DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

Board of Directors

Audit Committee

Thursday, September 26, 2013

9:30 a.m.

1. **Call to Order** .....Bradford Seamon, Chairperson

2. **Introductory Remarks from KPMG regarding the financial statements audit**…….. . Terri Whitt

3. **Review of Quarterly Financial Statements**…. ……..... ...Temi Abosede

4. **Review of Proposed Internal Audit Plan for FY2014** ……..…….....Dennis FitzGerald

5. **Review of Internal Audit Status**…….....Dennis FitzGerald

   A. Network Access & Security report
   B. Process Control System ("PCS") Report
   C. Engineering Project Prioritization report

6. **Action Item:**
   Contract No. WAS-09-038-AA-MB, SC&H Group

7. **Executive Session**…….. Bradford Seamon

8. **Adjournment**

KPMG

cutting through complexity

District of Columbia Water and Sewer Authority

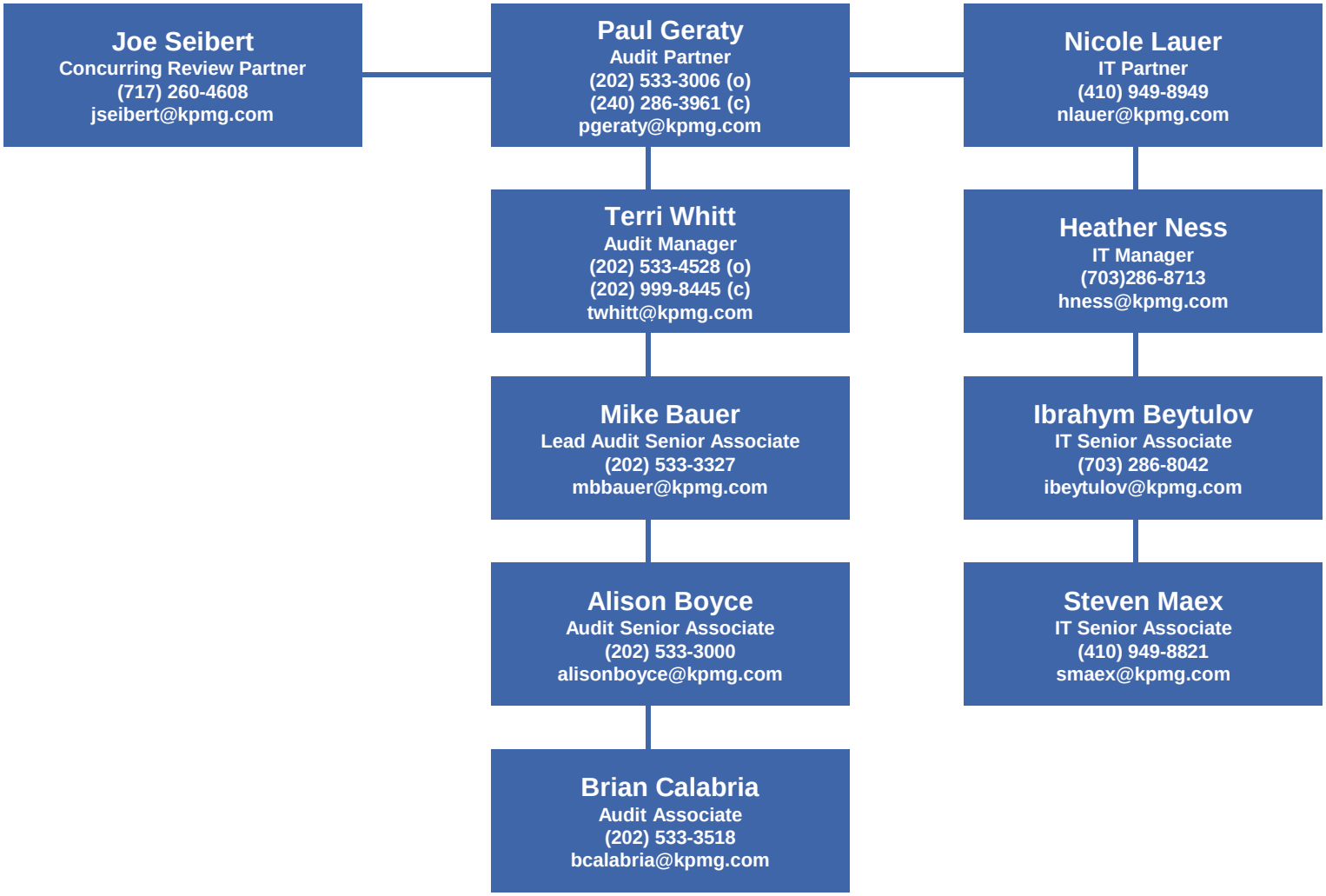
Financial Statement Audit & OMB Circular A-133 Single Audit Fiscal Year 2013 – Entrance Conference

September 26, 2013

Meeting Objectives

- Introductions
- DC Water Engagement Team
- Scope
- KPMG's Responsibilities
- KPMG's Responsibilities to Those Charged with Governance
- Management's Responsibilities
- KPMG's Financial Statement Audit Approach
- KPMG's Single Audit Methodology
- IT Audit Approach
- Audit Timeline
- Audit Deliverables
- Audit Strategies – KPMG
- Notice of Finding and Recommendation (NFR) Process
- Administrative and Other Matters

The DC Water Engagement Team



Scope

- Audit of FY 2013 DC Water Financial Statements and OMB Circular A-133 Single Audit
  - Report on financial statements
  - Report on Internal Control over Financial Reporting and Compliance with Laws and Regulations Based on Audit of Financial Statements Performed in Accordance with Government Auditing Standards
  - Report on Compliance with Requirements that Could Have a Direct and Material Effect on Each Major Program and on Internal Control Over Compliance in Accordance with OMB Circular A-133
- Follow-up on findings, comments, and recommendations from the FY 2012 audit
- Management Letter

KPMG's Responsibilities

Financial Statement Audit

- The objective of an audit of financial statements is to enable the auditor to express an opinion whether the financial statements are prepared, in all material respects, in accordance with U.S. GAAP
  - Because of the nature of audit evidence and the characteristics of fraud, we are able to obtain reasonable, but not absolute, assurance that material misstatements will be detected.
  - To test and report on internal control over financial reporting, but not to opine, to ensure that DC Water has sufficient controls to address the risk of fraud and the risk of management override of other controls.
  - We will conduct the audit in accordance with auditing standards generally accepted in the U.S. and *Government Auditing Standards*, issued by the Comptroller General of the United States.

KPMG's Responsibilities (Continued)

OMB Circular A-133 Audit (Single Audit)

- The objective of a Single Audit is to enable the auditor to express an opinion on the compliance requirements for each major Federal program.
  - A single audit is designed to provide reasonable assurance about whether noncompliance with OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*, compliance requirements could have a direct and material effect on each major Federal program.
  - To test and report on internal control over compliance in accordance with OMB Circular A-133, but not to opine.

KPMG's Responsibilities (continued)

- Comply with the Code of Professional Conduct adopted by the AICPA
- Perform the audit with an attitude of professional skepticism.
- Issuing the independent auditors' reports (previously discussed)
- Issuing a management letter, if necessary
- Reading the other accompanying information included in DC Water's Annual Report to identify material inconsistencies or misstatement of facts, if any, with the audited financial statements
  - Our auditors' report on the financial statements does not extend to other information in documents containing audited financial statements

KPMG's Responsibilities To Those Charged with Governance

- Communicate all required information to management and those charged with governance (i.e., SAS 114):
  - Significant matters
  - Significant deficiencies and material weaknesses in internal control identified in the audit
  - Instances of non-compliance with A-133 compliance requirements
- Issuing the independent auditors' reports (previously discussed)
- Issuing a management letter, if necessary

Management's Responsibilities

- Adopting sound accounting policies and procedures
- Fairly presenting the financial statements in conformity with U.S. GAAP promulgated by the Government Accounting Standards Board (GASB)
- Fairly presenting federally funded expenditures in conformity with OMB Circular A-133's compliance requirements in the Schedule of Expenditures of Federal Awards (SEFA)
- Establishing and maintaining effective internal control over financial reporting
- Establishing and maintaining effective internal controls to prevent, deter, and detect fraud
- Establishing and maintaining effective internal controls to ensure compliance with OMB Circular A-133 compliance requirements for expenditures funded by federal dollars
- Identifying and confirming that DC Water complies with laws and regulations that are direct and material to its financial statements and major Federal award programs
- Complying with the requirements of laws, regulations, contracts, and grants applicable to its Federal programs.
- Making all financial records and related information available to us
- Providing us with a management representation letter confirming certain representations made during the financial statement audit and Single Audit

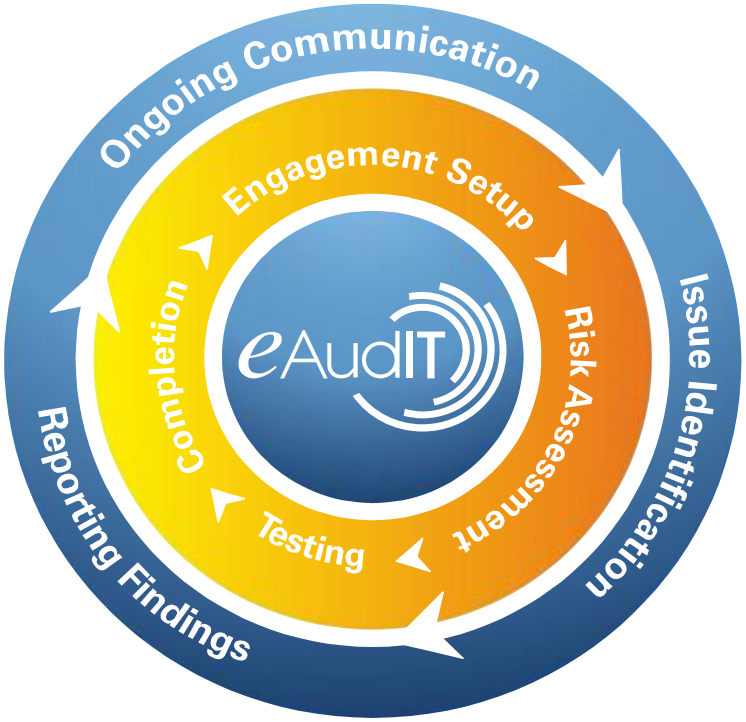
KPMG Financial Statement Audit Approach

Engagement Setup

- Tailor the eAudIT workflow to your circumstances
- Access global knowledge specific to your industry

Completion

- Form and issue audit opinion on financial statements
- Issue management letter
- Debrief audit process



