeological significance)
- State Coastal Zone Management programs with authority delegated from NOAA
- EPA and/or state programs authorized and funded by EPA related to the Clean Air Act, the Clean Water Act, and/or hazardous waste contamination and brownfield redevelopment (for projects involving asbestos, leaking underground storage tanks, leaking electrical transformers, lead paint, unidentified stored waste, heavy metal soil contamination, etc.).

For all awards with a construction component, EDA must also prepare either (i) a Finding of No Significant Impact (FONSI) or (ii) a detailed EIS. A FONSI may only be made if the analysis and determinations contained in the EA support a finding of no significant environmental impact. The original copies of the EA, FONSI or EIS, and Record of Decision must be included in the official project file.

Regional Environmental Officers should be involved in all stages of a construction project. Accordingly, they should:

- Consult with other regulatory agencies early in the project development and review process, as necessary, to ensure compliance with NEPA, avoid later delays in the process, and anticipate and mitigate potential issues;
- Review the physical description and maps provided in the application package to identify potential “red flags,” and, if necessary, immediately contact the applicant with follow-up questions;
- Attend all IRC meetings in which construction projects are discussed to ensure that proposed projects with known environmental concerns are identified and scrutinized;
- Review the environmental narrative submitted by the applicant and formulate a list of deficiencies, questions, comments, and issues identified in the course of this review, to be relayed to the applicant directly or via the project officer;
- Coordinate with the Regional Counsel to obtain necessary pre-award clearances for projects with impacts to sole source aquifers;
- Collaborate with the Regional Counsel in drafting special award conditions to ensure satisfactory compliance with regulatory requirements (including mitigation measures

- Review and approve post-approval project changes that may have an environmental impact.

### **Compliance with NEPA's Public Participation Requirements**

The public and local community must be made aware of any EDA undertaking and allowed to comment. EDA will specify procedures for ensuring that sufficient public notice is provided in the forthcoming *Pre-Approval Procedures Manual for EDA Construction Projects*. EAs and FONSI's are subject to Freedom of Information Act (FOIA) requests, and EDA provides notice in the Federal Register that the agency's environmental documents (EAs, FONSI's, EISs, and Records of Decision) are available in the applicable regional office.

### **Compliance with the National Historic Preservation Act (NHPA)**

Section 106 of the NHPA requires federal agency coordination with the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO). 36 C.F.R. § 800.1(c) states that the "agency official must complete the Section 106 process prior to the approval of the expenditure of any Federal funds." Therefore, the Regional Environmental Officer must ensure that the SHPO/THPO consultation process has been satisfactorily conducted before extending an offer of financial assistance to an applicant. This does not mean that all work in coordination with the SHPO/THPO must be finished; in fact, recipients frequently execute and work under Memoranda of Agreement with SHPOs/THPOs throughout the duration of their project. Even if historic preservation issues arise or remain to be administered during the course of the project, the SHPO/THPO must be consulted before an award to make a good faith effort to discover and resolve these issues before irreparable harm to historic assets occurs. The regional office should advise applicants to begin working with the applicable SHPO/THPO as early as possible. Special conditions to the grant award that circumvent this consultation process by requiring federal agency coordination with the SHPO after an award has been made violate Section 106.

In addition, the Regional Environmental Officer is responsible for the development and coordination of any Memorandum of Agreement (MOA) between EDA, the SHPO, and the award recipient in accordance with federal agency responsibilities under Section 106 of the NHPA.

**Appendix B—EDA ARRA Measures**

Measure name	Type	Frequency	Desired trend over time	Unit	Explanation	Fiscal year	Original program target (without ARRA)	Revised program target (with ARRA)	Notes
Short-Term jobs created and/or retained	Outcome	Quarterly	Increasing	Number	Number of direct project related jobs created and/or retained as a result of EDA's ARRA investment. Actual FTEs are derived from data provided by grantees on FederalReporting.gov. Targets are established by IMPLAN analysis of EDA's construction related projects.	2010	N/A	592.62	Data is reported on a quarterly basis to FederalReporting.gov; targets represent annual expectation of FTEs created or retained as a direct result of EDA's investment.
Short-Term jobs created and/or retained	Outcome	Quarterly	Increasing	Number	Number of direct project related jobs created and/or retained as a result of EDA's ARRA investment. Actual FTEs are derived from data provided by grantees on FederalReporting.gov. Targets are established by IMPLAN analysis of EDA's construction related projects.	2011	N/A	761.94	Data is reported on a quarterly basis to FederalReporting.gov; targets represent annual expectation of FTEs created or retained as a direct result of EDA's investment. .
Short-Term jobs created and/or retained	Outcome	Quarterly	Increasing	Number	Number of direct project related jobs created and/or retained as a result of EDA's ARRA investment. Actual FTEs are derived from data provided by grantees on FederalReporting.gov. Targets are established by IMPLAN analysis of EDA's construction related projects.	2012	N/A	338.64	Data is reported on a quarterly basis to FederalReporting.gov; targets represent annual expectation of FTEs created or retained as a direct result of EDA's investment.

Measure name	Type	Frequency	Desired trend over time	Unit	Explanation	Fiscal year	Original program target (without ARRA)	Revised program target (with ARRA)	Notes
Percent of ARRA construction grants for which construction commences within 120 days of grant award	Output	Quarterly	Increasing	Percent	This measure will serve as a proxy for ensuring a high percentage of projects selected are "shovel ready."	2010	N/A	90%	EDA will not begin collecting this information until 120 days after the end of the first quarter in which EDA ARRA awards were made.

Measure name	Type	Frequency	Desired trend over time	Unit	Explanation	Fiscal year	Original program target (without ARRA)	Revised program target (with ARRA)	Notes
Percent of ARRA award files audited meeting all compliance criteria.	Output	Yearly	Increasing	Percent	File must demonstrate ALL of the following (consistent with the DOC Office of Acquisition Management Risk Management and Oversight Plan as well as the OIG's continuing emphasis on single audits) for compliance: (1) recipient submitted ARRA-required jobs reported on time OR the regional office notified the recipient of a late report within 30 days; (2) recipient submitted all required performance and financial reports on time OR the regional office notified the recipient of a late report within 30 days; (3) all terms and conditions of the grant were fulfilled and documented OR the regional office took appropriate action; (4) all appropriate terms and conditions were included in the grant documents; and (5) the	2010	N/A	90%	EDA will conduct the audit in the first quarter of FY 2011.

Measure name	Type	Frequency	Desired trend over time	Unit	Explanation	Fiscal year	Original program target (without ARRA)	Revised program target (with ARRA)	Notes
					award file demonstrates that the regional office reviewed all recipient audits, as required by A-133, for findings and took appropriate action.				
<b>NOTE: Fiscal year refers to the fiscal year the award is made.</b>									

## ***Appendix C—EDA’s Recovery Act Quarterly Recipient Reporting Validation Protocol***

Grantees who receive Recovery Act funding are required to comply with quarterly recipient reporting requirements. Under provisions set forth in Section 1512 of the Act, grantees report required fields to FederalReporting.gov. Since data collected through FederalReporting.gov is subject to self-reporting bias, and due to the strong oversight stipulations mandated by the Act, EDA has established the following validation protocol for all Recovery Act Recipient Reports.

- EDA developed and disseminated clarifying guidance to all Regional Offices on the requirements, timeframe, and procedures for recipient reporting that all Recovery Act grantees are obligated to follow. All Recovery Act grantees received a copy of this clarifying guidance from their RO Project Officer & sign an Acknowledgement indicating that they have read and understand all reporting requirements.
- EDA OIT confirmed that all Recovery Act grantees are registered for FederalReporting.gov.
- EDA Regional Office Project Officers will communicate with their Recovery Act grantees to remind them of recipient reporting obligations and answer any questions prior to the deadline (10<sup>th</sup> day after the end of the quarter).
- During days 11 and 21 after the end of the quarter, the EDA Project Officer will be communicating with the Grantee and reminding them to review and validate data. Project Officers will particularly stress the importance for validation in circumstances where reporting requirements have been delegated to sub-recipients. EDA HQ staff will provide a series of communications during this time to Project Officers to encourage them to remind their Recovery Act grantees to verify required data fields.
- During days 11 and 21 after the end of the quarter, EDA’s Performance and National Programs (PNP) staff will do frequent analysis of data reported in FederalReporting.gov and data captured in OPCS.

Specifically, PNP will be ensuring that the following fields reported in FederalReporting.gov match that in OPCS:

- Project Number
- D-U-N-S Number of Primary Recipient
- CFDA Number
- TAS Number
- Amount Awarded
- Organization Name

PNPD will also review the following fields to ensure that they align with the information reported in OPCS and are reasonable based on OMB guidance:

- Award type (i.e. grant); Date; and Description
- Amount of Federal Recovery Act funds expended to projects/activities
- Project description and status
- FTE number and job creation narrative
- Infrastructure expenditures and rationale
- Primary place of performance
- Recipient area of benefit
- Number and total amount of sub-awards less than \$25,000

PNP will be looking for missing data and gross errors in all fields. Missing data and discrepancies will be immediately distributed to the appropriate Regional Office so that they can contact the grantee and request the data to be corrected.

- Between days 22 and 24 after the end of the quarter, EDA's PNP staff will do a final analysis of data reported in [FederalReporting.gov](http://FederalReporting.gov) and compare the data captured in OPCS, as outlined above. This information will be sent to the Regional Offices, as appropriate.
- Between days 22 and 29 after the end of the quarter, EDA Project Officers will log onto [FederalReporting.gov](http://FederalReporting.gov) and enter the Project Number for each Recovery Act project in their region. Project Officers will review and validate the following fields for each project using information in OPCS, details provided on the CD-450; SF-424; SF-270; SF-271; SF-425, and their specialized knowledge of the project:
  - Award Number
  - Funding Agency Name
  - D-U-N-S Number
  - EIN
  - CFDA
  - Recipient Organization
  - Project/Grant Period
  - Total Cost of Infrastructure Investments
  - Amount and Number of Sub-Awards
  - Data Reported by any delegated Sub-Recipients

EDA Project Officers will also review and ensure the reasonableness of the following information based on their knowledge of the project:

- Amount of Federal Recovery Act funds expended to projects/activities
- Project description and status
- FTE number and job creation narrative
- Infrastructure expenditures and rationale

EDA Project Officers will contact the recipient reporting POC ASAP after the 22<sup>nd</sup> day after the end of the quarter if errors or missing data are identified.

EDA Project Officers will use the following system to classify data on FederalReporting.gov no later than the 29<sup>th</sup> day after the end of the quarter:

- Not Reviewed by Agency
  - Reviewed by Agency, no material omissions or significant reporting errors identified
  - Reviewed by Agency, material omissions or significant errors.
- Between the end of one reporting cycle and the start of the next, EDA's PNP will analyze the data reported to determine information that could be useful for assessing the reasonableness of data in future quarters (i.e. reported ranges by project type, geographic area, and RO), and to identify common errors that could be corrected in the following reporting cycle.

EDA's PNP will utilize IMPLAN input-output econometric modeling software in analyzing each of EDA's 68 Recovery Act projects. IMPLAN will provide a widely-accepted framework for determining the number of jobs created by a project, and will enhance PNP's efforts to identify outliers, appropriate ranges, and average FTE by project type that can assist RO Project Officers in reviewing future quarterly reports.

In addition to this analysis, PNP's staff will conduct validation site visits during this period in order to:

1. Ensure Project Officers and Recovery Act Grantees are adhering to OMB, DOC, and EDA guidance on recipient reporting;
2. Ensure supporting documentation is being retained in the grant file to support quarterly report classification; and,
3. Ensure Recovery Act grantees are utilizing the FTE method to calculate reported jobs.

PNP's validation protocol will use the existing protocol that was ratified by the recent Grant Thornton/ASR Analytics study. In this process, a notice is sent to the grantee four weeks before the scheduled visit. In that notice, EDA provides the rationale for the visit and requests a list of documents be prepared. These may include, but may not be limited to, payroll records, grant files, and business tax records that can be used to independently validate the information reported to FederalReporting.gov as required under Section 1512 of the Recovery Act.

**National Institute of Standards and Technology (NIST)**

**American Recovery and Reinvestment Act of 2009**

**Construction of Research Facilities (CRF) Program Plan**

May, 2010



**American Recovery and Reinvestment Act of 2009**  
**National Institute of Standards and Technology**  
**Construction of Research Facilities (CRF) Program Plan**  
**May, 2010**

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## ***Funding Table***

Construction of Research Facilities (CRF) Funding Table (dollars in millions)

<u>Program</u>	<u>Project/Activity</u>	<u>Planned</u>
Construction of Research Facilities	NIST Construction Projects	\$172.0
	Management and Oversight for NIST Construction Projects	8.0
	Competitive Construction Grants Program	179.0
	Management and Oversight for Competitive Construction Grants Program	1.0
	Total	\$360.0

## ***Introduction***

NIST helps to promote U.S. innovation and industrial competitiveness by strengthening the Nation's measurement and standards infrastructure.

NIST's Construction of Research Facilities (CRF) program includes the maintenance, repair, improvement and construction of facilities occupied or used by NIST in Gaithersburg, Maryland; Boulder and Fort Collins, Colorado; and Kauai, Hawaii. The Gaithersburg site is composed of 578 acres and 55 buildings and structures; the Boulder site has 208 acres and 26 buildings and structures; Fort Collins is built on a 390-acre site with seven buildings and structures; and the Kauai site houses the NIST radio station, which is located on a U.S. Navy 30-acre site. The majority of the buildings were constructed in the 1950's and 1960's and are no longer adequate for the research needed to support U.S. innovation and industrial competitiveness requirements for the 21<sup>st</sup> century. Critical utility infrastructure failures and environmental control limitations are hampering/hindering NIST research. The critical measurement science and standards research performed by NIST enables scientific discovery and speeds the translation of these discoveries into economically meaningful products and services.

## ***Objectives***

### **Program Purpose**

The American Recovery and Reinvestment Act (ARRA) of 2009 included \$360.0 million for CRF activities. Consistent with the ARRA bill language and conference report, NIST will use \$180.0 million for the construction, renovation, and maintenance of NIST facilities and \$180.0 million for the Competitive Construction Grants Program for research science buildings, including fiscal year 2008 and 2009 competitions. These investments will serve as significant and timely

economic stimulus, creating jobs in construction and related industries. The Competitive Construction Grants Program was first appropriated in FY 2008 for competitive grants for research science buildings. These research buildings, which support research in all applicable sciences as they relate to the Department of Commerce, are awarded to colleges, universities and other non-profit science research organizations on a competitive basis. While these investments are targeted primarily to achieve immediate economic recovery, investments in NIST infrastructure also return longer-term economic benefits to the Nation through innovation and technology development.

### **Public Benefit**

The measurements, standards, and technologies that are the essence of the work done by NIST's laboratories help U.S. industry and science to invent and manufacture superior products and to provide services reliably. NIST manages some of the world's most specialized measurement facilities where cutting-edge research is done in areas such as new and improved materials, advanced fuel cells, and biotechnology. Critically needed research facilities will help keep our Nation at the forefront of cutting-edge research and ensure that U.S. industry has the tools it needs to continually improve products and services. The investment now in these advanced research facilities will be recouped many times over in increased U.S. innovation, a critical ingredient for improved productivity and job creation. The construction projects described below will use green technologies, where possible, and will improve energy efficiency and environmental performance of NIST facilities.

### ***Activities***

#### **Non-Federal Responsibility**

The following is a summary of the NIST activities funded in the Construction of Research Facilities (CRF) appropriation by the American Recovery and Reinvestment Act of 2009 (ARRA). With the exception of the Precision Measurement Laboratory, which was awarded in April, the remaining CRF projects are currently out for bid. All of the bids and the awards are expected to occur in the fourth quarter of FY 2010. The bidding for the components of the CRF program will specify base requirements and "add-alternate" options separately. This will allow flexibility to award the minimum project required if the bidding climate is unfavorable and to award additional features if the bidding environment is more favorable. This maximizes our ability to enhance the research or programmatic capabilities of the facilities while adhering to the time constraints, regulations and guidance as specified by ARRA.

### **NIST Construction Projects (\$180.0 million)**

- \$43.5 million to complete funding for the NIST Precision Measurement Laboratory (PML), formerly Boulder Building 1 Extension (B1E). The PML is a high performance laboratory building which will provide the advanced facilities that scientists at NIST in Boulder, Colorado, need to perform 21<sup>st</sup> century research and measurements.
- \$25.0 million to enhance the performance of the PML (formerly B1E). With the additional funding, design and construction modifications can be made to the PML – within the current design footprint – to substantially improve the performance and capacity of the advanced laboratory facility.
- \$31.0 million to carry out energy-efficient Safety, Capacity, Maintenance, and Major Repairs (SCMMR) projects that enhance the performance of NIST’s aging facilities. Specific SCMMR projects include:
  - *Fume Hood Replacements* – Replacement of old, inefficient fume hoods with state-of-the-art variable air volume hoods.
  - *Heating, Ventilating, and Air Conditioning Renovations* – Replacement of 40-year-old obsolete air handlers and related equipment with energy efficient equipment.
  - *Window Replacements and Wall Insulation* – This funding will continue an effort already started at NIST to insulate the walls and install high performance, energy efficient windows in NIST Gaithersburg’s 40-year old buildings
  - *Energy Efficient Lighting and Sensors* – Continue replacing old lighting with energy efficient lights and motion-detecting sensors for automatic shut-off of lights in unoccupied areas.
  - *Solar Panels* – Photovoltaic systems for solar power will be installed at the Gaithersburg site and at the radio station in Kauai, Hawaii to help lessen NIST’s reliance on fossil fuels.
- \$16.0 million for high-efficiency cooling system, associated support infrastructure for the cooling system, and other support infrastructure including electrical substation, compressor building, cooling tower cell, and storage building for the NIST Center for Neutron Research (NCNR) Expansion project in Gaithersburg.
- \$16.0 million to fund the design and construction of a National Structural Fire Resistance Laboratory for studying and measuring ways fires start and propagate in various

structures, and the ways fires can be prevented and suppressed, potentially saving thousands of lives and billions of dollars in property damage.

- Our original plan was to utilize \$15.0 million to fund the design and construction of a new time-code radio broadcast station. Despite our best efforts, we have been unsuccessful in finding a site or solution that will give us any realistic chance of awarding this project by September 30, 2010, which is the expiration date of NIST's ARRA funding. Since this is no longer a feasible ARRA project, NIST will propose reallocation of funding to other ARRA projects.
- \$9.0 million for relocation and consolidation of advanced robotics and logistics operations from a decommissioned NIKE missile site to the NIST Gaithersburg site would improve performance of the robotics test facility, save money, improve security and safety of NIST projects, and free the NIKE site for possible conveyance to local government.
- \$5.0 million to fund the construction of a Liquid Helium Recovery System (LHRS) for the NIST Gaithersburg site. This project would almost eliminate helium loss, providing savings not only to NIST but also conserving a scarce national resource.
- \$2.5 million to fund the construction of a LHRS for the NIST Boulder site. The Boulder laboratories are smaller than those in Gaithersburg and use less helium, permitting a smaller and less expensive recovery system.
- \$7.0 million for design and construction of an Emergency Services Consolidated Facility in Gaithersburg to house the NIST Fire and Police services. The current facilities for Fire and Police services are spread across the site in obsolete and inadequate facilities.
- \$2.0 million for a Net-Zero-Energy Residential Test Facility at NIST Gaithersburg. This project will fund a demonstration facility on the Gaithersburg site to test building construction and operation techniques resulting in net zero energy use.

### **Federal Responsibility**

\$8.0 million for in-house oversight and construction management support of NIST construction projects. These funds will be used to provide assistance with the project management, including development, implementation, and oversight of the internal NIST construction and SCMMR projects.

## ***Competitive Construction Grants Program (\$180.0 million)***

### **Non-Federal Responsibility**

Includes approximately \$179.0 million for the competitive construction grants program, which includes \$55.5 million in grants to unfunded meritorious applications submitted under the FY 2008 construction grants competition and approximately \$123.5 million in grants under the new FY 2009 competition. The intent of this program is to provide competitively awarded grants to U.S. universities, colleges, and not-for-profit research organizations for research science buildings through the construction of new buildings or expansion of existing buildings.

### **Federal Responsibility**

Approximately \$1.0 million for program management support and oversight of the construction grants program. Originally \$2.0 million was planned for in-house oversight and construction management support of the ARRA construction grants. The lower administrative costs have allowed us to award more grants.

## ***Characteristics***

### **ARRA CRF Appropriation**

#### **NIST Construction Projects**

NIST will be awarding competitive contracts to complete 15 construction projects at NIST in order to address NIST's maintenance and renovation and for construction of new facilities and laboratories. Potential beneficiaries include: Federal, state, and for-profit organizations; scientists; engineers; builders; contractors; and developers. Awardees for construction contracts will be chosen based on the competitive bid that meets the specified requirements and criteria.

Non-Federal recipients: \$172.0 million

### **Competitive Construction Grants Program**

NIST awarded 16 construction grants, totaling \$179.0 million to provide for the construction of scientific research facilities at U.S. universities, colleges, and not-for-profit research organizations. Beneficiaries include: Institutions of higher education; not for-profit research organizations; scientists; engineers; builders; contractors; and developers.

Non-Federal recipients: \$179.0 million

## Major Planned Program and Milestones

### NIST Construction Projects

The following construction projects are the planned components of the CRF Program to address NIST's maintenance and renovation projects and for construction of new facilities and laboratories.

	Project Approval		Planning Phase		Design Phase		Develop Acq. Plan		Construction Phase	
	Start	Complete	Start	Complete	Start	Complete	Start	Complete	Start	Complete
Complete PML (formerly B1E)	3/27/2009	5/27/2009	3/27/2009	4/13/2009	1/5/2009	10/15/2009	3/25/2009	11/19/2009	11/23/2009	12/2/2012
Enhance Performance of PML	3/27/2009	5/27/2009	3/27/2009	4/13/2009	1/5/2009	10/15/2009	3/25/2009	11/19/2009	11/23/2009	12/2/2012
SCMMR - Fume Hood Replacements	3/27/2009	5/26/2009	3/18/2009	7/10/2009	7/13/2009	3/22/2010	3/18/2010	6/15/2010	6/16/2010	11/30/2011
SCMMR - HVAC Renovations	3/27/2009	5/26/2009	3/18/2009	6/30/2009	7/13/2009	3/22/2010	3/18/2010	6/15/2010	6/16/2010	11/30/2011
SCMMR - Window Replacements and Wall Insulation	3/27/2009	5/26/2009	3/18/2009	7/13/2009	7/13/2009	3/12/2010	3/18/2010	4/30/2010	5/1/2010	5/12/2011
SCMMR - Energy Efficient Lighting and Sensors	3/27/2009	5/26/2009	3/18/2009	6/30/2009	7/13/2009	2/18/2010	2/22/2010	3/21/2010	4/23/2010	2/1/2011
SCMMR - Gaithersburg Solar Panels	3/27/2009	5/26/2009	3/18/2009	7/16/2009	7/13/2009	3/18/2010	3/26/2010	5/7/2010	5/8/2010	4/19/2011
SCMMR - Kauai Solar Panels	3/27/2009	5/29/2009	3/29/2009	5/30/2009	6/9/2009	6/22/2009	7/28/2009	10/26/2009	11/23/2009	9/20/2010
NCNR - High-Efficiency Cooling System and Support Infrastructure	3/27/2009	5/18/2009	4/15/2009	5/1/2009	4/15/2009	4/1/2010	4/1/2009	5/15/2010	5/15/2010	12/21/2011
National Structural Fire Resistance Laboratory	3/27/2009	5/19/2009	3/18/2009	7/31/2009	7/1/2009	3/1/2010	3/1/2010	5/2/2010	5/3/2010	5/4/2012
Time Code Radio Broadcast Station										
Relocation and Consolidation of Advanced Robotics and Logistics	3/27/2009	5/23/2009	3/18/2009	8/3/2009	7/28/2009	3/1/2010	3/1/2010	4/14/2010	4/14/2010	12/31/2011
Liquid Helium Recovery System in Gaithersburg	3/27/2009	5/19/2009	3/18/2009	3/31/2010	7/13/2009	Design /Build	12/15/2009	4/14/2010	6/30/2010	8/10/2011
Liquid Helium Recovery System in Boulder	3/30/2009	5/27/2009	3/25/2009	4/13/2009	4/6/2009	8/17/2009	3/25/2009	11/19/2009	11/23/2009	10/1/2011
Emergency Services Consolidated Facility	3/27/2009	5/18/2009	3/18/2009	8/3/2009	7/28/2009	3/1/2010	3/1/2010	4/14/2010	4/14/2010	12/31/2011
Net-Zero-Energy Residential Test Facility	3/27/2009	5/18/2009	3/18/2009	7/15/2009	7/13/2009	4/7/2010	4/8/2010	5/25/2010	5/26/2010	6/6/2011

Note: Several of these projects are currently out for bid and the milestones schedule is subject to change as the projects are awarded and the construction schedules are more specifically defined.

