



**DISTRICT OF COLUMBIA  
WATER AND SEWER AUTHORITY**

**Board of Directors**

*Audit Committee*

*Thursday, September 27, 2012*

9:30 a.m.

1. **Call to Order** ..... Bradford Seamon, Chairperson
  
2. **Auditor Communication** ..... Uzma-Malik Dorman, Partner  
..... Bazilio, Cobb Associates
  
3. **Review of Internal Audit Plans for FY2013** ..... Joseph Freiburger  
**Recommendation by the Committee**
  
4. **Review of Internal Audit Status** ..... Joseph Freiburger  
A. **Permit Operations Report Final**  
B. **Capital Projects Report Final**
  
5. **Update on Establishing Fraud  
Hotline** ..... Joseph Freiburger
  
6. **Action Item** ..... Rosalind Inge  
A. **Contract No. WAS-09-038-AA-MB, SC&H Group**
  
7. **Executive Session** ..... Bradford Seamon
  
8. **Adjournment**



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August 22, 2012

To the Audit Committee of the Board of Directors  
District of Columbia Water and Sewer Authority

This letter is intended to communicate certain matters related to the planned scope and timing of our audit of the District of Columbia Water and Sewer Authority's ("DC Water") financial statements and federal award programs as of and for the year ending September 30, 2012.

We will conduct the audit in accordance with auditing standards generally accepted in the United States of America and *Government Auditing Standards* issued by the Comptroller General of the United States; the provisions of the Single Audit Act, OMB Circular A-133, and OMB's *Compliance Supplement*. Those standards, circulars and supplements require that we plan and perform the audit to obtain reasonable rather than absolute, assurance about whether the financial statements are free of material misstatement whether caused by error or fraud. Accordingly, a material misstatement may remain undetected. Also, an audit is not designed to detect errors or fraud that are immaterial to the financial statements. The determination of abuse is subjective; therefore, *Government Auditing Standards* do not expect us to provide reasonable assurance of detecting abuse.

### **Communication**

Effective two-way communication between our firm and the Audit Committee of the Board of Directors is important to understanding matters related to the audit and in developing a constructive working relationship.

Your insights may assist us in understanding DC Water and its environment, in identifying appropriate sources of audit evidence, and in providing information about specific transactions or events. We will discuss with you your oversight of the effectiveness of internal control and any areas where you request additional procedures to be undertaken. We expect that you will timely communicate with us any matters you consider relevant to the audit. Such matters might include strategic decisions that may significantly affect the nature, timing, and extent of audit procedures, your suspicion or detection of fraud, or any concerns you may have about the integrity or competence of senior management.

We will timely communicate to you any fraud involving senior management and other fraud that causes a material misstatement of the financial statements, illegal acts that come to our attention (unless they are clearly inconsequential), and disagreements with management and other serious difficulties encountered in performing the audit. We also will communicate to you and to management any significant deficiencies or material weaknesses in internal control that become known to us during the course of the audit. Other matters arising from the audit that are, in our professional judgment, significant and relevant to you in your oversight of the financial reporting process will be communicated to you in writing after the audit.

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In addition to our report on DC Water's financial statements, we will also issue the following reports or types of reports:

- A report on the fairness of the presentation of the DC Water's schedule of expenditures of federal awards for the year ending September 30, 2012.
- Report on internal control related to the financial statements and major programs. These reports will describe the scope of testing of internal control and the results of our tests of internal controls.
- Report on compliance with laws, regulations, and the provision of contracts or grant agreements. We will report on any noncompliance which could have a material effect on the financial statements and any noncompliance which could have a direct and material effect on each major program.
- A schedule of findings and questioned costs.

### **Independence**

Our independence policies and procedures are designed to provide reasonable assurance that our firm and its personnel comply with applicable professional independence standards. Our policies address financial interests, business and family relationships, and non-audit services that may be thought to bear on independence. In addition, our policies restrict certain non-audit services that may be provided by the firm and require audit clients to accept certain responsibilities in connection with the provision of permitted non-attest services.