Risk Assessment

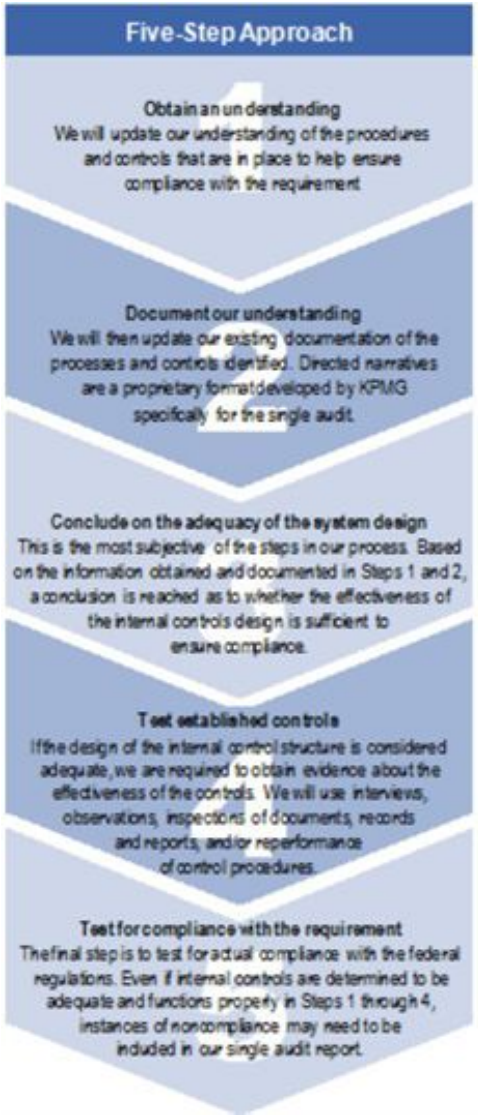
- Understand business and financial processes
- Identify significant risks
- Determine audit approach
- Evaluate design and implementation of internal controls

Testing

- Test effectiveness of internal controls
- Perform substantive tests
- Check financial statements

KPMG's Single Audit Methodology (SAM)

The Single Audit Procedures will be Integrated with the Financial Statement Audit Procedures



Utilize KPMG Proprietary OMB Circular A-133 Single Audit Workflow (SAW)

IT Audit Approach

- Obtain overview of IT environment including:
  - Key IT roles and responsibilities
  - Policies and procedures in place to guide IT operations
  - Key systems related to financial reporting

- Identify key automated business process (application) controls in areas such as:
  - Payroll/HR
  - A/P and Procurement
  - A/R and Revenue
  - Financial Reporting
- Identify and review general IT controls that support consistent operation of identified application controls in areas such as:
  - Access to programs and data
  - Program change
  - Program development
  - Computer operations

Audit Timeline

Phase	Timeframe
Planning	8/5/13 – 8/25/13
Process Understanding	8/19/13 – 9/8/13
Interim Internal Control Testwork	9/2/13 – 9/22/13
Break	9/23/13 – 10/13/13
Final Internal Control Testwork	10/13/13 – 10/25/13
Substantive Testwork	10/13/13 – 11/22/13
Financial Reporting	11/1/13 – 12/6/13

Note: The Single Audit will be performed throughout the financial statement audit.

Deliverables

Deliverable	Date
Draft Management Representation Letter	11/8/13
Draft liftable audit	12/6/13
Draft Report on compliance with OMB Circular A-133 requirements	12/6/13
Liftable audit opinion on the MD&A, Financial Statements, and Footnotes	12/13/13
Report on compliance with OMB Circular A-133 requirements	12/13/13
Review of Data Collection Form	12/16/13
Review of Annual Report	12/31/13
Audit opinion on the CAFR	1/24/14

Audit Strategies – KPMG

- All Processes: Interim internal control testwork over period 10/1-6/30
- Updating our understanding for the 4th quarter through a combination of inquiries and sampling techniques during final phase of the audit
- Performing some substantive procedures at an interim date [using June 30th hard close]
- Testing reasonableness of DC Water's year-end CIP transfers methodology at interim (as of 6/30)
- Testing OMB Circular A-133 compliance requirements during the financial statement audit
- Providing comments on FY 2012 financial statements early in process to identify any financial reporting issues prior to preparation of the FY 2013 financial statements

Notice of Finding and Recommendation (NFR) Process

- Verify factual accuracy of NFR condition
- Communicate to management of the issue
- Issue formal NFR
- NFR Response requirements
  - Concur or don't concur with the facts of the condition
  - Signed and dated
  - Complete section for management's response, if necessary
- Provide responses within 5 business days or less of distribution

Administrative and Other Matters

- Status meetings (Bi-weekly during interim and weekly during final)
- Management and legal representation letters
- Building access badges & parking lot access
- DC Water desktop to access Share drive for PBCs and email account

For Your Reference

- KPMG Ethics and Compliance Hotline
  - **Scope** – To provide a confidential, non-retaliatory, and anonymous hotline to the following individuals/organizations for the good faith reporting of concerns about possible violations of law, professional and ethical standards, and KPMG policy.
    - Available to KPMG partners and employees, as well as clients, contractors, vendors, and others in a business relationship with KPMG, including other KPMG member firms whose partners and employees may be working with the U.S. firm on engagements with U.S. clients
  - **Contact information**
    - Phone: 1-877-576-4033
    - Website: www.kpmgethics.com
- KPMG Government Institute*
  - **Scope** – To serve as a strategic resource for government at all levels, and also for higher education and non-profit entities seeking to achieve high standards of accountability, transparency, and performance. The institute is a forum for ideas, a place to share leading practices, and a source of thought leadership to help governments address difficult challenges such as effective performance management, regulatory compliance, and fully leveraging technology.
  - **Contact information**
    - Jeff Steinhoff, Executive Director (jsteinhoff@kpmg.com)
    - Website: www.kpmginstitutes.com/government-institute/

*The KPMG Government Institute is a member of the KPMG Institute Network (www.kpmginstitutes.com).

Open Discussion/ Questions

Questions…Comments…Concerns?

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

(UNAUDITED) QUARTERLY FINANCIAL REPORTS

JUNE 30, 2013

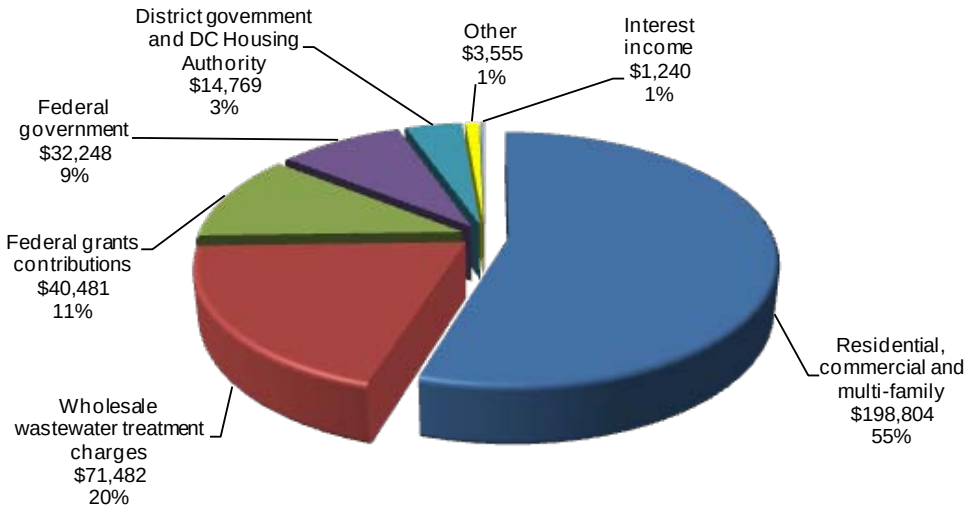
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
UNAUDITED FINANCIAL REPORT FOR THE QUARTER ENDING JUNE 30, 2013.

This report summarizes District of Columbia Water and Sewer Authority's (DC Water or the Authority) third quarter 2013 financial performance for revenues and expenses.

Total Revenues

Total revenues for the third quarter were $362.6 million, an increase of $3.5 million, or 1.0 percent over third quarter of last year.

Third Quarter Ended June 30, 2013
Total Revenues ($ in 000's)



- Residential, commercial and multi-family revenue increased by $14.0 million to $198.8 million, or 7.5 percent primarily due to a retail rate increase of 4.5 percent coupled by a 1.0 percent increase in water consumption.

- Federal government revenue decreased by $1.8 million to $32.2 million, or 5.3 percent primarily due to a retail rate increase of 4.5 percent which was offset by a 18.0 percent decrease in water consumption.

- Revenue from the District government and D.C. Housing Authority decreased by $3.3 million to $14.8 million, or 18.2 percent primarily due to a retail rate increase of 4.5 percent which was offset by a $2.74 million, or 20.0 percent adjustment relating to the St. Elizabeth Hospital.

- Revenue from other jurisdictions for wholesale wastewater treatment charges increased by $1.8 million to $71.5 million, or 2.7 percent primarily due to increased spending on shareable costs.

- Other revenue decreased by $5.1 million to $3.6 million or 59.1% primarily due to $2.9 million in rebates given to retail customers during the second quarter of the current fiscal year, coupled by a $0.7 million billings adjustment relating to the District government.

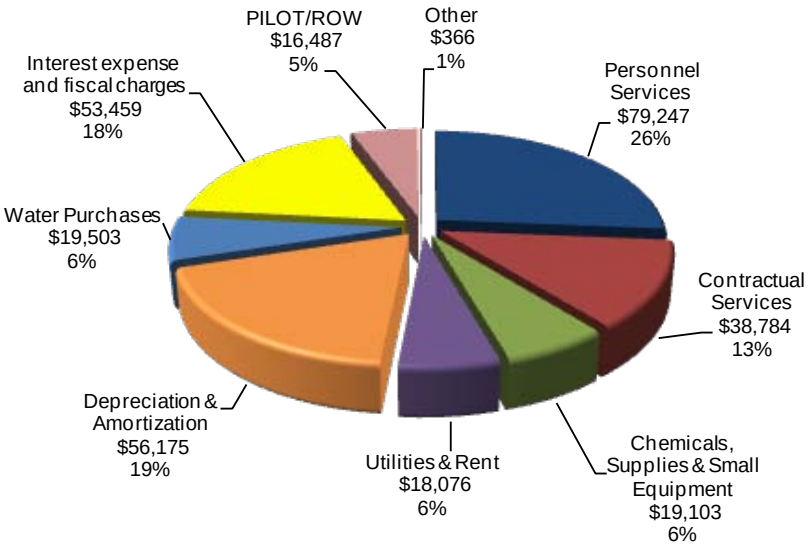
- Federal grants and contributions decreased by $2.3 million to $40.5 million, or 5.3 percent primarily due to decreased capital spending on grant-eligible capital projects.

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
UNAUDITED FINANCIAL REPORT FOR THE QUARTER ENDING JUNE 30, 2013.

Total Expenses

Total expenses for the third quarter were $301.2 million, an increase of $2.4 million, or 0.8 percent over third quarter of last year.

Third Quarter Ended June 30, 2013
Total Expenses ($ in 000's)



- Personnel services increased by $3.7 million to $79.2 million or 4.8 percent primarily due to increased head count, non-union bonus payments and additional holiday and overtime associated with the Martin Luther King holiday and presidential inauguration.

- Contractual services includes outside legal and financial services, maintenance and repairs of machinery and other temporary services. This category slightly increased by $0.1 million to $38.8 million, or 0.4 percent over the same period last year.

- Chemicals and supplies increased by $0.8 million to $19.1 million, or 4.3% due to increased usage of sodium hydroxide caused by change in effluent characteristics, coupled with increase in unit cost of lime and methanol.

- Utilities and rent includes costs for electricity, fuels, water and rent for several office spaces decreased by $1.3 million to $18.1 million, or 6.8 percent primarily due to lower electricity costs.