The new requirement outlined in 52.225-21, 22, 23, 24, and 25 "Required Use of American Iron, Steel, and Other Manufactured Goods – Buy American Act – Construction Materials" could increase the procurement time by 60 days. The government will have no control on construction vendors submitting a "Request for determinations of inapplicability" of section 1605 of the American Recovery and Reinvestment Act of 2009 on specific construction solicitations.

## Competitive Construction Grants Program

	Planning Phase Start	Planning Phase End	Execution Phase Start	Execution Phase End	Obligation Date
Construction FY 2008 Applications	3/9/09	4/3/09	4/6/09	7/17/09	7/20/09 (Actual awards occurred on time)
Construction FY 2009 Applications	3/9/09	4/3/09	4/6/09	2/26/10	3/1/10 (Actual awards occurred on 1/8/10)

## *Environmental Review Compliance*

### **NIST Construction Projects**

NIST has a diverse group of projects that are in different stages of meeting the requirements of the National Environmental Policy Act (NEPA). They break down as follows:

**Boulder Site:** An Environmental Impact Statement (EIS) with a Record of Decision (ROD) was completed for the Boulder Site on June 14, 1996, and the Precision Measurement Laboratory (PML) project was included in this document. The Department of Commerce (DOC) Environmental Compliance Officer also reviewed the EIS and ROD in 2007 and determined that no further environmental review was needed for the PML project. Consequently, the two ARRA-funded projects related to the PML are in full compliance with NEPA. Additionally, the Liquid Helium Recovery System will be located within the PML project area and is also covered by the existing EIS. The Liquid Helium Recovery System will be environmentally beneficial as it will help to conserve an increasingly scarce natural resource.

**Gaithersburg Site:** Compliance with NEPA is completed for the NIST Center for Neutron Research (NCNR) Expansion project with a Categorical Exclusion as well as a finding of "No Historical Significance" from the Maryland State Historic Preservation Officer. Categorical Exclusions were also completed for the two ARRA-funded infrastructure projects related to the NCNR Expansion. The remainder of the planned projects are included in a Programmatic Environmental Assessment (PEA) for the Gaithersburg site that was completed in the fall

of 2009, with a Finding of No Significant Impact (FONSI) signed on November 10, 2009. Furthermore, each project has undergone a separate review to assess whether it falls within the Environmental Impact Boundaries established within the FONSI, or if further NEPA analysis is warranted. This review process has been completed for all the Gaithersburg projects and, as a result, NIST determined that one project, the National Structural Fire Resistance Laboratory (NSFRL), should undergo further environmental review through a supplemental Environmental Assessment (EA). The NSFRL supplemental EA was submitted in April and approved in early May of 2010. NEPA compliance is completed for all Gaithersburg site projects with the exception of the NSFRL.

**Kauai Site:** NIST's radio station, WWVH, is located on the Barking Sands U.S. Naval Base where NIST plans to install solar panels to help power the radio station and reduce operating costs, as well as NIST's carbon footprint. NIST has coordinated with the U.S. Navy to assure full NEPA compliance and is waiting for the Navy to provide a completed Environmental Checklist. NIST intends to comply with NEPA through the use of a Categorical Exclusion.

### **Competitive Construction Grants Program**

Sixteen ARRA funded grants have been awarded, the final 12 of which were awarded in mid-January of 2010. Prescreening during the competitions and review of the new DOC Categorical Exclusions enabled NIST to anticipate that the awarded grants will qualify for Categorical Exclusions. Four of the grant recipients have completed their NEPA review process and NIST has finalized the Categorical Exclusions. The remaining 12 grant recipients are actively working to finalize their NEPA reviews and documentation. All Categorical Exclusions are anticipated to be completed by June of 2010.

### ***Measures***

Use of NIST Recovery Act funding was targeted to have maximal impact on meeting the goals of ARRA including:

- creating jobs,
- promoting economic recovery,
- providing investments needed to increase economic efficiency by spurring technological advances in science, and
- making investments in areas of research that will provide long-term economic benefits.

The table on the next page reflects performance measures that were reported in Recovery.gov on May 15, 2009, for NIST's CRF ARRA appropriations. NIST has been collecting ARRA performance data on a quarterly basis. Data is included in the table for each measure for FY 2009 Planned and Actuals, as well as FY 2010 Planned and FY 2010 cumulative totals as of the end of the second quarter of FY 2010 (March 31, 2010).

<b>CRF Measure</b>	<b>FY09 Planned</b>	<b>FY 09 Actual</b>	<b>FY10 Planned</b>	<b>FY 10 Actual (2nd Qtr)</b>
NIST Construction Projects: Dollars Obligated	26,300,000	10,956,135	153,700,000	737,908
NIST Construction Projects: Number of projects renovated	0	0	0	0
NIST Construction Projects: Number of Facilities Constructed	0	0	0	0
Construction Grants (up to \$60M): Dollars Obligated	60,000,000	55,536,981	0	0
Construction Grants (up to \$60M): Number of grants awarded	5	4	0	0
Construction Grants (up to \$60M): Number of research science facilities completed	0	0	0	0
Construction Grants (approximately \$120M): Dollars Obligated	0	0	120,000,000	123,517,167
Construction Grants (approximately \$120M): Number of grants awarded	0	0	10	12
Construction Grants (approximately \$120M): Number of research science facilities completed	0	0	0	0

### ***Monitoring and Evaluation***

NIST has established a robust governance and management structure to ensure that ARRA funds are managed in an effective and efficient manner. The governance and management structure includes: the ARRA Steering Committee, Working Groups, the ARRA Program Management Office, Standardized Action Plans, Action Plan Owners, Organizational Unit (OU) Coordinators, Project Managers, and an ARRA Risk Management Team.

The ARRA Steering Committee was responsible for the resolution of issues related to, and the implementation of, the numerous ARRA legal provisions, regulatory requirements, OMB and DOC policies and procedures, and NIST policies and procedures. Working Groups were established under the Steering Committee to designate owners for specific processes related to

ARRA including Contract Management, Grants Management, Risk Management and Audit, Budget and Resources, Data Feeds and Reporting, and Communications. The Program Management Office (PMO) was established to ensure plans are adequately developed, progress of projects is monitored, project interdependencies are identified and managed, and that risks to projects are identified and mitigated. Each ARRA project must have an Action Plan developed in a manner consistent with the requirements of the NIST Project Management Program. Each Action Plan is owned by an Action Plan Owner, who is either an Organizational Unit Director or a Chief Officer. To ensure the proper coordination of ARRA activities within each Organizational Unit, the role of the ARRA OU Coordinator was developed. OU Coordinators work directly with each ARRA Project Managers to ensure Recovery Act projects are successfully managed. Project Managers are responsible for developing and managing project schedules, issues, risks, budget and resources.

There are numerous projects funded by ARRA in the Construction of Research Facilities (CRF) appropriation. These projects areas include: NIST construction projects and the Competitive Construction Grants Program.

Each Project Manager is required to submit a monthly Action Plan status/update to the PMO. The monthly Action Plan requires project managers to document risks or issues and potential problems that may occur and would have a negative impact on the project's schedule, budget, resources or functionality.

Processes and tools were developed to consolidate the Action Plan information from the Construction related ARRA projects. The consolidation of this information constitutes an ARRA Dashboard that will be produced monthly. This Dashboard will include information on: project status, funds obligated, and risks and mitigations. ARRA Dashboard information is presented and discussed during the monthly meetings with the Director, Chief Financial Officer, Deputy Chief Financial Officer, OU Directors, and Chief Officers from program areas.

NIST has established a Risk Management Team comprised of NIST internal controls staff and risk management consultants. The Risk Management Team is responsible for leading NIST's efforts to: identify and group related risks, prioritize risks, develop and implement risk mitigation strategies, track risk mitigation efforts, and report monthly to the ARRA PMO on various components of the risk management program.

NIST uses the Recovery Act Accountability Framework and Objectives to properly assess how well the funding recipients meet the funding objectives and track against well-defined performance metrics. The FY 2009 OMB Circular A-123 audit revealed that financial controls are adequate and demonstrate no material weaknesses or significant deficiencies over the following cycles that impact ARRA spending: Grants, Revenue, Purchasing, and Budget Execution.

## ***Transparency***

For the competitive construction grants, NIST will actively review and analyze all project planning, milestones, and metrics to ensure approved Recovery Act projects are being appropriately executed within both the parameters of the Act and Administration. All Grant programs were competitive with notifications posted in the Federal Register and on Grants.gov. All recipients are required to register and report required ARRA information on federalreporting.gov, and to submit quarterly financial reports and technical progress reports at the end of each quarter. NIST regularly follows up with recipients regarding FederalReporting.gov registration and timely and accurate quarterly reporting for ARRA, financial, and technical progress reporting.

There is regular weekly quality assurance coordination, monitoring, and feedback of recipient reporting between NIST and DOC. There is regular monitoring and oversight coordination, monitoring, and feedback between the Grants Officers, Specialists, and Program Officers to ensure timely and accurate reporting of various financial, technical, schedule, budget, and risk mitigation statuses to allow NIST to provide proper direction and correction as necessary. Each ARRA award includes with their official award document, Special Award Conditions (outlining the Financial and Technical Reporting requirements; the NIST Construction Grant Program General Terms and Conditions (if applicable); the DOC American Recovery and Reinvestment Act Award Terms. Appropriate OMB Circulars Code of Federal Regulations references are also incorporated into the awards and monitored by NIST for compliance.

The NIST Construction Grants program grantee's performance data, based on appropriate, meaningful, and measurable criteria, will be both aggregated at a program level summary and appropriately specific to the performance of each Construction Grantee. The detail will account for the necessary protection of certain data at the grantee level.

## ***Accountability***

During the 2009 mid-year performance reviews, a standard ARRA-related element was mandated for inclusion in each employee's performance plan when the employee has ARRA responsibilities. Each supervisor may add additional ARRA requirements as deemed necessary. Supervisors were required to discuss specific ARRA responsibilities and expectations with employees. The Risk Management Team will perform tests for compliance of this management internal control related to accountability.

Employees who have responsibilities related to ARRA include: Director, Chief Financial Officer, Deputy Chief Financial Officer, OU Directors, Chief Officers, OU Coordinators, Project Managers, and various Division Chiefs, Group Leaders, and staff.

ARRA roles and responsibilities have been clearly defined and provided to OU Directors, Chief Officers, OU Coordinators, and Project Managers.

Each Action Plan is owned by the Action Plan Owner, who is either an Organizational Unit Director or a Chief Officer. Each Action Plan Owner is ultimately accountable for their Recovery Act project's success. Each Project Manager is required to submit a monthly Action Plan status to the PMO. The monthly Action Plan requires Project Managers to report on progress and document risks or issues on potential problems that may occur and would have a negative impact to the project's schedule, budget, resources or functionality.

Dashboard information will be presented and discussed monthly with the ARRA Management and Oversight Committee. Action Plan Owners will be held accountable for their ARRA projects during these monthly reviews and, ultimately, at their end-of-year performance evaluation.

***Barriers to Effective Implementation***

<b>ARRA Program</b>	<b>Barriers to Effective Implementation</b>	<b>Proposed Solution</b>	<b>Resolution Date</b>
Construction of Research Facilities	Need to reallocate funds among construction projects as project bids are received and actual amounts are identified.	Provide Congress with notification of amendment to the spend plan in order to reallocate funds.	June 1, 2010
Construction of Research Facilities	The availability of acquisition staff.  The strategy to use contracted acquisition resource has not worked as well as expected. The contracting staff in demand requires special skills (in particular for the construction projects). Additionally, the demand for qualified contracting staff is higher than the available supply. Although the rates have been increased to competitively recruit contracting staff and did yield positive results, the competition of resources continued to drive the rates higher. It has been challenging to retain the contracting staff even with the competitive rates.	Continue working with the contractor augmented by government staff to complete the requirements.	September 30, 2010

## ***Federal Infrastructure Investments***

Virtually all of the projects planned to be constructed with ARRA funding will be significant in terms of energy efficiency, sustainability, and reducing the agency's environmental impact. The PML project in Boulder is designed to meet Leadership in Energy and Environmental Design (LEED) Silver certification. The ARRA funding for completion of the PML facility and for enhancing the performance will enable full retention of all energy efficient and sustainable building features. The energy and water efficiency of the NCNR Expansion project will be greatly enhanced with the installation of ARRA-funded high efficiency pumps which will reduce the facility's electrical load by 10 to 20 percent and will reduce the use of water by 9 million gallons per year. Facilities that will be built on the Gaithersburg site including the National Fire Resistance Laboratory, the Robotics and Logistics Relocations/Consolidations, and the Emergency Services Consolidation Station, will be designed and constructed to meet the highest energy efficiency and LEED certification level possible. Of special note is the Net-Zero-Energy Residential Test Facility, which can be defined as producing as much energy as it consumes. This research facility will be highly energy efficient and will serve as a demonstration facility to test and study building construction, energy-saving and operation techniques, and alternate energy sources resulting in net-zero-energy use. NIST's environmental impact will be reduced through the construction of Liquid Helium Recovery Systems at both the Gaithersburg and Boulder sites. Liquid helium is an increasingly expensive and scarce resource, requiring significant energy expenditure to produce and liquefy it from the normal gas state. Currently, the liquid helium is simply lost to the atmosphere on warming. These recovery systems will nearly eliminate all helium loss and enable its reuse. ARRA funds for the Safety, Capacity, Maintenance and Major Repairs (SCMMR) Program will be dedicated to projects for improving NIST's energy efficiency and sustainability. Specific SCMMR projects and corresponding environmental impacts are listed under the Activities section of this Program Plan.

**National Institute of Standards and Technology (NIST)**

**American Recovery and Reinvestment Act of 2009**

**Construction of Research Facilities (CRF) Program Plan**

May, 2010



**American Recovery and Reinvestment Act of 2009**  
**National Institute of Standards and Technology**  
**Construction of Research Facilities (CRF) Program Plan**  
**May, 2010**

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## ***Funding Table***

Construction of Research Facilities (CRF) Funding Table (dollars in millions)

<u>Program</u>	<u>Project/Activity</u>	<u>Planned</u>
Construction of Research Facilities	NIST Construction Projects	\$172.0
	Management and Oversight for NIST Construction Projects	8.0
	Competitive Construction Grants Program	179.0
	Management and Oversight for Competitive Construction Grants Program	1.0
	Total	\$360.0

## ***Introduction***

NIST helps to promote U.S. innovation and industrial competitiveness by strengthening the Nation's measurement and standards infrastructure.

NIST's Construction of Research Facilities (CRF) program includes the maintenance, repair, improvement and construction of facilities occupied or used by NIST in Gaithersburg, Maryland; Boulder and Fort Collins, Colorado; and Kauai, Hawaii. The Gaithersburg site is composed of 578 acres and 55 buildings and structures; the Boulder site has 208 acres and 26 buildings and structures; Fort Collins is built on a 390-acre site with seven buildings and structures; and the Kauai site houses the NIST radio station, which is located on a U.S. Navy 30-acre site. The majority of the buildings were constructed in the 1950's and 1960's and are no longer adequate for the research needed to support U.S. innovation and industrial competitiveness requirements for the 21<sup>st</sup> century. Critical utility infrastructure failures and environmental control limitations are hampering/hindering NIST research. The critical measurement science and standards research performed by NIST enables scientific discovery and speeds the translation of these discoveries into economically meaningful products and services.

## ***Objectives***

### **Program Purpose**

The American Recovery and Reinvestment Act (ARRA) of 2009 included \$360.0 million for CRF activities. Consistent with the ARRA bill language and conference report, NIST will use \$180.0 million for the construction, renovation, and maintenance of NIST facilities and \$180.0 million for the Competitive Construction Grants Program for research science buildings, including fiscal year 2008 and 2009 competitions. These investments will serve as significant and timely

economic stimulus, creating jobs in construction and related industries. The Competitive Construction Grants Program was first appropriated in FY 2008 for competitive grants for research science buildings. These research buildings, which support research in all applicable sciences as they relate to the Department of Commerce, are awarded to colleges, universities and other non-profit science research organizations on a competitive basis. While these investments are targeted primarily to achieve immediate economic recovery, investments in NIST infrastructure also return longer-term economic benefits to the Nation through innovation and technology development.

## **Public Benefit**

The measurements, standards, and technologies that are the essence of the work done by NIST's laboratories help U.S. industry and science to invent and manufacture superior products and to provide services reliably. NIST manages some of the world's most specialized measurement facilities where cutting-edge research is done in areas such as new and improved materials, advanced fuel cells, and biotechnology. Critically needed research facilities will help keep our Nation at the forefront of cutting-edge research and ensure that U.S. industry has the tools it needs to continually improve products and services. The investment now in these advanced research facilities will be recouped many times over in increased U.S. innovation, a critical ingredient for improved productivity and job creation. The construction projects described below will use green technologies, where possible, and will improve energy efficiency and environmental performance of NIST facilities.

## ***Activities***

### **Non-Federal Responsibility**

The following is a summary of the NIST activities funded in the Construction of Research Facilities (CRF) appropriation by the American Recovery and Reinvestment Act of 2009 (ARRA). With the exception of the Precision Measurement Laboratory, which was awarded in April, the remaining CRF projects are currently out for bid. All of the bids and the awards are expected to occur in the fourth quarter of FY 2010. The bidding for the components of the CRF program will specify base requirements and "add-alternate" options separately. This will allow flexibility to award the minimum project required if the bidding climate is unfavorable and to award additional features if the bidding environment is more favorable. This maximizes our ability to enhance the research or programmatic capabilities of the facilities while adhering to the time constraints, regulations and guidance as specified by ARRA.

### **NIST Construction Projects (\$180.0 million)**

- \$43.5 million to complete funding for the NIST Precision Measurement Laboratory (PML), formerly Boulder Building 1 Extension (B1E). The PML is a high performance laboratory building which will provide the advanced facilities that scientists at NIST in Boulder, Colorado, need to perform 21<sup>st</sup> century research and measurements.
- \$25.0 million to enhance the performance of the PML (formerly B1E). With the additional funding, design and construction modifications can be made to the PML – within the current design footprint – to substantially improve the performance and capacity of the advanced laboratory facility.
- \$31.0 million to carry out energy-efficient Safety, Capacity, Maintenance, and Major Repairs (SCMMR) projects that enhance the performance of NIST’s aging facilities. Specific SCMMR projects include:
  - *Fume Hood Replacements* – Replacement of old, inefficient fume hoods with state-of-the-art variable air volume hoods.
  - *Heating, Ventilating, and Air Conditioning Renovations* – Replacement of 40-year-old obsolete air handlers and related equipment with energy efficient equipment.
  - *Window Replacements and Wall Insulation* – This funding will continue an effort already started at NIST to insulate the walls and install high performance, energy efficient windows in NIST Gaithersburg’s 40-year old buildings
  - *Energy Efficient Lighting and Sensors* – Continue replacing old lighting with energy efficient lights and motion-detecting sensors for automatic shut-off of lights in unoccupied areas.
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Includes approximately \$179.0 million for the competitive construction grants program, which includes \$55.5 million in grants to unfunded meritorious applications submitted under the FY 2008 construction grants competition and approximately \$123.5 million in grants under the new FY 2009 competition. The intent of this program is to provide competitively awarded grants to U.S. universities, colleges, and not-for-profit research organizations for research science buildings through the construction of new buildings or expansion of existing buildings.

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Approximately \$1.0 million for program management support and oversight of the construction grants program. Originally \$2.0 million was planned for in-house oversight and construction management support of the ARRA construction grants. The lower administrative costs have allowed us to award more grants.

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NIST will be awarding competitive contracts to complete 15 construction projects at NIST in order to address NIST's maintenance and renovation and for construction of new facilities and laboratories. Potential beneficiaries include: Federal, state, and for-profit organizations; scientists; engineers; builders; contractors; and developers. Awardees for construction contracts will be chosen based on the competitive bid that meets the specified requirements and criteria.

Non-Federal recipients: \$172.0 million

#### **Competitive Construction Grants Program**

NIST awarded 16 construction grants, totaling \$179.0 million to provide for the construction of scientific research facilities at U.S. universities, colleges, and not-for-profit research organizations. Beneficiaries include: Institutions of higher education; not for-profit research organizations; scientists; engineers; builders; contractors; and developers.

Non-Federal recipients: \$179.0 million

## Major Planned Program and Milestones

### NIST Construction Projects

The following construction projects are the planned components of the CRF Program to address NIST's maintenance and renovation projects and for construction of new facilities and laboratories.

	Project Approval		Planning Phase		Design Phase		Develop Acq. Plan		Construction Phase	
	Start	Complete	Start	Complete	Start	Complete	Start	Complete	Start	Complete
Complete PML (formerly B1E)	3/27/2009	5/27/2009	3/27/2009	4/13/2009	1/5/2009	10/15/2009	3/25/2009	11/19/2009	11/23/2009	12/2/2012
Enhance Performance of PML	3/27/2009	5/27/2009	3/27/2009	4/13/2009	1/5/2009	10/15/2009	3/25/2009	11/19/2009	11/23/2009	12/2/2012
SCMMR - Fume Hood Replacements	3/27/2009	5/26/2009	3/18/2009	7/10/2009	7/13/2009	3/22/2010	3/18/2010	6/15/2010	6/16/2010	11/30/2011
SCMMR - HVAC Renovations	3/27/2009	5/26/2009	3/18/2009	6/30/2009	7/13/2009	3/22/2010	3/18/2010	6/15/2010	6/16/2010	11/30/2011
SCMMR - Window Replacements and Wall Insulation	3/27/2009	5/26/2009	3/18/2009	7/13/2009	7/13/2009	3/12/2010	3/18/2010	4/30/2010	5/1/2010	5/12/2011
SCMMR - Energy Efficient Lighting and Sensors	3/27/2009	5/26/2009	3/18/2009	6/30/2009	7/13/2009	2/18/2010	2/22/2010	3/21/2010	4/23/2010	2/1/2011
SCMMR - Gaithersburg Solar Panels	3/27/2009	5/26/2009	3/18/2009	7/16/2009	7/13/2009	3/18/2010	3/26/2010	5/7/2010	5/8/2010	4/19/2011
SCMMR - Kauai Solar Panels	3/27/2009	5/29/2009	3/29/2009	5/30/2009	6/9/2009	6/22/2009	7/28/2009	10/26/2009	11/23/2009	9/20/2010
NCNR - High-Efficiency Cooling System and Support Infrastructure	3/27/2009	5/18/2009	4/15/2009	5/1/2009	4/15/2009	4/1/2010	4/1/2009	5/15/2010	5/15/2010	12/21/2011
National Structural Fire Resistance Laboratory	3/27/2009	5/19/2009	3/18/2009	7/31/2009	7/1/2009	3/1/2010	3/1/2010	5/2/2010	5/3/2010	5/4/2012
Time Code Radio Broadcast Station										
Relocation and Consolidation of Advanced Robotics and Logistics	3/27/2009	5/23/2009	3/18/2009	8/3/2009	7/28/2009	3/1/2010	3/1/2010	4/14/2010	4/14/2010	12/31/2011
Liquid Helium Recovery System in Gaithersburg	3/27/2009	5/19/2009	3/18/2009	3/31/2010	7/13/2009	Design /Build	12/15/2009	4/14/2010	6/30/2010	8/10/2011
Liquid Helium Recovery System in Boulder	3/30/2009	5/27/2009	3/25/2009	4/13/2009	4/6/2009	8/17/2009	3/25/2009	11/19/2009	11/23/2009	10/1/2011
Emergency Services Consolidated Facility	3/27/2009	5/18/2009	3/18/2009	8/3/2009	7/28/2009	3/1/2010	3/1/2010	4/14/2010	4/14/2010	12/31/2011
Net-Zero-Energy Residential Test Facility	3/27/2009	5/18/2009	3/18/2009	7/15/2009	7/13/2009	4/7/2010	4/8/2010	5/25/2010	5/26/2010	6/6/2011

Note: Several of these projects are currently out for bid and the milestones schedule is subject to change as the projects are awarded and the construction schedules are more specifically defined.