### **The Audit Planning Process**

Our audit approach places a strong emphasis on how DC Water functions. This enables us to identify key audit components and tailor our procedures to the unique aspects of the organization. The development of a specific audit plan will begin by meeting with you and with management to update our understanding of business objectives, strategies, risks, and performance.

We will obtain an understanding of internal control to assess the impact of internal control on determining the nature, timing and extent of audit procedures, and we will establish an overall materiality limit for audit purposes. We will conduct formal discussions among engagement team members to consider how and where DC Water's financial statements might be susceptible to material misstatement due to fraud or error.

We will use this knowledge and understanding, together with other factors, to first assess the risk that errors or fraud may cause a material misstatement at the financial statement level. The assessment of the risks of material misstatement at the financial statement level provides us with parameters within which to design the audit procedures for specific account balances and classes of transactions. Our risk assessment process at the account-balance or class-of-transactions level consists of:

- An assessment of inherent risk (the susceptibility of an assertion relating to an account balance or class of transactions to a material misstatement, assuming there are no related controls); and

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- An evaluation of the design effectiveness of internal control over financial reporting and our assessment of control risk (the risk that a material misstatement could occur in an assertion and not be prevented or detected on a timely basis by DC Water's internal control).

We will then determine the nature, timing and extent of tests of controls and substantive procedures necessary, given the risks identified and the controls as we understand them.

### **The Concept of Materiality in Planning and Executing the Audit**

In planning the audit, the materiality limit is viewed as the maximum aggregate amount of misstatements, which if detected and not corrected, would cause us to modify our opinion on the financial statements. The materiality limit is an allowance not only for misstatements that will be detected and not corrected but also for misstatements that may not be detected by the audit. Our assessment of materiality throughout the audit will be based on both quantitative and qualitative considerations. Because of the interaction of quantitative and qualitative considerations, misstatements of a relatively small amount could have a material effect on the current financial statements as well as financial statements of future periods. At the end of the audit, we will inform you of all individual unrecorded misstatements aggregated by us in connection with our evaluation of our audit test results.

### **Our Approach to Internal Control Relevant to the Audit**

Our audit of the financial statements will include obtaining an understanding of internal control sufficient to plan the audit and to determine the nature, timing and extent of audit procedures to be performed. An audit is not designed to provide assurance on internal control or to identify significant deficiencies or material weaknesses. Our review and understanding of DC Water's internal control is not undertaken for the purpose of expressing an opinion on the effectiveness of internal control.

Our report on internal control will include any significant deficiencies and material weaknesses in the system of which we become aware as a result of obtaining an understanding of internal control and performing tests of internal control. Our report on compliance will address material errors, fraud, abuse, violations of compliance requirements, and other responsibilities imposed by state and federal statutes and regulations and assumed by contracts; and any state or federal grant, entitlement of loan program questioned costs of which we become aware.

### **Timing of the Audit**

We plan on commencing our interim procedures on September 3, 2012. We expect to complete our fieldwork by December 7, 2012 and issue our report by December 17, 2012. We plan on commencing the A-133 audit on January 2, 2013 and issuing a report by February 4, 2013.

### **Closing**

We will be pleased to respond to any questions you have about the foregoing. We appreciate the opportunity to be of service to DC Water.

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This communication is intended solely for the information and use of the Audit Committee of the Board of Directors and is not intended to be and should not be used by anyone other than these specified parties.