- Depreciation and amortization increased by $2.4 million to $56.2 million, or 4.4 percent over the same period primarily due to increases in capital spending in line with the Authority's capital improvement program.

- Water purchases decreased by $0.7 million to $19.5 million or 3.4 percent primarily due to 5.0 percent decrease in cost of water purchased from the Washington aqueduct.

- Interest expense and fiscal charges decreased by $1.2 million to $53.5 million, or 2.3 percent over the same period last year primarily due to write off of an exempt receivable.

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Statements of Net Assets
For the Nine Months Ended June 30, 2013 and Fiscal Year 2012
(In thousands)

	Unaudited	
	June 30	**September 30**
Assets	**2013**	**2012**
Current assets:		
Cash and cash equivalents	$ 121,535	$ 94,472
Investments	80,521	100,489
Customer receivables, net of allowance for doubtful accounts of $9,378 in 2013 and $15,271 in 2012	45,336	50,233
Due from Federal government	26,896	23,491
Due from other jurisdictions	33,408	7,975
Inventory	6,681	6,674
Due from District government	1,376	1,964
Prepaid assets	1,086	519
Due from Storm Water Fund	171	—
Total current assets	317,010	285,817
Noncurrent assets:		
Restricted assets:		
Cash and cash equivalents	128,864	175,567
Investments	53,321	203,940
Total restricted cash equivalents and investments	182,185	379,507
Utility plant:		
In-service	3,708,419	3,706,354
Less accumulated depreciation	(1,100,649)	(1,049,548)
Net utility plant in service	2,607,770	2,656,806
Construction-in-progress	1,164,559	807,430
Net utility plant	3,772,329	3,464,236
Other noncurrent assets:		
Purchased capacity, net of accumulated amortization of $69,877 in 2013 and $65,833 in 2012	249,962	254,007
Unamortized bond issuance costs	18,924	19,536
Due from other jurisdictions	12,506	12,506
Total other noncurrent assets	281,392	286,049
Total noncurrent assets	4,235,906	4,129,792
Total assets	4,552,916	4,415,609
Liabilities		
Current liabilities:		
Accounts payable and accrued expenses	114,240	143,375
Compensation payable	19,359	18,302
Accrued interest	21,552	43,841
Deferred revenue	52,552	42,875
Commercial paper notes payable	41,200	41,200
Current maturities of long-term debt	341	19,692
Due to jurisdictions	7,645	7,645
Due to Storm Water Fund	—	473
Total current liabilities	256,889	317,403
Noncurrent liabilities:		
Deferred revenue	1,212,082	1,071,616
Long-term debt, excluding current maturities	1,811,891	1,813,967
Deferred revenue - combined sewer overflow	24,619	27,788
Other liabilities	28,314	27,093
Total noncurrent liabilities	3,076,906	2,940,464
Total liabilities	3,333,795	3,257,867
Net Assets		
Invested in utility plant, net of related debt	1,052,537	1,035,584
Restricted for:		
Debt service	46,901	51,344
Capital projects	12,240	12,253
Unrestricted	107,443	58,561
Total net assets	$ 1,219,121	$ 1,157,742

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Statements of Revenues, Expenses and Change in Net Assets
For the Nine Months Ended June 30, 2013 and Fiscal Year 2012
(In thousands)

	Unaudited	
	June 30 2013	**June 30 2012**
Operating revenues:		
Water and wastewater user charges:		
Residential, commercial and multi-family customers	$ 198,804	$ 184,865
Federal government	32,248	34,057
District government and D.C. Housing Authority	14,769	18,047
Charges for wholesale wastewater treatment	71,482	69,631
Other	3,555	8,689
Total operating revenues	320,858	315,289
Operating expenses:		
Personnel services	79,247	75,583
Contractual services	38,784	38,650
Chemicals, supplies and small equipment	19,103	18,308
Utilities and rent	18,076	19,399
Depreciation and amortization	56,175	53,790
Water purchases	19,503	20,187
Other	366	1,662
Total operating expenses	231,254	227,579
Operating income	89,604	87,710
Non-operating revenues (expenses):		
Interest income	1,240	1,038
Payment in lieu of taxes and right of way fee	(16,487)	(16,487)
Interest expense	(63,311)	(60,926)
Fiscal and other charges	9,852	6,227
Total non-operating revenues (expenses)	(68,706)	(70,148)
Change in net assets before Federal grants and contributions	20,898	17,562
Federal grants and contributions	40,481	42,745
Change in net assets	61,379	60,307
Net assets, beginning of fiscal year	1,157,742	1,072,218
Net assets, ending	$ 1,219,121	$ 1,132,525

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
Statements of Cash Flows
For the Nine Months Ended June 30, 2013 and Fiscal Year 2012
(In thousands)

	Unaudited	
	June 30 2013	**September 30 2012**
Cash flows from operating activities:		
Cash received from customers	$ 310,485	$ 425,174
Cash paid to suppliers for goods and services	(106,890)	(149,123)
Cash paid to employees for services	(78,190)	(96,230)
Net cash provided by operating activities	125,405	179,821
Cash flows from capital and related financing activities:		
Proceeds from issuance of revenue bonds	—	491,102
Proceeds from other jurisdictions	140,406	174,259
Repayments of bond principal and notes payable to Federal and District governments	(19,351)	(194,941)
Acquisition of utility plant and purchased capacity	(377,985)	(472,377)
Payments of interest and fiscal charges	(86,213)	(96,393)
Contributions of capital from Federal government	38,379	39,560
Proceeds from issuance of commercial paper	—	6,000
Net cash (used in) provided by capital and related financing activities	(304,764)	(52,790)
Cash flows from non-capital financing activities:		
Transfers out (payment in lieu of taxes and right of way fee)	(11,852)	(17,514)
Net cash used by non-capital financing activities	(11,852)	(17,514)
Cash flows from investing activities:		
Cash received for interest	982	1,068
Investment purchases	(255,071)	(730,705)
Investment maturities	425,660	679,161
Net cash provided by (used in) investing activities	171,571	(50,476)
Net (decrease) increase in cash and cash equivalents	(19,640)	59,041
Cash and cash equivalents (including restricted) at beginning of year	270,039	210,998
Cash and cash equivalents (including restricted) at end of year	$ 250,399	$ 270,039
Operating income	$ 89,604	$ 119,511
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation and amortization	56,175	74,342
Change in operating assets and liabilities:		
Decrease in customer and other receivables	(4,256)	(3,127)
(Increase) decrease in inventory	(574)	275
Decrease in payables and accrued liabilities	(9,843)	(1,750)
Decrease in deferred revenue	(5,701)	(9,430)
Net cash provided by operating activities	$ 125,405	$ 179,821

Proposed FY 2014 Internal Audit Plan

SC&H GROUP, LLC

FY 2014 Internal Audit Plan

ACTIVITY	OVERALL LIKELIHOOD	OVERALL IMPACT	COMMENTS	Est. Hrs FY2014	Date Last Audited
Maintenance Services	High	High		300	FY2013
Procurement Operations	High	High		350	FY2010
Warehousing & Inventory	High	Moderate		350	FY2013
Disposal of Assets	High	Moderate		325	
IT - Asset Management	High	Moderate		250	
IT - Lawson Integration	High	Moderate		250	
Employee Benefit Plans	High	Moderate		325	
OSHA	Moderate	High		200	
Clean Rivers Project Management	Moderate	High		325	
GIS System	Moderate	Moderate		300	
Outside Contractor Management	Moderate	Moderate		250	
Business Continuity	Moderate	Moderate		300	
Legal Operations	Moderate	Moderate		275	
Sewer Services - Distribution	Moderate	Moderate		250	
Board meetings, Management team meetings, Status Reporting				400	
Management Requests and Special Investigations			Internal Audit is available to assist with other special projects as requested by management and/or the Audit Committee.	400	
Follow-up			Follow-up will be conducted based on FY13 Internal Audit findings and mamagement's action plans to ensure appropriate and effective resolution of findings.	600	
Update Risk Assessment and Develop Plan			Review the existing Audit Universe and riks identified to determine whether any organizational changes impact the processes identified or risk ratings.	150	
Operation of DC Water Fraud, Waste & Abuse Hotline				400	
TOTAL				6000	

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FY 2014 Internal Audit Plan

Q1 2014	Est. Hrs	Q2 2014	Est. Hrs	Q3 2014	Est. Hrs	Q4 2014	Est. Hrs
Legal Operations	275	Employee Benefit Plans	325	Procurement	325	Maintenance Services	300
		Sewer Services - Distribution	275	OSHA	100		
Disposal of Assets	325						
		Outside Contractor Management	125	IT-Asset Management	250	Warehousing & Inventory	350
Clean Rivers Project Management	325	Business Continuity	300	GIS System	300	IT- Lawson Integration	250
OSHA	100			Outside Contractor Management	125		
Follow-Up Activity	150	Follow-Up Activity	150	Follow-Up Activity	150	Follow-Up Activity	150
						Update Risk Assessment & FY2012 Internal Audit Plan	150
Board Meetings, Management Team Meetings & Status Reporting	100	Board Meetings, Management Team Meetings & Status Reporting	100	Board Meetings, Management Team Meetings & Status Reporting	100	Board Meetings, Management Team Meetings & Status Reporting	100
Total IA Hours	**1275**	**Total IA Hours**	**1275**		**1350**		**1300**
		Plus: **Management Requests & Special Projects**					**400**
		Operation of DC Water Fraud, Waste & Abuse Hotline					**400**
		Total FY2014					**6000**

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FY 2014 Risk Assessment Results

Audit Universe	LIKELIHOOD	IMPACT	LAST AUDITED
Regulatory Compliance Monitoring	High	High	FY2010; FY2013
Maintenance Services	High	High	FY2012
Procurement Operations	High	High	FY2010
Capital Projects	High	High	FY2012
IT - External Network Intrusion	High	High	FY2010; FY2013
IT Operating & Business Applications (Lawson, Maximo, AMR, Ceridian)	High	High	FY2011
Warehouse & Inventory	High	Moderate	FY2012
IT Governance	High	Moderate	FY2012
IT Asset Management	High	Moderate	
Disposal of Assets	High	Moderate	
Employee Benefit Plans			
Engineering Project Planning & Design; Procurement	Moderate	High	FY2010; FY2013
Engineering Contractor Management and Project Management	Moderate	High	FY2012
Clean Rivers - Engineering Project Planning; Design and Management	Moderate	High	
Process Control System (PCS)	Moderate	High	FY2013
Water Leakage Monitoring	Moderate	High	FY2011
Automated Meter Reading & Customer Billing	Moderate	High	FY2011
Fleet Management	Moderate	High	FY2011; FY2013
Accounts Payable	Moderate	High	FY2012
General Ledger	Moderate	High	
Investments	Moderate	High	FY2013
Debt Management	Moderate	High	
Chemical Purchasing	Moderate	High	FY2013
OSHA	Moderate	High	

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FY 2014 Risk Assessment Results