The new requirement outlined in 52.225-21, 22, 23, 24, and 25 "Required Use of American Iron, Steel, and Other Manufactured Goods – Buy American Act – Construction Materials" could increase the procurement time by 60 days. The government will have no control on construction vendors submitting a "Request for determinations of inapplicability" of section 1605 of the American Recovery and Reinvestment Act of 2009 on specific construction solicitations.

## Competitive Construction Grants Program

	Planning Phase Start	Planning Phase End	Execution Phase Start	Execution Phase End	Obligation Date
Construction FY 2008 Applications	3/9/09	4/3/09	4/6/09	7/17/09	7/20/09 (Actual awards occurred on time)
Construction FY 2009 Applications	3/9/09	4/3/09	4/6/09	2/26/10	3/1/10 (Actual awards occurred on 1/8/10)

## *Environmental Review Compliance*

### **NIST Construction Projects**

NIST has a diverse group of projects that are in different stages of meeting the requirements of the National Environmental Policy Act (NEPA). They break down as follows:

**Boulder Site:** An Environmental Impact Statement (EIS) with a Record of Decision (ROD) was completed for the Boulder Site on June 14, 1996, and the Precision Measurement Laboratory (PML) project was included in this document. The Department of Commerce (DOC) Environmental Compliance Officer also reviewed the EIS and ROD in 2007 and determined that no further environmental review was needed for the PML project. Consequently, the two ARRA-funded projects related to the PML are in full compliance with NEPA. Additionally, the Liquid Helium Recovery System will be located within the PML project area and is also covered by the existing EIS. The Liquid Helium Recovery System will be environmentally beneficial as it will help to conserve an increasingly scarce natural resource.

**Gaithersburg Site:** Compliance with NEPA is completed for the NIST Center for Neutron Research (NCNR) Expansion project with a Categorical Exclusion as well as a finding of "No Historical Significance" from the Maryland State Historic Preservation Officer. Categorical Exclusions were also completed for the two ARRA-funded infrastructure projects related to the NCNR Expansion. The remainder of the planned projects are included in a Programmatic Environmental Assessment (PEA) for the Gaithersburg site that was completed in the fall

of 2009, with a Finding of No Significant Impact (FONSI) signed on November 10, 2009. Furthermore, each project has undergone a separate review to assess whether it falls within the Environmental Impact Boundaries established within the FONSI, or if further NEPA analysis is warranted. This review process has been completed for all the Gaithersburg projects and, as a result, NIST determined that one project, the National Structural Fire Resistance Laboratory (NSFRL), should undergo further environmental review through a supplemental Environmental Assessment (EA). The NSFRL supplemental EA was submitted in April and approved in early May of 2010. NEPA compliance is completed for all Gaithersburg site projects with the exception of the NSFRL.

**Kauai Site:** NIST's radio station, WWVH, is located on the Barking Sands U.S. Naval Base where NIST plans to install solar panels to help power the radio station and reduce operating costs, as well as NIST's carbon footprint. NIST has coordinated with the U.S. Navy to assure full NEPA compliance and is waiting for the Navy to provide a completed Environmental Checklist. NIST intends to comply with NEPA through the use of a Categorical Exclusion.

### **Competitive Construction Grants Program**

Sixteen ARRA funded grants have been awarded, the final 12 of which were awarded in mid-January of 2010. Prescreening during the competitions and review of the new DOC Categorical Exclusions enabled NIST to anticipate that the awarded grants will qualify for Categorical Exclusions. Four of the grant recipients have completed their NEPA review process and NIST has finalized the Categorical Exclusions. The remaining 12 grant recipients are actively working to finalize their NEPA reviews and documentation. All Categorical Exclusions are anticipated to be completed by June of 2010.

### ***Measures***

Use of NIST Recovery Act funding was targeted to have maximal impact on meeting the goals of ARRA including:

- creating jobs,
- promoting economic recovery,
- providing investments needed to increase economic efficiency by spurring technological advances in science, and
- making investments in areas of research that will provide long-term economic benefits.

The table on the next page reflects performance measures that were reported in Recovery.gov on May 15, 2009, for NIST's CRF ARRA appropriations. NIST has been collecting ARRA performance data on a quarterly basis. Data is included in the table for each measure for FY 2009 Planned and Actuals, as well as FY 2010 Planned and FY 2010 cumulative totals as of the end of the second quarter of FY 2010 (March 31, 2010).

<b>CRF Measure</b>	<b>FY09 Planned</b>	<b>FY 09 Actual</b>	<b>FY10 Planned</b>	<b>FY 10 Actual (2nd Qtr)</b>
NIST Construction Projects: Dollars Obligated	26,300,000	10,956,135	153,700,000	737,908
NIST Construction Projects: Number of projects renovated	0	0	0	0
NIST Construction Projects: Number of Facilities Constructed	0	0	0	0
Construction Grants (up to \$60M): Dollars Obligated	60,000,000	55,536,981	0	0
Construction Grants (up to \$60M): Number of grants awarded	5	4	0	0
Construction Grants (up to \$60M): Number of research science facilities completed	0	0	0	0
Construction Grants (approximately \$120M): Dollars Obligated	0	0	120,000,000	123,517,167
Construction Grants (approximately \$120M): Number of grants awarded	0	0	10	12
Construction Grants (approximately \$120M): Number of research science facilities completed	0	0	0	0

### ***Monitoring and Evaluation***

NIST has established a robust governance and management structure to ensure that ARRA funds are managed in an effective and efficient manner. The governance and management structure includes: the ARRA Steering Committee, Working Groups, the ARRA Program Management Office, Standardized Action Plans, Action Plan Owners, Organizational Unit (OU) Coordinators, Project Managers, and an ARRA Risk Management Team.

The ARRA Steering Committee was responsible for the resolution of issues related to, and the implementation of, the numerous ARRA legal provisions, regulatory requirements, OMB and DOC policies and procedures, and NIST policies and procedures. Working Groups were established under the Steering Committee to designate owners for specific processes related to

ARRA including Contract Management, Grants Management, Risk Management and Audit, Budget and Resources, Data Feeds and Reporting, and Communications. The Program Management Office (PMO) was established to ensure plans are adequately developed, progress of projects is monitored, project interdependencies are identified and managed, and that risks to projects are identified and mitigated. Each ARRA project must have an Action Plan developed in a manner consistent with the requirements of the NIST Project Management Program. Each Action Plan is owned by an Action Plan Owner, who is either an Organizational Unit Director or a Chief Officer. To ensure the proper coordination of ARRA activities within each Organizational Unit, the role of the ARRA OU Coordinator was developed. OU Coordinators work directly with each ARRA Project Managers to ensure Recovery Act projects are successfully managed. Project Managers are responsible for developing and managing project schedules, issues, risks, budget and resources.

There are numerous projects funded by ARRA in the Construction of Research Facilities (CRF) appropriation. These projects areas include: NIST construction projects and the Competitive Construction Grants Program.

Each Project Manager is required to submit a monthly Action Plan status/update to the PMO. The monthly Action Plan requires project managers to document risks or issues and potential problems that may occur and would have a negative impact on the project's schedule, budget, resources or functionality.

Processes and tools were developed to consolidate the Action Plan information from the Construction related ARRA projects. The consolidation of this information constitutes an ARRA Dashboard that will be produced monthly. This Dashboard will include information on: project status, funds obligated, and risks and mitigations. ARRA Dashboard information is presented and discussed during the monthly meetings with the Director, Chief Financial Officer, Deputy Chief Financial Officer, OU Directors, and Chief Officers from program areas.

NIST has established a Risk Management Team comprised of NIST internal controls staff and risk management consultants. The Risk Management Team is responsible for leading NIST's efforts to: identify and group related risks, prioritize risks, develop and implement risk mitigation strategies, track risk mitigation efforts, and report monthly to the ARRA PMO on various components of the risk management program.

NIST uses the Recovery Act Accountability Framework and Objectives to properly assess how well the funding recipients meet the funding objectives and track against well-defined performance metrics. The FY 2009 OMB Circular A-123 audit revealed that financial controls are adequate and demonstrate no material weaknesses or significant deficiencies over the following cycles that impact ARRA spending: Grants, Revenue, Purchasing, and Budget Execution.

## ***Transparency***

For the competitive construction grants, NIST will actively review and analyze all project planning, milestones, and metrics to ensure approved Recovery Act projects are being appropriately executed within both the parameters of the Act and Administration. All Grant programs were competitive with notifications posted in the Federal Register and on Grants.gov. All recipients are required to register and report required ARRA information on federalreporting.gov, and to submit quarterly financial reports and technical progress reports at the end of each quarter. NIST regularly follows up with recipients regarding FederalReporting.gov registration and timely and accurate quarterly reporting for ARRA, financial, and technical progress reporting.

There is regular weekly quality assurance coordination, monitoring, and feedback of recipient reporting between NIST and DOC. There is regular monitoring and oversight coordination, monitoring, and feedback between the Grants Officers, Specialists, and Program Officers to ensure timely and accurate reporting of various financial, technical, schedule, budget, and risk mitigation statuses to allow NIST to provide proper direction and correction as necessary. Each ARRA award includes with their official award document, Special Award Conditions (outlining the Financial and Technical Reporting requirements; the NIST Construction Grant Program General Terms and Conditions (if applicable); the DOC American Recovery and Reinvestment Act Award Terms. Appropriate OMB Circulars Code of Federal Regulations references are also incorporated into the awards and monitored by NIST for compliance.

The NIST Construction Grants program grantee's performance data, based on appropriate, meaningful, and measurable criteria, will be both aggregated at a program level summary and appropriately specific to the performance of each Construction Grantee. The detail will account for the necessary protection of certain data at the grantee level.

## ***Accountability***

During the 2009 mid-year performance reviews, a standard ARRA-related element was mandated for inclusion in each employee's performance plan when the employee has ARRA responsibilities. Each supervisor may add additional ARRA requirements as deemed necessary. Supervisors were required to discuss specific ARRA responsibilities and expectations with employees. The Risk Management Team will perform tests for compliance of this management internal control related to accountability.

Employees who have responsibilities related to ARRA include: Director, Chief Financial Officer, Deputy Chief Financial Officer, OU Directors, Chief Officers, OU Coordinators, Project Managers, and various Division Chiefs, Group Leaders, and staff.

ARRA roles and responsibilities have been clearly defined and provided to OU Directors, Chief Officers, OU Coordinators, and Project Managers.

Each Action Plan is owned by the Action Plan Owner, who is either an Organizational Unit Director or a Chief Officer. Each Action Plan Owner is ultimately accountable for their Recovery Act project's success. Each Project Manager is required to submit a monthly Action Plan status to the PMO. The monthly Action Plan requires Project Managers to report on progress and document risks or issues on potential problems that may occur and would have a negative impact to the project's schedule, budget, resources or functionality.

Dashboard information will be presented and discussed monthly with the ARRA Management and Oversight Committee. Action Plan Owners will be held accountable for their ARRA projects during these monthly reviews and, ultimately, at their end-of-year performance evaluation.

### ***Barriers to Effective Implementation***

<b>ARRA Program</b>	<b>Barriers to Effective Implementation</b>	<b>Proposed Solution</b>	<b>Resolution Date</b>
Construction of Research Facilities	Need to reallocate funds among construction projects as project bids are received and actual amounts are identified.	Provide Congress with notification of amendment to the spend plan in order to reallocate funds.	June 1, 2010
Construction of Research Facilities	The availability of acquisition staff.  The strategy to use contracted acquisition resource has not worked as well as expected. The contracting staff in demand requires special skills (in particular for the construction projects). Additionally, the demand for qualified contracting staff is higher than the available supply. Although the rates have been increased to competitively recruit contracting staff and did yield positive results, the competition of resources continued to drive the rates higher. It has been challenging to retain the contracting staff even with the competitive rates.	Continue working with the contractor augmented by government staff to complete the requirements.	September 30, 2010

## ***Federal Infrastructure Investments***

Virtually all of the projects planned to be constructed with ARRA funding will be significant in terms of energy efficiency, sustainability, and reducing the agency's environmental impact. The PML project in Boulder is designed to meet Leadership in Energy and Environmental Design (LEED) Silver certification. The ARRA funding for completion of the PML facility and for enhancing the performance will enable full retention of all energy efficient and sustainable building features. The energy and water efficiency of the NCNR Expansion project will be greatly enhanced with the installation of ARRA-funded high efficiency pumps which will reduce the facility's electrical load by 10 to 20 percent and will reduce the use of water by 9 million gallons per year. Facilities that will be built on the Gaithersburg site including the National Fire Resistance Laboratory, the Robotics and Logistics Relocations/Consolidations, and the Emergency Services Consolidation Station, will be designed and constructed to meet the highest energy efficiency and LEED certification level possible. Of special note is the Net-Zero-Energy Residential Test Facility, which can be defined as producing as much energy as it consumes. This research facility will be highly energy efficient and will serve as a demonstration facility to test and study building construction, energy-saving and operation techniques, and alternate energy sources resulting in net-zero-energy use. NIST's environmental impact will be reduced through the construction of Liquid Helium Recovery Systems at both the Gaithersburg and Boulder sites. Liquid helium is an increasingly expensive and scarce resource, requiring significant energy expenditure to produce and liquefy it from the normal gas state. Currently, the liquid helium is simply lost to the atmosphere on warming. These recovery systems will nearly eliminate all helium loss and enable its reuse. ARRA funds for the Safety, Capacity, Maintenance and Major Repairs (SCMMR) Program will be dedicated to projects for improving NIST's energy efficiency and sustainability. Specific SCMMR projects and corresponding environmental impacts are listed under the Activities section of this Program Plan.

**National Institute of Standards and Technology (NIST)**

**American Recovery and Reinvestment Act of 2009**

**Scientific and Technical Research and Services (STRS) Program  
Plan**

May, 2010



**American Recovery and Reinvestment Act of 2009**  
**National Institute of Standards and Technology**  
**Scientific and Technical Research and Services (STRS) Program**  
**May, 2010**

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## ***Funding Table***

Scientific and Technical Research and Services (STRS) Appropriation Funding Table (\$M)

Program	Project/Activity	Planned*
Scientific and Technical Research and Services	Advanced Scientific Equipment	\$108
	Measurement Science and Engineering Grants*	35
	NRC Postdoctoral Fellowships*	22
	Measurement Science and Engineering Fellowship Program*	20
	Research Contracts*	15
	Management and Oversight	11
	Corporate Services (IT Infrastructure)	9
	Subtotal, STRS Appropriated to NIST	220
	Health IT Non-Expenditure Transfer from HHS	20
	Smart Grid Inter-Agency Agreement with DoE	10
	Total, STRS	\$250

\*Amounts listed do not reflect a 2.5% SBIR assessment to appropriate activities mandated by statute.

## ***Introduction***

NIST helps to promote U.S. innovation and industrial competitiveness by advancing measurement science and standards that drive technological change.

Technology-based innovation remains one of the nation's most important competitive advantages, and helping the U.S. to drive and take advantage of the increased pace of technological change is a top priority for NIST. Today, more than at any other time in history, technological innovation and progress depend on NIST's unique skills and capabilities. The new technologies that are determining the global winners in the early 21st century, including nanotechnology, information technology, and advanced manufacturing, rely on NIST-developed tools to measure, evaluate, and standardize. The technologies that emerge as a result of NIST's development of these tools are enabling U.S. companies to innovate and remain competitive.

More efficient transactions in the domestic and global marketplace depend increasingly on NIST's ability to promote the effective development and use of standards, and "standards" is NIST's middle name. For example, U.S. access to global markets frequently is affected by standards being set by other countries and international organizations. The application of these seemingly arcane standards and related testing requirements may make or break entire industries and determine the fate of many American workers. NIST is helping U.S. companies, workers, and consumers to get a fair deal by working to ensure that standards are used to create a level playing field—and not a barrier to trade—in the global marketplace.

## ***Objectives***

### **Program Purpose**

The American Recovery and Reinvestment Act of 2009 (ARRA) includes \$220 million in funding for “research, competitive grants, additional research fellowships and advanced research and measurement equipment and supplies,” as stipulated in the conference report to P.L. 111-5. The ARRA also provides for NIST \$20 million from the Department of Health and Human Services for Health Information Technology and \$10 million from the Department of Energy for Smart Grid. Funding provided to NIST by the ARRA will augment NIST’s ability to conduct its research mission as well as advance the goals established in Section 3 of the Recovery Act by:

- creating jobs,
- promoting economic recovery,
- providing investments needed to increase economic efficiency by spurring technological advances in science and health,
- making investments in research areas such as environmental protection and infrastructure that will provide long-term economic benefits.

Consistent with the ARRA bill and conference report, the ARRA funding will be used for the following areas:

- 1. Advanced Scientific Equipment:* NIST will procure advanced research and measurement equipment to strengthen its measurement, standards, and technology programs.
- 2. Measurement Science and Engineering Grants:* NIST will conduct a competitive grants program to support research to advance NIST measurements and standards research efforts.
- 3. Postdoctoral Research Fellowship:* NIST will expand the NIST Postdoctoral Fellowship program to create approximately 80 postdoctoral fellowships for recent Ph.D.s and retain approximately 40 NIST NRC postdoctoral fellows through the end of FY 2010 following the end of their tenure.
- 4. Measurement Science and Engineering Fellowship Program:* NIST will establish a program for awarding a grant to organizations, which may include but are not limited to universities, not-for-profit research organizations, or scientific societies, who will provide fellowships for scientists and engineers to work at NIST.
- 5. Research Contracts:* NIST will award competitive research contracts to small businesses under the Small Business Innovation Research (SBIR) program to develop new technologies supporting NIST’s measurement and research mission, research contracts for work related to the Smart Grid, and contracts for research on specific areas of cybersecurity.
- 6. Information Technology Infrastructure Contracts:* NIST will competitively procure critical new information systems and components to improve its IT infrastructure.

7. *Health Information Technology*: NIST will increase and accelerate efforts on work related to electronic health records and a nationwide healthcare information network.

8. *Smart Grid*: NIST will accelerate activities associated with the development of a standards framework for Smart Grid devices and systems as established under section 1305 of the Energy Security and Independence Act of 2007.

## **PUBLIC BENEFIT**

The measurements, standards, and technologies that are the essence of the work done by NIST's laboratories help U.S. industry and science to invent and manufacture superior products and to provide services reliably. NIST's programs are driven by six investment priority areas that address national priorities: Energy, Environment, Manufacturing, Health Care, Physical Infrastructure and Information Technology. Funds provided by the ARRA will enhance NIST's efforts on the six investment priority areas by providing the tools and knowledge base needed to make progress.

1. *Advanced Scientific Equipment*: Procurement of research and measurement equipment enables NIST to strengthen its programs in national priority areas such as alternative energy, the environment, nanotechnology, information technology, health care, and physical infrastructure. Procurements will target U.S. manufacturers.

2. *Measurement Science and Engineering (MS&E) Grants Program*: MS&E grants to U.S. organizations will create and preserve high-value science and technology jobs while advancing NIST measurements and research that sustain long-term economic growth through innovation.

3. *Postdoctoral Research Fellowships*: The fellowship participants will advance NIST measurements and research in key national priority areas such as developing advanced energy technologies, climate science and measurements for greenhouse gas emissions, strengthening U.S. physical infrastructure, improving cybersecurity, advanced manufacturing, and health care.

4. *Measurement Science and Engineering Fellowship Program*: The grantee will operate a fellowship program that places qualified students, post-doctoral fellows, and senior scientists and engineers from industry and universities at NIST for limited terms (up to two years) to work with NIST scientists. The fellows will advance NIST measurements and research in key national priority areas such as developing advanced energy technologies, climate science and measurements for greenhouse gas emissions, strengthening U.S. physical infrastructure, improving cybersecurity, and developing nanotechnology for advanced manufacturing.

5. *Research Contracts*: NIST will award competitive research contracts to small businesses under the Small Business Innovation Research (SBIR) program to develop new technologies supporting NIST's measurement and research mission, research contracts to accelerate the development and implementation of standards needed to achieve interoperability of Smart Grid devices and systems, and research contracts for research on specific areas of cybersecurity that address national priorities for protecting cyberspace.

6. *Information Technology Infrastructure Contracts*: NIST will procure critical new information systems and components to increase the efficiency and effectiveness of NIST measurements and research by improving data exchange and analysis capabilities.

7. *Health IT (from the Department of Health and Human Services)*: NIST will, in collaboration with the health care community, increase and accelerate efforts on essential technical infrastructure needs and on developing tools and tests to accelerate development and deployment of electronic health records (EHRs) and a nationwide health care information network (NHIN). Work on EHRs and the NHIN will reduce unnecessary health care costs, prevent medical errors, and improve health-care quality.

8. *Smart Grid Framework (from the Department of Energy)*: Resources will allow NIST to accelerate its activities associated with the development of a standards framework as established under section 1305 of the Energy Security and Independence Act of 2007. When successfully implemented, the Smart Grid will save consumers money, protect power sources from blackout or attack, and deliver solar, wind, and other clean, renewable sources of energy to homes and businesses across the nation.

## ***Activities***

The following is a summary of the NIST activities funded in the Scientific and Technical Research and Services (STRS) appropriation by the ARRA as well as an update as of second quarter of FY 2010.

### **Advanced Scientific Equipment:**

- \$108 million to focus on research and measurement equipment (purchased through a competitive award process) for use at NIST that will generate and retain jobs.

**Update:** 17 pieces of advanced scientific equipment were purchased (\$22.45 million) in FY 2009 in phase I of planned acquisitions, and the remaining will be purchased by the end of FY 2010.

### **Measurement Science and Engineering Grants Program (MS&E):**

- \$35 million for competitive research grants for measurement science in NIST's six investment priority areas (Energy, Environment, Manufacturing, Health Care, Physical Infrastructure, and Information Technology). Note: Actual amount of awards will be slightly less than \$35 million due to a 2.5% SBIR assessment to appropriate activities mandated by statute.

**Update:** 27 grants were awarded on January 8, 2010. Except for post-award requirements, program is complete.

### **Postdoctoral Research Fellowships:**

- \$22 million to expand the NIST Postdoctoral Fellowship program to create approximately 80 postdoctoral fellowships for recent Ph.D.s and retain approximately 40 NIST NRC postdoctoral fellows through the end of FY 2010 following the end of their tenure. Note: Actual amount of awards will be slightly less than \$22 million due to a 2.5% SBIR assessment to appropriate activities mandated by statute.

**Update:** A total of 83 Postdoctoral Fellows were planned to be hired by the ARRA funds (48 in FY 2009 and 35 in FY 2010). As of second quarter of FY 2010, a total of 65 (52 in FY 2009 and 13 in FY 2010) have been hired. Another 22 are expected to be hired in FY 2010. Retained 46 postdoctoral fellows as of second quarter of FY 2010.

### **Measurement Science and Engineering (MS&E) Fellowship Program:**

- \$20 million for a grant to one or more organizations to provide additional fellowships for students, post-doctoral and professional scientists and engineers to work at NIST. Note: Actual amount of awards will be slightly less than \$20 million due to a 2.5% SBIR assessment to appropriate activities mandated by statute.

**Update:** A total of two awards for \$19.5 million in MS&E fellowships were awarded on February 19, 2010. Except for post-award requirements, program is complete.

### **Research Contracts:**

\$5 million in competitive contracts for small businesses under the Small Business Innovation Research (SBIR) program.

