

**Board of Water Supply  
City and County of Honolulu**  
**Single Audit of Federal Financial Assistance Programs**  
**June 30, 2013**

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City and County of Honolulu  
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# **Introduction**

October 25, 2013

To the Board of Directors  
Board of Water Supply  
City and County of Honolulu

We have completed our audit of the financial statements of the Board of Water Supply ("BWS"), a component unit of the City and County of Honolulu, as of and for the year ended June 30, 2013. We have also audited the BWS's compliance with requirements applicable to its major federal financial assistance program. We submit herein our reports on compliance and on internal control over financial reporting and over federal awards, the BWS's schedule of expenditures of federal awards, and the schedule of findings and questioned costs.

The audit objectives and scope of the audit were as follows:

### **Audit Objectives**

1. To provide an opinion on the fair presentation of the BWS's financial statements and the schedule of expenditures of federal awards as of and for the year ended June 30, 2013 in accordance with accounting principles generally accepted in the United States of America.
2. To consider the BWS's internal control over financial reporting in order to design our auditing procedures for the purpose of expressing our opinion on the financial statements.
3. To perform tests of the BWS's compliance with certain provisions of laws, regulations, contracts and grant agreements that could have a direct and material effect on the determination of financial statement amounts.
4. To consider the BWS's internal control over compliance with the requirements that could have a direct and material effect on a major federal program in order to determine our auditing procedures for the purpose of expressing our opinion on compliance and to test and report on internal control over compliance in accordance with U.S. Office of Management and Budget ("OMB") Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*.

### **Scope of Audit**

We performed an audit of the BWS's financial statements and schedule of expenditures of federal awards as of and for the year ended June 30, 2013, in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the provisions of OMB Circular A-133.

## **Organization of Report**

Our report is organized as follows:

1. The Introduction describes the objectives and scope of our audit and the organization and contents of this report.
2. The Compliance and Internal Control over Financial Reporting contains our report on the BWS's internal control over financial reporting and on compliance and other matters based upon our audit of the BWS's financial statements.
3. The Compliance and Internal Control over Federal Awards contains our report on the BWS's compliance for each major program and on the internal control over compliance required by OMB Circular A-133, the BWS's schedule of expenditures of federal awards, and the schedule of findings and questioned costs.

Our report on the financial statements of the BWS as of and for the year ended June 30, 2013 is included under separate cover.

We will be pleased to discuss any questions that you may have regarding our report.

Very truly yours,

*Accuity LLP*

# **Compliance and Internal Control Over Financial Reporting**

**Report of Independent Auditors on Internal Control  
Over Financial Reporting and on Compliance and  
Other Matters Based on an Audit of Financial Statements  
Performed in Accordance with *Government Auditing Standards***

To the Board of Directors  
Board of Water Supply  
City and County of Honolulu

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Board of Water Supply ("BWS"), a component unit of the City and County of Honolulu, as of and for the year ended June 30, 2013, and the related notes to the financial statements, and have issued our report thereon dated October 25, 2013.

### **Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the BWS's internal control over financial reporting ("internal control") to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the BWS's internal control. Accordingly, we do not express an opinion on the effectiveness of the BWS's internal control.

*A deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified. We did identify a certain deficiency in internal control, described in the accompanying schedule of findings and questioned costs as Finding No. 2013-1 that we consider to be a significant deficiency.

## **Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the BWS's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

## **BWS's Response to Finding**

BWS's response to the finding identified in our audit is described in the accompanying schedule of findings and questioned costs. BWS's response was not subjected to the auditing procedures applied in the audit of the financial statements and accordingly, we express no opinion on it.

## **Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

*Accuity LLP*

Honolulu, Hawaii  
October 25, 2013



**Report of Independent Auditors on Compliance for  
Each Major Program and on Internal Control Over Compliance  
Required by OMB Circular A-133**

To the Board of Directors of  
The Board of Water Supply  
City and County of Honolulu

**Report on Compliance for Each Major Federal Program**

We have audited the Board of Water Supply's ("BWS"), a component unit of the City and County of Honolulu, compliance with the types of compliance requirements described in the *OMB Circular A-133 Compliance Supplement* that could have a direct and material effect on the BWS's major federal program for the year ended June 30, 2013. The BWS's major federal program is identified in the summary of auditor results section of the accompanying schedule of findings and questioned costs.

**Management's Responsibility**

Management is responsible for compliance with the requirements of laws, regulations, contracts and grants applicable to its federal programs.

**Auditors' Responsibility**

Our responsibility is to express an opinion on compliance for the BWS's major federal program based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*. Those standards and OMB Circular A-133 require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the BWS's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for its major federal program. However, our audit does not provide a legal determination of the BWS's compliance.