Very truly yours,

  
Uzma Malik-Dorman, CPA  
Partner



# *Proposed FY 2013 Internal Audit Plan*

# FY 2013 Internal Audit Plan

ACTIVITY	OVERALL LIKELIHOOD	OVERALL IMPACT	COMMENTS	Est. Hrs FY2013	Date Last Audited
Regulatory Compliance	High	High		250	FY2010
Engineering - High Priority	Moderate	High		275	
Blue Plains - Maintenance Services	High	High		250	FY2012
PCCS (Blue Plains)	Moderate	High		275	
Chemical Purchasing	Moderate	High		275	
Sewer - Emergency Maintenance	Moderate	Moderate		300	
Utilities - Repairs & Flushing Operations	Moderate	Moderate		300	
Warehouse Operations	High	Moderate		250	FY2012
P - Card	Moderate	Moderate		275	FY2011
Fleet Management	Moderate	High		300	FY2011
Investment & Cash Management	Moderate	High		250	
Cashiering Remote Site	Moderate	Low		150	FY2010
IT - Network Security & Access Provisioning	High	High		275	FY2010
IT - SDLC & Change Management	Moderate	Moderate		275	FY2010
Board meetings, Management team meetings, Status Reporting				450	
Management Requests and Special Investigations			Internal Audit is available to assist with other special projects as requested by management and/or the Audit Committee.	600	
Follow-up			Follow-up will be conducted based on FY12 Internal Audit findings and management's action plans to ensure appropriate and effective resolution of findings.	600	
Update Risk Assessment and Develop Plan			Review the existing Audit Universe and risks identified to determine whether any organizational changes impact the processes identified or risk ratings.	150	
Operation of DC Water Fraud, Waste & Abuse Hotline				500	
<b>TOTAL</b>				<b>6000</b>	

# FY 2013 Internal Audit Plan

Q1 2013	Est. Hrs	Q2 2013	Est. Hrs	Q3 2013	Est. Hrs	Q4 2013	Est. Hrs
Regulatory Compliance	250	Engineering- High Priority	275	Fleet Management	300	Utilities - Repairs and Flushing	300
P - Card	275	Investments & Cash Management	250	Sewer - Emergency Maintenance	300	Warehouse Operations	250
Chemicals Purchasing	275	Maintenance Services	250	PCCS	275	IT - SDLC & Change Management	275
Cashiering Remote Site	150	IT - Network Security & Access Provisioning	275				
Follow-Up Activity	150						
						Update Risk Assessment & FY2012 Internal Audit Plan	150
Board Meetings, Management Team Meetings & Status Reporting	115	Board Meetings, Management Team Meetings & Status Reporting	115	Board Meetings, Management Team Meetings & Status Reporting	110	Board Meetings, Management Team Meetings & Status Reporting	110
<b>Total IA Hours</b>	<b>1215</b>	<b>Total IA Hours</b>	<b>1315</b>		<b>1135</b>		<b>1235</b>
		Plus: Management Requests & Special Projects					600
		Operation of DC Water Fraud, Waste & Abuse Hotline					500
		<b>Total FY2013</b>					<b>6000</b>

Note: Shading in planned audit areas represents the Impact Rating

# FY 2013 Risk Assessment Results

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

# FY 2013 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
Blue Plains - Contract Management	Moderate	Moderate	
Sewer Services - Emergency Maintenance	Moderate	Moderate	FY2013
Sewer Services - Distribution Operations	Moderate	Moderate	
Utility Services - Repairs	Moderate	Moderate	FY2013
Utility Services - Fire Hydrant	Moderate	Moderate	FY2011
Utility Services - Investigation and Emergency Maintenance	Moderate	Moderate	
Utility Services - Pumping Operations	Moderate	Moderate	
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 - Business Continuity Planning, Disaster & Recovery Planning, Backup and Recovery	Moderate	Moderate	FY2011
IT - Internal Network & Telecommunications	Moderate	Moderate	
IT - Operating System & Database Configuration and Security	Moderate	Moderate	
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

# FY 2013 Risk Assessment Results

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

## *Audit Universe & Ratings Summary*

- 6 Areas were rated High Likelihood and High Impact
- 2 Areas were rated High Likelihood and Medium Impact
- 12 Areas were rated Moderate Likelihood and High Impact
- 29 Areas were rated Moderate Likelihood and Moderate Impact
- 5 Areas were rated Low Likelihood and Moderate Impact
- 4 Areas were rated Moderate Likelihood and Low Impact