**Update:** \$6.85 million in competitive contracts for small businesses under the SBIR program were obligated in FY 2009. Approximately \$1.85 million were added to this activity from the mandated 2.5% SBIR assessments on the ARRA MS&E Grants and Fellowships, and Postdoctoral Research Fellowships amounts. Except for post-award requirements, program is complete.

- \$5 million in competitive contracts to assist NIST in its activities associated with Smart Grid devices and systems. Note: Actual amount of awards will be slightly less than \$5 million due to a 2.5% SBIR assessment to appropriate activities mandated by statute.

**Update:** Expect obligation of contracts by 4<sup>th</sup> quarter FY 2010.

- \$5 million in competitive research contracts for research on specific areas of cybersecurity that advance NIST's mission and address national priorities for protecting cyberspace. Note: Actual amount of awards will be slightly less than \$5 million due to a 2.5% SBIR assessment to appropriate activities mandated by statute.

**Update:** Award of \$2.4 million was made on December 31, 2009 and NIST expects to exercise a contract option of another \$2.4 million in 4<sup>th</sup> quarter FY 2010.

### **Information Technology Infrastructure Contracts:**

- \$9 million in competitive contracts to improve NIST information technology infrastructure for improving measurements and research at NIST.

**Update:** About \$6.5 million was awarded by September 30, 2009. The remaining will be awarded by 4<sup>th</sup> quarter FY 2010.

### **Funding from other Federal Agencies:**

The \$30 million in Recovery Act funding from other Federal agencies includes:

- \$20 million from the Department of Health and Human Services (HHS) Office of the National Coordinator to help accelerate development and deployment of electronic health records and a nationwide healthcare information infrastructure, that improves the quality, accessibility, and cost-effectiveness of healthcare.

**Update:** On track to obligate \$17 million by the end of FY 2010 for activities aimed at accelerating development and deployment of electronic health records and a nationwide healthcare information infrastructure. The remaining \$3 million is expected to carryover into FY 2011 for additional work. The funding was transferred to NIST from HHS and does not expire by September 30, 2010 (no year funds).

- \$10 million from the Department of Energy to develop a framework and a public-private partnership needed to harmonize standards and implement a nationwide electricity "Smart Grid" that saves energy and facilitates the use of solar, wind, and other renewable energy sources.

**Update:** \$10 million of funding from Department of Energy for Smart Grid was awarded in August of 2009 with two contract options. The first contract option was obligated in February of 2010 as planned and the final contract option is on track to obligate in 4<sup>th</sup> quarter FY 2010 as planned.

- \$11 million for Management and Oversight of ARRA STRS funds. Funds will support critical staff such as contracts specialists, grants specialists, internal control specialists,

and an ARRA Project Management Office to ensure that transparency, monitoring and evaluation, and accountability responsibilities under ARRA are implemented and followed.

## ***Characteristics***

### **ARRA STRS Direct Appropriations**

*1. Advanced Scientific Equipment:* NIST will issue competitive contracts for the purchase of advanced measurement and research equipment in support of NIST's mission. Approximately 60 contracts will be awarded for individual instruments and pieces of equipment, with each item having a minimum value of \$1 million. We will meet all requirements under ARRA regarding U.S. manufacturers. Contracts for precision scientific equipment will be awarded to the most competitive bid that meets the specified criteria. Potential Beneficiaries are Federal government, for-profit organizations, scientists, researchers, and small businesses.

Non-Federal recipients: \$108 million

*2. Measurement Science and Engineering Grants Program:* NIST will competitively award up to \$35 million in grants or cooperative agreements for measurement science and engineering research in areas of critical national importance (i.e., energy, environment and climate change, information technology/cybersecurity, biosciences/healthcare, manufacturing, and physical infrastructure). Individual awards will range from \$500,000 to \$1.5 million with an estimated total of 20 to 60 awards. Potential recipients are universities, not-for-profit research organizations, and businesses or other research organizations. Awardees will be ranked based on application scores and selected from a technical peer review process. Potential beneficiaries are institutions of higher education, businesses, and scientists/researchers.

Non-Federal recipients: \$35 million

*3. Postdoctoral Research Fellowships:* These funds will be used to expand the NIST Postdoctoral Fellowship program to create and preserve high-value science and technology jobs. Funds will support an existing contract with the National Research Council (NRC) and enable the hiring approximately 80 new post-doctoral fellows, and retain approximately 40 NIST NRC postdoctoral fellows following their end of tenure. Postdoctoral fellows are selected based on their professional record and their fit to NIST research priorities and needs. Beneficiaries are the NRC and scientists/researchers.

Non-Federal recipients: \$22 million

4. **Measurement Science and Engineering Fellowship Program:** NIST will competitively award up to \$20 million in the form of a cooperative agreement to one or more organizations to run a comprehensive fellowship program to bring undergraduate, graduate, postdoctoral, and senior researchers to work at NIST. One to five awards are expected in the range of \$5 million to \$20 million. Potential recipients are universities, not-for-profit research centers, scientific associations, or research consortia. Award recipients will be selected in accordance with a merit review of proposals based on the evaluation criteria and selection factors. Potential beneficiaries are institutions of higher education, non-profit institutions/organizations, students/trainees, graduate students and scientists/researchers.

Non-Federal recipients: \$20 million

5. *Research Contracts:* NIST will award up to \$15 million in competitive research contracts to promote the creation of high-skilled science and technology jobs. Fifteen to thirty contracts in the range of \$500,000 to \$1 million per contract will be awarded for: (1) competitive contracts for small businesses under the Small Business Innovation Research program, (2) activities associated with Smart Grid devices and systems, and (3) research on specific areas of cybersecurity that advance NIST's mission and address national priorities for protecting cyberspace. Potential recipients are small companies and research organizations. Contracts will be awarded based on their ability to meet the requirements and criteria of the Request for Proposal (RFP). Potential beneficiaries are small businesses, for-profit organizations, and public and private non-profit institutions/organizations.

Non-Federal recipients: \$15 million

6. *Information Technology Infrastructure Contracts:* NIST will award \$9 million in competitive contracts to procure and install upgrades and new components for NIST information technology infrastructure. Awards will be targeted at U.S. companies. Beneficiaries of an enhanced infrastructure will principally be the NIST research community. Contracts will be awarded to the most competitive bid that meets the specified criteria.

Non-Federal recipients: \$9 million

## **Major Planned Program and Milestones**

	Planning Phase Start	Planning Phase End	Execution Phase Start	Execution Phase End	Planned Obligation
Advanced Scientific Equipment Purchase Phase I	3/13/09	5/25/09	5/26/09	9/29/09	9/30/09 (Actual award occurred on time)
Advanced Scientific Equipment Purchase Phase II	3/13/09	5/25/09	10/1/09	3/30/10	3/31/10 <sup>6</sup>
Advanced Scientific Equipment Purchase Phase III	3/13/09	5/25/09	4/1/10	9/29/10	9/30/10
Measurement Science and Engineering Research Grants	3/9/09	3/20/09	3/23/09	12/30/09	12/31/09 (Actual award occurred on 1/8/10)
Postdoctoral Research Fellowships	3/9/09	3/20/09	3/23/09	9/29/10	Continuous until 9/30/10
Measurement Science and Engineering Research Fellowship	3/9/09	3/20/09	3/23/09	12/30/09	12/31/09 (Actual award occurred on 2/19/10)
Research Contracts: SBIR	3/9/09	3/27/09	3/30/09	6/22/09	6/23/09 (Actual awards occurred on time)
Research Contracts: Cybersecurity	3/9/09	3/27/09	3/30/09	11/6/09	11/9/09 (Actual award occurred on 12/31/10)
Research Contracts: Smart Grid	3/9/09	4/3/09	4/6/09	1/28/10	1/29/10 <sup>7</sup>
Health IT	3/31/09	6/30/09	7/1/09	9/29/10	Continuous until 9/30/10 <sup>8</sup>

<sup>6</sup> Fifteen of the Phase II equipment purchases were awarded by May 10, 2010. We plan to award the remaining Phase II equipment purchase by the end of May 2010.

<sup>7</sup> \$10M of funding from Department of Energy for Smart Grid was awarded in August of 2009 with two contract options. The first contract option obligated in February of 2010 as planned and the final contract option is on track to obligate in 4<sup>th</sup> quarter FY 2010 as planned.

<sup>8</sup> \$20M of funding from Department of Health and Human Services for Health IT is no year money.

## ***Environmental Review Compliance***

Not applicable for the ARRA funding in the STRS appropriation.

## ***Measures***

Use of NIST Recovery Act funding is targeted to have maximum impact on meeting the goals of the ARRA, including:

- creating jobs,
- promoting economic recovery,
- providing investments needed to increase economic efficiency by spurring technological advances in science, and
- making investments in areas of research that will provide long-term economic benefits.

As such NIST's Recovery Act programs were designed to move funds into the economy quickly and with the exception of the expansion of the NRC Postdoctoral Fellowships, are not increases to or continuation of existing NIST programs.

The table below reflects performance measures that were reported in Recovery.gov on May 15, 2009, for NIST's STRS ARRA appropriations. NIST has been collecting ARRA performance data on a quarterly basis. Data is included in the table for each measure for FY 2009 Planned and Actuals, as well as FY 2010 Planned and FY 2010 cumulative totals as of the end of the second quarter of FY 2010 (March 31, 2010).

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<b>STRS Measure</b>	<b>FY 09 Planned</b>	<b>FY 09 Actual</b>	<b>FY 10 Planned</b>	<b>FY 10 Actual (2nd Qtr)</b>
Advanced Scientific Equipment: Dollars Obligated	20,000,000	22,458,461	88,000,000	104,798
Advanced Scientific Equipment: Number of Equipment Purchased	15	17	45	0
Measurement Science and Engineering Grants Program: Dollars Obligated	0	0	34,125,000	30,581,920
Measurement Science and Engineering Grants Program: Number of Awards	0	0	20	27
Measurement Science and Engineering Grants Program: Number of Patent Applications (Lagging/OutYear Measure)	0	0	0	0
Measurement Science and Engineering Grants Program: Number of Peer-Reviewed Technical Publications (Lagging/OutYear Measure)	0	0	0	0
Measurement Science and Engineering Grants Program: Number of Licenses (Lagging/OutYear Measure)	0	0	0	0
Postdoctoral Fellowships: Number of Postdoctoral Fellows	48	52	35	13
Postdoctoral Fellowships: Number of Postdoctoral Fellows Retained After Completion of Tenure	23	19	18	27
Measurement Science and Engineering Fellowship Program: Dollars Obligated	0	0	19,500,000	19,500,000
Research Contracts: Dollars Obligated	10,500,000	7,536,385	4,500,000	2,548,863
Research Contracts: Number of Contracts Awarded	34	33	1	2
Information Technology Research Contracts: Dollars Obligated <sup>1</sup>	9,000,000	7,588,530	0	-1,135,857

<sup>1</sup> Deobligation occurred in 2nd Quarter of FY 2010, NIST intends to re-bid IT Contract based on a new specification.

## ***Monitoring and Evaluation***

NIST has established a robust governance and management structure to ensure that ARRA funds are managed in an effective and efficient manner. The governance and management structure includes: the ARRA Steering Committee, Working Groups, the ARRA Program Management Office, Standardized Action Plans, Action Plan Owners, Organizational Unit (OU) Coordinators, Project Managers, and an ARRA Risk Management Team.

The ARRA Steering Committee was responsible for the resolution of issues related to, and the implementation of, the numerous ARRA legal provisions, regulatory requirements, OMB and DOC policies and procedures, and NIST policies and procedures. Working Groups were established under the Steering Committee to designate owners for specific processes related to ARRA including Contract Management, Grants Management, Risk Management and Audit, Budget and Resources, Data Feeds and Reporting, and Communications. The Program Management Office (PMO) was established to ensure plans are adequately developed, progress of projects is monitored, project interdependencies are identified and managed, and that risks to projects are identified and mitigated. Each ARRA project must have an Action Plan developed in a manner consistent with the requirements of the NIST Project Management Program. Each Action Plan is owned by an Action Plan Owner, who is either an Organizational Unit Director or a Chief Officer. To ensure the proper coordination of ARRA activities within each Organizational Unit, the role of the ARRA OU Coordinator was developed. OU Coordinators work directly with each ARRA Project Managers to ensure Recovery Act projects are successfully managed. Project Managers are responsible for developing and managing project schedules, issues, risks, budget and resources.

There are more than 100 projects funded by the ARRA in the STRS appropriation. They include: scientific and measurement equipment, MS&E grants, MS&E fellowships, Postdoctoral fellowships, and contracts for small business innovation research, Smart Grid, cyber security, and IT infrastructure. As stated earlier, each project must have an Action Plan.

Each Project Manager is required to submit a monthly Action Plan status/update to the PMO. The monthly Action Plan requires project managers to document risks, issues and potential problems that may occur and would have a negative impact on the project's schedule, budget, resources or functionality. Processes and tools were developed to consolidate the Action Plan information from the 100-plus ARRA projects. The consolidation of this information constitutes an ARRA Dashboard that will be produced monthly. This dashboard includes information on: project status, funds obligated, and risks and mitigations. ARRA Dashboard information is presented and discussed during the monthly meetings with the Director, Chief Financial Officer, Deputy Chief Financial Officer, and Chief Officers from program areas. NIST has established a

Risk Management Team comprised of NIST internal control staff and risk management consultants. The Risk Management Team is responsible for leading NIST's efforts to: identify and group related risks, prioritize risks, develop and implement risk mitigation strategies, track risk mitigation efforts, and report monthly to the ARRA PMO on various components of the risk management program.

NIST uses the Recovery Act Accountability Framework and Objectives to properly assess how well the funding recipients meet the funding objectives and track against well-defined performance metrics. The FY 2009 OMB Circular A-123 audit revealed that financial controls are adequate and demonstrate no material weaknesses or significant deficiencies over the following cycles that impact ARRA spending: Grants, Revenue, Purchasing, and Budget Execution.

### ***Transparency***

NIST will actively review and analyze all project planning, milestones, and metrics to ensure approved Recovery Act projects are being appropriately executed within both the parameters of the Act and Administration. All acquisitions announcements will be in accordance with the Federal Acquisition Regulations (FAR) and ARRA requirements. All Grant programs were competitive with notifications posted in the Federal Register and on Grants.gov. All recipients are required to register and report with [federalreporting.gov](http://federalreporting.gov), as well as to provide quarterly financial reports and technical progress reports at the end of each quarter.

### ***Accountability***

During the 2009 mid-year performance reviews, a standard ARRA-related element was mandated for inclusion in each employee's performance plan when the employee has ARRA responsibilities. Each supervisor may add additional ARRA requirements as deemed necessary. Supervisors were required to discuss specific ARRA responsibilities and expectations with employees. The Risk Management Team will perform tests for compliance of this management internal control related to accountability.

Employees who have responsibilities related to ARRA include: Director, Chief Financial Officer, Deputy Chief Financial Officer, OU Directors, Chief Officers, OU Coordinators, Project Managers, and various Division Chiefs, Group Leaders, and staff.

ARRA roles and responsibilities have been clearly defined and provided to OU Directors, Chief Officers, OU Coordinators, and Project Managers.

Each Action Plan is owned by the Action Plan Owner, who is either an OU Director or a Chief Officer. Each Action Plan Owner is ultimately accountable for their Recovery Act project's success. Each Project Manager is required to submit a monthly Action Plan status to the PMO.

The monthly Action Plan requires Project Managers to report on progress and document risks or issues on potential problems that may occur and would have a negative impact to the project's schedule, budget, resources or functionality.

Dashboard information will be presented and discussed monthly with the ARRA Management and Oversight Committee. Action Plan Owners will be held accountable for their ARRA projects during these monthly reviews and, ultimately, at their end-of-year performance evaluations.

***Barriers to Effective Implementation***

<b>ARRA Program</b>	<b>Barriers to Effective Implementation</b>	<b>Proposed Solution</b>	<b>Resolution Date</b>
STRS	<p>The availability of acquisition staff.</p> <p>The strategy to use contracted acquisition resource has not worked as well as expected. The contracting staff in demand requires special skills (in particular for the construction projects). Additionally, the demand for qualified contracting staff is higher than the available supply. Although the rates have been increased to competitively recruit contracting staff and did yield positive results, the competition of resources continued to drive the rates higher. It has been challenging to retain the contracting staff even with the competitive rates.</p>	Continue working with the contractor augmented by government staff to complete the requirements.	September 30, 2010

***Federal Infrastructure Investments***

Not applicable for STRS.

# **American Recovery and Reinvestment Act of 2009**

## **National Oceanic and Atmospheric Administration (NOAA)**

### **Operations, Research, and Facilities (ORF) Program Plan**

Habitat Restoration  
Environmental Consultations  
Vessel Maintenance and Repairs  
Hydrographic Survey Backlog

May, 2010



**American Recovery and Reinvestment Act of 2009**  
**National Oceanic and Atmospheric Administration (NOAA)**  
**Operations, Research, and Facilities (ORF) Program Plan**

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## ***Funding Table***

NOAA has allocated the ARRA funds under the Operations, Research, and Facilities (ORF) account to the following projects: \$167.0 million for habitat restoration; \$3.0 million for environmental reviews and consultations; \$20 million for vessel maintenance and repair; and \$40 million to address NOAA's hydrographic survey backlog. The table below reflects NOAA's plans for obligating these funds.

Projects	\$M		
	ARRA (Total)	FY 2009 Actual	FY 2010 Projected
Habitat Restoration	\$167.0	\$155.7	\$11.3
Environmental Consultations	\$3.0	\$1.5	\$1.5
Vessel Maintenance and Repair	\$20.0	\$9.1	\$10.9
Hydrographic Survey Backlog	\$40.0	\$39.0	\$.01

## ***Objectives***

The ARRA funding supports the objectives for the following projects:

### **Habitat Restoration**

Provide Federal financial and technical assistance to shovel-ready projects that meet NOAA's mission to restore marine and coastal habitats, and that will result in stimulation of local economies through the creation or retention of restoration-related jobs.

The program priorities for this opportunity primarily support NOAA's Ecosystems mission goal of *Protect, Restore, and Manage Use of Coastal and Ocean Resources through an Ecosystem-Approach to Management* and lead to NOAA outcomes of *healthy and productive coastal marine ecosystems that benefit society*.

NOAA's restoration projects will help reinvigorate local economies and improve the condition of coastal and marine habitats by:

- Removing barriers that prevent the migration of fish;
- Restoring natural water flow in areas where it has been altered;
- Restoring wetlands that provide essential ecological services such as spawning habitat for valuable fisheries;
- Helping re-establish threatened coral reefs and impaired shellfish populations;
- Greening shorelines to help protect nearby communities;
- Creating direct, indirect, and induced jobs in local communities.

### **Environmental Consultations:**

Facilitate the implementation of a myriad of ARRA projects by accomplishing the statutory environmental consultation work required, as well as reduce the existing consultation backlog. The consultations are needed to comply with the Endangered Species Act (ESA) of 1973 and the essential fish habitat (EFH) provisions of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Outcomes of this work will directly contribute to NOAA's Ecosystem mission goal to Protect, Restore and Manage the Use of Coastal and Ocean Resources through an Ecosystem Approach to Management and will be tracked using the performance measures noted.

### **Vessel Maintenance and Repairs**

Improve reliability of NOAA ships and launches in order to accomplish scheduled science days at sea and increase linear nautical miles accomplished during hydrographic surveys. The objectives will be accomplished by accelerating Ship Major Repair Periods (MRP) for NOAA vessels Oregon II and Rainier, reducing the existing backlog of deferred maintenance on the NOAA Fleet, and by replacing NOAA Hydrographic Survey Launches that are beyond their service life. The launches will be used on the vessel *Fairweather*.

### **Hydrographic Survey Backlog**

Improve marine navigation products that support our nation's Marine Transportation System and support NOAA's Commerce and Transportation goal by collecting and disseminating up to 1,900 square nautical miles of hydrographic data, 7,633 miles of shoreline, updating affected marine charts, and archiving the data for public distribution. NOAA will also install new equipment and develop IT solutions that improve its capacity to collect and process and make available timely and accurate marine data to the public.

NOAA Hydrographic Survey Priorities document is available on line at <http://nauticalcharts.noaa.gov/hsd/NHSP.htm>. The document explains the importance of updated nautical charts to ensure the safe flow of maritime traffic. NOAA is responsible for charting the entire United States Exclusive Economic Zone of approximately 3.4 million square nautical miles. Of that area, about 500,000 square nautical miles have been categorized as navigationally significant. Since 1993, NOAA has surveyed less than 30,000 square miles of this area to modern standards.

## ***Activities***

The ARRA funding supports the activities for the following projects:

### **Habitat Restoration**

NOAA will support projects that will result in on-the-ground restoration of marine and coastal habitat (including Great Lakes habitat) that are aligned with the objectives of the American Recovery and Reinvestment Act. Restoration includes, but is not limited to, activities that contribute to the return of degraded or altered marine, estuarine, coastal, and freshwater (diadromous fish) habitats to a close approximation of their function prior to disturbance. Habitat restoration activities that produce significant ecological habitat features to create buffers or “green infrastructure” that serve to protect coastal communities from sea level rise, coastal storms and flooding, or that provide adaptation to climate change are also considered restoration under this program.

### **Environmental Reviews and Consultations:**

NOAA has hired short-term staff to conduct the interagency environmental consultations necessary to implement ARRA projects and reduce the existing backlog.

### **Vessel Maintenance and Repair:**

The ARRA funding involves industrial ship repair, renovations, and new equipment installations for multiple NOAA ships. These projects extend service life, address issues of obsolescence, reduce potential for Hazmat asbestos exposure to NOAA Wage Mariner employees, and reduce the backlog of deferred maintenance work on the NOAA fleet.

The activities involved are primarily shipyard industrial work in private shipyards in various regions of the U.S. These ARRA-funded projects are creating work for shipyards from New England to the Gulf Coast, West Coast and Hawaii and suppliers nationwide. The shipyards used by NOAA are small businesses that also benefit from the additional work in the ARRA project.

### **Hydrographic Survey Backlog**

NOAA will manage seven fixed price task orders to acquire approximately 1,900 square nautical miles of hydrographic survey data. The surveys will provide data to improve nautical chart products.

NOAA will also fund contract support to provide data validation services capable of handling the increased water level data that will be submitted by the hydrographic contractors; collect and compile 7,633 statute miles of new shoreline data from existing aerial imagery and update

NOAA Nautical Charts; and improve the public's access to key hydrographic data by creating new capabilities for access to archived hydrographic data.

NOAA will also accelerate development of a data transformation tool that integrates bathymetry and topographic data into common vertical reference system, and make it available to the public. In addition, NOAA will develop a web-based water level data processing program to improve processing efficiencies.

### ***Characteristics***

The ARRA funding supports these acquisitions characteristics for the following projects:

#### **Habitat Restoration**

NOAA dispersed habitat restoration funds through a competitive grants solicitation process resulting in 50 awarded grants.

Competition ensured that the restoration projects selected were shovel-ready, and the most beneficial for supporting jobs and realizing significant ecological gains. Projects are implemented through a grant or cooperative agreement, with awards ranging between \$0.5 million to \$10 million. Funds will be administered by NOAA's Office of Habitat Conservation.

#### **Environmental Reviews and Consultations**

NOAA is using a combination of issued fixed price task orders on existing competitively bid support services contracts, term employees, and Intergovernmental Personnel Assignments (IPAs) to fill the positions needed to conduct the environmental consultations. For contractors, to the extent possible, existing contract mechanisms have been used to streamline the hiring process. The personnel have been hired by regions depending on consultation workload in each region.

#### **Vessel Maintenance and Repair**

The Vessel Maintenance and Repair ARRA funds are being expended on several different ship repair contracts. All will be firm fixed price.

The MRP's for *Rainier* and *Oregon II* and drydocking contracts for *Delaware II*, *Gordon Gunter* and *Ronald H. Brown* used Request for Proposals (RFP) in the acquisition process. This enabled NOAA to make best-value award determinations for these projects based on cost and technical factors. The technical factors included past performance quality and an evaluation of the contractors' proposals demonstrating their ability to complete the project successfully. The

*McArthur II* drydocking acquisition was issued as an Invitation for Bid (IFB) and was awarded to the lowest responsible bidder.