Audit Universe	LIKELIHOOD	IMPACT	LAST AUDITED
Organization Policies & Procedures	Moderate	Moderate	FY2010
Organization Governance	Moderate	Moderate	
Legal Operations	Moderate	Moderate	
Government Relationships	Moderate	Moderate	
Permit Issuance and Processing	Moderate	Moderate	FY2012
Biosolids Management	Moderate	Moderate	FY2012
Sewer Services - Emergency Maintenance	Moderate	Moderate	FY2013
Sewer Services - Distribution Operations	Moderate	Moderate	
Ultilty Services - Water Distribution	Moderate	Moderate	FY2013
Utility Services - Water Maintenance	Moderate	Moderate	FY2011; FY2013
P Card Program	Moderate	Moderate	FY2011; FY2013
HCM Recruitment & Training	Moderate	Moderate	FY2010
HCM Employee New Hire, Changes &Termination Processing	Moderate	Moderate	FY2011
Facility Security & Emergency Planning	Moderate	Moderate	FY2011
Safety Programs, Training & Compliance	Moderate	Moderate	FY2010
Labor Relations - Contract Mgt. & Compliance	Moderate	Moderate	
Fixed Assets & Equipment	Moderate	Moderate	
Financial Statement Consolidation & Reporting	Moderate	Moderate	
Insurance Program Procurement & Insurance Claims Management	Moderate	Moderate	FY2012
IT - Access Provisioning and DeProvisioning	Moderate	Moderate	FY2010
IT - Disaster & Recovery Planning, Backup and Recovery	Moderate	Moderate	FY2011
IT - Internal Network & Telecommunications	Moderate	Moderate	FY2013
IT Vendor and Contractor Management	Moderate	Moderate	FY2011
IT Help Desk and Computer Operations	Moderate	Moderate	FY2012
IT System Development Life Cycle & Change Management	Moderate	Moderate	FY2010
GIS System	Moderate	Moderate	
Outside Contractor Management	Moderate	Moderate	
Business Continuity	Moderate	Moderate	

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FY 2013 Risk Assessment Results

Audit Universe	LIKELIHOOD	IMPACT	LAST AUDITED
Customer Service Operations	Low	Moderate	FY2012
Payroll	Low	Moderate	FY2012
Grant Operations	Low	Moderate	FY2011; FY2013
IT Access Provisioning	Low	Moderate	
Community Outreach and Education	Moderate	Low	
Facility Operations, Maintenance & Costs	Moderate	Low	
Cash Receipts	Moderate	Low	FY2010; FY2013
Annual Budgeting & Planning	Moderate	Low	

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Audit Universe & Ratings Summary

- 6 Areas were rated High Likelihood and High Impact
- 4 Areas were rated High Likelihood and Medium Impact
- 13 Areas were rated Moderate Likelihood and High Impact
- 28 Areas were rated Moderate Likelihood and Moderate Impact
- **4 Areas were rated Low Likelihood and Moderate Impact**
- **4 Areas were rated Moderate Likelihood and Low Impact**

Total = 59

Risk Ratings & Definitions

LIKELIHOOD	
STRATEGIC RISK	Inability to meet business goals, objectives or strategy due to: An ineffective or inefficient business model; An improper or ineffective organizational structure; or Improper or ineffective strategic planning
LEGAL & REGULATORY RISK	Noncompliance with legal or regulatory requirements can result in fines, penalties or other adverse impact to the organization.
ENVIRONMENT, HEALTH & SAFETY RISK	A condition or vulnerability that has an adverse effect on the environment or negatively impacts the health and/or safety to employees and/or local citizens
INFORMATION TECHNOLOGY RISK	Technology used does not effectively support the current and future needs of the organization; Compromise to the integrity, access and/or availability of data or operating systems
CUSTOMER SERVICE / DELIVERY RISK	Failure to provide service to customers (internal or external); Failure to respond to customers (internal or external) in a timely or effective fashion
FRAUD RISK	Susceptibility to theft, waste, and abuse of DC Water resources; Assets and information that is vulnerable to theft or manipulation.
PERSONNEL / HR RISK	Lack of proper skill set, resources, training or succession planning
INFORMATION & COMMUNICATION RISK	Inaccurate, inconsistent or untimely information or communications to customers, both internal and external, to the organization
CONTROL ENVIRONMENT	Policies, procedures and day-to-day practices are in place to mitigate the inherent risks within the operation

IMPACT	
REPUTATION IMPACT	Improper instructions, communication and interactions with customers (internal or external), regulators or constituents that would result in negative public perception and could harm the reputation of the organization.
BUSINESS OPERATIONS IMPACT	A condition or issue that prevents the operations from functioning effectively, efficiently or from meeting internal/external goals and objectives; A vulnerability due to volume, complexity of transactions or activities
FINANCIAL IMPACT	Circumstances that could result in significant financial implications to the organization; Failure to meet financial obligations or requirements; Failure to comply with funding requirements thus impairing future funding.

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Likelihood & Impact Definitions

LIKELIHOOD	
High	Immediate and high degree of vulnerability such that it is critical that the risk be managed and controlled in order for this area to achieve its objectives. If not properly controlled, that area could have a serious, long-term or detrimental effect on operations, and the achievement of organizational goals and objectives.
Moderate	Risk present should be addressed and controlled but the probability is not as severe as defined above. If not properly controlled, the area could effect operations, but achievement of organizational goals and objectives will still be met.
Low	The threat of a serious event occurring is either non-existent or remote. The area should be managed but the level of risk response is limited.
IMPACT	
High	If an event occurs, the financial ramifications would be severe and/or operations would suffer long-standing consequences.
Moderate	Indicates that the resulting consequences of an event would be negative and must be managed but would not have a substantial effect on finances or on-going operations.
Low	Indicates that the event occurring would have little or no impact financially or operationally.

CONTROL ENVIRONMENT	
Weak	Policies, procedures and normal practices are insufficient to mitigate the inherent risks.
Moderate	Controls are not optimal but adequate to mitigate the severe inherent risks.
Strong	Solid policies, procedures and day-to-day practices are in place to mitigate the inherent risks.

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Contact Information

Joseph Freiburger, Audit Director
(202) 787-2716
Joseph.Freiburger@dcwater.com

Dennis FitzGerald, Internal Audit Principal
(202) 787-2385
Dennis.Fitzgerald@dcwater.com

C. Scott Heflin, IT Audit Principal
(703) 287-5973
Christopher.Heflin@dcwater.com

Internal Audit Update

Audit Committee Meeting

September 26, 2013

The following represents a summary of the activities and achievements since the June 27, 2013 meeting.

I. Highlights

Performance of scheduled internal audits – Internal Audit performed audit work in seven separate audit areas. Additionally, three final reports were issued related to the FY2013 Internal Audit Plan (IT Network Security, Process Control System ("PCS"), and Engineering Project Management). Three audits; IT – SDLC and Change Management, Telecommunications Review and Water Services – Distribution Maintenance, are complete, discussions have been held with management, and the reports are being finalized. The Water Services – Distribution Control Branch audit is in the fieldwork phase. The chart below depicts the planned projects and their status for the fiscal year.

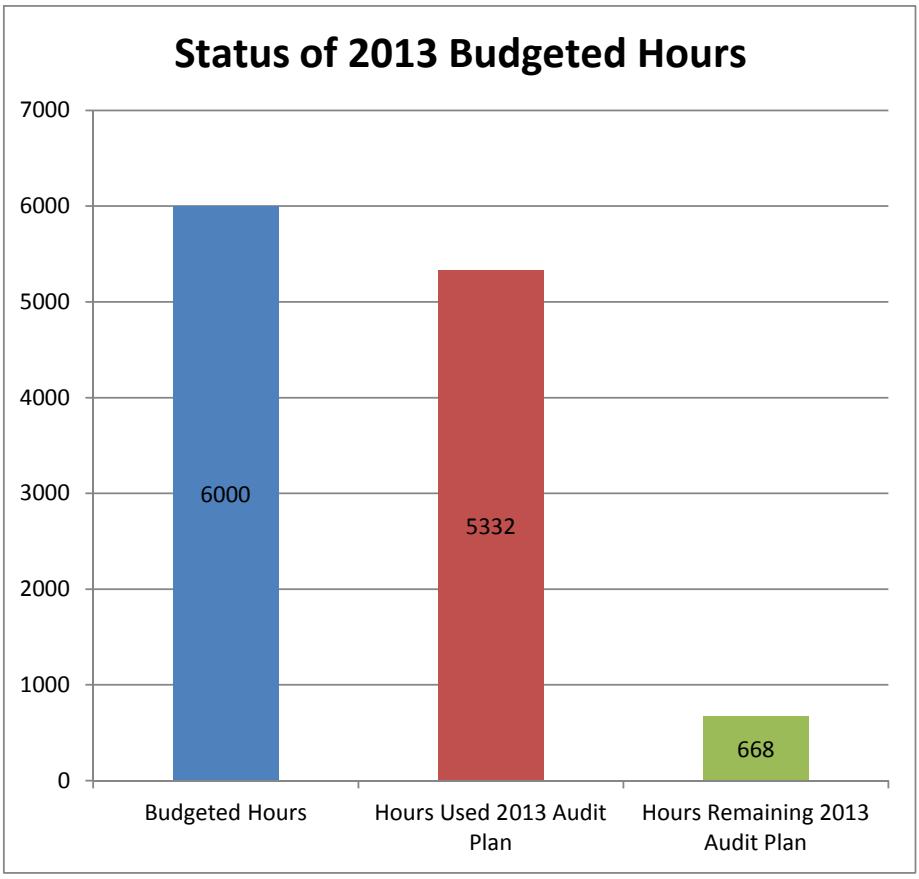
A. **Stage of Audits & Special Projects –** The following represents an indication of the stage of completion for each scheduled audit and requested special projects.

PROJECT	PLANNING / SCOPING	FIELDWORK	DRAFT REPORT	FINAL REPORT
Regulatory Compliance				
P-Card				
Chemicals Purchasing				
Cashiering Remote Site				
Investments & Cash Management				
Fleet Management				
IT Network Security				
Sewer – Emergency Services				
Engineering – High Priority				
PCS				
IT – SDLC & Change Management				
Telecommunications Review				
Water Services – Distribution Maintenance				
Water Services – Distribution Control				

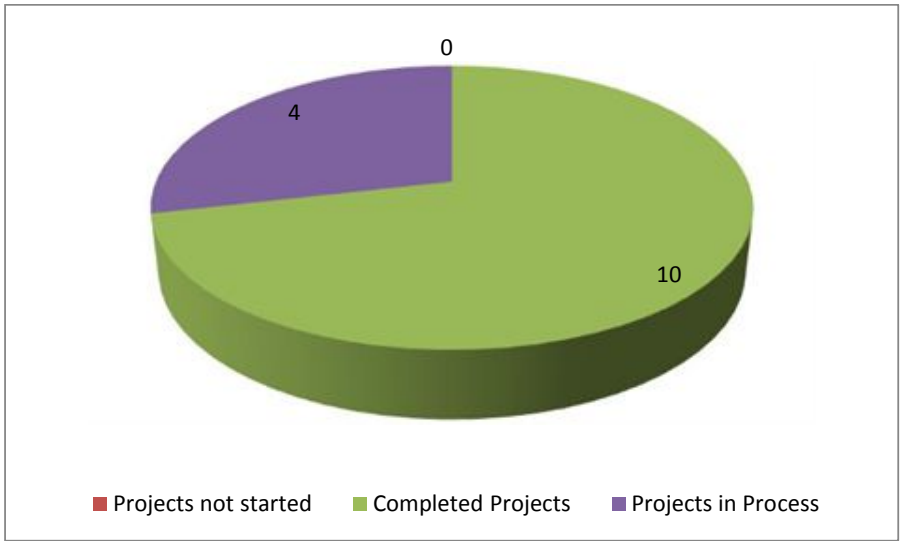
B. **Analysis of key milestone dates –** The following represents an indication of the date of completion of key project milestones.

