

Inspector General

United States
Department of Defense



American Recovery and Reinvestment Act—
Project P-236, "Replace Water Distribution System,"
at Naval Air Station Whidbey Island, Washington,
Was Justified

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Acronyms and Abbreviations

CLINs	Contract Line Item Numbers
FAR	Federal Acquisition Regulation
FT	Feet
LF	Linear Feet
NAS	Naval Air Station
NAVFAC NW	Naval Facilities Engineering Command Northwest
OMB	Office of Management and Budget



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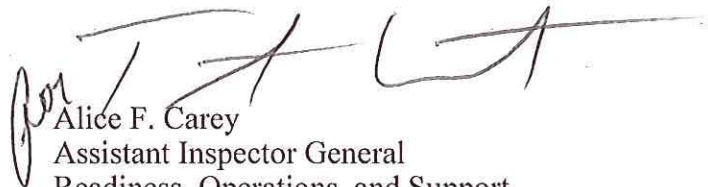
MEMORANDUM FOR NAVAL INSPECTOR GENERAL
COMMANDING OFFICER, NAVAL FACILITIES
ENGINEERING COMMAND, NORTHWEST

SUBJECT: American Recovery and Reinvestment Act—Project P-236, “Replace Water Distribution System,” at Naval Air Station Whidbey Island, Washington, Was Justified (Memorandum No. D-2010-RAM-024)

We are providing this report for your information and use. Naval Facilities Engineering Command Northwest (NAVFAC NW) officials justified Project P-236, “Replace Water Distribution System,” at Naval Air Station Whidbey Island, Washington. However, the economic analysis for Project P-236 was incomplete. Subsequently, NAVFAC NW officials implemented corrective action by revising the economic analysis to fully support Project P-236’s justification. Because the contract was only partially awarded, approximately \$6.4 million in savings from Project P-236 can be allocated to other Recovery Act projects.

We performed this audit in response to the requirements of Public Law 111-5, “American Recovery and Reinvestment Act of 2009,” February 17, 2009. Naval Facilities Engineering Command Northwest officials did not have comments to the discussion draft of the report. No comments are required.

We appreciate the courtesies extended to the staff. Please direct questions to Mr. Timothy Wimette at (703) 604-8876 (DSN 664-8876).


Alice F. Carey
Assistant Inspector General
Readiness, Operations, and Support

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Results in Brief: American Recovery and Reinvestment Act—Project P-236, “Replace Water Distribution System,” at Naval Air Station Whidbey Island, Washington, Was Justified

What We Did

Our objective was to determine whether DOD and its Components planned and implemented Public Law 111-5, “American Recovery and Reinvestment Act of 2009,” February 17, 2009 (Recovery Act), by meeting the requirements in the Act, Office of Management and Budget Memorandum M-09-15, “Updated Implementing Guidance for the American Recovery and Reinvestment Act of 2009,” April 3, 2009, and subsequent related guidance.

Specifically, we determined whether Naval Facilities Engineering Command Northwest (NAVFAC NW) and Naval Air Station (NAS) Whidbey Island officials adequately planned, funded, executed, and tracked and reported Project P-236, “Replace Water Distribution System,” to ensure the appropriate use of Recovery Act funds.

What We Found

NAVFAC NW and NAS Whidbey Island officials justified Project P-236. However, we found that four of the six steps used in preparing the project’s economic analysis were incomplete. Subsequently, NAVFAC NW officials took corrective action by revising and completing the economic analysis. NAVFAC Headquarters personnel distributed Recovery Act funds for Project P-236 in a timely manner, and the initial execution of the project was adequate. Also, NAVFAC NW officials had processes and procedures in place to ensure tracking and reporting of contract actions, project status, contractor responsibilities, and Recovery Act requirements are met. As a result,

DOD had reasonable assurance that NAVFAC NW and NAS Whidbey Island officials adequately planned Project P-236 and used Recovery Act funds appropriately.

What We Recommend

This report contains no recommendations.

Management Comments

We provided a discussion draft of this report on May 28, 2010. No written response to this report was required, and none was received. Therefore, we are publishing this report in its final form.