The *Ronald H. Brown* drydocking contract is planned for award during May 2010. The drydockings for the *Delaware II*, *Gordon Gunter*, and *McArthur II* are complete. The Hydrographic Survey Launches are also complete.

## **Hydrographic Survey Backlog**

NOAA has accomplished the following Hydrographic Survey Backlog contracts and task order actions:

- Issued 10 fixed price task orders to 9 firms on existing competitively bid contracts to support the hydrographic surveying and review and process water level data
- Issued 8 fixed task orders to 6 firms on existing competitively bid contracts to update shoreline data for the Great Lakes region, and Louisiana coast to update nautical charts and
- Issued a task order for analysis services to determine water level and geodetic densification requirements, as well as to build three digital elevation models for public availability.

NOAA is taking the opportunity to leverage existing projects by expanding those that had originally been planned with FY09 funding. Projects that would have taken several years to complete will now be finished more rapidly. In addition, contractors that normally would only be tasked for work lasting a few months, have now been busy for several months and in some cases will be working up to a full year. This will allow the contractor to stay productive and keep employees on staff for an extended period of time.

NOAA has also awarded new competitive fixed-price contracts to improve data integration and delivery of hydrographic data, to upgrade computer hardware and software for improving web delivery of data, and to develop a system to process water level data more efficiently.

## ***Delivery Schedule***

NOAA has multiple milestones for each of the projects under this investment. Below are a few of the major milestones that highlight the project tasks. Other milestones exist in order to lead up to each of these major events and will be tracked internally. The dates shown reflect the final completion of all activities associated with those milestones

Milestone	Completion Date
Habitat Restoration Federal Funding Opportunity Closes	April 2009
Begin Hiring new Environmental Consultations staff	May 2009
Vessel Maintenance and Repair - Complete Design and/or planning for multiple ship projects	December 2009
Navigation Services Contract Requirements Defined	May 2009
Habitat Restoration Applications Processed	June 2009
Environmental Reviews - Training of new Environmental Consultation staff	July 2009
Environmental Reviews – new consultants begin Conducting Consultations	September 2009
Hydrographic Survey Navigation Services Work Begins	November 2009
Hydrographic Survey Field Work	October 2010
Hydrographic Survey data processed and accepted	May 2011
Hydrographic Survey Shoreline Data Processed and Accepted	January 2012
Hydrographic Survey Water Level Data Processing System Delivered	September 2012
Hydrographic Survey Navigation Services Work Completed/ Data Delivered	September 2012
Habitat Restoration Grant Awards Announced	June 2009
Habitat Restoration Funds 50% Obligated	July 2009
Habitat Restoration Funds 90% Obligated	July 2009
Habitat Restoration Projects - 90% Began Implementation	September 2009
Habitat Restoration Environmental Compliance 90% Complete	June 2010
Vessel Maintenance and Repair - Maintenance Project Execution Period for multiple projects	November 2010
Vessel Maintenance and Repair Delivery dates for multiple projects	September 2010

## ***Environmental Review Compliance***

### **Habitat Restoration**

NOAA established an internal process to review each individual ARRA habitat restoration award for environmental compliance to ensure that every action for each of the 50 ARRA awards satisfied all NEPA and other pertinent federal regulations prior to the recipient's use of federal funds to conduct the restoration activities. Some projects required a multi-phased approach, and these have been tracked to ensure the multiple reviews and phase-specific clearances are completed as part of NOAA's plan for compliance. All projects required an independent NEPA analysis, which had to be documented with an individual decision document to be completed for each project as part of its administrative record. For each project, each of these steps

required review and clearance from NOAA General Counsel, as well as clearance from NOAA Fisheries NEPA and NOAA Program Planning & Integration NEPA staff prior to having NEPA decision documents signed. Recipients were prohibited from using grant funding for on-the-ground implementation until they received notification from NOAA that NEPA and related environmental compliance documents were complete.

The NEPA and related environmental review processes and documentation have been completed for most of the projects, and are ongoing for some of the more complex (multi-phased) ones. Those ARRA projects with pending NEPA reviews or other environmental clearances are on schedule and proceeding as planned according to NOAA's process.

### **Environmental Reviews and Consultations**

All work under NOAA Environmental Consultations directly support compliance with the ESA and MSA.

### **Vessel Maintenance and Repair**

The NOAA Vessel Maintenance Repair Project under the ARRA plan falls under the NEPA Categorical Exclusions of NOAA Administrative Order 216-6. This will be documented in accordance with NEPA requirements.

### **Hydrographic Survey Backlog**

The requirements for collecting hydrographic survey data has been reviewed for application and compliance with NEPA. All other project activities do not reflect work that is subject to NEPA.

### ***Savings or Costs***

#### **Habitat Restoration**

NOAA could realize future costs through the need for monitoring of restoration projects beyond September, 2010, when all ARRA funding must be obligated. Long-term monitoring allows NOAA to demonstrate the value of the public investment in restoration. Because of the short-term nature of the ARRA funding, NOAA does not have funds available for long-term monitoring and is exploring options for this.

### **Environmental Reviews and Consultations**

NOAA's Environmental Consultations will result in some increased operational costs – specifically computers and training for new employees. Efficiencies will be gained by

consolidating staff training as much as possible and utilizing existing training guidance and materials.

### **Vessel Maintenance and Repair**

The repairs and maintenance on the selected ships will eliminate the need for early replacement of these vessels as well as the cost of a backfill charter. It will also extend the service life of the *Rainier* by 15 years and the *Oregon II* by 5 years or more. These improvements will also reduce the probability of unplanned breakdowns and the subsequent loss of science days while awaiting the delivery of parts for equipment no longer supported by the original equipment manufacturer.

The new launches will double the survey capacity of the *Fairweather* and improve reliability of the survey launches. These launches will increase the ship's overall productivity and reduce the cost per survey mile for *Fairweather* data acquisition.

### **Hydrographic Survey Backlog**

No major impacts to future operational costs.

### ***Measures***

NOAA will track the following measures under this investment. These results will be made available to the public on the Recovery.gov website.

### **Habitat Restoration**

NOAA is using GPRA, Corporate (internal agency), and Recovery-specific measures to track program performance. Those are *Acres restored* (GPRA), *Stream miles opened* (Corporate), and the *number of jobs created/sustained* (Recovery-specific). Since project selection, NOAA developed outcome-based ecological metrics by project type to measure the impact of groups of projects on coastal ecosystems. They are:

***Fish passage and Wetland Restoration: Percent of projects with Presence of Target Species (fish or plant)***

***Shellfish: Percent of projects with Successful Recruitment of Oysters***

***Corals: Percent of Projects Experiencing Reductions in Land-based Sources of Sediment***

## **Hydrographic Survey Backlog**

NOAA conducts hydrographic surveys to determine the depths and configurations of the bottoms of water bodies, primarily for U.S. waters significant for navigation. This activity includes the detection, location, and identification of wrecks and obstructions with side scan and multi-beam sonar technology and the Global Positioning System (GPS). NOAA uses the data to produce traditional paper, raster, and electronic navigational charts for safe and efficient navigation, and in addition to the commercial shipping industry, other user communities that benefit include recreational boaters, the commercial fishing industry, port authorities, coastal zone managers, and emergency response planners. The Performance measures are:

### **Navigationally Significant Areas (square nautical miles surveyed per year)**

### **Shoreline Compilation Completed**

## **Environmental Reviews and Consultations**

NOAA is using a process to report on consultation work that mirrors an existing GPRA-based NMFS Corporate Performance Measure which was instituted in FY 2010 at OMB's request. Specifically, the outcome measure of NOAA's Environmental Consultations is the number of ARRA-related projects that have been timely reviewed for environmental impacts so that action agencies may use their authorities to minimize and mitigate the impacts of these projects on the environment. Because these measures document reactive work done by NOAA in response to the submissions of other federal agencies, NOAA is hard-pressed to develop valid targets for these measures. Consultations do not exist as a workload issue until initiated by another federal agency, and while many agencies may plan to conduct a certain level of action requiring consultation in a given year, NOAA's historical data have shown that such planning is only marginally reliable for target setting. For this Reason, NOAA has reported quarterly in FY 2009 on the submission and completion rates for ARRA-related consultations, and will continue to do so in FY 2010.

The output measures to monitor progress on the outcome are:

### **Percentage of ARRA-related Consultations Completed On-Time**

External Federal agencies require consultations from NMFS on Endangered Species Act and Essential Fish Habitat per the Endangered Species Act and Magnuson Stevens Reauthorization Act. Based on historical trend rates and available resources, NOAA expects to complete 70% of them on time.

Number of Received ARRA-related requests for consultations versus the number of ARRA-related consultations completed

External Federal agencies require consultations from NMFS on Endangered Species Act and Essential Fish Habitat per the Endangered Species Act and Magnuson Stevens Reauthorization Act.

**Vessel Maintenance and Repair**

Percentage of Planned Milestones Met

There has been an 89% increase in the number of significant mechanical/electronic failures on NOAA's ships and a 62% increase in Lost Days at Sea for NOAA programs - from 184 DAS in FY 2005 to 299 DAS in FY 2008. It is critical to maintain NOAA's aging ships, while meeting increasingly restrictive maritime standards. There are a total of 45 milestones for all of the ships projects.

Measure	Target/Actual			
	2009	2010	2011	2012
<u>Fish Passage and Wetland Restoration: Percentage of Projects with Presence of Target Species (fish or plant)</u>	-	0/0	40/0	100/0
<u>Shell Fish: Percentage of Projects with Successful Recruitment of Oysters</u>	-	0/0	60/0	100/0
<u>Coral: Percentage of Projects Experiencing Reduction in Land-Based Sources of Sediment</u>	-	0/0	33/0	100/0
<u>Reduce the Hydrographic Survey Backlog Within Navigationally Significant Areas (square nautical miles surveyed per year)</u>	4500/4523	3000/377	3000/0	300/0
<u>Percentage of ARRA-related Consultations Conducted On-Time</u>	70/85	0/0	-	-
<u>Number of received ARRA-related requests for consultations versus the number of ARRA-related consultations completed</u>	196/166	0/0	-	-
<u>Percentage of Planned Milestones Met for Vessel Maintenance and Repairs</u>	20/29	80/51	-	-
<u>Shoreline Compilation Completed</u>	-	3757/456	3876/0	-

## ***Monitoring/Evaluation***

NOAA will use existing internal controls and processes to monitor and evaluate Recovery Act projects. For the grants and acquisitions financial processes, we will conduct separate testing (based on OMB circular A-123 Appendix A) on Recovery Act funds to determine if proper internal controls are in place and being followed. NOAA will also conduct a separate FFMIA program review on ARRA-funded programs to determine if the awarding and monitoring of grants and acquisitions are in accordance with the Act and other legal requirements, and ensure good internal controls practices are being used.

To ensure compliance, the following projects are taking these additional steps:

### **Habitat Restoration:**

NOAA implemented a monitoring and evaluation approach for restoration projects, which includes short-term ( $\leq 4$  years), output-based monitoring and evaluation on all 50 projects. Longer-term ( $\geq 5$  years), outcome-based monitoring and evaluation will be conducted on a subset of the ARRA projects... NOAA worked with applicants during negotiation of cooperative agreements to include metrics for monitoring success. Negotiated metrics are selected based on guidance from NOAA's volumes of science-based monitoring and guidance from OMB on tracking jobs.

NOAA will also use existing internal controls and processes to monitor and evaluate Recovery Act projects. For the grants and acquisitions financial processes, we will conduct separate OMB circular A-123 Appendix A testing on Recovery Act funds to determine if proper internal controls are in place and being followed. NOAA will also conduct a separate FFMIA program review on ARRA funded programs to determine if the awarding and monitoring of grants and acquisitions are in accordance with the Act and other legal requirements, and ensure good internal controls practices are being used.

### **Environmental Reviews and Consultations:**

NOAA's Environmental Consultations are evaluating program progress by tracking:

- number of people hired to conduct consultations
- training of staff in the consultation process within 60-90 days of hire
- on-time completion rate of ARRA-related consultations within statutory timelines

### **Vessel Maintenance and Review:**

NOAA will have onsite project engineers who are familiar with the vessel and contract requirements, and are fully qualified to monitor contract and contractor performance during the execution phase. The contractors will report progress weekly against a detailed schedule for

each contract line item. The project engineers will be delegated COR duties and be required to monitor and report physical progress to the assigned contracting officer before payments are authorized and invoices processed.

### **Hydrographic Survey Backlog:**

Activity managers will monitor progress through monthly progress reports submitted by contractors and regularly report activity progress to senior NOAA officials. An up-front risk assessment was performed to identify risk areas and mitigation strategies and monitoring methods to ensure that timely action is taken on any activity that is not meeting its projected metrics.

### ***Transparency***

NOAA will review and analyze all project planning, milestones, and metrics to ensure approved Recovery Act projects can be appropriately executed within both the parameters of the Act and Administration. All acquisition announcements will be in accordance with the Federal Acquisition Regulations (FAR) and ARRA requirements. In addition, NOAA is taking an active role in the development of systems to ensure compliance with the reporting and requirements of the Act and OMB guidance.

To ensure compliance, the following projects are taking these additional steps:

### **Habitat Restoration:**

To be transparent in awarding ARRA funding, NOAA used a competitive grants solicitation to award ARRA restoration funds. Criteria for applications were clearly defined in the Federal Funding Opportunity (FFO) announcement (NOAA-NMFS-HCPO-2009-2001709) posted on grants.gov. In addition, NOAA produced a supplementary Federal Register Notice (75 FR 5765) to describe how it will administer the approximately 3 percent of funding that remained from the original allocation provided to NOAA Fisheries under ARRA. These funds were set aside specifically to manage and mitigate risks to the original habitat restoration investments and ensure program goals are achieved.

All recipients are required to submit bi-annual progress reports to NOAA that track program specific information to track restoration project success, as well as submit quarterly reports to [FederalReporting.gov](http://FederalReporting.gov)... NOAA monitors project implementation through NOAA monitors project implementation through regional technical monitors that work directly with recipients on implementation as well as providing oversight of cooperative agreements through federal program officers and grants management specialists. Information on all projects is tracked in existing information management systems (*e.g.*, Grants Online, Restoration Center Database

(RCDB), FederalReporting.gov) that allow NOAA to follow each project at the recipient/award level.

NOAA reviews and analyzes all project planning, milestones, and metrics to ensure approved Recovery Act projects are appropriately executed within both the parameters of the Act and Administration. All grants and acquisition announcements are in accordance with the Federal Acquisition Regulations (FAR) and ARRA requirements. In addition, NOAA has developed internal and external communications and other process to ensure internal and external compliance with the requirements of the Act and OMB guidance.

### **Environmental Reviews and Consultations:**

To monitor program performance and provide transparency, NOAA has used contract vehicles that have already been awarded under an open competitive process, and provide public access to completed environmental compliance documents.

### **Vessel Maintenance and Repair:**

This project consists of several contracts which have been advertised in accordance with Federal Acquisition Regulations (FAR) and ARRA requirements. Contracts contain ARRA clauses in order to provide transparency to the public of how award decisions are made and the resulting benefits. The process will provide broad opportunity to many different contractors to compete for NOAA ship repair work.

### **Hydrographic Survey Backlog:**

As required by ARRA, pre-solicitation notices were posted on FedBizOpps (FBO) for all contract actions. Also as required by the Federal Acquisition Regulation, contract awards will be reported to the Federal Procurement Data System (Next Generation) (FPDS-NG). Further, NOAA will provide program plans, contract award data, and cost and performance information for posting on the central ARRA website and NOAA's ARRA website.

### ***Accountability***

NOAA has established an ARRA Accountability and Oversight Review Board to ensure requirements of the ARRA and OMB Guidance are met. Members of the Board have a broad level of experience in management including satellite acquisitions, Information Technology, and grants management. This Board will review and guide all projects on a monthly basis, as well as focus on managing the risks associated with the expedited execution of recovery projects.

## ***Barriers to Effective Implementation***

### **Habitat Restoration**

NOAA does not anticipate any significant barriers to effective implementation; however unforeseen circumstances such as flooding or inclement weather could delay or postpone project implementation.

### **Environmental Reviews and Consultations**

A significant barrier has been the unpredictability of the ARRA workload and the need to address consultations with the highest potential for impacts to trust resources, whether or not funded by ARRA.

### **Vessel Maintenance and Repair**

NOAA does not have any statutory or regulatory requirements, or any known matters that would impede effective implementation of this project.

### **Federal Infrastructure Investments**

There are no Federal Infrastructure Investments associated with Habitat Restoration, Environmental Reviews and Consultations, and Hydrographic Survey Backlog.

For Vessel Maintenance and Repair, several work items in these contracts improve energy efficiency and reduce or eliminate environmental impacts. The boiler system replacement for the *Rainier* provides newer, more efficient boilers with modern automated controls. New Ship Service Diesel Generator (SSDG) replacement for the *Oregon II* provides EPA-compliant engines that will meet current emission standards.

# **American Recovery and Reinvestment Act of 2009**

## **National Oceanic and Atmospheric Administration (NOAA)**

### **Procurement, Acquisition, and Construction (PAC) Program Plan**

Pacific Regional Center  
Facility Maintenance and Repair  
Fairbanks Satellite Facility Construction  
NOAA Climate Computing/Modeling  
Vessel Construction  
Accelerate Satellite Observations  
NEXRAD Radar Systems & Dual Polarization  
La Jolla Fisheries Laboratory  
Weather Facility Construction

May, 2010



**American Recovery and Reinvestment Act of 2009**  
**National Oceanic and Atmospheric Administration (NOAA)**  
**Procurement, Acquisition, and Construction (PAC) Program**  
**Plan**

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## ***Funding Table***

NOAA allocated the ARRA funds under the Procurement, Acquisition, and Construction (PAC) account to the following projects: \$142.0 million for construction of the Pacific Regional Center; \$8.6 million for facility maintenance and repair; \$9.0 million for the Fairbanks Satellite Operations Facility; \$170.0 million for high performance climate computing and modeling; \$78.0 million of the ARRA funds for vessel construction; \$74.0 million to accelerate satellite observations; \$7.4 million for the NEXRAD Radar Systems and Dual Polarization; \$102.0 million for construction for the Southwest Fisheries Science Center Laboratory Replacement; and \$9.0 million for accelerating Weather Forecast Office Construction.

Projects	\$M		
	ARRA (Total)	FY 2009 Actual	FY 2010 Projected
Pacific Regional Center	\$142.0	\$141.4	\$0.6
Facility Maintenance and Repairs	\$8.6	\$7.3	\$1.3
NOAA Fairbanks Satellite Operations Facility	\$9.0	\$9.0	\$0.0
Climate Computing and Modeling	\$170.0	\$80.2	\$89.2
Vessel Construction (FSV 6)	\$78.0	\$0.8	\$77.2
Accelerate Satellite Observations	\$74.0	\$73.2	\$0.8
NEXRAD Radar Systems and Dual Polarization	\$7.4	\$0.0	\$7.4
NOAA Southwest Fisheries Science Center Laboratory	\$102.0	\$5.6	\$96.4
Weather Forecast Office (WFO) Construction	\$9.0	\$0.9	\$8.1

## ***Objectives***

The ARRA funding supports the objectives for the following projects:

### **NOAA Pacific Regional Center**

Complete the construction of the Main Facility segment of the new NOAA Pacific Regional Center at Pearl Harbor, Hawaii. NOAA will be able complete consolidation on the island of O'ahu into a single facility on Ford Island, excluding the Weather Forecast Office. This is expected to bring improvements in service delivery and operational efficiencies through integration across NOAA, as well as replace existing deteriorating facilities.

### **NOAA Facility Maintenance and Repair**

Address critical facility repair issues in order to ensure the health and safety of NOAA's employees, and continued operational capabilities. Failure to make this investment would result in the continued deterioration in the condition of these facilities, with commensurate increases in risks to operational sustainability, threats to employee safety due to unsafe or unhealthy working environments, and cost to reverse these facility deficiencies.

### **NOAA Fairbanks Satellite Operations Facility**

Replace the current at-risk facility with a temporary facility for the NOAA/National Environmental Satellite, Data and Information Service (NESDIS) Fairbanks Satellite Operations Facility (FSOF). The FSOF, located at the Fairbanks Command and Data Acquisition Station in Fairbanks, Alaska, is structurally failing and needs to be replaced prior to 2011. A replacement facility will allow NOAA to continue to support current satellite mission requirements through 2026.

### **Climate Computing and Modeling**

Accelerate and enhance NOAA's High Performance Computing (HPC) capabilities, enabling significant improvements for weather and climate modeling and climate change research from national to regional and local scales, as well as improvements to the quality and access to Climate Data Records (CDRs). A CDR is a time series of measurements (e.g., sea surface temperature) of sufficient length, consistency, and continuity to determine climate variability and change.

### **Vessel Construction (FSV 6)**

Design and construct a fisheries research ship to replace the NOAA ship David Starr Jordan, which is approaching 50 years of service. The new ship will carry advanced acoustic detection systems and will incorporate unique laboratory arrangements to suit regional research requirements. Options for additional regional-specific advanced acoustic detection systems and a safety rated davit for launch and recovery of marine mammal chase boat in open seas will be considered.

### **Accelerate Satellite Observations**

Support critical development activities on the National Polar – orbiting Satellite Systems (NPOESS) that will contribute to critical path risk reduction in the key project areas. The focus of the funding is on risk mitigation to maintain schedule and current delivery dates for a mission that is essential for environmental data collection. NOAA will also accelerate the development of 2 climate sensors, the Total and Spectral Solar Irradiance Sensor (TSIS) and Clouds and Earth's Radiant Energy system (CERES). The sensors will ensure the continuity of science data archive on key physical parameters that relate to climate change.

### **NEXRAD Radar Systems & Dual Polarization**

Improve precipitation estimates from 35% to 20% through Dual Polarization modification to NEXRAD radar. It will also allow improvements in severe weather detection, including improvements in snow storm detection and warnings, icing conditions for air and ground transportation, and continued support for improved modeling data input.

### **NOAA Southwest Fisheries Science Center Laboratory (SWFC)**

Replace the existing facility in La Jolla, California with a new, federally-owned 120,000 gross sq. ft. facility at a University of California San Diego site. The current facility is at-risk due to bluff erosion that has forced NOAA to vacate two of the existing four buildings and relocate staff into temporary offsite leased space. The new federally-owned laboratory and office facility will allow NOAA to continue to support its science, research, and education mission in the most cost-effective manner.

### **Weather Forecast Office (WFO) Construction**

Provide safe facilities and housing for meteorologists and weather forecasters.

### ***Activities***

The ARRA funding supports these activities for the following projects:

#### **NOAA Pacific Regional Center**

Support renovation and construction-related services required to construct the new Pacific Regional Center facility at Ford Island, Pearl Harbor, Hawaii.

#### **NOAA Facility Maintenance and Repair**

Support critical facility repair issues at NOAA-owned facilities including, but not limited to, asbestos abatement, repair and replacement of emergency light and power systems, repair and replacement of heating and cooling units, and repair and replacement of sanitary waste systems.

#### **NOAA Fairbanks Satellite Operations Facility**

Support renovation and construction-related services required to construct the new NOAA Fairbanks Satellite Operations Facility, Fairbanks, Alaska.

#### **Climate Computing and Modeling**

Acquire two large-scale supercomputing systems and associated networking and storage in support of advanced environmental modeling to address critical gaps in climate modeling and climate data records. Addressing climate modeling gaps will

provide the most scientifically credible information on future climate to decision makers and emergency managers, with estimates of its certainty. Funds will also be utilized to modify data centers to house these systems, which are expected to be in place by late FY 2010. Key capabilities will be acquired for the Climate Data Record Project. These capabilities will assist and advise the ongoing efforts to prepare and implement a coherent scheme for data handling and preservation of climate data records, associated ancillary data, and calibration and validation data and documentation.

### **Vessel Construction (FSV 6)**

Construct a sixth Oscar Dyson Class fisheries survey vessel. Included in the requirement is an acoustic incentive and liquidated damages (late delivery). The planned contract has performance based incentive for reducing the ship's acoustic signature beyond the established NOAA requirement. Reduced acoustic signature means a quieter ship during operations, meaning more representative readings during fisheries surveys.