PROJECT	START DATE	FIELD-WORK END DATE	DRAFT REPORT ISSUANCE DATE	FINAL REPORT
Regulatory Compliance	12/7/2012	1/10/2013	1/22/2013	2/14/2013
P-Card	10/12/2012	1/10/2013	2/8/2013	4/17/2013
Chemicals Purchasing	11/14/2012	1/18/2013	2/5/2013	2/19/2013
Cashiering Remote Site	12/11/2012	1/7/2013	1/15/2013	2/15/2013
Investments & Cash Management	1/15/2013	3/1/2013	3/8/2013	4/15/2013
Fleet Management	1/22/2013	4/5/2013	4/10/2013	4/17/2013
IT Network Security	3/28/2013	5/31/2013	6/14/2013	7/9/2013
Sewer – Emergency Services	4/8/2013	5/29/2013	6/3/2013	6/18/2013
Engineering – High Priority	6/12/2013	8/1/2013	8/14/2013	8/16/2013
PCS	4/15/2013	6/4/2013	8/5/2013	9/4/2013
IT – SDLC & Change Management	6/7/2013	7/31/2013	8/20/2013	
Telecommunications Review	8/19/2013	9/12/2013	9/13/2013	
Water Services – Distribution Maintenance	6/7/2013	9/11/2013	9/19/2013	
Water Services – Distribution Control	7/31/2013			

C. **Analysis of Hours –** The chart below indicates the actual hours used through August 31, 2013 toward completion of the internal audit plan, along with an indication of the total hours included in the FY2013 plan.



II. 2013 Audit Plan Status



A. Reports Issued Since Last Audit Committee Meeting

1. Network Access & Security

Our overall audit objectives included an evaluation of whether the network environment, as well as related management processes, promoted a secure environment that maintains the confidentiality, integrity, and availability of systems and data. We identified the existing practices and tested the effectiveness of DC Water's network access and external security functions. Included was the assessment of internal network security control procedures, as well as external facing security procedures to protect the network from sources which may not be trusted.

Specific audit objectives focused on:

- Determining whether access management policies and procedures were adequate to address the risk of unauthorized access and were updated appropriately, including inclusion of:
  - Strong password configuration requirements;
  - Processes for granting and adding user access rights;
  - Access disablement procedures;
  - Restriction of powerful access rights (security/system administration);
  - Usage and security of generic, shared, and/or system IDs;
  - Periodic access review procedures; and
  - Procedures in place to log network access activity.
- Determining whether current network password configurations met industry standards.
- Identifying a sample of new accounts and validating appropriate evidence of authorization for user access rights prior to account enablement.
- Evaluating network account disablement controls and determining whether terminated employees' and contractors' access rights are removed in a timely manner.
- Determining whether access to generic, shared, and system accounts on the network is appropriately restricted.
- Determining whether users with security administration access rights are limited and have a valid business need for such access rights.
- Evaluating periodic network access review procedures used to validate authorization of user accounts.
- Determining whether various system activities and security violations are being logged.
- Evaluating firewall operations, including:
  - Location of firewalls at external access points;
  - Configuration of firewalls to deny all by default, with exclusions configured for authorized sources;
  - Logging of firewall activity for investigative purposes, when necessary;

- Procedures in place to control firewall configurations; and
- Testing of firewall configurations.

- ❑ Evaluating the use of intrusion detection sensors (IDS), including:
  - Location of IDS systems on the network;
  - Monitoring of network events; and
  - Reviews of network event activity.
- ❑ Evaluating remote access procedures.
- ❑ Determining whether virus protection software is used and virus definitions are updated appropriately.
- ❑ Evaluating the usage of encryption software on the network.
- ❑ Evaluating security assessment audits and related response plans.
- ❑ Determining whether access to change network system configurations is appropriately restricted.
- ❑ Evaluating procedures to validate security baselines are adhered to on network systems.

Internal Audit (IA) concludes that a number of topics should be addressed by management in order to improve the security of the network to effectively support the mission of DC Water. In particular, there is a need to address the following:

- ❑ Improvement in the definition of the network account provisioning process to:
  - Consistently utilize current versions of the access request form to evidence authorization and date of access requests;
  - Avoid provisioning duplicate accounts for a single account request; and
  - Evidence authorizations of account reinstatements for reemployed DC Water personnel.
- ❑ Improvement of the access disablement and deletion procedures to ensure that processing occurs completely for terminated employees and contractors in a timely manner.
- ❑ Improvement in the accuracy of accounting for user roles on the network to accurately report all users with privileged (e.g. security administration) access privileges.
- ❑ Improvement in the network access review process and procedures to include:
  - Implementation of a formal, periodic review of network account access rights; and
  - Enhancement of documentation of the quarterly Contractor Account Audits.
- ❑ Consistently configure and enforce account disablement after excessive invalid authorization attempts to remote access user accounts.

This audit resulted in the addition of five Management Action Items in the chart in Section III Follow Up.

2. Process Control System ("PCS")

Our overall audit objectives included an evaluation of the effectiveness and efficiency of the activities and system infrastructure of PCS. Specific audit objectives included:

- ❑ To ensure that PCS activities are in compliance with DC Water policies and procedures, as

well as applicable laws and regulations;

- ❑ To determine if the utilization of the system is achieving the projected cost-savings;
- ❑ To assess the effectiveness and efficiency of PCS capabilities for monitoring plant activities, including Management reporting and decision making; and,
- ❑ To evaluate the adequacy and security of the system's control environment and infrastructure to ensure that the system information is accurate and complete.

There have been cost savings attributable to PCS. Plant processes and complexity has increased while operating staffing levels have been reduced. Power monitoring has identified billing errors resulting in refunds, and provided opportunities for optimizing plant consumption. Additionally, by eliminating the "local auto" feature from every system installed at the plant in favor of remote auto through PCS, capital savings have been achieved in the $1.2 Billion upgrades at the plant.

The data provided by PCS has also resulted in consistent effluent water quality that has both provided a real time early warning of permit compliance risk and helped the plant exceed requirements.

After reviewing the activities related to PCS, Internal Audit concludes that informal practices are utilized in the absence of written procedures. As there are no established guidelines, PCS-related activities and data analysis are performed based on PCS user institutional knowledge, resulting in inconsistent practices. Additionally, Internal Audit concludes that without formalized policies and procedures, users are not required to document related activities and therefore, cannot be held accountable for their actions. These issues can be remediated with the development of, and adherence to, formalized policies and procedures.

In addition, improvements are needed relative to the Information Technology environment and controls. In particular, issues such as formally controlling access to the system, consistently carrying out back-up operations and monitoring system changes are needed.

This audit resulted in the addition of ten new Management Action Items in the chart in Section III Follow Up.

3. Engineering Project Prioritization

Our overall audit objective was to assess the effectiveness and efficiency of the process to evaluate and prioritize Engineering projects and to ensure compliance with any applicable laws, regulations and internal policies. Specific audit objectives included:

- ❑ To understand the specific roles and responsibilities of DC Water employees and contractors in the project approval and prioritization process;
- ❑ To assess the overall effectiveness and efficiency of the process to evaluate, select and prioritize Engineering projects;
- ❑ To evaluate the criteria used in the evaluation, selection and prioritization of Engineering projects;
- ❑ To evaluate compliance with any applicable laws and regulations regarding the projects being evaluated:

- To determine the effectiveness of the project lifecycle methodology used for project approval and prioritization (submission, evaluation, selection, approval processes); and,
- To determine the appropriateness of the management activities performed by the High Priority team.

Internal Audit concludes that the Department of Engineering and Technical Services effectively monitors the processes by which capital projects are submitted, reviewed, approved and entered into the CIP. Internal Audit also concludes that the activities performed by the "High Priority" team appear to be appropriate. As such, Internal Audit deems the internal controls covering the Engineering project approval and prioritization activities to be operating effectively.

This audit resulted in the addition of no new Management Action Items in the chart in Section III Follow Up.

III. Follow Up

In addition to our work performed relative to the audit projects identified in the 2013 Internal Audit Plan, Internal Audit conducted follow-up activity relative to previously reported audit comments. The table below summarizes the issues by area of responsibility and the current status of the action plan proposed by Management.

	Chief Engineer	AGM Blue Plains	AGM Consumer Services	Chief Financial Officer	General Counsel	Chief Information Officer	AGM Support Services	General Manager	Total
New Management Action Plans Since Previous Meeting	-	10	-	-	-	5	-	-	15
Management Action Plans Implementation Date Not Expired	-	4	1	3	-	4	14	-	26
Management Action Plans Implementation Date Expired	-	-	-	-	-	-	1	1	2
Total	-	14	1	3	-	9	15	1	43

Listed Below are the Details of the Management Action Plans with Expired Implementation Dates

AGM Support Services

1. 2013 Fleet Management – The Fleet vehicle policy documents are not updated, approved and distributed to remain current.

Office of the General Manager:

1. 2010 Corporate Policies and Procedures – Revised DC Water Policy and Procedure documents have not been officially approved by the General Manager and made available to all DC Water employees.

IV. Other Topics

Internal Audit continued to collaborate with DC Water's Human Capital Management and Finance departments to facilitate additional employee Fraud and Abuse hotline awareness training sessions since the June 27 Audit Committee meeting. There are no further awareness training sessions currently scheduled.

To date, a total of ten reports of Fraud, Waste and Abuse have been received as a result of the hotline. Five of the ten reports have been received since the June 27 Audit Committee meeting. While most of the hotline activity has alleged violations of HCM policies, Internal Audit has investigated two reports since the June 27 Audit Committee meeting that were more significant (1 Conflict of Interest, 1 Theft of Service), both of which have been substantiated. In both instances, actions were taken to remediate the reported issues. All ten of the reports have been investigated and closed.

Network Access & Security

Internal Audit Report

July 8, 2013

INTERNAL AUDIT TEAM

Senior:	Scott Brosig
Principal:	Scott Heflin
Director:	Joe Freiburger

DC Water – 2013 Internal Audit
Network Access & Security

SC&H GROUP, LLC

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SC&H GROUP, LLC

I. EXECUTIVE SUMMARY

Background

As a major utility, DC Water is dependent on information technology to support critical mission and business processes. Since the establishment of the DC Water IT Department in 1999, the Authority has been increasingly applying information technology in an operational capacity as a business enabler to reduce costs and increase efficiency. In addition to its role in supporting day-to-day operations from multiple computer systems, platforms and applications, the DC Water IT Department is responsible for deploying technology to reduce complexity , increase the efficiency of support operations; deploying communications technologies to connect geographically dispersed or remote locations; and enabling mobile computing and remote telecommuting to support off-site access.