NAS Whidbey Island, Washington



Source: Global Security Web site

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Table of Contents

Introduction	1
Objective	1
Recovery Act Background	1
Recovery Act Requirements	1
DOD Recovery Act Program Plans	2
Audit Results	4
Naval Facilities Engineering Command Northwest and Naval Air Station Whidbey Island Officials Adequately Planned Project P-236	4
Recovery Act Funds Were Properly Distributed	6
Contract Adequately Executed	7
Processes and Procedures in Place to Ensure Project Tracking and Reporting	7
Project P-236 Was Justified	8
Appendices	
A. Scope and Methodology	9
B. Recovery Act Criteria and Guidance	11

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Introduction

Objective

Our objective was to determine whether DOD and its Components planned and implemented Public Law 111-5, “American Recovery and Reinvestment Act of 2009,” February 17, 2009 (Recovery Act), by meeting the requirements in the Act, Office of Management and Budget (OMB) Memorandum M-09-15, “Updated Implementing Guidance for the American Recovery and Reinvestment Act of 2009,” April 3, 2009, and subsequent related guidance.

To meet our objective, we determined whether Naval Facilities Engineering Command Northwest (NAVFAC NW) and Naval Air Station (NAS) Whidbey Island officials adequately planned, funded, executed, and tracked and reported Project P-236, “Replace Water Distribution System,” at NAS Whidbey Island, Washington, to ensure the appropriate use of Recovery Act funds. See Appendix A for a discussion of our scope and methodology.

Recovery Act Background

The President signed the Recovery Act into law on February 17, 2009. It was an unprecedented effort to jump-start the economy and create or save jobs.

The purposes of this Act include the following:

- (1) To preserve and create jobs and promote economic recovery;
- (2) To assist those most impacted by the recession;
- (3) To provide investments needed to increase economic efficiency by spurring technological advances in science and health;
- (4) To invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits; and
- (5) To stabilize State and local government budgets, in order to minimize and avoid reductions in essential services and counterproductive state and local tax increases.

Recovery Act Requirements

The Recovery Act and implementing OMB guidance require projects to be monitored and reviewed. We grouped these requirements in the following four phases: (1) planning, (2) funding, (3) execution, and (4) tracking and reporting. The Recovery Act requires that projects be properly planned to ensure the appropriate use of funds. Review of the funding phase is to ensure the funds were distributed in a prompt, fair, and reasonable manner. The review of the project execution phase is to ensure that contracts awarded with Recovery Act funds were transparent, competed, and contained specific Federal Acquisition Regulation (FAR) clauses; that Recovery Act funds were used for authorized purposes; and that instances of fraud, waste, error, and abuse were mitigated. The review of the execution phase also ensures that program goals were achieved, including specific program outcomes and improved results on broader economic indicators; that projects funded avoided unnecessary delays and cost overruns; and that contractors or recipients

of funds reported results. Review of the tracking and reporting phase ensures that the recipients' use of funds was transparent to the public and that benefits of the funds were clearly, accurately, and timely reported.

DOD Recovery Act Program Plans

DOD received approximately \$6.8 billion¹ in Recovery Act funds to be used for projects that support the Act's purposes. In May 2009, DOD released the expenditure plans for the Recovery Act, which listed DOD projects that received Recovery Act funds. The Department of the Navy received approximately \$1.928 billion in Recovery Act funds for Navy and Marine Corps projects. Table 1 provides specific amounts allocated to each appropriation.

Table 1. Department of the Navy and Marine Corps Projects

Program	Amount (in millions)
Operations and Maintenance	\$916
Military Construction	937
Research, Development, Test and Evaluation	75
Total	\$1,928

Of the \$1.928 billion appropriated to the Department of the Navy, approximately \$20 million (Military Construction) was allocated to support the replacement of the water distribution system at NAS Whidbey Island, Washington.