### **Accelerate Satellite Observations**

Perform NPOESS payload development, testing and integration activities for the Ozone mapper/profiler suite (OMPS) and Cross-track Infrared Sounder (CrIS) instruments and mitigates the loss of personnel expertise if the instruments were not accelerated. The OMPS work completes the assembly and integration of the OMPS Nadir and completes the OMPS Nadir Calibration Mechanism repair. The CrIS work includes starting the redesign of the internal calibration target that is essential to the ability of the sensor to recalibrate itself in space and the design of the CrIS frame and isolation system. In addition, funds will accelerate the development of both TSIS flight model-1 and CERES flight model-6 climate sensors. Activities include parts and labor purchases and the testing and delivery of the components.

### **NEXRAD Radar Systems & Dual Polarization**

Contract for acquisition and installation of kits for 21 NEXRAD sites in FY 2011. The dual polarization kits will add a vertical Doppler signal to the radars providing additional data on precipitation type and amount. This additional data will lead to improved severe weather warning.

### **NOAA Southwest Fisheries Science Center Laboratory**

Support construction and related outfitting and relocation services required to construct, outfit, and occupy a replacement NOAA SWFSC facility in La Jolla, California.

## **WFO Construction**

Accelerate construction of three NWS and two Office of Oceanic and Atmospheric Research (OAR) Staff Houses in Barrow, Alaska; fabrication and installation of Upper Air Inflation Shelter (UAIS) radome at the Barrow, AK Weather Service Office; housing in Nome, AK; replacement of the roof on WFO Anchorage, AK; and to replacement four heating, ventilation, and air conditioning (HVAC) projects.

## ***Characteristics***

The ARRA funding supports these characteristics for the following projects:

### **NOAA Pacific Regional Center**

NOAA signed an Interagency Agreement with the Department of Navy – Naval Facilities Engineering Command (NAVFAC) in June 2009 to award a contract for construction-related services required to construct the new Pacific Regional Center facility at Ford Island, Pearl Harbor, Hawaii.

### **NOAA Fairbanks Satellite Operations Facility**

NOAA signed in June 2009 an Interagency Agreement with U.S. Army Corps of Engineers (USAEC) to contract for construction-related services required to construct the new NOAA Fairbanks Satellite Operations Facility, Fairbanks, Alaska.

### **NOAA Southwest Fisheries Science Center Laboratory**

Competitively awarded firm fixed price contract will be accomplished to acquire construction and related services to construct a replacement for NOAA Southwest Fisheries Science Center facility in La Jolla, California. All contracts for design, site preparation and construction have been awarded as of May, 2010.

### **NOAA Facility Maintenance and Repair**

Competitively award firm fixed price contracts will be accomplished to address critical facility repair issues at NOAA owned facilities at NOAA Fisheries Service Galveston Laboratory, Galveston, Texas; Geophysical Fluid Dynamics Laboratory (GFDL) Princeton, New Jersey; Atlantic Marine Center, Norfolk, Virginia; Milford Biological Laboratory, Milford, Connecticut; Panama City Laboratory, Panama City, Florida, and Southwest Fisheries Center, Pacific Grove, California. All contracts, except for the Galveston facility Sea Water Intake system, have been awarded. The Galveston facility Sea Water Intake system design build contract is planned for award in August, 2010. NOAA plans to sign an Interagency Agreement with U.S. Army Corps of Engineers (USAEC) to contract for construction-related services required to replace the failing bulkhead at MOC-A, the

acquisition plan with the USAEC is in the early stages and will be further determined once funding is made available.

The Panama City Laboratory repair project was completed in April, 2010.

## **Climate Computing and Modeling**

The Climate Computing and Modeling project has five major tasks. They are:

### **Development High Performance Computing**

Competitively awarded firm fixed price contract will be used to acquire a high performance computing system through a systems integration contract to support the development of weather and seasonal to inter-annual climate model predictions bound for operational implementation.

### **Facility Space for Development High Performance Computing**

The high performance computing system acquired through the systems integrator will be located at a facility space leased and fit-up through a Reimbursable Work Agreement (RWA) with the General Service Administration.

### **Research High Performance Computing**

NOAA signed an Interagency Agreement with the Department of Energy (DOE) to secure research collaboration and support that contributes directly to operating high performance computer and data systems. The proposed effort leverages significant specialized expertise and unique capabilities established at the Oak Ridge National Laboratory, which is DOE's lead laboratory for high performance computing and its applications to climate change prediction.

### **Advanced High Performance Computing Network**

The advanced HPC network will be built through a combination of sole source and competitive acquisitions. The competitive acquisitions will be 100% set-aside for small business. Sole source acquisitions will be awarded to gigaPOP and backbone proprietary connectivity services. Six of the nine planned contracts have been awarded. Three remaining awards are planned by late May, 2010.

### **Climate Data Records**

The National Climatic Data Center (NCDC) has responsibility under the Climate Observations and Modeling (COM) program for a recent initiative called the Climate Data Record (CDR) Project. The Climate Data Records project is managed through two

competitively awarded, firm-fixed price contracts. The contracts were awarded to small businesses with scientific business modeling experience.

### **Vessel Construction (FSV 6)**

A competitively awarded firm fixed price contract will be used to construct an Oscar Dyson Class fisheries survey vessel. Included in the contractor's activities will be appropriate tests and trials to demonstrate compliance with the ship's technical requirements, and later supply ship spares and outfitting to ready the FSV6 for initial operations. The 36 month design and construction will be followed by a nine month warranty. NOAA awarded the vessel design and construction contract in mid-April 2010.

### **Accelerate Satellite Observations**

NPOESS funds were obligated to an existing competitively awarded prime contract, who will issue contracts with various suppliers for materials and with subcontractors related to the efforts on the NPOESS instruments. The remaining funds were transferred to the National Aeronautics and Space Administration (NASA) through an Inter-Agency agreement, where NASA awarded on two separate space instrument development contracts, to accelerate the builds of two climate sensors: the CERES Flight Model-6 (FM-6) and TSIS Flight Model -1 (FM-1). The ARRA funding allows for an accelerated procurement schedule to meet a delivery schedule for the NPOESS C-1 launch.

### **NEXRAD Weather Radar Systems & Dual Polarization**

NOAA will sign an Interagency Agreement in May 2010 with the General Services Administration (GSA) for contracted procurement and installation in FY 2011. All of the ARRA funds will be used on the Dual Polarization modification contract, a Federal in-house activity.

### ***Delivery Schedule***

NOAA has multiple milestones for each of the projects under this investment. Below are just a few of the major milestones that highlight the proposed 'planned', 'executed', and 'completed' tasks. Other milestones exist in order to lead up to each of these major events and will be tracked internally. The dates shown reflect the final completion of all activities associated with those milestones.

<b>Milestone</b>	<b>Completion Date</b>
Pacific Regional Center Main Facility Design	January, 2010
Pacific Regional Center Construction Services RFP	April, 2010
Pacific Regional Center Construction Contract Award	August, 2010
Pacific Regional Center Construction	February, 2013
Pacific Regional Center Occupancy	July, 2013
NOAA Facility Maintenance and Repair Contract Awards	September, 2009
Galveston Laboratory Contract Award	August, 2009
Galveston Laboratory Repairs Completed	March, 2011
GFDL Facility Asbestos Abatement Contract Award	June, 2009
GFDL Facility Asbestos Abatement Completed	June, 2010
Marine Operations Center Atlantic Contract Award	August, 2009
Marine Operations Center Atlantic Repairs Completed	June, 2010
Milford Biological Laboratory Contract Award	September, 2009
Milford Biological Laboratory Repairs Completed	June, 2010
Panama City Laboratory Contract Award	September, 2009
Panama City Laboratory Repairs Completed	April, 2010
Southwest Fisheries Science Center – Pacific Grove Contract Award	September, 2009
Southwest Fisheries Science Center – Pacific Grove Repairs Completed	April, 2010
Fairbanks Facility Interagency Agreement (USACE)	June, 2009
Fairbanks Facility Construction Contract Award	July, 2009
Fairbanks Satellite Operations Facility Construction Begins	July, 2009
Fairbanks Satellite Operations Facility Operations Relocation/Occupancy	August, 2010
HPC Facility Space Location Study	May, 2009
HPC Facility Space RFP (GSA)	November, 2009
HPC Facility Space Lease Contract Award (GSA)	July, 2010
HPC Facility Space Lease Build-Out	August, 2011
HPC Development System Integration Contract RFP	November, 2009
HPC Development Contract Award	May, 2010
HPC Development System Delivery	August, 2011
HPC Development System Available to Scientists	September, 2011
HPC Research System Interagency Agreement (DOE)	August, 2009
HPC Research System RFP	December, 2009
HPC Research System Contract Award	May, 2009
HPC Research System Initial Computing Capability Available	September, 2010
HPC Advanced Network Initial Contract Awards	September, 2009
HPC Advanced Network Final Contract Awards	May, 2009
HPC Advanced Network Baseline Established	September, 2010

Milestone	Completion Date
HPC Advanced Network IT Security Certificate Complete – Operational	January, 2011
Climate Data Records Climate Modeling Stewardship Contract Award	May, 2011
Climate Data Records Climate Modeling Planning Contract Award	September, 2009
Climate Data Records Climate Modeling Stewardship Implementation and Integration	May, 2011
Climate Data Records NCDC Climate Program Planning Implementation and Integration	December, 2010
Vessel Construction RFP	June, 2009
Vessel Construction Contract Award	April, 2009
Vessel Construction Critical Design Review	December, 2010
Vessel Construction Go-Ahead	December, 2010
Vessel Construction Delivery	April, 2013
Vessel Construction Final Acceptance	March, 2014
Climate Sensor Funds Transferred to NASA	June, 2009
NPOESS Funds Obligated to Contract	July, 2009
Climate Sensor Funds Obligated to Contract	June, 2009
Climate Sensor Funds Contract Award (NASA)	July, 2009
Climate Sensor Funds Obligated to Contract (Air Force)	August, 2009
NPOESS Funds Contract Award (Air Force)	July, 2009
TSIS Critical Design Review	December, 2009
CERES Delta Systems Requirements Review	September, 2009
CERES Delta Preliminary Design Review	January, 2010
NEXRAD Dual Polarization Interagency Agreement (GSA)	May, 2010
NEXRAD Dual Polarization Modification Kits Acquired	May, 2010
NEXRAD Dual Polarization Modification Kits Installation Begins	January, 2011
NEXRAD Dual Polarization Modification Kits Installed	March, 2013
Southwest Fisheries Science Center Laboratory RFP Issued	September, 2009
Southwest Fisheries Science Center Laboratory Contract Awarded	May, 2010
Southwest Fisheries Science Center Laboratory Construction Completed	October, 2011
Southwest Fisheries Science Center Laboratory Facility Occupancy	December, 2011
WFO Barrow Housing Acceleration Contract Award	December, 2009
WFO Barrow Upper Air Inflation Shelter Radome Acceleration Contract Award	September, 2008
WFO Nome Housing Construction Contract Award	December, 2009
WFO Anchorage Weather Forecast Office Roof Replacement Contract Award	June, 2009

Milestone	Completion Date
WFO Heating, Ventilation, Air Conditioning (HVAC) System Replacements Initial Awards (Morristown TN, Greer SC, Amarillo TX)	September, 2009
WFO Heating, Ventilation, Air Conditioning (HVAC) System Replacements Final Award (Mobile AL)	April, 2010
WFO Barrow Housing Construction	October, 2011
WFO Barrow Upper Air Inflation Shelter Radome	December, 2009
WFO Nome Housing Construction	May, 2011
WFO Anchorage Weather Forecast Office Roof Replacement	November, 2009
WFO Heating, Ventilation, Air Conditioning (HVAC) System Replacements	May, 2010

## ***Environmental Review Compliance***

### **NOAA Pacific Regional Center**

In accordance with Section 102(2) (C) of the National Environmental Policy Act (NEPA), its implementing regulations, and Navy instructions, the Navy announced the availability of the Final PEIS for the Ford Island Development. NOAA's proposed development of the Pacific Regional Center on Ford Island falls within the selected alternative. NOAA and the Navy entered into a Memorandum of Agreement with the Advisory Council for Historic Preservation (ACHP) and the State of Hawaii Historic Preservation Officer (SHPO) in accordance with Section 106 and Section 110 of the National Historic Preservation Act (NHPA) and its implementing regulations, regarding development and construction of the Pacific Regional Center.

### **NOAA Facility Maintenance and Repair**

In accordance with the National Environmental Policy Act (NEPA), each of these projects has been examined to determine whether a categorical exclusion applies. The projects funded through this investment fall into categories of projects that do not normally have the potential for a significant impact on the quality of the human environment. Therefore NOAA found that the Galveston Laboratory (4/24/2009), GFDL (4/13/2009), Marine Operation Center (4/13/2009), Panama City Laboratory (6/22/2009), and Southwest Fisheries Science Center – Pacific Grove (4/3/2009) projects are to be excluded from the preparation of either an Environmental Assessment or an Environmental Impact Statement.

### **NOAA Fairbanks Satellite Operations Facility**

In accordance with Section 102(2)(C) of the National Environmental Policy Act (NEPA), a Final EA of the intended construction action was completed on February 10, 2009, with

a "Finding of No Significant Impact" (FONSI) by the program sponsor, the Assistant Administrator for Satellite and Information Services.

The existing Operation Building is considered eligible for the National Register of Historic Places (NRHP). NOAA/NESDIS implemented a Memorandum of Agreement (MOA) with the Alaska State Historic Preservation Office, which was signed in June, 2007. All work required by the MOA was completed and a letter from NOAA's Federal Preservation Officer was sent to the Alaska Department of Natural Resources Office of History and Archeology on April 21, 2008.

### **Climate Computing and Modeling**

NOAA has reviewed the project requirements and determined that this project qualifies for a categorical exclusion under the National Environmental Policy Act (NEPA). Development of the categorical exclusion memorandum is in process and the NOAA NEPA Coordinator has been notified.

### **Vessel Construction (FSV 6)**

The FSV 6 project received a categorical exclusion from the National Environmental Policy Act (NEPA) on April 30, 2009. This class of ship was described and recommended in the NOAA Ship Recapitalization Plan as a new construction which can offer energy efficiencies and environmental friendly considerations.

### **Accelerate Satellite Observations**

The existing NPOESS contract contains environmental provisions that were approved prior to release of the contract. This contract effort has been documented under NEPA provisions by the Contracting Officer at contract award in 2002. Environmental reviews are not applicable to the climate sensor efforts.

### **NEXRAD Weather Radar Systems & Dual Polarization**

The NEXRAD Product Improvement Program is requesting a categorical exclusion from the National Environmental Policy Act (NEPA) since there are no significant impacts to the environment.

### **NOAA Southwest Fisheries Science Center Laboratory**

On November 24, 2008 the Notice of Availability (NOA) was published in the Federal Register announcing the availability of the Draft Environmental Impact Statement (EIS)/ Environmental Impact Report (EIR) for review and comment. A public meeting was held on December 9, 2008, to receive public input. The 45 day comment period officially ended on January 12, 2009. The NOA for the Final EIS/EIR was issued on May 20, 2009. A Record of Decision (ROD) was issued on August 20, 2009, following the issuance of the Final EIS/EIR NOA allowing the construction project to proceed.

## **WFO Construction**

The Environmental Assessment for the Barrow, Alaska Housing Construction and the WSO Barrow UAIS Radome were both completed August 20, 2008 with a finding of no significant impact. The other projects have categorical exclusions pending.

## ***Savings or Costs***

### **NOAA Pacific Regional Center**

The 30-year net present value analysis conducted by NOAA reflects the Government will realize over \$100 million in savings/cost avoidance over a 30-year life cycle; primarily through avoidance of more costly capital investments and escalating lease payments. In addition, locating the consolidated facility at Ford Island enables NOAA to take advantage of the substantial infrastructure investments already made on Ford Island; infrastructure that likely would have to be upgraded at other locations.

This investment also enables NOAA to enhance technical and scientific research and provide greater synergy and integration across NOAA in delivering its products and services in the Pacific Region.

### **Facility Maintenance and Repair**

By repairing existing NOAA facilities, NOAA will not incur additional site acquisition and systems infrastructure and relocation costs associated with acquiring and establishing capability at another site. By addressing known facility condition deficiencies, NOAA will mitigate employee safety risks, and avoid possible disruption of critical mission related activities taking place at these facilities.

### **NOAA Fairbanks Satellite Operations Facility**

The 30-year net present value analysis conducted by NOAA reflects the Government will realize over \$3 million in savings/cost avoidance over a 30-year life cycle. By redeveloping at the existing NOAA site, NOAA will not incur additional site acquisition and systems infrastructure and relocation costs associated with acquiring and establishing capability at another site. By addressing a known facility condition risk, NOAA also avoids costs associated with catastrophic loss of the facility (a risk documented by the Corps of Engineers) and mitigates employee safety risks.

## **Climate Computing and Modeling**

The ARRA funding allows for the purchase of two high performance computing systems with extended warranties, which is expected to serve NOAA's computing needs for approximately four years. Given the current base budget, the annual investment in high performance computing beyond the initial purchase will need to be directed to operations and maintenance costs to support the system. In concert with establishment of the two new systems, the current R&D high performance computing systems will be consolidated or reconfigured to maximize the available base budget available to support operations and maintenance costs.

## **Vessel Construction (FSV 6)**

NOAA will require minimal funds for program management from FY 2011-2013 to complete the ship acquisition, since the ARRA funds expire at the end of FY 2010.

The ARRA funds will accelerate the FSV 6 ship acquisition by one year, providing a new, more reliable ship with operational improvements, and recapture 191 sea days and \$1.79 million of annual replacement charter expense from the unexpected lay up of the NOAA Ship David Starr Jordan in FY 2010.

## **Accelerate Satellite Observations**

The ARRA funds will help reduce the risk to the development schedule and future cost growth of NPOESS. The precise amount of savings is impossible to predict; however, the obligation of ARRA funding to the contract in FY 2009 will significantly reduce the risk that drives the NPOESS schedule by continuing certain efforts that would otherwise have been deferred to the outyears with increased risk to the critical path as well as at an increased cost to the program. Use of ARRA funds is also expected to reduce the risk of delayed delivery of the critical climate instruments.

## **NEXRAD Weather Radar Systems & Dual Polarization**

NOAA does not anticipate any savings or increases to operational costs.

## **NOAA Southwest Fisheries Science Center Laboratory**

The 30-year net present value analysis conducted by NOAA reflects the Government will realize over \$15 million in savings/cost avoidance over a 30-year life cycle; primarily through avoidance of more costly capital investments and escalating lease payments.

## **WFO Construction**

The construction and renovations proposed will replace damaged or obsolete facilities from severe Alaskan weather. Renovations will result in substantially less energy use and therefore decrease operational costs. HVAC system replacement will also result in reduced energy consumption.

## ***Measures***

NOAA will track the following measures under this investment. These results will be made available to the public on the Recovery.gov website.

## **NEXRAD Radar Systems and Dual Polarization**

These funds will accelerate the Dual Polarization effort of the next generation (NEXRAD) Doppler weather radar system that will allow signals to be transmitted and received in two dimensions, resulting in a significant improvement in precipitation estimation; improved ability to discriminate rain, snow, and hail; and a general improvement in data quality. The new system will improve flash flood warnings, improve precipitation estimates and severe weather detection, including snow storms and icing conditions for air and ground transportation.

These funds will not impact this target until at least FY 2013. This is because forecasters need at least one full year of data before they can verify and adjust out-year targets; and, the kits won't be installed until early FY 2011. The performance measures are:

### **Severe Weather Warnings Tornadoes—Storm Based (Lead Time)**

The lead time for a tornado warning is the difference between the time the warning was issued and the time the tornado affected the area for which the warning was issued. The lead times for all tornado occurrences within the continental U.S. are averaged to get this statistic for a given fiscal year. This average includes all warned events with zero lead times and all unwarned events.

### **Severe Weather Warnings Tornadoes—Storm Based (Accuracy)**

Accuracy is the percentage of time a tornado actually occurred in an area that was covered by a warning. The difference between the accuracy percentage figure and 100 percent represents the percentage of events without a warning.

### **Severe Weather Warnings Tornadoes—Storm Based (False Alarm Rate)**

The false alarm rate is the percentage of times a tornado warning was issued but no tornado occurrence was verified.

### **Severe Weather Warnings for Flash Floods (Lead Time)**

The lead time for a flash flood warning is the difference between the time the warning was issued and the time the flash flood affected the area for which the warning was issued. The lead times for all flash flood occurrences within the continental United States are averaged to get this statistic for a given fiscal year. This average includes all warned events with zero lead times and all unwarned events.

### **Severe Weather Warnings for Flash Floods (Accuracy)**

Accuracy is measured by the percentage of times a flash flood actually occurred in an area that was covered by a warning. The difference between the accuracy percentage figure and 100 percent represents the percentage of events without a warning.

## **NOAA Pacific Region Center**

### **Percentage Safety and Conditions Indices Improvement at NOAA's Pacific Regional Center**

NOAA will improve the safety and condition indices at NOAA's facilities through the collocation of NOAA employees on the island of O'ahu at the Pacific Regional Center. This collocation will also support improved efficiency and effectiveness for employees in operations and mission performance by creating greater opportunity for program collaboration and synergy.

## **NOAA Fairbanks Satellite Operations Facility**

### **Percentage Safety and Conditions Indices Improvement at NOAA's Fairbanks Satellite Operations Facility**

NOAA will improve the safety and condition indices at NOAA's facilities through improving the health and safety of employees at the Fairbanks Satellite Operations Facility by providing a new building that mitigates the hazards of working within a seismic zone.

## **NOAA Facility Maintenance and Repair**

### **Percentage Safety and Conditions Indices Improvement at NOAA's Regional Facilities**

NOAA will improve the safety and condition indices at NOAA's facilities through mitigating the risks from facility deficiencies and health hazards, such as asbestos, the Galveston Laboratory, GFDL, Marine Operations Center – Atlantic, Milford Laboratory, Panama City Laboratory and Southwest Fisheries Science Center – Pacific Grove.

## **NOAA Southwest Fisheries Science Center Laboratory**

### **Percentage Safety and Conditions Indices Improvement at NOAA's Southwest Fisheries Science Center**

NOAA will improve the safety and condition indices at NOAA's facilities through replacing the Southwest Fisheries Science Center in La Jolla, California, with a new, modern facility that will expand NOAA's ability to develop and apply advanced technologies for surveys of fisheries resources and their associated ecosystems and foster collaboration on fisheries management issues through the construction of a large sea and fresh-water test tank.

### **Vessel Construction**

The construction of a FSV 6 vessel improves NOAA's ability to more accurately manage fisheries stocks.

FSV 6 will be designed and constructed with state-of-the-art technologies and specialized survey equipment, which will produce significantly higher quality at-sea data, improved quality-of-life outfitting and mission productivity. The enhanced FSV 6 capabilities will deliver more precise and accurate NOAA stock assessments for more effective management of living marine resources.

NOAA Fisheries Service generates the scientific assessments needed to develop fishery management plans that prevent overfishing from occurring, allow rebuilding of overfished stocks, and sustain robust recovery and conservation of protected species (marine mammals, cetaceans, and sea turtles). Without increasing the number of adequate assessments, resource managers risk basing their decisions on scientific information with a degree of uncertainty that can have significant impacts on the marine ecosystem and the repercussions on the communities that depend on these resources. Enhanced at-sea data collections reduce uncertainty by increasing the precision of NOAA stock assessments, thus providing more timely and accurate scientific advice.

1. Increase number of fish stocks with fishery-independent data needed to support adequate assessments from 174 in FY12 to 184 by FY16.
2. Increase the number of high priority protected species with fishery-independent data to support adequate population assessments and forecasts by 13 stocks in FY16.