The dependency on information assets (systems and data) creates risks that must be managed appropriately to ensure efficient and effective operations. The use of the internet has expanded dramatically for business purposes, and with it, the risk of unauthorized access to corporate networks and information resources by hackers, disgruntled employees, and others with the ability to break through security systems. As the use of the internet to support DC Water's business continues to expand, the need for effective external and internal network security controls and procedures has become critical.

Objectives

Our overall audit objectives included an evaluation of whether the network environment, as well as related management processes, promoted a secure environment that maintains the confidentiality, integrity, and availability of systems and data. We identified the existing practices and tested the effectiveness of DC Water's network access and external security functions. Included was the assessment of internal network security control procedures, as well as external facing security procedures to protect the network from sources which may not be trusted.

Specific audit objectives focused on:

- Determining whether access management policies and procedures were adequate to address the risk of unauthorized access and were updated appropriately, including inclusion of:

- Strong password configuration requirements;
- Processes for granting and adding user access rights;
- Access disablement procedures;
- Restriction of powerful access rights (security/system administration);
- Usage and security of generic, shared, and/or system IDs;
- Periodic access review procedures; and
- Procedures in place to log network access activity.

- ❑ Determining whether current network password configurations met industry standards.
- ❑ Identifying a sample of new accounts and validating appropriate evidence of authorization for user access rights prior to account enablement.
- ❑ Evaluating network account disablement controls and determining whether terminated employees' and contractors' access rights are removed in a timely manner.
- ❑ Determining whether access to generic, shared, and system accounts on the network is appropriately restricted.
- ❑ Determining whether users with security administration access rights are limited and have a valid business need for such access rights.
- ❑ Evaluating periodic network access review procedures used to validate authorization of user accounts.
- ❑ Determining whether various system activities and security violations are being logged.
- ❑ Evaluating firewall operations, including:
  - Location of firewalls at external access points;
  - Configuration of firewalls to deny all by default, with exclusions configured for authorized sources;
  - Logging of firewall activity for investigative purposes, when necessary;
  - Procedures in place to control firewall configurations; and
  - Testing of firewall configurations.
- ❑ Evaluating the use of intrusion detection sensors (IDS), including:
  - Location of IDS systems on the network;
  - Monitoring of network events; and
  - Reviews of network event activity.
- ❑ Evaluating remote access procedures.
- ❑ Determining whether virus protection software is used and virus definitions are updated appropriately.
- ❑ Evaluating the usage of encryption software on the network.
- ❑ Evaluating security assessment audits and related response plans.
- ❑ Determining whether access to change network system configurations is appropriately restricted.

- Evaluating procedures to validate security baselines are adhered to on network systems.

Audit Scope and Procedures

This audit was conducted based on the approved 2013 internal audit plan. The audit was initiated in March 2013 and completed in June 2013. The audit included an evaluation of the DC Water's network security procedures during the period of April 1, 2012 through March 31, 2013. The audit process included interviews with applicable members of management, as well as review of existing policies, procedures, critical reports, and other supporting documentation. Emphasis was placed on the identification of significant risks; review of implemented control procedures; and examination of IT standards, policies, and procedures.

Summary of Work

Internal Audit (IA) concludes that a number of topics should be addressed by management in order to improve the security of the network to effectively support the mission of DC Water.

In particular, there is a need to address the following:

- Improvement in the definition of the network account provisioning process to:
  - Consistently utilize current versions of the access request form to evidence authorization and date of access requests;
  - Avoid provisioning duplicate accounts for a single account request; and
  - Evidence authorizations of account reinstatements for reemployed DC Water personnel.
- Improvement of the access disablement and deletion procedures to ensure that processing occurs completely for terminated employees and contractors in a timely manner.
- Improvement in the accuracy of accounting for user roles on the network to accurately report all users with privileged (e.g. security administration) access privileges.
- Improvement in the network access review process and procedures to include:
  - Implementation of a formal, periodic review of network account access rights; and
  - Enhancement of documentation of the quarterly Contractor Account Audits.
- Consistently configure and enforce account disablement after excessive invalid authorization attempts to remote access user accounts.

SC&H Consulting

By:

_____

Joe Freiburger, CPA, CIA

II. DETAILED OBSERVATIONS & RECOMMENDATIONS

I. Network Access Provisioning Process		
Observation: The access provisioning process for network accounts is not well defined and is inconsistently followed. Specifically, the following issues were noted: • Outdated Access Request Forms are sometimes used to document requests for new DC Water network accounts, which do not consistently evidence the authorization and date of the access request. • Two individual users included in our sample were discovered to have been granted multiple user accounts on the network. It appears that these were instances where separate Security Administrators may have unknowingly worked to set up a new user account for the same Access Request Form at the same time. • Requests for and authorization of network account reinstatements are not formally documented when terminated employees or contractors are reemployed.	**Recommendation:** Management should establish and enforce a well-defined network access provisioning process. Controls should be in place to ensure all access requests and authorizations are documented within an updated DC Water Access Request Form, only one network user account is set up for each individual employee or contractor, and all instances where prior employees or contractors are reemployed require a documented and approved Access Request Form be submitted prior to reactivation of the user's network account.	**Management's Action Plan:** As of June 1, 2013, the ITSC stopped accepting the old access request forms. Only Info Path created New User Account Forms are now accepted by the ITSC. Management determined that the instances in which two accounts were created for the same user were likely a result of the department submitting two different user account request forms at two different times with name variations (middle initial, spelling variation, title change, etc.) In order to correct and prevent this issue going forward, Active Directory Users and Computers will be checked for similar names before an account is created. As of June 1, 2013, network account reinstatement requests are now only accepted via authorized tickets and new user forms, and a log is being kept of all reactivations. **Implementation Date:** 6/1/2013

Risk: The lack of a formally documented and fully implemented access provisioning process increases the risk of unauthorized user access being granted to the network. Furthermore, user access authorization controls could be bypassed and former employees or contractors could possess access rights which are inappropriate for their current employment status if requests for account reinstatements are not carefully controlled, fully documented, and formally approved.		

II. Processing of Access Terminations		
Observation: The accounts for terminated contractors are not consistently disabled and/or removed from Active Directory following their separation date with DC Water. Within our selected sample of 40 terminated personnel, it was noted that one contractor's account was still active despite this contractor status being terminated in December of 2012. **Risk:** Failure to completely process the disablement of terminated employee and contractor accounts in a timely manner presents the risk of unauthorized access to the network.	**Recommendation:** Management should review the access revocation procedures to ensure that all employee and contractor terminations are processed completely and in a timely manner. In addition, all Department Heads should be reminded of the established practice regarding immediate notification of the right parties when a termination occurs to ensure that all access rights assigned to those employees or contractors are immediately disabled and/or removed from the network and all DC Water systems.	**Management's Action Plan:** Department Heads will be reminded about the importance of notifying IT immediately when contractors and employees are terminated. IT Management will send out a memo to all Department Heads and managers about the termination process and steps that need to be taken to ensure all termination procedures are processed completely and in a timely manner. **Implementation Date:** 7/5/2013

III. Inaccuracy in Tracking Security Administration Access Rights		
Observation: Internal Audit was unable to obtain a report that fully identified all individuals with security administration access rights to the network. During our test work we noted that the primary security administrator was omitted from the listing provided to us. Management should be able to easily account for all users with powerful network access in order to perform on-going monitoring of users with elevated access rights. **Risk:** Failure to accurately capture and account for privilege access rights on the network increases the risk of unauthorized access going undetected.	**Recommendation:** Management should install a fix to access role delegation configurations such that roles are appropriately mapped to user accounts. Thus, resulting in an accurate report of those having full security administration rights.	**Management's Action Plan:** Management is aware of the issue with one of the privileged groups in Active Directory, however a fix is not available from Microsoft. The privileged group in question is allowed to elevate their access rights to create and delete accounts. Management has appropriately restricted access to this group to only two authorized help desk personnel responsible for creating and deleting accounts. Management has also set up active alerts that will notify the network team when an unauthorized user is added to a privileged group. Given the restriction of access to the group, and the current logging/monitoring process in place, IT Management feels as though the risk associated with this observation has been mitigated to an acceptable level. **Implementation Date:** 6/1/2013

IV. Network Access Rights Reviews		
Observation: Periodic reviews of DC Water employee network access rights are not being performed. The DC Water IT Account (Identity-Based) Authorization Procedures specify that all network accounts and associated access rights are to be reviewed annually. Additionally, although a process is in place to review DC Water contractor network access rights on a quarterly basis, comprehensive evidence supporting the reviews was not readily available. Specifically, business owner responses, discrepancies noted, and resolution activity taken as a result of each review were not documented and retained on file. **Risk:** In the absence of periodic reviews of employee network access rights, there's an increased risk that employees having access not commensurate with their job responsibilities may go undetected. Furthermore, network accounts belonging to terminated employees that were not disabled or deleted in a timely manner may also go undetected.	**Recommendation:** Management should review and update the DC Water IT Account Authorization Procedures as needed to ensure a formal process for periodically reviewing network user access rights is clearly defined, well documented, and carried out on a regular basis. Evidence supporting the employee and contractor network access reviews should be documented and maintained on file.	**Management's Action Plan:** IT will obtain an active employee list from HCM quarterly to validate active employees at the same time as the contractor network access rights audits. In addition, IT will verify that those employees possessing privileged network access rights are authorized and appropriate. Evidence supporting the employee and contractor network access reviews will be documented and maintained on file for audit purposes. **Implementation Date:** 7/27/2013

V. Remote Access Account Lockout		
Observation: The controls relative to preventing unauthorized access to the network by way of remote access are in need of strengthening. Remote access account disablement after excessive invalid authorization attempts is not consistently configured and enforced across the user base. **Risk:** Failure to lock out remote access user accounts after excessive invalid authentication attempts increases the risk of a user account being compromised by an unauthorized individual attempting to gain remote access to the network.	**Recommendation:** Management should consider employing a remote access tool that enforces group security policies to ensure consistency in the application of security controls, such as access disablement. If it is determined that the employment of a new remote access tool is not feasible, management should manually enable the account disablement after a set number of invalid access attempts for each remote access user account.	**Management's Action Plan:** As of June 26, 2013, IT had completed the process of manually enabling account disablement after a set number of invalid access attempts for each remote access user account. **Implementation Date:** 6/26/13

Process Control System

Internal Audit Report

September 4, 2013

INTERNAL AUDIT TEAM

Staff:	Jackie Kosovich
Senior:	Anne Simpson
Manager:	Anthony DiGiulian & Russell Ojers
Director:	Joe Freiburger

DC Water – 2013 Internal Audit
Process Control System

SC&H GROUP, LLC

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EXECUTIVE SUMMARY

Background

The Process Control System (PCS) is a Windows-based automated system that provides plant-wide monitoring and control of the treatment process. PCS records data, provides remote control and automation of the plant processes including: Raw Wastewater Pumping, Grit and Screening, Primary and Secondary Treatment, Chemical Feed Systems, Dewatering Systems, Nitrification, Filtration and Disinfection Facilities, and Gravity Thickening. The system provides alarms on abnormal conditions, including out of range instrument readings and equipment failures. Additionally, PCS monitors power usage and permits discretionary operation of non-critical equipment during off-peak hours. The system provides both real-time and historical data. Through these activities, PCS offers increased transparency and reliability of the plant's facilities. The information collected from PCS is analyzed and communicated to the General Manager, Board of Directors, and regulatory agencies to report permit compliance.