**Opinion on Each Major Federal Program**

In our opinion, the BWS complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on its major federal program for the year ended June 30, 2013.

## **Report on Internal Control Over Compliance**

Management of the BWS is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the BWS's internal control over compliance with the types of requirements that could have a direct and material effect on its major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for its major federal program and to test and report on internal control over compliance in accordance with OMB Circular A-133, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the BWS's internal control over compliance.

*A deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. *A material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. *A significant deficiency in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of OMB Circular A-133. Accordingly, this report is not suitable for any other purpose.

## **Report on Schedule of Expenditures of Federal Awards Required by OMB Circular A-133**

We have audited the financial statements of the BWS as of and for the year ended June 30, 2013, and the related notes to the financial statements. We issued our report thereon dated October 25, 2013, which contained an unmodified opinion on those financial statements. Our audit was conducted for the purpose of forming an opinion on the financial statements that comprise the basic financial statements. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by OMB Circular A-133 and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditure of federal awards is fairly stated in all material respects in relation to the basic financial statements as a whole.

*Accuity LLP*

Honolulu, Hawaii  
October 25, 2013

**Board of Water Supply  
City and County of Honolulu  
Schedule of Expenditures of Federal Awards  
Year Ended June 30, 2013**

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<b>Federal Program or Pass-Through Entity</b>	<b>Catalog of Federal Domestic Assistance ("CFDA") Number</b>	<b>Pass-through Entity Identifying Number</b>	<b>Federal Expenditures</b>
U.S. Environmental Protection Agency Pass-through from the State of Hawaii, Department of Health Capitalization Grants for Drinking Water State Revolving Funds	66.468	ASO LOG #13-124	\$ 1,232,011
	66.468	ASO LOG #13-122	646,474
	66.468	ASO LOG #06-170	284,575
Total expenditures of federal awards			<u>\$ 2,163,060 *</u>

(\*) Denotes major federal financial assistance program as defined by OMB Circular A-133.

See note to the schedule of expenditures of federal awards.

**Board of Water Supply  
City and County of Honolulu  
Note to Schedule of Expenditures of Federal Awards  
Year Ended June 30, 2013**

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**1. Basis of Presentation**

The accompanying schedule of expenditures of federal awards includes the federal grant activity of the BWS and is presented on the accrual basis of accounting. The information in this schedule is presented in accordance with the requirements of OMB Circular A-133, *Audits of States, Local Governments and Non-Profit Organizations*.

**Board of Water Supply  
City and County of Honolulu  
Schedule of Findings and Questioned Costs  
Year Ended June 30, 2013**

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**Section I – Summary of Auditors’ Results**

**Financial Statements**

Type of auditors’ report issued Unmodified

Internal control over financial reporting

- Material weakness(es) identified?     yes   X   no
- Significant deficiency(ies) identified?   X   yes     none reported

Noncompliance material to financial statements noted?     yes   X   no

**Federal Awards**

Internal control over major programs

- Material weakness(es) identified?     yes   X   no
- Significant deficiency(ies) identified?     yes   X   none reported

Type of auditors’ report issued on compliance for major programs Unmodified

Any audit findings disclosed that are required to be reported in accordance with section 510(a) of OMB Circular A-133?     yes   X   no

Identification of major program

<b>CFDA Number</b>	<b>Name of Federal Program or Cluster</b>
66.468	Capitalization Grants for Drinking Water State Revolving Funds

Dollar threshold used to distinguish between type A and type B programs \$300,000

Auditee qualified as low-risk auditee?   X   yes     no

**Board of Water Supply  
City and County of Honolulu  
Schedule of Findings and Questioned Costs  
Year Ended June 30, 2013**

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**Section II – Financial Statement Findings**

**Finding No. 2013-1: Information Technology (Significant Deficiency)**

**Condition**

Information technology (“IT”) is a strategic element of the Board of Water Supply’s (“BWS”) operations. Because of the high volume of transactions at the BWS, the establishment of internal controls over processes incorporating IT is critical to its operations. As part of our financial statement audit for the year ended June 30, 2013, we performed an IT general controls review of the following systems operated by the BWS:

- J.D. Edwards
- Oracle Utilities Customer Care and Billing
- Automated Meter Reading System
- Kronos Workforce Timekeeper

As the BWS migrated to a new customer information system in the year ended June 30, 2013, we performed additional migration testing over:

- Data Conversion
- Logical Security
- Interface Implementation
- Project Governance
- Reporting
- Project Risk Management

Our review resulted in several IT control deficiencies in the areas of IT governance, logical and physical security, change management, IT operations and system migration as follows:

IT governance

- Lack of management steering committee to review and approve IT plans and priorities

Logical and physical security

- Lack of formal information security policies and procedures for financial systems
- Weak password security
- User access rights not approved and granted on a need-to-know, need-to-do basis
- Physical access to sensitive equipment not appropriately restricted

Change management

- Lack of formal change management policies and procedures for certain financial systems
- Lack of IT segregation of duties
- Lack of user acceptance for configuration changes

IT operations

- Lack of system test restores
- Lack of monitoring batch processing for certain financial systems
- Lack of monitoring controls for certain financial system interfaces

# **Board of Water Supply City and County of Honolulu Schedule of Findings and Questioned Costs Year Ended June 30, 2013**

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## System migration

- Lack of validation by users for certain converted data
- Lack of validation by business for user access rights
- Lack of adequate user involvement in deriving bill estimation requirements
- Failure to adequately address business readiness concerns

Collectively, the number and related nature of the IT control deficiencies resulted in an overall significant deficiency.

## **Effect**

Internal controls in the areas of IT governance, logical and physical security, change management, IT operations and system migration address the following risks:

### IT governance

Control environment not appropriately supported by management, setting a weak tone at the top, causing a lack of accountability with employees. IT risk management process not in place to support financial reporting requirements.

### Logical and physical security

Unauthorized access to financial systems could result in the loss of data, unauthorized or nonexistent transactions being made or transactions being inaccurately recorded.

### Change management

Unauthorized or untested changes promoted to the production environment could cause the financial systems to either process data differently than intended or unexpectedly compromise the integrity of the data maintained.

### IT operations

Programs and processes are not executed as planned and deviations from scheduled processing are not identified and investigated causing data integrity concerns. There exists an inability to correct or recover from data loss, corruption, or data integrity concerns.

### System migration

Data conversion errors could cause data integrity concerns. Project management and governance may not be effective to ensure business objectives are met.

## **Recommendations**

We recommend that BWS perform the following:

- Formally hold management steering committee meetings for IT on a monthly or bi-monthly basis.
- Update IT policies and procedures to include internal control procedures.
- Identify methods to ensure IT policies and procedures are consistently followed.
- Remove user access that is not commensurate with job responsibilities.
- Implement formal change management policies and procedures.
- Identify methods to ensure change management policies and procedures are consistently followed.
- Perform formal system restoration testing.
- Implement monitoring controls over batch processing.
- Implement a standard project management framework which includes appropriate training.

**Board of Water Supply  
City and County of Honolulu  
Schedule of Findings and Questioned Costs  
Year Ended June 30, 2013**

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**Section III – Federal Award Findings and Questioned Costs**

None

**Section IV – Status of Prior Year Findings and Questioned Costs**

None



# **Corrective Action Plan**

## BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU  
630 SOUTH BERETANIA STREET  
HONOLULU, HI 96843



October 18, 2013

KIRK CALDWELL, MAYOR

DUANE R. MIYASHIRO, Chairman  
MAHEALANI CYPHER, Vice Chair  
THERESIA C. McMURDO  
ADAM C. WONG  
DAVID C. HULIHEE

ROSS S. SASAMURA, Ex-Officio  
GLENN M. OKIMOTO, Ex-Officio

ERNEST Y. W. LAU, P.E.  
Manager and Chief Engineer

ELLEN E. KITAMURA, P.E.  
Deputy Manager and Chief Engineer

Chairman and Members  
Board of Water Supply  
City and County of Honolulu  
Honolulu, Hawaii 96843

Accuity LLP  
Attn: Ms. Cindy Yee  
999 Bishop Street, Suite 1900  
Honolulu, Hawaii 96813

Subject: IT General Controls Review and Management Letter Comments on  
the Financial Statement Audit for the Year Ended June 30, 2013

The Honolulu Board of Water Supply (BWS) has reviewed the IT audit findings and the IT Management Report submitted by Accuity, LLP. Subsequent to this review, the BWS has taken steps to address the recommendations stated therein via the Formal Response and Corrective Action statement (attached).

As with any audit, management welcomes the comments and recommendation of the auditor that will assist us in becoming more efficient and effective in serving our customers and community.

We look forward to working with Accuity during the current year to gain a stronger understanding of the audit process and clarity of audit documentation requirements along with their continued assistance in the development and implementation of our corrective action plan to appropriately address the audit findings, concerns, and recommendations.

In closing, I would like to acknowledge the considerable efforts of Accuity and IT staff to complete the audit in the specified time frame and the constrained resources of our IT Division.