3. Increase number of program mission days-at-sea available to the Southwest Fisheries Science Center by ~220 days.

The specific measures are:

Increase Percentage of Living Marine Resources with Adequate Population Assessments

Sub-component: % Fish Stocks with Adequate Population Assessments

Sub-component: % Protected Species Stocks with Adequate Population Assessments

## **Climate Computing and Modeling**

### **Cumulative Number of New Decadal Prototype Forecasts and Predictions Made with High-resolution Coupled Climate Model**

Decadal prediction was initially targeted to be attacked with an IPCC AR4-class model with relatively low resolution. The ARRA computing has allowed the use of a coupled climate model with approximately 4 times the resolution. Research into decadal predictability will inform prototype forecasts incorporating new data assimilation schemes using this high-resolution model. This will provide, for the first time, scientifically credible, regional scale climate information, with estimates of uncertainty, to decision makers for improved management of water resources, the coasts, transportation infrastructure, agriculture, and other sectors impacted by climate, and to provide the Nation with early warnings of climate 'surprises' resulting from climate variations on decadal timescales.

### **Number of Regional Scale Projections for Assessments & Decision Support**

Enhanced computing will enable regional scale projections and will contribute to international assessments (e.g. IPCC AR5, scheduled for 2013), national assessments under the U.S. Global Climate Research Program, and other assessments as requested. The number of meaningful regional projections possible will increase as NOAA's Earth System Model increases in realism and complexity. Examples of regional scale projections include: regional sea level rise projections that require explicit representation of the global eddy field in the ocean models; projections of parameters essential to ocean and coastal ecosystem forecasting; assessment of regional carbon budgets; and projections of climate change in the Arctic region that require improved sea ice models. Better information in these areas will improve decisions in transportation, fisheries and other marine ecosystems, and emergency managers responsible for safety and infrastructure along the coasts.

### **Percentage Uncertainty in Possible 21<sup>st</sup> Century Sea Level Rise (0-1m = 100% uncertainty)**

This metric is calculated using the IPCC 4<sup>th</sup> Assessment Report estimates for the range of 21<sup>st</sup> century global-mean sea level rise. Completion of the proposed effort will reduce the uncertainties by almost half as a result of modeling that better captures the more accurate measurements of ice-sheet discharge, thermal expansion, and regional anomalies due to ocean circulation and heat storage. These model improvements are a direct result of ARRA-funded computing. Reducing the uncertainty in sea level rise will allow government and industry to have better information on projected sea level rise and therefore tailor their planning and actions to address the impacts.

### **Cumulative Number of New Functionalities Incorporated into Earth System Model to Improve Realism of Climate Simulation**

Improve the realism of the NOAA Earth System Models by closing the nitrogen and phosphorus cycles and improving the simulation of impacts of quality air on plant growth. Enhanced computing permits the implementation of mechanistic models of biospheric processes in a comprehensive Earth System Model which will reduce the uncertainty of future climate projections and provide more scientifically credible information to managers of land and marine ecosystems and better estimates of carbon sources and sinks.

### **Cumulative Number of Assessments of Carbon, Trace Gas and Aerosol Budgets and Feedbacks**

Assessments are one of the principal means by which credible scientific information is communicated to policymakers and other stakeholders. Enhanced computing permits additional biogeochemical cycles to be included in NOAA Earth System Models and so assessments of impacts of these additional processes improve the scope and credibility of this information.

### **Improved Treatment of Key Physical Processes in Climate Models Aimed at Improving: Model Performance, Understanding of Uncertainties, and Confidence in Climate Change Projection and Predictions**

This performance measure will reflect more confident projections of key climate change impacts. Better scientific understanding of the key processes of clouds, aerosols, and water vapor in the earth system will lead to research advances built into climate models that will then produce better predictions and projections to address climate change impacts. Key physical processes include number of parameterizations, simulations, and other advances included because of enhanced computing. Inputs to this cumulative index are (1) Improved cloud and water vapor observations; (2) improved aerosol

precipitation susceptibility index; (3) improved parameterizations and modeling of clouds, aerosols, and water vapor; and (4) number of products transitioned that include new parameterizations. Improved understanding as reflected in climate models forms the foundation for more scientifically credible climate information delivered to decision and policy makers, with improved estimates of uncertainty in this information.

## Accelerate Satellite Observations

### Percentage of Planned Milestones Met for NPOESS program

NPOESS will conduct Electrical Payload Critical Path Reduction in CY09 and CY10.

***NOTE:** In February 2010, the Executive Office of the President (EOP) announced it was restructuring the NPOESS Program to ensure the United States could continue to meet its Civil and military weather-forecasting, storm-tracking, and climate- monitoring requirements. The NPOESS milestones are under review in order to align them to the EOP decision.*

### Percentage of Planned Milestones for Climate Instruments

NOAA will accelerate the development of 2 climate sensors, TSIS and CERES. These climate sensors will improve the Nation’s ability to collect and distribute higher resolution data and products to improve forecasts and climate monitoring. Corporate performance measures (CPM) will be evaluated by monitoring the percent of Planned Contract Milestones accomplished within 60 days of target. 19 major milestones are associated with these activities

## WFO Construction

### Amount of Megawatts saved from HVAC Systems Renovations

Measure	Target/Actual			
	2009	2010	2011	2012
<i>NEXRAD</i>				
Severe Weather Warnings Tornadoes – Storm Based (Lead Time)	12/11	12/0	12/0	13/0
Severe Weather Warnings Tornadoes – Storm Based (Accuracy)	69/65	70/0	70/0	72/0
Severe Weather Warnings Tornadoes – Storm Based (False Alarm Rate)	72/77	72/0	72/0	70/0
Severe Weather Warnings for Flash Floods (Lead Time)	49/66	38/0	38/0	38/0
Severe Weather Warnings for Flash Floods (Accuracy)	90/91	72/0	72/0	72/0

Measure	Target/Actual			
	2009	2010	2011	2012
Percentage of Safety and Conditions Indices Improvement at NOAA's Pacific Regional Center ( <i>Facility occupancy in FY 2013</i> )	-	-	-	-
Percentage of Safety and Conditions Indices Improvement at NOAA's Fairbanks Satellite Operations Facility	-	-	TBD	TBD
Percentage of Safety and Conditions Indices Improvement at NOAA's Southwest Fisheries Science Center Laboratory	-	-	TBD	TBD
Percentage of Safety and Conditions Indices Improvements for NOAA's Facility Maintenance and Repair Projects	-	TBD	-	-
<i>Vessel Construction (FSV 6) – (delivery of new vessel in late FY 2013 – measurements begin in FY 2014)</i>				
Increase Percentage of Living Marine Resources with Adequate Population Assessments	-	-	-	-
Percentage of Fish Stocks with Adequate Population Assessments	-	-	-	-
Percentage Protected Species Stocks Adequate Population Assessments	-	-	-	-
<i>Climate Computing and Modeling</i>				
Cumulative number of new decadal prototype forecasts and predictions made with high-resolution coupled climate model	-	-	1/0	2/0
Number of regional scale projections for assessments & decision support	-	-	3/0	5/0
Percentage uncertainty in possible 21 <sup>st</sup> century sea level rise (0-1 m = 100% uncertainty)	-	-	74/0	65/0
Cumulative number of new functionalities incorporated into Earth System Model to improve realism of climate simulation	-	-	1/0	2/0
Cumulative number of assessments of carbon, trace gas and aerosol budgets and feedbacks ( <i>assessments begin in FY 2013</i> )	-	-	-	-
Improved treatment of key physical processes in climate models aimed at Improving Model Performance, Understanding of Uncertainties and Confidence in Climate Change Projection and Predictions	-	-	3/0	3/0
Percentage of Planned Milestones Met for NPOESS Program	6/6	TBD	-	-
Percentage of Planned Milestones Met for Climate Instruments	32/32	37/10	31/0	-
Amount of Megawatts saved from HVAC Systems	0/0	120/0	200/0	200/0

Measure	Target/Actual			
	2009	2010	2011	2012
Renovations				

### ***Monitoring/Evaluation***

For all projects funded by ARRA, NOAA will also use existing internal controls and processes to monitor and evaluate Recovery Act projects. For the grants and acquisitions financial processes, we will conduct separate testing (based on OMB circular A-123 Appendix A) on Recovery Act funds to determine if proper internal controls are in place and being followed. NOAA will also conduct a separate FFMIA program review on ARRA funded programs to determine if the awarding and monitoring of grants and acquisitions are in accordance with the Act and other legal requirements, and ensure good internal controls practices are being used.

To ensure compliance, the following projects are taking these additional steps:

#### **NOAA Pacific Regional Center**

NOAA and the Naval Facilities Engineering Command (NAVFAC) conduct monthly project status meetings, and quarterly Executive Committee (EXCOM) meetings. The EXCOM meetings are chaired by NOAA’s Chief Administrative Officer and the Commander, NAVFAC Pacific.

#### **NOAA Facility Maintenance and Repair**

Monthly project management status and performance reports are prepared and will be submitted to NOAA’s Chief Administrative Officer for review. Targeted assessments are conducted on specific facilities identified for repair project investments based on the annual condition assessment.

#### **NOAA Fairbanks Satellite Operations Facility**

NOAA has established an integrated project team including, budget, acquisitions, program, engineering/architect, and project management from both NOAA and United States Army Corps of Engineers. NOAA will also be conducting quarterly Executive Committee reviews chaired by the NOAA Chief Administrative Officer and senior official at the United State Army Corps of Engineers—Alaska.

#### **Climate Computing and Modeling**

The ARRA projects are supported by a Results Management Office (RMO) in the High Performance Computing and Communications (HPCC) organization within NOAA. Tactically, HPCC holds daily status calls, biweekly risk management meetings, and

monthly ARRA Oversight briefings to manage the planning, design, acquisition, and implementation of deliverables.

To complement the RMO, Contracting Officer's Technical Representatives (COTRs) will measure contractor operation and maintenance of the system against specified criteria. COTRs will review contractor progress and deliverables on a regular basis as specified in the Statements of Work. A contract for delivery of an operational capability will specify the frequency and level of the required capability and the time and place where the capability would be delivered. The COTR will ensure each element of the contract has been met before certifying completion. In the event that deliverables require rework, the COTR will specify in Requests For Action (RFAs) what must be done to meet contract specifications and will reevaluate work the contractor submits to satisfy those RFAs.

The National Climatic Data Center (NCDC) will review contractor progress and deliverables on a regular basis for the Climate Data Record (CDR) Project as specified in the Statement of Work developed for each contract that is awarded. For example, the contract involving Project Management support to the CDR Project requires the contractor to deliver evaluation software and regular reports. These deliverables will describe the contractor's analysis and recommendations with regard to standards and utility of archive data, approach to migration and generation of production code for CDRs, and continuity of long-term stewardship of CDRs. Deliverables will be accepted after NCDC personnel test the software and the contractor has successfully resolved any RFAs that arise during a two-week NCDC evaluation of the delivered reports.

Per standard COTR procedures, NOAA will maintain a monthly report of contractor deliveries and overall status, reflecting contractor performance and performance information. The following records will also be maintained: date of delivery; the nature of the deliverable (contract milestone events or ongoing work), the contractor's completion of those deliverables, payments, and explanation of any issues regarding the contractor's performance. All of these records will be available to NOAA/Dept of Commerce stakeholders and upon request from the public via the Freedom of Information Act.

## **Vessel Construction**

An on-site Government team and Construction Representative (CONREP) will provide monitoring and verification of the contractor's performance. This arrangement permits the assessment and reporting of the contractor's progress directly to the FSV 6 project office, and is a mechanism to verify contractor invoices for monthly progress payments. Weekly and sometimes daily reporting is planned on shipyard work. Contract data will facilitate this reporting through integrated contract schedules, critical path analysis, contract problem identification reports, and numerous technical reports.

The FSV 6 team is composed of technical people experienced in shipbuilding and they will monitor the shipbuilder's progress daily. The CONREP is the team leader who has oversight of contract activities at the shipbuilder's facility and is given delegation authority by the government's contracting officer on selected responsibilities to ensure compliance with the contract's requirements. The CONREP is a government employee proposed by the Program Manager to the Contracting Officer. The CONREP is a FAC-C certified Contracting Officer's Representative appointed by the Contracting Officer. Daily and weekly telecons/e-mails to the Program Manager's Office in Silver Spring from the on-site CONREP/team provides direct reporting. If problems are identified, the PM, CONREP and Contracting Officer determine the best course of action. The term critical path is from a Critical Path Method/Technique used to determine the amount of schedule flexibility. It determines the minimum total project duration and any problems on the critical path will delay the achievement of the contract's completion date.

### **Accelerate Satellite Observations**

The NPOESS program, with its prime contractor, will determine appropriate activities and milestones for performance measurement for each project, pending finalization of deliverables and schedules for the NPOESS ARRA projects. The contractor shall provide, at a minimum, a monthly report to include a Project Manager's Assessment, Current Schedule, Program Risk Status, and Financial Status Report. The report shall include explanations for any cost or schedule variances exceeding 10%. This discussion will explain the cause(s) of the variance and whether or not the project still expects to achieve its performance goals. For climate sensor development, NASA shall provide to NOAA a Contract Performance Report (CPR) for each sensor contractor. NASA shall provide to NOAA a monthly report for TSIS and CERES activities from the project offices. The reports are due to NOAA by the 8th of every month and will include the most recent status information available.

### **NEXRAD Weather Radar Systems & Dual Polarization**

The NEXRAD Dual Polarization Modification Program has specific performance milestones, as well as a risk management program. Performance milestones include: Critical Design Review completed in October, 2009; Integration Testing completed in April 2010; System Testing scheduled to begin in May, 2010; and Operational Acceptance Testing scheduled to begin in October, 2010.

### **NOAA Southwest Fisheries Science Center Laboratory**

NOAA has established an Integrated Project Team (IPT) to review progress, performance, and cost or schedule issues; and take appropriate action to address or mitigate risk.

## ***Transparency***

For the PAC projects receiving ARRA funding, NOAA's Accountability and Oversight Review Board will review and analyze all project planning, milestones, and metrics to ensure approved Recovery Act projects can be appropriately executed within both the parameters of the Act and Administration. All acquisition announcements will be in accordance with the Federal Acquisition Regulations (FAR) and ARRA requirements. In addition, NOAA is taking an active role in the development of systems to ensure compliance with the reporting requirements of the Act and OMB guidance.

To ensure compliance, the following projects are taking these additional steps:

### **NOAA Pacific Regional Center**

NAVFAC submits to NOAA each month a project status (schedule, cost/budget, and performance) report that provides standard performance metrics on program performance. These reports are used as part of the monthly NOAA-NAVFAC project status reviews, and the quarterly NOAA-NAVFAC EXCOM reviews.

### **Climate computing and Modeling**

In addition, NOAA is taking an active role in the development of systems to ensure compliance with the reporting and requirements of the Act and OMB guidance.

### **Vessel Construction (FSV 6)**

This FSV 6 project involves a shipbuilding contract that was advertised in accordance with the Federal Acquisition Regulations (FAR) and ARRA requirements. Contract language contains ARRA clauses for transparency to the public on how the contract award is decided and the resulting benefits. The award and shipbuilding process offers considerable employment opportunities for work.

### ***Accelerate Satellite Observations***

ARRA funding will be isolated into a sub Contract Line Item Number (CLIN) to isolate ARRA costing from NPOESS appropriations. It is expected that an Information SubCLIN will be used as the contracting mechanism to ensure all reporting requirements can be met. For climate sensor development, NASA will provide current status on schedules, milestones, financial status on obligations and cost, project overview, and project manager's assessment.

### ***Accountability***

NOAA has established an ARRA Accountability and Oversight Review Board to ensure requirements of the ARRA and OMB Guidance are met. Members of the Board have a

broad level of experience in management including satellite acquisitions, Information Technology, and grants management. This Board will review and guide all projects on a monthly basis, as well as focus on managing the risks associated with the expedited execution of recovery projects.

Government reviews of completed work are required for all contracts. COTRs will be appointed to evaluate contractor progress and attainment of plans; they will review contractor progress and deliverables on a regular basis as specified in the Statement of Work for each contract. In addition, the program manager will be responsible for execution of the program's risk management plan.

A NOAA engineer will be trained and certified as a Contracting Officer's Representative (COR) for contractor assessments. The COR will work with contractor and government employees to resolve technical problems, certify invoices for payment, and participate in other shipyard activity oversight roles.

### ***Barriers to Effective Implementation***

No barriers were identified, such as known statutory requirements which may impede effective implementation of Recovery Act activities, as part of risk assessment conducted for the following programs:

- *NOAA Pacific Regional Center*
- *NOAA Facility Maintenance and Repair*
- *NOAA Fairbanks Satellite Operations Facility*
- *Climate Computing and Modeling*
- *Vessel Construction (FSV 6)*
- *NEXRAD Radar Systems & Dual Polarization*
- *NOAA Southwest Fisheries Science Center Laboratory*
- *WFO Construction*

### **Accelerate Satellite Observations**

Issues will be identified regarding the use of ARRA funding within the terms and conditions of the existing NPOESS contract related to reporting requirements, as they are understood by the NPOESS Contracting Officer and NGAS corporate personnel, as well as the subcontractors who will receive ARRA funding. At this time, no statutory or regulatory requirements are expected to impede implementation of Recovery Act activities.

## ***Federal Infrastructure Investments***

All programs are being designed as an environmentally sustainable, state-of-the-art facility that will meet LEED (Leadership in Energy Efficient Design) Gold certification standards. Some examples are:

- ***NOAA Facility Maintenance and Repair***—repair or replace aging building systems with more energy efficient systems, reducing operational costs for the facilities and reducing the agency’s environmental impact.
- ***Vessel Construction (FSV 6)***—improve efficiency and reduce or eliminate environmental impacts when compared to the replaced vessel.
- ***NEXRAD Radar Systems & Dual Polarization***—represents a significant step forward in environmental monitoring, providing key sensor data for water management, precipitation, and severe weather characteristics.
- ***WFO Construction*** – the new housing and facilities will be designed to current energy codes. Repaired HVAC systems provide energy efficient and stable environmental conditions for WFO employees and forecasting computers. They will also reduce operating costs by improving the energy performance of these facilities.
- ***Climate Computing and Modeling*** – the industry, as well as the Defense Advanced Research Project Agency (DARPA), estimates show that electrical power requirements to both operate and cool the NOAA’s R&D HPC system will jump into the Megawatt range. It is imperative that the facility be designed to efficiently utilize energy, thereby minimizing its energy footprint. NOAA will carefully consider power related issues, and these energy issues will be a driver in both the design and location of NOAA’s R&D HPC system.

# American Recovery and Reinvestment Act of 2009

## National Telecommunications and Information Administration (NTIA)

### Digital TV Converter Box Program Plan

May, 2010



**American Recovery and Reinvestment Act of 2009**  
**National Telecommunications and Information Administration**  
**(NTIA)**

**Digital TV Converter Box Program Plan**

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## ***Catalog of Federal Domestic Assistance Numbers***

11.556-TV Converter Box Coupon Program and 11.553-Special Projects

### ***Program Purpose***

The Digital Television Transition and Public Safety Act of 2005 (2005 Digital TV Transition Act) originally required full-power television stations to cease analog broadcasts and switch to digital by February 17, 2009. The transition to digital broadcast television will free up the airwaves for better communications among emergency first responders and new telecommunications services and offers consumers a clearer picture and more programming choices.

The 2005 Digital TV Transition Act authorized the National Telecommunications and Information Administration (NTIA) to create the TV Converter Box Coupon Program (Coupon Program) to provide up to two coupons, valued at \$40 per coupon, for each requesting household to use towards the purchase of coupon-eligible converter boxes (CECBs) to enable them to continue receiving over-the-air broadcasts. On January 4, 2009, the Coupon Program reached its initial \$1.34 billion obligation limit for active and redeemed coupons and began a waiting list for applicants, filling requests solely from deobligated funds as they became available from unredeemed and expired coupons.

On February 11, 2009, President Obama signed into law the DTV Delay Act, Pub. L. 111-4, 123 Stat. 112, which postponed by four months the deadline for full power television stations to cease analog broadcasting from February 17, 2009, until June 12, 2009. The DTV Delay Act also extended from March 31, 2009, until July 31, 2009, the last date households could request coupons from the Coupon Program to subsidize the purchase of CECBs. In addition, the DTV Delay Act authorized NTIA to issue replacement coupons upon request to consumers whose coupons expired unredeemed. The DTV Delay Act's amendments to the Coupon Program, however, were subject to enactment of additional budget authority. The American Recovery and Reinvestment Act of 2009 (Recovery Act), Pub. L. 111-5, 123 Stat. 115 (February 17, 2009), provided such budget authority through a \$650 million appropriation for the Coupon Program.

Enactment of the DTV Delay Act and the Recovery Act provided NTIA with the time and funds needed to meet the high demand for coupons experienced in late 2008 and early 2009, as well as to implement other important programmatic reforms.

### ***Public Benefits***

The Coupon Program issued up to two \$40 coupons to each requesting eligible household, which enabled consumers to redeem each coupon toward the purchase of a CECB. The

Recovery Act funds allowed eligible households with expired unredeemed coupons to request replacements. The Recovery Act funds also enabled the Coupon Program to send all coupons via first class mail and to streamline coupon request processing to reduce the time from request to delivery. The Recovery Act funds were also used to conduct targeted consumer education, outreach, and technical assistance to the remaining households that had not prepared for the end of analog broadcast television.

### ***Projects and Activities***

The Recovery Act authorized \$650 million for additional coupons and related activities. Of this amount, NTIA expended \$291.4 million on redeemed coupons from \$490 million budgeted for coupon distribution. These funds enabled the Coupon Program to liquidate the waiting list of 4.2 million coupons between March 3 and March 23, 2009, as well as to satisfy all coupon request received through July 31, 2009, pursuant to the DTV Delay Act. During this period, NTIA issued an additional 14.6 million coupons, of which approximately 7.5 million were redeemed

Of the \$90 million made available for consumer education, NTIA transferred approximately \$70.6 million to the Federal Communications Commission (FCC) to support its in-home programs and walk-in centers to assist consumers with installing and programming their converter boxes. These funds also helped to augment the FCC technical support call center. NTIA also expended \$2.5 million from this amount to extend the consumer education grants to Leadership Conference on Civil Rights Education Foundation (LCCREF) and the National Association of Area Agencies on Aging. The grantees and their partner organizations worked in 42 states and over 80 cities to help consumers apply for coupons, and purchase and install converter boxes through community assistance centers and other means. The grantees also established coupon exchange programs in many areas to collect coupon donations from consumers and redistribute them to others, which was allowed under the Coupon Program rules as long as no consideration is provided in exchange for coupons, monetary or otherwise. NTIA spent an additional \$1.9 million under NTIA's program administration contract to target consumer education to minority, rural, disabled, and low-income households that had not prepared for the end of analog broadcasting on June 12, 2009.

Additionally, NTIA expended approximately \$40 million for program administration, which included additional coupon distribution and service enhancements. The enhancements facilitated improvements in coupon processing and distribution and the use of first class mail delivery.

Major activities under the program are complete, and NTIA is reconciling final program expenditures.

### ***Characteristics of Federal Assistance***

Direct Payments for Specified Use—Coupon Issuance (11.556)

Project Grants—Consumer Education and Technical Assistance (11.553)

### ***Type of Recipients***

General Public—Coupon Recipient (11.556)

Private Nonprofit Institution/Organization (11.553)

### ***Type of Beneficiary***

General Public

### ***Major Planned Program Milestones***

Milestone	Expected Completion Date
Rulemaking to implement DTV Delay Act	2/12/02-3/12/09 (completed)
Began ARRA funding for wait listed coupon requests	3/2/09 (completed)
Began fulfilling requests for replacement coupons	3/23/09 (completed)
Digital TV Conversion ends	6/12/09 (completed)
Deadline for Coupon Requests	7/31/09 (completed)
Conclusion of Coupon Redemptions	11/15/09 (completed)
Closeout	11/16/09-1/31/10 (completed)

### ***Monitoring and Evaluation***

In its initial phase, the Coupon Program developed a Risk Management Plan as its primary tool for identifying and managing the inevitable risks that attend all programs and projects. The Risk Management Plan described the process for reviewing, analyzing, and managing risks to eliminate or ameliorate any adverse impact to the Coupon Program. The Coupon Program utilized the Risk Management process and integrated risk management into its ongoing operations management. Members of the Program Management Office met periodically to review and discuss risks, to document new risks, assign responsibilities and mitigation strategies, and to follow up on previously identified risks.