The Department of Engineering and Technical Services, manages the PCS Construction Contract and the Engineering Consultants providing support. The Department of Wastewater Treatment is the end user of the system. The Department of Process Engineering provides engineering support to the Department of Wastewater Treatment and will assume ownership of PCS when the contract concludes. The Process Engineering Department plans to hire additional staff with the expertise required to maintain PCS. The Department of Wastewater Treatment will also implement a service contract with the system vendor, Emerson, to provide security and software services.

Objectives

Our overall audit objectives included an evaluation of the effectiveness and efficiency of the activities and system infrastructure of PCS. Specific audit objectives included:

- To ensure that PCS activities are in compliance with DC Water policies and procedures, as well as applicable laws and regulations;
- To determine if the utilization of the system is achieving the projected cost-savings;
- To assess the effectiveness and efficiency of PCS capabilities for monitoring plant activities, including Management reporting and decision making; and,
- To evaluate the adequacy and security of the system's control environment and infrastructure to ensure that the system information is accurate and complete.

Audit Scope and Procedures

This audit was conducted in accordance with the approved FY2013 internal audit plan. The audit was initiated in April 2013, completed in June 2013, and included an evaluation of the PCS during the period of April 2012 through May 2013. The audit procedures consisted of interviews with the appropriate parties, observations of daily operations, a review of pertinent documents and reports and testing of a sample of activity.

Summary of Work

There have been cost savings attributable to PCS. Plant processes and complexity has increased while operating staffing levels have been reduced. Power monitoring has identified billing errors resulting in refunds, and provided opportunities for optimizing plant consumption. Additionally, by eliminating the "local auto" feature from every system installed at the plant in favor of remote auto through PCS, capital savings have been achieved in the $1.2 Billion upgrades at the plant.

The data provided by PCS has also resulted in consistent effluent water quality that has both provided a real time early warning of permit compliance risk and helped the plant exceed requirements.

After reviewing the activities related to PCS, Internal Audit concludes that informal practices are utilized in the absence of written procedures. As there are no established guidelines, PCS-related activities and data analysis are performed based on PCS user institutional knowledge, resulting in inconsistent practices. Additionally, Internal Audit concludes that without formalized policies and procedures, users are not required to document related activities and therefore, cannot be held accountable for their actions. These issues can be remediated with the development of, and adherence to, formalized policies and procedures.

In addition, improvements are needed relative to the Information Technology environment and controls. In particular, issues such as formally controlling access to the system, consistently carrying out back-up operations and monitoring system changes are needed.

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By:

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Joe Freiburger, CPA, CIA

II. DETAILED OBSERVATIONS & RECOMMENDATIONS

Observation(s)	Internal Audit Recommendation(s)	Management Comment(s)
I. Management Reporting		
Observation: We reviewed management performance reports prepared for internal use and those submitted to the Board of Directors for informational purposes to ensure they were compiled accurately and timely. The Wastewater GM report is combined with information from other departments and represented on the final GM report reviewed by the Board of Directors. The average influent flow amount presented on the January 2013 Wastewater GM report was incorrect. The incorrect average influent flow amount on the January 2013 report did not agree to the average influent flow amount on the final GM report. Additionally, we noted the information presented to the Board of Directors can be requested prior to Process Engineering's verification of the monthly data.	**Recommendation:** We recommend that Management formalize its process of reviewing the data prior to Board of Director's review. This should include verifying amounts presented on the monthly Wastewater GM report and final GM report to make certain they are accurate. Additionally, Management should notate what information is a carry-forward from the previous month to ensure readers are interpreting the information correctly. **Business Owner(s):** Salil Kharkar, Director of Process Engineering	**Management's Action Plan and Implementation Date:** Agree. Process will be in place by January 1, 2014 to formalize the review process.

The April 2013 Wastewater GM report carried forward information from March 2013, and the report did not identify the information carried forward from March as unchanged. **Risk:** An inadequate quality control process around the monthly GM reports may result in discrepancies and incorrect information presented to the Board of Directors.		

Observation(s)	Internal Audit Recommendation(s)	Management Comment(s)
II. PCS Alarms		
Observation: Internal Audit was unable to assess if the operators respond to alarms in a timely manner, as there is no policy that details response time to alarm notifications. Although we observed the notification of alarms in the control room, we were unable to confirm alarm resolution for all 20 alarms selected, as operators are not required to document responses to alarm notifications into eLogger. **Risk:** Failing to respond to alarms in a consistent, timely manner may adversely affect permit compliance. Failing to document alarm resolution may prevent Management from ensuring the alarm resolution was performed with consistent practices.	**Recommendation:** We recommend that management implement minimum thresholds for response times to the PCS alarms according to criticality (e.g., priority level) and affected area of the plant. Providing response times will enable management to apply consistency and measure productivity of operator activities. Additionally, management should establish written requirements for PCS users to document their activities to resolve alarms within eLogger or Maximo, if maintenance is required. Documenting alarm resolution activities will enhance accountability and transparency of the operator's actions and will enable management to analyze response activities for further optimization of the plant.	**Management's Action Plan and Implementation Date:** Agree. While the risk of failing to respond to an alarm is real, the fact that each alarm is displayed on the board in the control room allows an operator to do a visual scan and respond appropriately. Not all alarms require a response. However, for alarms that require a response, the response needs to be documented. This documentation is not consistent. Since all alarms are logged, historical review is feasible in case history has to be re-created for any individual alarm. Implementation of the documentation requirement needs to be completed in phases. There are two categories of alarms that may require operator action. These are Priorities 1&2. Priority 1 Alarm policies, response training, and compliance monitoring will start implementation in January 2014 with completion by March 2014.

	Business Owner(s): Salil Kharkar, Director of Process Engineering	Priority 2 Alarms require a review of the database and detailed analysis of each alarm. This review will be started in October 2013 and will be partially complete by June 2014 when policies, response training, and compliance monitoring can be started. Completion of the policies, response training, and compliance monitoring will be completed by December 2014. Fine tuning Priority 2 alarms will be an on-going live process.

Observation(s)	Internal Audit Recommendation(s)	Management Comment(s)
III. Training		
Observation: Process Engineering does not maintain documented training requirements to provide guidance on which users should receive training, what training is required, and the training frequency. The training completed is manually recorded on two training spreadsheets; however, not all training is captured, as the training for eight of twenty-one users was not documented. Additionally, it appears that PCS users are trained once and are not required to receive annual training. **Risk:** Failing to provide documented training requirements and annual training courses may result in users improperly or inadequately utilizing the system.	**Recommendation:** We recommend that management document training requirements identifying the appropriate training courses based on user access rights. Additionally, management should provide refresher training courses and annual trainings to ensure that users are made aware of system updates. Attendance to these trainings should be documented to ensure that all users are receiving appropriate training on an annual basis. **Business Owner(s):** Salil Kharkar, Director of Process Engineering	**Management's Action Plan and Implementation Date:** Agree. After the initial PCS 101 Class, Process Engineering conducts ad hoc training for operators based on their individual needs. This approach has been successful since 2002 in dispelling the fear of "computers" among the seasoned staff, while allowing more computer savvy operators to progress at a faster rate. The ad hoc training has not been documented. Detail documentation will be started in September 2013 along with formal training needs analysis and development of refresher training policies to be completed by June 2014.

Observation(s)	Internal Audit Recommendation(s)	Management Comment(s)
IV. Policies and Procedures		
Observation: Process Engineering maintains a Cyber Security Policy, PCS Configuration Guide, informal "how to" guides, and service manuals that provide detail instructions for PCS hardware operation and repair; however, outside of these documents, the department does not maintain policies and procedures that provide guidance to interpret and document PCS data. Therefore, the activities, reviews, and data analysis utilizing PCS data are subjectively based on the user's institutional and professional knowledge of the plant activities.	**Recommendation:** As Process Engineering will take ownership of PCS from the contractor, Emerson, in late November 2013, we recommend that management implement formalized policies and procedures to provide PCS users with consistent practices to interpret PCS data and document the related activities. To ensure that these policies and procedures are tailored to DC Water activities, management should address the activities related to the daily reporting of the ODB report, the daily status reviews of plant processes, monthly PCS data analysis, minimum thresholds for alarm response times, and documentation of operator activities in response to PCS data.	**Management's Action Plan and Implementation Date:** Agree. Operators however are not operating based on institutional knowledge alone. Each operator is required to be trained on plant systems with SOPs and through Duty Station Training. They are quite familiar with the process prior to using PCS. This effort will be started in October 2013 and is estimated to take 24 months to complete in phases and will remain at a high level and not be designed to supplement SOP and Duty station training. Phasing plan and intermediate deliverable list will be developed by February 2014.

Risk:	Business Owner(s):	
The lack of formalized policies and procedures may result in inconsistencies among PCS users with interpreting and utilizing the data.	Salil Kharkar, Director of Process Engineering	

The following issues (V through X) pertain to the system environment and infrastructure.

Observation(s)	Internal Audit Recommendation(s)	Management Comment(s)
V. User Access Provisioning & Terminations		
Observation: The PCS user access provisioning and termination processes are not appropriately controlled through formal, documented policies and procedures defined to prevent unauthorized access to the system. As a result, the following issues were noted: • An account with administrative access lacked appropriate business justification (heinz@pcs.bpl.dcwasa.private). • The user access authorization and provisioning processes do not require formalized, documented User Access Request Forms • Evidence supporting management's annual review of PCS user access privileges was not documented and maintained.	**Recommendation:** We recommend that management define formal policies and procedures for PCS user access provisioning and terminations. Controls should be in place to ensure all requests and approvals for PCS access are documented within a User Access Request Form, access terminations are completed in a timely manner, and access rights are regularly reviewed and results are formally documented and maintained on file. **Business Owner(s):** Salil Kharkar, Director of Process Engineering	**Management's Action Plan and Implementation Date:** Agree. An individual's level of access to features on PCS is based on the required function that has to be executed and training. These will be formalized with policies. This effort will be started in December 2013 and will be completed by July 2014.

Risk: The lack of a formally documented and fully implemented access provisioning process increases the risk of unauthorized user access being granted to the system. Furthermore, in the absence of formally documented periodic reviews of PCS access rights, there's an increased risk that employees or contractors having access not commensurate with their job responsibilities may go undetected. System accounts belonging to terminated employees or contractors that were not disabled or deleted in a timely manner may also go undetected.		

Observation(s)	Internal Audit Recommendation(s)	Management Comment(s)
VI. Shared Admin Account		
Observation: Multiple Emerson System Administrators utilize a single, shared admin user account (administrator@pcs.bpl.dcwasa.private) to perform administrative tasks within the system. **Risk:** Allowing users to utilize a shared administrator account increases the risk of unauthorized access to the system. Additionally, shared accounts do not allow for appropriate accountability or monitoring of system administrator access.	**Recommendation:** We recommend that management create individual PCS administrator user accounts for each authorized system administrator. **Business Owner(s):** Salil Kharkar, Director of Process Engineering	**Management's Action Plan and Implementation Date:** Agree. Emerson system is presently maintained by Emerson under the Capital Program that requires them to be responsible for 99.9% uptime. They have achieved this since 2002. Work within their Contract permits qualified Emerson staff to perform administrative functions. The shared user account was developed to accommodate short term site visitors. Individual PCS administrator user accounts will be instituted within 2 months of starting the Emerson Contract.