Total = 58

# Risk Ratings & Definitions

CONSIDERATIONS	
LIKELIHOOD	
<b>STRATEGIC RISK</b>	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
<b>LEGAL &amp; REGULATORY RISK</b>	Noncompliance with legal or regulatory requirements can result in fines, penalties or other adverse impact to the organization.
<b>ENVIRONMENT, HEALTH &amp; SAFETY RISK</b>	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
<b>INFORMATION TECHNOLOGY RISK</b>	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
<b>CUSTOMER SERVICE / DELIVERY RISK</b>	Failure to provide service to customers (internal or external); Failure to respond to customers (internal or external) in a timely or effective fashion
<b>FRAUD RISK</b>	Susceptibility to theft, waste, and abuse of DC Water resources; Assets and information that is vulnerable to theft or manipulation.
<b>PERSONNEL / HR RISK</b>	Lack of proper skill set, resources, training or succession planning
<b>INFORMATION &amp; COMMUNICATION RISK</b>	Inaccurate, inconsistent or untimely information or communications to customers, both internal and external, to the organization
<b>CONTROL ENVIRONMENT</b>	Policies, procedures and day-to-day practices are in place to mitigate the inherent risks within the operation
IMPACT	
<b>REPUTATION IMPACT</b>	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.
<b>BUSINESS OPERATIONS IMPACT</b>	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
<b>FINANCIAL IMPACT</b>	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.

# Likelihood & Impact Definitions

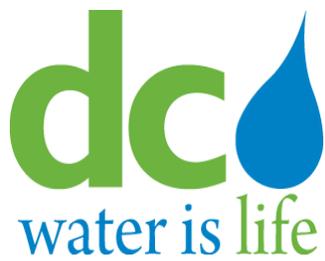
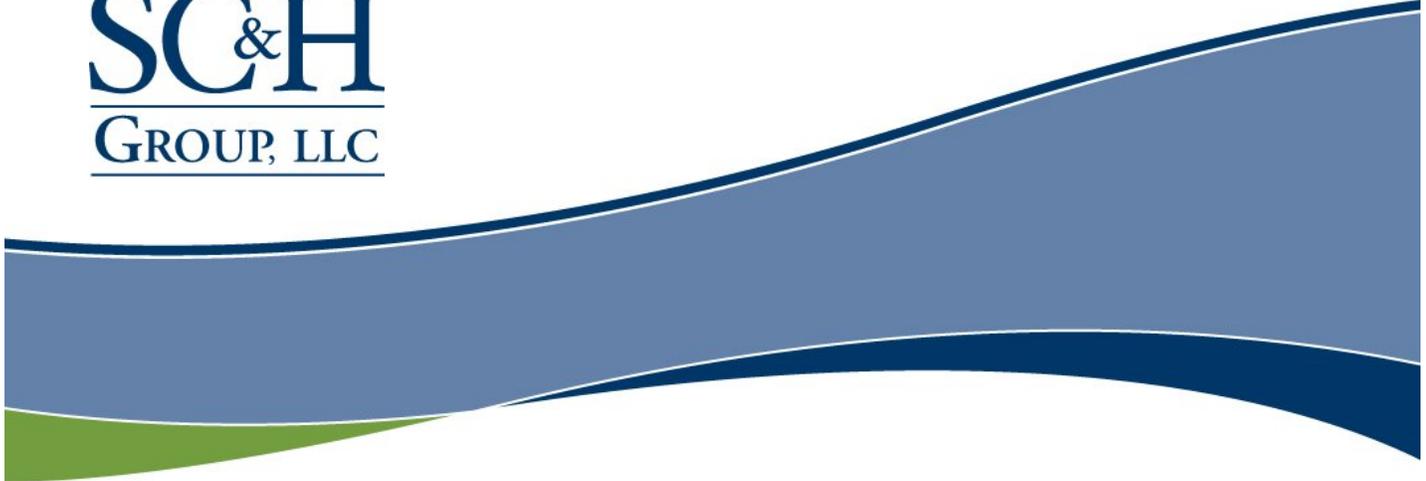
LIKELIHOOD	
High	Immediate and high degree of vulnerability such that it is critical that the risk be managed and controlled in order for this area to achieve its objectives. If not properly controlled, that area could have a serious, long-term or detrimental effect on operations, and the achievement 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.