Respectfully submitted,

ERNEST Y. W. LAU, P.E.  
Manager and Chief Engineer

Attachment

Board of Water Supply  
Accuity IT Management Letter  
Formal Response and Corrective Action  
October 15, 2013

The Honolulu Board of Water Supply (BWS) acknowledges receipt of the IT Management Letter from Accuity LLP regarding the audit of IT systems, which was performed in support of the financial statement audit for the fiscal year ended June 30, 2013.

The letter cited several areas of concern, resulting in an overall significant deficiency. While we share in the auditors concerns, and although we may have some differences on specific issues or findings, we acknowledge these findings and note that improvements can and/or have already been made in the areas of:

- IT Governance
- Logical and Physical Security
- Change Management
- IT Operations
- System Migration

The following will serve as a formal response to the recommendations noted in Accuity's IT Management Letter.

#### **IT Governance**

**Recommendation:**

Formally hold management steering committee meetings for IT on a monthly or bi-monthly basis.

**Corrective Action:** *Ongoing – Target end of 2Q FY14*

*Management Steering Committee members currently have been identified, with the first meeting to be conducted before the end of the 2<sup>nd</sup> fiscal quarter.*

**Responsible Person:** Ernest Y. W. Lau, Manager and Chief Engineer

#### **Logical and Physical Security**

**Recommendation:**

Update IT policies and procedures to include internal control procedures.

**Corrective Action:** *Ongoing – Target 4Q FY14*

*This has begun and all areas of IT are working towards addressing this item. We expect completion prior to but no later than the 4<sup>th</sup> fiscal quarter.*

**Responsible Person:** Henderson Nuuhiwa, IT Principal Executive

Board of Water Supply  
Accuity IT Management Letter  
Formal Response and Corrective Action  
October 15, 2013

**Recommendation:**

Identify methods to ensure IT policies and procedures are consistently followed.

**Corrective Action:** *Ongoing – Target 4Q FY14*

*Policies and Procedures mentioned previously, and methods noted here will be addressed concurrently.*

**Responsible Person:** Henderson Nuuhiwa, IT Principal Executive

**Recommendation:**

Remove user access that is not commensurate with job responsibilities.

**Corrective Action:** *Completed*

*IT Operations and Applications Development has already removed the inappropriate user access. Procedures have been implemented to ensure this is undertaken on a recurring basis.*

**Responsible Person:** Henderson Nuuhiwa, IT Principal Executive

**Change Management**

**Recommendation:** Implement formal change management policies and procedures.

**Corrective Action:** *Ongoing*

*The BWS' change management process for changes to configuration and code promotion are well documented and retained in the production change log or the Issues and Defects Database. User requested changes are managed through the current IT Change Request Procedure that is also well documented, and incorporates an analysis of level of effort/cost, benefit/requirements to be addressed, and approval reviews and signatures (both user and IT). Evidence of these procedures were provided to Accuity, LLP during the audit process. With this stated, BWS will work with the auditor during the current year to identify and implement the necessary improvements as needed.*

**Responsible Person:** Henderson Nuuhiwa, IT Principal Executive

**Recommendation:** Identify methods to ensure change management policies and procedures are consistently followed.

**Corrective Action:** *Ongoing*

*Similar to the corrective stated above, BWS will work with the auditor to identify and implement methods that will address concerns in this area.*

**Responsible Person:** Henderson Nuuhiwa, IT Principal Executive

Board of Water Supply  
Accuity IT Management Letter  
Formal Response and Corrective Action  
October 15, 2013

**IT Operations**

**Recommendation:** Perform formal system restoration testing.

**Corrective Action:** *Ongoing– Target 4Q FY14*

*IT Operations has adjusted its process to perform recurring system restoration testing, inclusive of user participation. Scheduling of this test is targeted for the 4<sup>th</sup> quarter of the fiscal year. Specific dates are being identified, with a goal of minimizing the impact to internal and external customers.*

**Responsible Person:** Henderson Nuuhiwa, IT Principal Executive

**Recommendation:** Implement monitoring controls over batch processing.

**Corrective Action:** *Ongoing – Target 3Q FY14*

*System Administrators are replacing the existing batch scheduler with BMC Control-M which has monitoring capability. Scheduling of this is still being identified, and will be accomplished after the recently upgraded JDE system is determined to be stable.*

**Responsible Person:** Henderson Nuuhiwa, IT Principal Executive

**System Migration**

**Recommendation:** Implement a standard project management framework which includes appropriate training.

**Corrective Action:** *Ongoing*

*A standard project management framework exists which has extensive task items for various methods of training (e.g. formal classroom training, train the trainer, recurring training, workbook creation, etc.). That being said, BWS will work with the auditor to assist in a review of our existing methodology to identify where improvements can be made.*

**Responsible Person:** Henderson Nuuhiwa, IT Principal Executive