Observation(s)	Internal Audit Recommendation(s)	Management Comment(s)
VII. Password Configurations / Account Lockout		
Observation: Password configurations at the server level were not appropriately configured to meet DC Water standards (Note: as of 6/27/2013, password configurations at the server level were updated by management to comply with DC Water standards over complexity, minimum length, and history). In addition, account lockout after a set number of failed login attempts was not enforced at server level as required by DC Water standards. **Risk:** Not configuring account lockout settings in accordance with DC Water standards leaves your organization open to the possibility that you will not detect a brute force attack.	**Recommendation:** Internal Audit recommends that DC Water enforce account lockout settings at server level in accordance with DC Water standards. **Business Owner(s):** Salil Kharkar, Director of Process Engineering	**Management's Action Plan and Implementation Date:** Agree. Servers are presently maintained by Emerson under the Capital Program that requires them to be responsible for 99.9% uptime. They have achieved this since 2002. Starting November 2013, server maintenance will be overseen by DC Water and executed by Emerson under Contract to DC Water. Lockout settings for the servers will be coordinated with Emerson. This effort will be started in October 2013 and will be completed within 1 month of executing the Contract.

Observation(s)	Internal Audit Recommendation(s)	Management Comment(s)
VIII. Antivirus Updates		
Observation: Emerson performs a manual weekly update of antivirus definitions for all local workstations. However, based on our review, multiple local workstations had not completed weekly scans according to policy. **Risk:** Outdated virus definitions increase the risk that virus scans may not detect new viruses or prevent malicious software from entering the network.	**Recommendation:** We recommend that management implement monitoring controls to review virus definitions weekly and ensure that all local workstations are downloading current virus definitions following the manual updates by Emerson. **Business Owner(s):** Salil Kharkar, Director of Process Engineering	**Management's Action Plan and Implementation Date:** Agree. Antivirus definitions are updated every couple of weeks. Emerson is a control system with no access to the internet from any of the Operator Work Stations (unlike office PCs). Therefore the risk while ever present has a different profile. Antivirus updates are first reviewed at the Emerson laboratories prior to being forwarded to the facilities for updates. Security maintenance will be overseen by DC Water and executed by Emerson under Contract to DC Water. Security policies specific and appropriate for control systems will be developed after Emerson Contract is started in FY 2014 and will include a defined consistent frequency for scans of local workstations. Estimated time for completion of this work is 3 months after Contract execution.

Observation(s)	Internal Audit Recommendation(s)	Management Comment(s)
IX. Backups		
Observation: Backup jobs are not consistently run in conjunction with the frequency of data updates within the PCS system. Emerson currently performs full backups weekly via manual script, however, for one sample reviewed, it was noted that there was an 11 day lag between BPL-ADS1 backup number 2 performed on Monday, 6/10/2013 and backup number 3 performed on Friday, 06/21/2013. **Risk:** If data backups for all key servers and databases are not run on a consistent basis, there is an increased risk of data loss and systems not being able to adequately recover from failure. Appropriate logging controls further reduce the risk and exposure of losing data changes between periodic backups.	**Recommendation:** We recommend that management implement an automated backup process that would allow for daily incremental and weekly full backups. Additionally, we recommend that management utilize and monitor backup logging software to verify that backups are completed successfully to further reduce the risk of potential data loss. **Business Owner(s):** Salil Kharkar, Director of Process Engineering	**Management's Action Plan and Implementation Date:** Agree. There are current scheduled backups of data, and the inconsistency that was identified is acknowledged. Emerson Service Contract will be start in FY 2014. A formalized backup schedule will be implemented within 3 months of contract start date.

Observation(s)	Internal Audit Recommendation(s)	Management Comment(s)
X. Change Management		
Observation: Although changes made by Engineers are logged in the PCS system, there is no process in place to review changes and verify that no major unauthorized changes to the system are moved in to production by Engineers. Currently, Engineers have elevated access necessary to perform both major changes and routine maintenance changes to the PCS system. **Risk:** By not periodically reviewing changes to the system for appropriateness, there is an increased risk of unauthorized major changes to the system which could disrupt or alter the functionality of the system.	**Recommendation:** We recommend that management develop a process to review change management logs on a periodic basis and verify that only authorized changes were performed by Engineers. **Business Owner(s):** Salil Kharkar, Director of Process Engineering	**Management's Action Plan and Implementation Date:** Agree. Changes are discussed within the group and agreed on prior to implementation. Once changes are made, control sheets are annotated to explain the changes. Policies will be developed requiring documentation of change discussions in the format of a management of change form, and a consistent format will be adopted for annotation of changes on control sheets. This effort will be started in December 2013 and will be completed by July 2014.

Engineering Project Prioritization

Internal Audit Report

August 16, 2013

INTERNAL AUDIT TEAM

Director:	Joe Freiburger
Manager:	Russell Ojers
Associate:	Dominic Usher

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EXECUTIVE SUMMARY

Background

The Capital Improvement Plan ("CIP") is DC Water's outline of approved capital projects that are designed to enhance authority-wide facilities and infrastructure. The CIP includes projects for Water, Sewer, Wastewater Treatment and Facilities, and provides a link between Engineering and Finance to present a comprehensive plan with budgeted amounts and projected disbursements. The CIP is a ten-year program that totals approximately $3.8 billion in approved capital projects, which is consistent with CIP totals in recent years. The ten-year CIP includes all immediate, critical-need projects, but does not include approximately $850 million in identified projects that will be included in future CIP updates.

Leonard Benson, Chief Engineer, is responsible for the engineering, planning and construction of all DC Water Facilities. His responsibilities encompass the majority of the projects in the CIP. Mr. Benson is responsible for the preparation of project proposals, assessments and studies, project approvals and the implementation of the projects in the CIP. DC Water, under the direction of the Chief Engineer, has moved forward with three major environmental projects, which are the Clean Rivers tunneling project, Enhanced Nutrient Removal and a thermal hydrolysis and digestion process.

The Department of Engineering and Technical Services ("DETS") serves as the primary guidance over the management of the projects in the CIP and is led by David McLaughlin, Director of DETS. During the annual review of the proposed CIP, DETS works closely with the Department of Wastewater Treatment ("DWT"), Department of Water Services ("DWS"), and Department of Sewer Services ("DSS") and other applicable departments to coordinate project development.

Objectives

Our overall audit objective was to assess the effectiveness and efficiency of the process to evaluate and prioritize Engineering projects and to ensure compliance with any applicable laws, regulations and internal policies. Specific audit objectives included:

- ❑ To understand the specific roles and responsibilities of DC Water employees and contractors in the project approval and prioritization process;
- ❑ To assess the overall effectiveness and efficiency of the process to evaluate, select and prioritize Engineering projects;
- ❑ To evaluate the criteria used in the evaluation, selection and prioritization of Engineering projects;

- To evaluate compliance with any applicable laws and regulations regarding the projects being evaluated:
- To determine the effectiveness of the project lifecycle methodology used for project approval and prioritization (submission, evaluation, selection, approval processes); and,
- To determine the appropriateness of the management activities performed by the High Priority team.

Audit Scope and Procedures

This audit was conducted based on the approved FY2013 internal audit plan. The audit was initiated in June, 2013 and completed in August, 2013. The audit included an evaluation of the physical controls and the processes and procedures of the Department of Engineering and Technical Services as well as other departments, where applicable; as they pertain to engineering project prioritization and approval. The audit process included interviews with appropriate members of DETS, DSS and DWS. Internal Audit reviewed the project justification, selection and approval processes to identify how projects are entered into the CIP records, and the method by which projects are prioritized. Emphasis was placed on the identification of risks that could adversely affect the Capital Improvement projects submitted for approval and included in the CIP, and the accurate prioritization of these projects. Additionally, Internal Audit reviewed the construction management activities performed by the "High Priority" team to determine whether these activities were appropriate.

Summary of Work

Internal Audit concludes that the Department of Engineering and Technical Services effectively monitors the processes by which capital projects are submitted, reviewed, approved and entered into the CIP. Internal Audit also concludes that the activities performed by the "High Priority" team appear to be appropriate. As such, Internal Audit deems the internal controls covering the Engineering project approval and prioritization activities to be operating effectively.

SC&H Consulting

By:

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Joe Freiburger, CPA, CIA

DC WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS CONTRACTOR FACT SHEET

ACTION REQUESTED

GOODS AND SERVICES CONTRACT :

Internal Audit Outsourcing
(Joint Use – Indirect Cost)

Approval to execute option year four (4) of four option years in the amount of $822,000.00.

CONTRACTOR/SUB/VENDOR INFORMATION

PRIME:	**SUBS:**	**PARTICIPATION:**
SC & H Group 8300 Greensboro Drive, Suite 700 McLean, Virginia 22102	N/A	N/A

DESCRIPTION AND PURPOSE

Original Contract Value:	$720,000.00
Original Contract Dates:	10-16-2009 – 10-15-2010
Number of Option Years in Contract:	4
Option Years (1- 3) Value:	$2,373,510.00
Option Years (1- 3) Dates:	10-16-2010 –10-15-2013
Fourth Option Year Value:	**$822,000.00**
Fourth Option Year Dates:	**10-16-2013 – 10-15-2014**

Purpose of Contract:

To contract for the internal audit function.

Contract Scope:

To increase operational efficiency and effectiveness, the internal auditor shall provide DC Water's management with an independent, fair, objective and reliable assessment of the Authority's management practices and compliance with established policies and procedures. The auditor shall work interactively with management to ensure that prevailing business practices make the best use of the resources available to the Authority.

Spending Previous Years:

Cumulative Contract Value:	10-16-2009 – 10-15-2013 – $3,093,510.00
Cumulative Contract Spending:	10-16-2009 – 07-31-2013 – $2,613,600.00

Contractor's Past Performance:

The Contractor's past performance has been satisfactory.

PROCUREMENT INFORMATION

Contract Type:	Fixed Labor Hour	**Award Based On:**	Highest Rating
Commodity:	Internal Audit Outsourcing	**Contract Number:**	WAS-09-038-AA-MB
Contractor Market:	Open Market with LBE/LSBE Preference		

BUDGET INFORMATION

Funding:	Operating	**Department:**	GM/CFO
Project Area:	DC Water Wide	**Department Head:**	Katrina J. Wiggins / Mark T. Kim

USER SHARE INFORMATION

	Share %*	Dollar Amount
District of Columbia	81.85%	$672,807.00
Washington Suburban Sanitary Commission	13.24%	$108,832.80
Fairfax County	3.37%	$27,701.40
Loudoun County	1.33%	$10,932.60
Other(s)	.21%	$1,726.20
Total Estimated Dollar Amount	**100.00%**	**$822,000.00**

*Actual amounts will be reconciled and billed to customers accordingly.

_____ / 8/13/13
Katy Chang Date
Acting Director, Procurement

_____ / 8/22/13
Gail Alexander-Reeves Date
Acting Director, Finance and Budget

_____ / 8/26/13
Mark T. Kim Date
Chief Financial Officer

_____ / _____
George S. Hawkins Date
General Manager