## Contact Information

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**Permit Operations  
Internal Audit Report**

July 11, 2012

**INTERNAL AUDIT TEAM**

Senior:	Perry Eggers
Principal:	Dennis FitzGerald
Director:	Joe Freiburger

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## EXECUTIVE SUMMARY

### Background

DC Water's Permit Operations department, within the Office of the Chief Engineer, processes permit applications related to construction projects in the District which are going to have an impact on DC Water's distribution systems and infrastructure due to a new connection, changes to an existing connection, razing an existing connection, etc. The final product of a processed permit application is typically a Water and Sewer Availability Certificate (WSAC), which is created for all projects that entail a connection to the water and/or sewer system. The department currently has a total of 14 employees and is led by the Permit Director. The Permit Director oversees two design review groups responsible for processing permit applications. Each review group is managed by a permit supervisor responsible for making most final approvals of permit applications reviewed.

The Permit Operations department is also responsible for collecting inspection fees and coordinating the inspections with the inspection engineering group at DC Water. The revised Permit Operations departmental budget for FY2012 is \$1,661,900 and is projected to be only \$1,153,500 which is partially funded by application review fees paid by the applicants. For the fiscal year-to-date (7/1/2012), the Permit Operations department has collected \$925,195 in review fees. Depending on the type of permit, the review fees range from \$150 to several thousand dollars. To limit the amount of risk associated with accepting payments from applicants, the department has limited the payment options to check, credit card, and money order payments. All payments received are routed to DC Water cash collections at the 1<sup>st</sup> Street NW location.

The permit application reviews are documented in Maximo and all relevant supporting review documents are attached to the Maximo file via Kofax document imaging system. Maximo and Kofax allow for easy access to review and approve permit applications. Each permit review type is allocated between 15 and 45 days for review. However, if additional information is required or review comments need to be answered; the plans are returned and the status is changed to "revise and resubmit." The total time required to complete a review does not include the time in which the Permit Operations department is awaiting additional information from the applicant. It is therefore not unusual that an approval may take longer than 45 days due to missing application information, which the applicant needs to submit to the Permit Operations office in order to obtain the final permit application approval.

As part of a District-wide initiative to better serve permit applicants, the Permit Operations department was re-located to 1100 4<sup>th</sup> Street SW in January, 2012 which is in close proximity to other District permit processing agencies. This new address serves as the central location for processing various permits necessary to do business in the District.

### **Objectives**

We established five objectives for the audit of the permit operations activities:

- Ensure that the Permit Operations department maintains adequate policies and procedures and standard operating procedures
- Ensure that payments received are sufficiently controlled and monitored
- Ensure that processing of permit applications is accurately recorded and supported
- Ensure that permit transactions are processed in a timely manner
- Ensure that proper segregation of duties exist within the Permit Operations department

### **Audit Scope and Procedures**

This audit was conducted as part of the approved FY2012 Internal Audit plan. The audit was initiated in May 2012 and completed in July 2012, and included a review of all relevant aspects of permit operations at DC Water.

We met with permit operations process owners involved in the daily permit operations, and conducted preliminary walkthroughs of the permit processes to determine the nature of the processes in place at DC Water to keep the Permit Operations department operational, uninterrupted and well controlled.

We documented the relevant permit operations processes by reviewing applicable information provided to us by the relevant staff members and we performed testing of the processes identified to evaluate and make certain that effective controls are in place.

### **Summary of Work**

The internal audit process consisted of a review of pertinent, existing reports and documentation, along with observations of the daily activities and interviews with the Permit Operations department staff.