The NAS Whidbey Island complex consists of three properties: Ault Field, Seaplane Base, and Outlying Field (all located on Whidbey Island, Washington). The Island, approximately 65 miles long and up to 10 miles wide, is the largest in Washington. Ault Field is the largest and most developed property in the NAS Whidbey Island complex and is the Island's operational hub. It contains the main landing strip, the flight line, and most of the station's maintenance and training facilities. Seaplane Base is located 4 miles southeast of Ault Field and consists of base housing and other support facilities to Ault Field. Outlying Field is a relatively undeveloped property used for takeoff and landing practice by NAS Whidbey Island aircraft. Although Ault Field and Seaplane Base are two separate and distinct areas, they are both served by a single water system and are considered a single service area.

NAS Whidbey Island is a wholesale water customer of the city of Oak Harbor, and it currently purchases its entire water supply from the city. The water is delivered to NAS Whidbey Island through 10-inch and 24-inch diameter transmission lines owned by Oak Harbor. The Navy owns, operates, and maintains all water system facilities on Ault Field and Seaplane Base. The Navy also owns and maintains the 8-inch, 10-inch, and 12-inch

¹ The \$6.8 billion does not include \$4.6 billion for the U.S. Army Corps of Engineers or \$555 million for the Homeowners Assistance Fund.

diameter transmission lines that deliver water from Ault Field to Seaplane Base. The property between Ault Field and Seaplane Base is owned by the city of Oak Harbor.

Review of Internal Controls

DOD Instruction 5010.40, “Managers’ Internal Control Program (MICP) Procedures,” July 29, 2010, requires DOD Components to establish an MICP to review, assess, and report on the effectiveness of internal controls. NAVFAC NW internal controls over the planning, funding, execution, and tracking and reporting of Project P-236 were generally effective as they applied to the audit objective; however, NAVFAC NW did not comply with established controls for completing an economic analysis. During our review, NAVFAC NW officials took immediate corrective actions to complete the economic analysis.

Audit Results

We determined that Project P-236, “Replace Water Distribution System,” at NAS Whidbey Island was justified. NAVFAC NW officials adequately planned, funded, and initially executed Project P-236. However, the economic analysis was incomplete. Subsequently, NAVFAC NW officials implemented corrective action and completed the economic analysis to fully support the project’s justification. In addition, NAVFAC NW officials had processes and procedures to ensure tracking and reporting of contract actions, project status, contractor responsibilities, and Recovery Act requirements were met.

Naval Facilities Engineering Command Northwest and Naval Air Station Whidbey Island Officials Adequately Planned Project P-236

NAVFAC NW officials adequately planned Project P-236. DD Form 1391, “FY 2009 Military Construction Program,” described the project’s requirements, and the 2008 Water System Plan and detailed design drawings identified the water pipe lengths to be replaced. Although the economic analysis was used to identify, analyze, and compare costs and benefits of alternative courses of action needed to support the project, it was incomplete during our initial review.

DD Form 1391, “FY 2009 Military Construction Program.” NAVFAC NW officials prepared DD Form 1391, which documented the need for the project, to replace about 94,751 linear feet (LF) of asbestos cement water distribution lines at NAS Whidbey Island, consisting of Ault Field (65,124 LF) and Seaplane Base (29,627 LF). In addition, the project requirements included replacing water distribution lines connecting the two bases. NAVFAC NW officials derived their project scope from the NAS Whidbey Island 2008 Water System Plan, which was prepared by KPFF Consulting Engineers.

DD Form 1391 stated that the project was needed because safe potable water is required at NAS Whidbey Island and is critical to NAS Whidbey Island’s mission. Also, the asbestos cement water lines were installed between 1953 and 1969 and are now severely degraded or past their expected useful life. Because of the water lines’ age, NAS Whidbey Island officials stated they incurred expensive emergency repairs. In addition, DD Form 1391 stated that NAS Whidbey Island is in a seismic zone, and existing water lines may not perform adequately to resist earthquakes.