In addition to the processes outlined in the Risk Management Plan, the Program Management Office implemented a Waste, Fraud, and Abuse (WFA) Plan to oversee and to supplement, when necessary, the WFA activities of its contractor, IBM. Accordingly, the Coupon Program

evaluated IBM's adherence to its own Quality Monitoring & Control Plan and Waste, Fraud and Abuse Audit Plan. The Coupon Program conducted regular WFA reviews by analyzing comprehensive monthly reports from the contractor as well as various ad hoc reports and other program information. Since the Coupon Program reimbursed retailers for coupon redemptions made by consumers, retailers were a main focus for WFA monitoring. The Program Office designed six ad hoc retailer reports that were regularly provided by the contractor and analyzed for potential WFA. In addition, possible address manipulation by consumers was an area of focus, in order to minimize opportunities for households to redeem more than two coupons.

IBM's WFA Audit Plan described the contractor's WFA activities, audits, and reporting. Each month, the Coupon Program reviewed IBM's WFA Audit Reports. It also conducted periodic informal audits of the financial ledger that IBM's subcontractor maintained to monitor Initial, Contingent, and Recovery Act funds obligations to ensure the Program did not exceed statutory limits. The Coupon Program's contract with IBM allowed NTIA to direct an independent auditor or accounting firm to conduct such an audit. In addition, the Coupon Program was subject to annual financial audits conducted by the U.S. Department of Commerce and could be audited by the Department's Office of Inspector General (OIG) and the Government Accountability Office (GAO), as deemed appropriate by those offices.

The Coupon Program monitored IBM's performance against the Program Objectives through its Quality Assurance and Surveillance Plan (QASP), as well as the contractor's Performance Work Statement and the Quality Monitoring and Control Plan. In addition, the Program Office worked with NTIA's Chief Information Officer and the agency's Security Officer to ensure compliance with the Department's systems security requirements and the Program's certification and accreditation requirements. The Program also conducted contractor invoice validations and monitors service level standards each month.

Because of these measures taken, the program was able to mitigate the risk of program waste, fraud and abuse, and the program reached a successful conclusion.

### ***Measures***

Measure	Coupon Processing Time
Type	Efficiency
Frequency	Monthly
Direction	-
Unit	Days
Explanation	Demonstrates improved program efficiency through faster delivery of coupons to consumers, which facilitates their preparation by June 12, 2009
Year	2009

Original Program Target	98% of coupon requests mailed within 10 business days
Revised Full Program Target	90% of coupon requests mailed within 6 business days.
Target (incremental change in performance )	4 business days
Actual	97% of coupon requests mailed within 6 business days
Measure	Over-the-Air (OTA) Household Coupon Processing Priority
Type	Efficiency
Frequency	Monthly
Direction	-
Unit	Coupon Requests
Explanation	Facilitates preparation by OTIA households to avoid loss of broadcast TV after June 12, 2009, by queuing coupon requests ahead of non-OTA for distribution
Year	2009
Original Program Target	Not applicable
Revised Full Program Target	3.8 million potential requests from unprepared households for up to 7.6 million coupons
Target (incremental change in performance)	3.8 million requests/7.6 million coupons given priority
Actual	7.6 million coupon reserve not required

### ***Transparency and Accountability***

The Coupon Program maintained websites at [www.dtv2009.gov](http://www.dtv2009.gov), [www.ntiadtv.gov](http://www.ntiadtv.gov), and [www.ntia.doc.gov/dtvcoupon](http://www.ntia.doc.gov/dtvcoupon), to inform stakeholders, including consumers, converter box manufacturers, participating retailers, program partners, the press, and the general public about the Program's rules, developments, and coupon activity. For example, it published weekly reports of coupon funding obligations, requests, and redemptions and specifically highlighted Recovery Act funds committed and available for coupons. In addition, the Program posted information about its Recovery Act related activities on [www.recovery.gov](http://www.recovery.gov). The Two NTIA recipients, LCCREF and N4A, posted quarterly reports that were available on the Recovery Act web site beginning in October, 2009.

### ***Federal Investment Infrastructure***

NTIA did not invest DTV Recovery Act funds in federal infrastructure.

# **American Recovery and Reinvestment Act of 2009**

## **National Telecommunications and Information Administration (NTIA)**

### **Broadband Technology Opportunities Program (BTOP) Program Plan**

May, 2010



**American Recovery and Reinvestment Act of 2009**  
**National Telecommunications and Information Administration**  
**(NTIA)**  
**Broadband Technology Opportunities Program (BTOP) Program**  
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## ***Objectives***

### **Program Purposes**

The Recovery Act provides the National Telecommunications and Information Administration (NTIA) with \$4.7 billion to establish the Broadband Technology Opportunities Program (BTOP) to expand access to and adoption of broadband services in the United States. BTOP provides grants for deploying broadband infrastructure, enhancing broadband capacity at public computer centers, and promoting sustainable broadband adoption projects in the United States. Of these funds, at least \$200 million will be made available for competitive grants for expanding public computer center capacity; at least \$250 million will be made available for competitive grants for innovative programs to encourage sustainable adoption of broadband services; and approximately \$3.5 billion for infrastructure projects. Also, up to \$350 million will be made available to fund the State Broadband Data and Development Grant Program (Broadband Mapping Program) authorized by the Broadband Data Improvement Act. The Broadband Mapping Program is designed to support the development and maintenance of a nationwide broadband map for use by policymakers and consumers.

Section 6001 of the Recovery Act establishes a national broadband service development and expansion program to promote five core purposes: (a) To provide access to broadband service to consumers residing in unserved areas of the country; (b) To provide improved access to broadband service to consumers residing in underserved areas of the country; (c) To provide broadband education, awareness, training, access, equipment, and support to: (i) schools, libraries, medical and healthcare providers, community colleges and other institutions of higher learning, and other community support organizations; (ii) organizations and agencies that provide outreach, access, equipment, and support services to facilitate greater use of broadband services by vulnerable populations (e.g., low-income, unemployed, aged); or (iii) job-creating strategic facilities located in state- or federally-designated economic development zones; (d) To improve access to, and use of, broadband service by public safety agencies; and (e) To stimulate the demand for broadband, economic growth, and job creation.

Section 6001(l) of the Recovery Act requires the Assistant Secretary to develop and maintain a comprehensive, interactive, and searchable nationwide inventory map of existing broadband service capability and availability in the United States that depicts the geographic extent to which broadband service capability is deployed and available from a commercial or public provider throughout each state. The statute further provides that the Assistant Secretary will make the National Broadband Map (Map) accessible by the public on an NTIA web site no later than February 17, 2011.

## **Public Benefits**

In facilitating the expansion of broadband communications services and infrastructure, BTOP advances the objectives of the Recovery Act to spur job creation and stimulate long-term economic growth and opportunity. BTOP-funded projects will help bridge the digital divide, improve the nation's education, provide improved access to better health care, enhance safety and security, increase employment options, foster innovation, and boost economic development for communities held back by limited or no access to broadband. These investments will also help preserve America's economic competitiveness in the world, and will accrue benefits especially to disadvantaged, rural, and remote America. These funds not only meet the near-term economic objectives of the Recovery Act, but they also will continue to pay dividends far into the future in the form of improved education and health care, heightened innovation, and long-term global economic and competitive benefits.

Infrastructure investments funded under NTIA's Comprehensive Community Infrastructure (CCI) approach, particularly the deployment of high-capacity broadband facilities and the provision of new or substantially upgraded connections to community anchor institutions, will provide a number of benefits to the public and taxpayers. CCI projects will leverage resources and better ensure sustainable community growth and prosperity. Open and nondiscriminatory CCI projects funded by BTOP will enable other service providers to serve the community and lay the foundation for the ultimate provision of reasonably priced end-user broadband services in unserved and underserved communities. Broadband infrastructure projects not only enhance the availability and affordability of end-user broadband connectivity for consumers and businesses, but also increase the effectiveness of community anchor institutions in fulfilling their missions. Schools, libraries, colleges and universities, medical and healthcare providers, public safety entities, and other community support organizations increasingly rely on high-speed Internet connectivity to serve their constituencies and their communities. Expanding broadband capabilities for community anchor institutions will result in substantial benefits for the entire community, delivering improved education, health care, and economic development. Broadband infrastructure projects are also job-intensive, requiring substantial construction, engineering, and service professionals to accomplish.

Public Computer Center (PCC) projects will provide access to broadband, computer equipment, computer training, job training, and educational resources to the general public and specific vulnerable populations. Sustainable Broadband Adoption (SBA) grants support innovative projects that promote broadband demand, especially among vulnerable population groups where broadband technology traditionally has been underutilized. With projects focusing on broadband awareness, access, training, and education, barriers to broadband adoption can be overcome, fostering educational and business opportunities and a more competitive country as a whole.

The State Broadband Data and Development Program (Broadband Mapping Program) provides grants to states or their designees for the purpose of semi-annually gathering and verifying

state-specific data on the availability, speed, location, and technology type of broadband services. In addition, the program also funds state-led broadband planning activities. The grantees will collect and verify data on broadband services that will be used in the National Broadband Map. The Map will publicly display, at a minimum, the geographic areas where broadband service is available; the technology used to provide the service; the speeds of the service; and broadband service availability at public schools, libraries, hospitals, colleges, universities, and public buildings. The Map will also be searchable by address and show the broadband providers offering service in the corresponding census block or street segment. The Map will inform policymakers' efforts and provide consumers with improved information on the broadband Internet services available to them. As required by the Recovery Act, NTIA will develop the Map and make it accessible to the public no later than February 17, 2011.

## ***Projects and Activities***

### **Kinds and Scope of Projects and Activities to be Performed**

BTOP provides grants for deploying broadband infrastructure, enhancing broadband capacity at public computer centers, promoting sustainable broadband adoption projects in the United States, and for the development and maintenance of a nationwide broadband map.

Funding priority will be given to infrastructure projects under NTIA's Comprehensive Community Infrastructure (CCI) category of funding that satisfy the following objectives:

- (1) projects that deploy Middle Mile broadband infrastructure with a commitment to offer new or substantially upgraded service to community anchor institutions. Middle Mile means those components of a CCI project that provide broadband service from one or more centralized facilities, (*i.e.*, the central office, the cable headend, the wireless switching station, or other equivalent centralized facility) to an Internet point of presence;
- (2) projects that will deploy Middle Mile broadband infrastructure and incorporate a public-private partnership among government, non-profit and for-profit entities, and other key community stakeholders, particularly those that have expressed a demand or indicated a need for access or improved access to broadband service;
- (3) projects that will deploy Middle Mile broadband infrastructure with the intent to bolster growth in economically distressed areas;
- (4) projects that will deploy Middle Mile broadband infrastructure with a commitment to serve community colleges that have expressed a demand or indicated a need for access or improved access to broadband service;
- (5) projects that will deploy Middle Mile broadband infrastructure with a commitment to serve public safety entities that have expressed a demand or indicated a need for access or improved access to broadband service;

- (6) projects that will deploy Middle Mile broadband infrastructure that includes (i) a Last Mile infrastructure component in unserved or underserved areas; or (ii) commitments or non-binding letters of intent from one or more Last Mile broadband service providers; and
- (7) projects that will deploy Middle Mile broadband infrastructure and propose to contribute a non-federal cost match that equals or exceeds 30 percent of the total eligible costs of the project.

BTOP grants for Public Computer Center Projects are aimed at expanding broadband access and capacity at community anchor institutions, organizations serving vulnerable populations, or job-creating strategic facilities located in state- or federally designated economic development areas as well as stimulating broadband demand, economic growth, and job creation.

BTOP grants for Sustainable Broadband Adoption Projects are aimed at providing broadband education, awareness, training, access, equipment, and support in order to stimulate sustainable adoption of broadband services by individuals, households, and community anchor institutions. In this context, sustainable means adoption (i.e., subscription to broadband service) that the consumer or institution can and will continue to pay for after the award period.

The State Broadband Data and Development Program (Broadband Mapping Program) provides grants to states or their designees for the purpose of semi-annually gathering and verifying state-specific data on the availability, speed, location, and technology type of broadband services. In addition, the program also funds state-led broadband planning activities. Grantees will collect and verify data on broadband services that will be used in the National Broadband Map which will be made accessible to the public no later than February 17, 2011.

### **List of Projects and Activities**

BTOP grants for Comprehensive Community Infrastructure (CCI) projects will fund the construction or improvement of facilities required to provide broadband service; the cost of long-term leases (for terms greater than one year) of facilities required to provide broadband service; reasonable pre-application expenses in an amount not to exceed five percent of the grant award; reasonable indirect costs; and other projects and activities as the Assistant Secretary of NTIA finds to be consistent with the purposes for which the Program is established.

BTOP grants for Public Computer Center Projects will support acquiring broadband-related equipment, instrumentation, networking capability, hardware and software, and digital network technology for broadband services, including the purchase of word processing software, computer peripherals, such as mice and printers, and computer maintenance services and virus-protection software; developing and providing training, education, support, and awareness programs or web-based resources, including reasonable compensation for qualified

instructors, technicians, managers, and other employees essential for these types of programs; facilitating access to broadband services, including, but not limited to, making public computer centers accessible to the disabled; installing or upgrading broadband facilities on a one-time, capital improvement basis in order to increase broadband capacity; constructing, acquiring, or leasing a new facility; funding reasonable indirect costs; or other projects and activities as the Assistant Secretary of NTIA finds to be consistent with the purposes for which the Program is established.

BTOP grants for Sustainable Broadband Adoption Projects will support innovative programs that encourage sustainable adoption of broadband services by acquiring broadband-related equipment, instrumentation, networking capability, hardware and software, and digital network technology for broadband services; developing and providing training, education, support, and awareness programs, as well as web-based content that is incidental to the program's purposes, and includes reasonable compensation for qualified instructors for these types of programs; conducting broadband-related public education, outreach, support, and awareness campaigns; implementing programs to facilitate greater access to broadband service, devices, and equipment; funding reasonable indirect costs; and undertaking such other projects and activities as the Assistant Secretary of NTIA finds to be consistent with the purposes for which the Program is established.

The State Broadband Data and Development Program (Broadband Mapping Program) provides grants to states or their designees to collect and verify the availability, speed, and location of broadband across the state. This activity is to be conducted on a semi-annual basis between 2009 and 2011, with the data to be presented in a clear and accessible format to the public, government, and the research community. The data they collect and compile will also be used to develop publicly available statewide broadband maps and to inform the comprehensive, interactive, and searchable national broadband map. The Map will publicly display, at a minimum, the geographic areas where broadband service is available; the technology used to provide the service; the speeds of the service; and broadband service availability at public schools, libraries, hospitals, colleges, universities, and public buildings. The Map will also be searchable by address and show the broadband providers offering service in the corresponding census block or street segment. As required by the Recovery Act, NTIA will develop the Map and make it accessible to the public no later than February 17, 2011.

## ***Characteristics***

### **Types of Financial Awards to be Used**

NTIA will support broadband projects that make a difference in the lives of citizens through competitive grant-making programs. Government project grants are a form of financial assistance between the Government and a recipient to accomplish a public purpose—in this case, to accelerate broadband deployment in unserved and underserved areas of the United

States, among other important public purposes. The Recovery Act provides \$4.549 billion for grants to eligible entities, which represents a significant investment to advance President Obama's national broadband strategy. Of this amount, at least \$200 million will be made available for competitive grants for expanding public computer center capacity. In addition, at least \$250 million will be available for competitive grants for innovative programs to encourage sustainable adoption of broadband services. Up to \$350 million is available from the Recovery Act to support the development and maintenance of a nationwide broadband map for use by policy makers and consumers. The bulk of the funds, approximately \$3.749 billion, will support grants for broadband deployment in unserved and underserved areas of the United States.

### **Type of Recipient**

Eligible recipients of these grants are: (1) States and political subdivisions, such as city and county governments, the District of Columbia, territories or possessions of the United States, and Indian tribes or native Hawaiian organizations; (2) Nonprofit foundations, corporations, institutions or associations; and (3) Other entities, including broadband service and infrastructure providers, that are determined by the Government to be in the public interest.

### **Type of Beneficiary**

It is estimated that the overwhelming majority of funds will support non-Federal activities at the state and local levels.

Under the Comprehensive Communities framework used as a focus of BTOP, projects leverage resources and better ensure sustainable community growth and benefits. Beneficiaries include a wide array of community anchor institutions (e.g., schools, libraries, colleges and universities, medical and healthcare providers, public safety entities, and other community support organizations), as new or improved broadband service will increase the effectiveness of community anchor institutions in fulfilling their missions and serving their communities. The Comprehensive Communities framework also fosters the construction of open and nondiscriminatory broadband infrastructure, which helps enable other service providers to serve the communities involved at lower costs.

Expanding broadband capabilities for community anchor institutions will result in substantial benefits for the entire community, delivering improved education, healthcare, and economic development. BTOP infrastructure projects, in particular, are also job-intensive and pave the way for a ripple effect of economic development throughout the communities they touch.

## ***Major Planned Program Milestones***

### **Schedule with Milestones for Major Phases of the Program's Delivery**

Major Program Phase	Milestones	Planned Delivery Date – Expected Completion Date
	Project Schedule	April 2009
Initial consultation with Federal agencies, states, and other governmental entities		February – June 2009
	Analyze and Review Public Comments	April 2009
Procurement for Grants Program Assistance Services		March – June 2009
	Award Contract for Grants Program Support	June 2009
Preparation for Initial Solicitation for Proposals		April – June 2009
	Publish Notice of Funds Availability	July 2009
Initial Proposal Processing and Review		Sept – Dec. 2009
	Initial Grant Awards Made	December 2009
	Final Grant Awards Made	April 2010
Preparation for Second Solicitation for Proposals		December – March 2010
	Publish Notice of Funds Availability	January 2010
	Initial Grant Awards Made	July 2010
	Final Grant Awards Made	September 2010
Post-Award		December 2009 – September 2013
	Develop post-award	October - June 2010

Major Program Phase	Milestones	Planned Delivery Date – Expected Completion Date
	reporting mechanisms	
	Post first awardee progress reports online	June 2010
	First BTOP awardee desk audits	September 2010
	All BTOP projects substantially complete	September 2012
	All BTOP projects fully complete	September 2013
Mapping		July 2009 – Sept 2011
	Issue all initial mapping grants	June 2010
	Post National Broadband Map Online	February 2011

### ***Monitoring/Evaluation***

The Recovery Act requires the recipient of an award to report quarterly on the use of Recovery Act funds provided through the award. These reports will be made available to the public. In addition to the general Recovery Act reporting requirements, BTOP award recipients also must report quarterly to NTIA on information relating to their progress in achieving certain objectives and milestones as well as on certain key indicators regarding their project. NTIA will make these reports available to the public at the BTOP website [www.ntia.doc.gov/broadbandgrants](http://www.ntia.doc.gov/broadbandgrants). The information requested will vary depending on the type of project being funded. All BTOP award recipients must report on the progress in achieving the project goals, objectives, and milestones as set forth in their applications; expenditure of grant funds and the amount of remaining grant funds; and the amount of non-federal investment being added to complete the project. Recipients receiving CCI grants must also report on a variety of information, including network build progress; agreements with broadband wholesalers or last mile providers; percent complete of key milestones; average costs figures; and services offered. Recipients receiving PCC grants must report on such things as the number of new and upgraded public computer centers; the number of new and upgraded workstations available to the public; average users per week; and training provided with BTOP funds. Recipients receiving SBA grants must report on such things as the size of the target audience for each program and the number of new broadband subscriptions achieved through each program. Grants that conduct an awareness campaign must report the methods used, individuals reached, and training provided.

## ***Measures***

The Obama Administration has set five goals for the broadband stimulus funding: (1) Create jobs; (2) Improve broadband access in America; (3) Stimulate private-sector investments; (4) Improve high-speed access in strategic institutions, such as libraries, colleges and universities, and public safety agencies; and (5) Encourage broadband demand.

NTIA will require quarterly reports from grantees to quantify the Administration's broadband goals and will make those reports available to the public.

Measure Text	Measure Type	Measure Frequency	Direction of Measure	Unit of Measure	Explanation of Measure	Year	Original Program Target	Revised Full Program Target	Target (incremental change in performance )	Actual	Goal Lead
New broadband network miles deployed	Output	Quarterly	+	Miles	BTOP funds will be used to support projects that provide broadband access in unserved areas and enhance access to broadband service in underserved areas of the United States. NTIA will fund infrastructure projects that deploy a variety of technologies and approaches to enhance the Nation's broadband capabilities. The performance measure contains the number of miles of network (e.g., fiber, microwave) deployed using BTOP funding.	2011		10,000			Anthony Wilhelm
Community anchor institutions with new or improved access to broadband services	Output	Quarterly	+	Institutions	The Recovery Act places a high priority on deploying and enhancing broadband capabilities for community anchor institutions such as libraries, hospitals, schools, and public safety entities. This performance measure contains the number of anchor institutions (as defined in the Program's Notice(s) of Funds Availability) connected with new or improved broadband capabilities.	2011		3,000			Anthony Wilhelm
Homes and businesses with new and improved broadband availability (Infrastructure Projects)	Output	Quarterly	+	Homes and businesses	access to broadband service in unserved areas and enhance access to broadband service in underserved areas of the United States. NTIA may fund projects that deliver service directly to end-users and end-user devices, including homes and businesses. The performance measure includes homes/businesses receiving new and improved access to broadband service as a result of BTOP infrastructure grants.	2011		500,000			Anthony Wilhelm
New public computer center workstations installed and available to the public	Output	Quarterly	+	Workstations	NTIA must award at least \$200 million in grants by the end of Fiscal Year 2010 to expand public computer center capacity. The performance measure contains the number of new workstations installed and available to the public through the Public Computer Centers category of funding; this does not include existing workstations that were upgraded as part of the project.	2011		10,000			Anthony Wilhelm
New sustainable broadband adoption subscribers (Households and/or Businesses)	Output	Quarterly	+	Subscribers	NTIA must award at least \$250 million in grants by the end of Fiscal Year 2010 for innovative programs to encourage sustainable adoption of broadband service. The performance measure contains the number of new household and business subscribers to broadband generated by projects funded through the BTOP Sustainable Broadband Adoption category of funding, as reported by awardees. A new subscriber is defined as a household or business that did not subscribe to broadband prior to the start of the project.	2011		25,000			Anthony Wilhelm

## ***Transparency and Accountability***

It is the policy of the Obama Administration through its Recovery.gov website to make transparent to the public the recipients and uses of all funds spent under the Recovery Act. Recovery.gov will be the primary portal where the public can find and analyze information, such as the geographic breakdown of broadband grants and the amount of funds awarded to recipients. Additional information will be made available on the Agency's BTOP website.

## ***Federal Infrastructure Investments***

NTIA advised applicants for BTOP grants that the DOC Environmental Checklist asks whether any electronic equipment procured will be disposed of in an environmentally sound manner. It indicated that the Green Electronics Council's Electronic Product Environmental Assessment Tool (EPEAT), available at <http://www.epeat.net/default.aspx>, is a system that helps purchasers of electronic equipment compare and evaluate projects based on environmental attributes, including end-of-life disposal.

NTIA is also committed to evaluating the potential environmental impacts for applicant proposals and awardee projects seeking BTOP funding. In accordance with the National Environmental Protection Act (NEPA) and the National Historic Preservation Act (NHPA), all projects containing construction and/or ground disturbing activities are required to complete an Environmental Questionnaire in their BTOP application and to submit all other required environmental documentation as necessary. If the project's activities do not fall within certain Categorical Exclusions (CEs), which do not individually or cumulatively have a significant effect on the environment, and, therefore, do not require further review under NEPA, then BTOP grant recipients are required to provide NTIA with a draft Environmental Assessment for their project.

NTIA provides assistance to help grant recipients to assist them with meeting their environmental requirements and completing the Environmental Assessment. These efforts help ensure that BTOP projects comply with relevant environmental requirements and fulfill the Recover Act's objectives in a manner that appropriately protects environmental and historic assets in the United States.