Internal Audit conducted a review of these operations in 2011. We identified that the permit operations standard operating procedures (SOPs) were in need of review.

The permit operations management is still in the process of reviewing the SOPs and is expecting to have the update completed by October 1, 2012. To avoid any transaction processing issues and continuity issues in the Permit Operations department in the future, the department should review the standard operating procedures on an annual basis to ensure the documents continue to be up to date.

We also reviewed the job descriptions for the Intake Coordinator, Permit Supervisors, the design review group members, and we observed their ongoing processes and interaction within Maximo. Based on our review, we have determined that proper segregation of duties exists within the primary Permit Operations department in general. Additionally, each staff member of the department has a designated backup with the ability to fill in for a staff member being absent from work, which is a good control feature.

To ensure that permit application data is properly supported and recorded in Maximo prior to the final approval, we reviewed a sample of permit application files. Based on our review and testing results, we determined that the department has significantly improved the record keeping procedures since the 2011 Permit Operations audit took place and sound controls are in place to ensure that transactions are properly approved, reviewed, and recorded. However, we recommend that management continue to pay close attention to the record keeping procedures and controls.

We also reviewed the process for accepting and handling payments, and we confirmed that only checks, credit card payments, and money orders are accepted as payment. Payments received are transported by the DC Water Courier to the DC Water Teller at 1<sup>st</sup> Street, NW, location for final processing. We believe that the Permit Operations department has good controls in place to avoid mishandling of DC Water funds and to ensure that all permit application review and inspection fees have been paid prior to final approval of a permit application.

Finally, to ensure that permit applications are processed in a timely manner, we were able to confirm that Permit Supervisors generate and review the daily application status report which provides the Permit Supervisors with a listing of all ongoing reviews and time remaining to complete the review. The Permit Supervisors examining the application status report is a good control to ensure that reviews are performed in a timely manner.

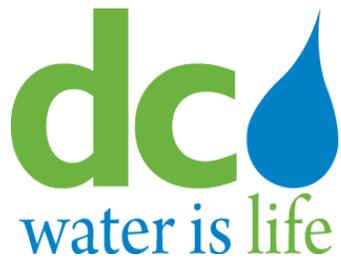
Overall, we believe that the processes and controls in place in the Permit Operations department are properly designed to minimize the risk of any improper permit operations issues to occur. The management team has made good progress in substantially addressing the previously reported issues.

Therefore, based on the results of our audit, we do not have any permit operations process improvement recommendations to share with management.

SC&H Consulting

By: \_\_\_\_\_

Joe Freiburger, CPA, CIA



**Capital Projects  
Internal Audit Report**

August 9, 2012

**INTERNAL AUDIT TEAM**

Senior:	Michael Zink
Principal:	Dennis Fitzgerald
Director:	Joe Freiburger

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## EXECUTIVE SUMMARY

### Background

The Department of Engineering and Technical Services (DETS) and the Department of DC Clean Rivers (Clean Rivers) are responsible for supporting the Capital Projects of DC Water by managing the design and construction of the projects on the Blue Plains facility and other locations around the District. The DETS and Clean Rivers are comprised of 133 employees: 1 Chief Engineer, 2 Directors, 8 Managers / Assistant Directors, 23 Supervisors, 89 Engineers / Technicians, and 10 Administrative people. In addition to the DC Water employees, there are 147 consultant employees hired to assist DETS and Clean Rivers in various capacities.

As of June 2012, DETS and Clean Rivers manage active construction projects totaling approximately \$592.8 million, engineering contracts totaling approximately \$692.9 million and design / build projects with a value of approximately \$622.6 million. The construction contracts had a base contract amount of \$574.4 million and change orders totaling \$18.4 million or 3.21%. The engineering contracts had a base contract amount of \$499.6 million and supplement agreements of \$193.3 million or 38.69%. The design / build projects have a base value of approximately \$621.9 million and change orders of \$670,000 or 0.11%.