Project Justification Based on 2008 Water System Plan and Design Drawings. In July 2008, NAVFAC NW officials issued the 2008 Water System Plan for NAS Whidbey Island to satisfy the State of Washington’s requirements. The State requires administrators of any public water supply system with 1,000 customers (or more) to

prepare a comprehensive plan and update it every 6 years. The Water System Plan identified a total of 161,388 feet (ft)² of pipe that needed replacing. Table 2 provides the types of pipe and lengths identified in the Water System Plan.

Table 2. Pipes Needing Replacement

Type of Pipe	Length
Asbestos cement	127,764 ft ³
Cast iron	28,411 ft
Steel	5,213 ft
Total	161,388 ft

NAVFAC NW officials used the Water System Plan to justify the project’s need and to support replacing 94,751 LF of 127,764 ft of asbestos cement water distribution lines on Ault Field, Seaplane Base, and the lines connecting the two bases. NAVFAC NW officials also stated that the remaining 33,013 ft should be replaced as the budget allows. After completing the Water System Plan and DD Form 1391, project designers rerouted and resized the water lines to make them more efficient. Thus, NAVFAC NW officials reduced the project’s scope to replace 85,230 LF as identified in the project’s design drawings.

In April 2009, NAVFAC NW officials developed detailed design drawings for Project P-236, which showed the water pipes to be replaced at Ault Field, Seaplane Base, and the lines connecting the two bases. The design drawings identified a total of 85,230 LF of asbestos cement pipe to be replaced as a result of rerouting and resizing of pipes. The pipes’ rerouting and resizing reduced the scope from 94,751 LF to 85,230 LF. NAVFAC NW officials used historical data, field observations, and computer modelling to determine the amount of piping to replace. The design drawings identified eight contract line item numbers (CLINs) for water pipe replacement on Navy-owned property. NAVFAC NW officials exercised five of eight CLINs (for 67,880 LF of pipe) in September 2009. Therefore, based on the 2008 Water System Plan and the project design drawings, we concluded Project P-236 was justified and appropriately planned.

Economic Analysis Issues. The economic analysis used to support the justification for replacing the water distribution system at NAS Whidbey Island was incomplete. Specifically, four of the six key steps used in preparing the project’s economic analysis were not completed when determining the most efficient and effective use of resources.

² The Water System Plan uses feet as the unit of measurement. DD Form 1391 uses linear feet, but both measurements are comparable.

³ This total consists of 67,796 LF for Ault Field and 59,968 LF for Seaplane Base. The total LF for Seaplane Base includes the lines connecting the two bases.

NAVFAC Publication 442, "Economic Analysis Handbook," October 1993, states that the economic analysis is a systematic approach to identify, analyze, and compare costs and benefits of alternative courses of action to achieve a given set of objectives. A six-step approach is used to define the objective, generate alternatives, formulate assumptions, determine costs and benefits, compare costs and benefits and rank alternatives, and perform sensitivity analysis. NAVFAC NW personnel did not fully address four steps in their economic analysis, which were (1) define objective, (2) generate alternatives, (3) formulate assumptions, and (4) compare costs and benefits and rank alternatives. The incomplete economic analysis did not negatively impact the justification for the project. After we identified this issue, NAVFAC NW officials revised the economic analysis to complete the four steps that were not fully addressed. As a result, the economic analysis supported the justification for replacing the water distribution system at NAS Whidbey Island.

Recovery Act Funds Were Properly Distributed

NAVFAC Headquarters personnel distributed Recovery Act funds to Project P-236 in a timely manner. According to the funding document, \$20.1 million in Recovery Act funds was appropriated for Project P-236. The funding document properly identified the Recovery Act designation code. However, NAVFAC Headquarters personnel allocated approximately \$17.1 million of those funds to NAVFAC Atlantic for the project. According to NAVFAC Headquarters personnel, the remaining \$3 million will be used for other Recovery Act projects. NAVFAC NW officials received the \$17.1 million from NAVFAC Atlantic, awarded contract N44255-09-C-7003, and exercised five of the eight CLINs, which was valued at \$10.8 million. Subsequently, NAVFAC NW officials stated that two of the three remaining CLINs would not be exercised with Recovery Act funds as originally planned because acquiring property easements needed to exercise the two CLINs would not be completed in a timely manner. As a result, NAVFAC Atlantic officials withdrew \$3.4 million of the \$17.1 million from NAVFAC NW on July 22, 2010. Subsequently, NAVFAC Atlantic officials returned the \$3.4 million to NAVFAC Headquarters. NAVFAC NW officials expect to exercise the remaining CLIN by September 28, 2010, at an estimated cost of \$2.9 million.

Because NAVFAC Headquarters personnel withheld \$3 million in Recovery Act funds and NAVFAC Atlantic officials withdrew \$3.4 million from Project P-236, approximately \$6.4 million in savings from Project P-236 can be allocated to other Recovery Act projects. These savings can be allocated to other Recovery Act projects in accordance with Under Secretary of Defense (Comptroller)/Chief Financial Officer memorandum, "Project Cost Variations During Execution of American Recovery and Reinvestment Act Expenditure Plans for Infrastructure Investments," May 7, 2009, and "Revision to Policy Regarding Project Cost Variations During Execution of American Recovery and Reinvestment Act Expenditure Plans for Infrastructure Investments," January 11, 2010.

Contract Adequately Executed

The initial execution of Project P-236 was adequate. On September 28, 2009, NAVFAC NW officials competitively awarded contract N44255-09-C-7003 to Bulltrack-Watts-II, a Joint Venture. The firm-fixed-price contract (valued at \$10.8 million) included five of the eight CLINs that were identified in the design drawings. Two of the three remaining CLINs will not be exercised with Recovery Act funds as originally planned. However, NAVFAC NW officials stated that the remaining CLIN will still be exercised with Recovery Act funds and is expected to be exercised by September 28, 2010.

The FAR requires agencies to include specific Recovery Act clauses in contracts. NAVFAC NW officials included in the solicitation and contract all necessary Recovery Act clauses required by the FAR.

Processes and Procedures in Place to Ensure Project Tracking and Reporting

Although replacement of the water distribution system had not started at the time of our review, NAVFAC NW officials had processes and procedures in place to ensure tracking and reporting of contract actions, project status, contractor responsibilities, and ensure Recovery Act requirements are met. For example, the contract included guidance requiring the contractor to report Recovery Act information in accordance with FAR, Volume II, Subpart 52.2, “Text of Provisions and Clauses,” Clause 52.204-11, “American Recovery and Reinvestment Act–Reporting Requirements,” March 2009. FAR clause 52.204-11 requires the contractor to report project information, (such as contract and order numbers, assessment of the contractor’s progress, Recovery Act funds invoiced by the contractor, significant services performed, and types of jobs created and retained in the United States), at www.FederalReporting.gov. In addition, contracting personnel posted the contract pre-solicitation and award notices on the Federal Business Opportunities Web site in accordance with FAR, Part 5, Subpart 5.7, “Publicizing Requirements Under the American Recovery and Reinvestment Act of 2009,” March 31, 2009.

Project P-236 Was Justified

We concluded that Project P-236, “Replace Water Distribution System,” at NAS Whidbey Island was justified. However, we found that four of the six steps used in preparing the project’s economic analysis were incomplete. Therefore, the economic analysis did not fully identify, analyze, and compare costs and benefits of alternative courses of action for replacing the water distribution system. Subsequently, NAVFAC NW officials initiated corrective action by revising the economic analysis to fully support the project’s justification. As a result, DOD had reasonable assurance that NAVFAC NW and NAS Whidbey Island officials adequately planned Project P-236 and used Recovery Act funds appropriately. Therefore, this report contains no recommendations.

Appendix A. Scope and Methodology

Scope

We conducted this audit from September 2009 through September 2010. We conducted this audit in accordance with generally accepted government auditing standards. These standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our conclusions based on our audit objectives.