	Base Contract	Modifications	Total	% over Base Contract
Construction	\$574,364,370	\$18,431,131	\$592,795,501	3.21%
Engineering	\$499,612,375	\$193,318,524	\$692,930,899	38.69%
Design/Build	\$621,892,875	\$670,340	\$622,563,215	0.11%
Total	\$1,695,869,620	\$212,419,995	\$1,908,289,615	12.52%

### Objectives

Our overall audit objectives included an evaluation of the management of Capital Project contracts, including both Engineering and Construction, to make certain the goals and objectives of the department were being met. This included the use of appropriate tools to monitor progress of projects, efficient use of staff resources and compliance with existing policies and procedures. Specific audit procedures were performed to address the following objectives:

- Ensure that activities relative to Capital Projects are in compliance with the Authority's policies and procedures and any applicable regulations.
- Evaluate overall effectiveness and efficiency of managing Capital Projects, including both the construction contracts and the engineering contracts.
- Ensure that files are appropriately documented to support relevant activity and compliance with the contract.
- Assess the level of management and oversight.

### Audit Scope and Procedures

This audit was conducted based on the approved FY2012 internal audit plan. It was initiated in July 2012 and completed in August 2012 with the development of Management's Action Plans. The scope of the audit included all active construction and engineering projects as of June 30, 2012. The listing of active projects for construction and engineering were provided to SC&H by Gus Bass, Engineering Management Services Manager.

Once the projects were selected, SC&H obtained the each relevant project file, commonly referred to as the "Brown Folders," which contain critical documents ranging from advertisement of the project to the execution of the contract. Upon completing the review of the folders, SC&H reviewed the progress meeting minutes and schedule updates for the selected projects to ensure that the projects were effectively being managed after the contract execution. Lastly, SC&H obtained departmental meeting minutes to ensure that the management of the department was aware of any issues and delays on the construction projects. Through the combination of the various test procedures performed, SC&H was able to conclude that the Department of Engineering and Technical Services and the Department of Clean Rivers were following the policies and procedures set forth by the Authority.

### Summary of Work

A review of the relevant processes in place and the current control environment, Internal Audit concludes that the system of internal controls and operational aspects of the Department of Engineering and Technical Services and the Department of DC Clean Rivers are effective, although some recommendations did arise out of the audit. These issues express topics that need to be addressed and internal control features that must be implemented in order to enhance the management of the Capital projects, operational efficiency, and to ensure that the objectives of DC Water are met. Specific issues identified included:

- Use purchase orders instead of supplemental agreements to control timing of spending
- Create a minimum number of firms required in the contractor selection process before proceeding with a project.

Internal Audit recognizes that a significant effort is underway relative to materials management. This will strengthen the overall control environment and allow the Department of Engineering and Technical Services to increase its productivity and efficiency regarding Capital Projects. However, once the initiatives are implemented, management will need to evaluate the skill sets and responsibilities of the staff to ensure its staff maintains the required competencies. Further, we recommend that management implement continuous training for its staff.

DC Water – 2012 Internal Audit  
Capital Projects



SC&H Consulting

By:

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Joe Freiburger, CPA, CIA

## II. DETAILED OBSERVATIONS & RECOMMENDATIONS

Observation(s)	Internal Audit Recommendation(s)	Management Comment(s)
<b>I. Contract Management</b>		
<p><b>Observation:</b></p> <p>Our review of contracts entered into by DETS and Clean Rivers indicated that most are for an extended period of time and require significant funding needs. For certain types of engineering services contracts, the contract amount matches the available budget amount instead of the anticipated full cost of the project. Because only a portion of the project cost is initially included in the contract, there becomes a need to seek approval for supplemental agreements to approve additional funding and increase the contract value.</p> <p><b>Risk:</b></p> <p>The need for approval of multiple supplemental agreements gives the appearance that the intent of the project has changed and can lead to the impression that DETS and Clean Rivers are not managing their professional service contract properly.</p>	<p><b>Recommendation:</b></p> <p>We recommend that when DETS and Clean Rivers enter into a contract, the expected full amount of the project funding be included as the contract value. A clause may be inserted that progressing completely through the duration of the project is contingent upon obtaining Board approved annual budget funding. A Purchase Order can be issued in the amount of the annual approved budget funding. The need for Supplemental Agreements and Change Orders can then be reserved for changes in the project scope.</p> <p><b>Business Owner(s):</b></p> <p>Leonard Benson, Chief Engineer</p>	<p><b>Management’s Action Plan and Implementation Date:</b></p> <p>Engineering (DETS and Clean Rivers) will review with the OCFO and OGC the legal and policy implications of the recommendation provided by Internal Audit. Engineering concurs that the recommendation will be an effective method of correcting potential misconceptions regarding the management of contracts for engineering services, and will implement the recommendation to the extent permitted by current policy. Engineering will also propose policy modifications if needed to implement the recommendation.</p> <p>Anticipate policy review by September 30, 2012.</p>

Observation(s)	Internal Audit Recommendation(s)	Management Comment(s)
II. Minimum Proposals		
<p><b>Observation:</b></p> <p>Our review of a sample of files included an examination of the procurement process to select qualified contractors. For one of the selected contracts, two firms were included on the short list, although only one firm could make the technical interview. The sole firm who completed the technical interview was ultimately awarded the contract.</p> <p><b>Risk:</b></p> <p>The Authority may not receive the best professional services firm for the project. In addition, the Authority may decrease its negotiation power, if the firm is aware that they are the only firm that submitted a proposal for the project.</p>	<p><b>Recommendation:</b></p> <p>We recommend that the contractor selection process require a minimum of two firms be interviewed for each DC Formal Agreement. If two firms do not submit a proposal or participate in the interview process, then the project should be postponed and submitted to the public again in an effort to identify more firms for consideration. If the project is time critical (i.e. a Consent of Decree project), then there should be a minimum technical score to be received in the interview process before the project proceeds.</p> <p><b>Business Owner(s):</b></p> <p>Leonard Benson, Chief Engineer</p>	<p><b>Management’s Action Plan and Implementation Date:</b></p> <p>Engineering agrees that competition by multiple firms for engineering services is important to ensure DC Water obtains the services of qualified firms at a reasonable cost. Engineering has engaged in extensive outreach programs to encourage qualified firms to compete for work, and will continue to do so.</p> <p>Engineering will develop and implement a revision to procedures governing the procurement of engineering services to incorporate the recommendations by Internal Audit. Procedures will be developed and implemented by September 30, 2012.</p>

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY  
BOARD OF DIRECTORS CONTRACTOR FACT SHEET**

**ACTION REQUESTED**

**GOODS AND SERVICES CONTRACT OPTION YEAR:**

**Internal Audit Outsourcing  
(Joint Use – Indirect Cost)**

Approval to execute option year three (3) of four option years in the amount of \$792,000.00.

**CONTRACTOR/SUB/VENDOR INFORMATION**

<b>PRIME:</b> SC & H Group 8300 Greensboro Drive, Suite 700 McLean, Virginia 22102	<b>SUBS:</b> N/A	<b>PARTICIPATION:</b> N/A
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**DESCRIPTION AND PURPOSE**

Original Contract Value: \$720,000.00  
 Original Contract Dates: 10-16-2009—10-15-2010  
 No. of Option Years in Contract: 4  
 Option Year Values (1-2): \$1,581,510.00  
 Option Year Dates (1-2): 10-16-2010—10-15-2012  
 Third Option Year Values: \$792,000.00  
 Third Option Year Dates: 10-16-2012—10-15-2013

**Purpose of the 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 Year:**

Cumulative Contract Value: 10-16-2009 to 10-15-2012—\$2,301,510.00  
 Cumulative Contract Spending: 10-16-2009 to 08-31-2012—\$1,874,232.00

**Contractor's Past Performance:**

The contractor's past performance has been satisfactory.