Project P-236, “Replace Water Distribution System,” at NAS Whidbey Island, Washington, (valued at \$20 million),⁴ is a Navy Military Construction project. The project replaces about 94,751 LF of asbestos cement water distribution lines on Ault Field, Seaplane Base, and the lines connecting the two bases. The requirements included:

- renovation of water distribution system at Ault Field measured at 59,564 LF, valued at \$7.9 million;
- renovation of water distribution system at Seaplane Base measured at 29,627 LF, valued at \$3.8 million;
- renovation of water distribution system at Racon Hill (located at Ault Field) measured at 5,560 LF, valued at \$880,000;
- real estate easements and franchises, valued at \$140,000;
- operation & maintenance support information, valued at \$50,000;
- special costs, valued at \$70,000;
- Leadership in Environmental and Energy Design and “Energy Policy Act of 2005” compliance, valued at \$250,000; and
- supporting facilities, valued at \$4.2 million.

Methodology

To meet our objective, we determined whether NAVFAC NW officials adequately planned, funded, executed, and tracked and reported Project P-236, “Replace Water Distribution System,” at NAS Whidbey Island, Washington, to ensure the appropriate use of Recovery Act funds. Also, we interviewed key personnel from NAVFAC NW. We reviewed DD Form 1391 requirements, economic analysis, 2008 Water System Plan, funding documents, cost documentation, criteria, contract, solicitation, and design drawings. Further, we toured Ault Field and Seaplane Base located at NAS Whidbey Island and the private property (non-Government-owned) where the lines connecting the two bases would be located.

⁴ Included in the total project costs of \$20 million, but not in the requirements above, are contingency, overhead, and design-build costs of about \$2.6 million.

Use of Computer-Processed Data

We used computer-processed data obtained from the Excluded Parties List System, Central Contractor Registration System, and the Federal Business Opportunities Web site. Specifically, we used computer-processed data such as DD Form 1391, economic analysis, cost estimates, requests for proposal, solicitation and task orders obtained from systems, such as Navy Electronic Commerce Online, e-Projects and RS Means. These systems are used for processing and maintaining Recovery Act and Military Construction related information. We compared the data to Recovery Act guidance to determine whether it met Recovery Act requirements and determine the validity of the project's requirements to replace 94,751 LF of asbestos cement pipes. The use of computer-processed data did not materially support our audit results, findings, or conclusions, and the information we used was obtained from sources generally recognized as appropriate. Therefore, we did not evaluate the reliability of the computer-processed data we used.

Use of Technical Assistance

Before selecting DOD Recovery Act projects for audit, personnel from the Quantitative Methods and Analysis Division (QMAD) of the DOD Office of Inspector General analyzed all DOD agency-funded projects, locations, and contracting oversight organizations to assess the risk of waste, fraud, and abuse associated with each. QMAD personnel selected most audit projects and locations using a modified Delphi technique, which allowed us to quantify the risk based on expert auditor judgment, and other quantitatively developed risk indicators. QMAD personnel used information collected from all projects to update and improve the risk assessment model. QMAD personnel selected 83 projects with the highest risk rankings; auditors chose some additional projects at the selected locations.

QMAD personnel did not use classical statistical sampling techniques that would permit generalizing results to the total population because there were too many potential variables with unknown parameters at the beginning of this analysis. The predictive analytic techniques employed provided a basis for logical coverage not only of Recovery Act dollars being expended, but also of types of projects and types of locations across the Military Services, Defense agencies, State National Guard units, and public works projects managed by United States Army Corps of Engineers.

Prior Audit Coverage

The Government Accountability Office, the Department of Defense Inspector General, and the Military Departments have issued reports and memoranda discussing DOD projects funded by the Recovery Act. You can access unrestricted reports at <http://www.recovery.gov/accountability>.

Appendix B. Recovery Act Criteria and Guidance

The following list includes the primary Recovery Act criteria and guidance used during our review:

- Public Law 111-5, “American Recovery and Reinvestment Act of 2009,” February 17, 2009
- Office of Management and Budget Memorandum M-09-15, “Updated Implementing Guidance for the American Recovery and Reinvestment Act of 2009,” April 3, 2009
- Office of the Chief of Naval Operations Naval Instruction 11010.20G, “Facilities Projects Instruction,” October 14, 2005
- NAVFAC P-442, “Economic Analysis Handbook,” October 1993



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