



Audit of Contract Monitoring

Project #12-29

Prepared by
Office of the Inspector General

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SOUTH FLORIDA WATER MANAGEMENT DISTRICT

July 11, 2013

Audit and Finance Committee Members:

Mr. Jim Moran, Chair
Mr. Tim Sargent, Vice Chair
Mr. Glenn Waldman, Member
Mr. Juan Portuondo, Member

Re: Audit of Contract Monitoring
Project No. 12-29

This audit was performed pursuant to the Inspector General's authority set forth in Chapter 20.055, F.S. Our objectives focused primarily on determining whether the District's contract monitoring process is adequate. Jankie Bhagudas and I prepared this report.

Sincerely,

A handwritten signature in blue ink that reads "J. Timothy Beirnes".

J. Timothy Beirnes, CPA
Inspector General

TABLE OF CONTENTS

BACKGROUND	1
OBJECTIVE, SCOPE, AND METHODOLOGY	3
AUDIT RESULTS	4
Executive Summary	4
Contract Monitoring Procedures Appear Sufficient.....	6
Construction Contract Payments Adequately Substantiated.....	8
Strengthened Controls Needed Over Non-Construction Contract Payments	9
<i>Inadequate Review of Contracted and Invoiced Rates Resulted in Contractor Overpayment</i>	9
<i>District to Reimburse Contractor for Sales Tax on Herbicide Used to Treat Nuisance Vegetation</i>	12
<i>Insufficient Documentation to Support Payments for Consultant Services</i>	13
Better Understanding of Allowable and Non-Allowable Change Order Costs Needed	18
APPENDIX I	24

BACKGROUND

In accordance with the Office of Inspector General's Fiscal Year 2012 Audit Plan, we conducted an Audit of Contract Monitoring.

The District's Procurement Bureau is situated in the Administrative Services Division. Its overall mission is to acquire goods and services in a responsive manner through contractual mechanisms that support District initiatives using procedures of integrity and fairness. Procurement Bureau's specialists' responsibilities include managing the contract solicitation process, leading contract negotiations, coordinating with the Office of Counsel on special terms and conditions, assisting in contract issues and claims, and handling contract closeouts.

Contract monitoring is primarily the responsibility of construction and project managers. Construction project managers' responsibilities include monitoring construction contracts and are assigned to the Engineering and Construction Bureau's Project Management Section. Project managers are responsible for monitoring non-construction contracts and are assigned throughout the District.

Most District contracts are categorized either as construction or non-construction. Construction contracts may require the contractor to furnish labor, material and equipment to construct, modify or demolish a District facility. Examples of District construction contracts include the following: levee repairs, culvert replacements, bank stabilizations, pump stations, water control structures, reservoirs, and stormwater treatment areas (STAs). The following are the before and after construction photographs of Culvert PC-01 on the L-12 Levee, located in western Palm Beach County. The contract was one of our sampled contracts and construction was completed in November 2012.



Before Construction



After Construction

Non-construction contracts usually require the contractor to provide a service to the District. Most of these contracts are usually work order based contracts that provide for services with a not-to-exceed contract dollar limit. These contracts generally provide for furnishing services during a fixed period, with deliverables or performance to be scheduled through the placement of individual work orders with one or more contractors. Work order contracts are appropriate when the exact timing, or need for services is unknown or unpredictable (for example, laboratory analyses and professional services). The District does not guarantee a minimum level of work to the contractors. Work orders are issued on an as needed basis. Examples of major work order contract initiatives at the District currently include the General Engineering and Professional Services, Science and Technology Services, and Surveying and Mapping Services.

Based on information obtained from SAP, as of September 2012, 28 construction contracts were in the monitoring phase with a value of approximately \$162 million. In addition, 342 non-construction contracts were in the monitoring phase. An additional 500 contracts including land leases, governmental agreements, and other services were in the monitoring phase in September 2012.

OBJECTIVE, SCOPE, AND METHODOLOGY

Our objectives primarily focused on determining whether the District contract monitoring process is adequate.

To accomplish our objective, we obtained an understanding of the process in place for monitoring contracts by interviewing construction managers, project managers, and relevant District staff. We selected a sample of 8 construction and 12 non-construction contracts and performed various audit tests to assess whether the contracts were adequately monitored. For the 20 sampled contracts/work orders, we also reviewed 71 payments to determine whether payments were made in accordance with contract terms and conditions. (Refer to Appendix A for the sampled listing of contracts/work orders and payments.) Further, we analyzed four construction change orders for compliance with the general terms and conditions set forth in the contract agreements.

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

AUDIT RESULTS

Executive Summary

Overall, the District's contract monitoring process is sufficient. Specifically, our review of 8 sampled construction and 12 non-construction contracts disclosed that contractors are sufficiently monitored. However, due to the different types of contracts, the degree of monitoring and the documentation maintained may be different. Further, we concluded that the progress payments for construction contracts were sufficiently substantiated. As part of our audit, we reviewed 28 payments made against the 8 construction contracts to determine whether the payments were sufficiently substantiated. We concluded that the Contract Payment Authorizations were properly authorized, invoiced amounts were mathematically accurate, contractor's affidavits were submitted, and retainage amounts were correct. In addition, construction managers provided adequate documentation justifying that progress payments were for work completed.

We also reviewed 43 payments made against the 12 non-construction contracts/work orders and concluded that most of the payments were sufficiently substantiated, however, we noted issues with 9 of the 43 payments. Specifically, the 43 payments included five payments made to a contractor that was billing the District \$2.00 more per hour for laborer services than the contracted rate and District staff did not detect the discrepancy. As a result, we reviewed all payments made on the contract. We noted that the billing discrepancy began at the start of the contract and during the period October 2011 to September 2012 the District overpaid the contractor a total of \$97,371. Further, our review of two other payments disclosed that another contractor overcharged the District \$1,315 for herbicides. We also noted another two payments where there was insufficient documentation to adequately support payment for consultant inspection services totaling \$3,556.

Our audit also revealed that the District has to reimburse a contractor \$3,829 for sales tax on herbicides provided by the contractor to treat nuisance vegetation. The contractor invoiced the District for the cost of herbicides but not for the sales taxes.

Based on Florida Statutes and tax regulations, the District is responsible for paying the sales taxes on the herbicides provided by the contractor.

We concluded that construction managers need to improve their understanding of the general terms and conditions detailed in construction contracts relating to change order costs and carefully review the itemized costs provided by contractors. Specifically, we reviewed four change orders and found that in all four instances the District paid for costs clearly indicated in the general terms and conditions as non-allowable and certain costs that should have been questioned and disallowed. The District's construction contracts' general terms and conditions specify that the District will pay for the cost for certain items; however, it will not pay a contractor's or subcontractor's fee (mark-up) for the items. For example, the District will not pay a fee on equipment, sales tax, and fuel. We found that the change order costs consistently included fees on non-allowable items and identified \$37,988 in change order costs for non-allowable costs.

Contract Monitoring Procedures Appear Sufficient

Overall, the District's contract monitoring process is sufficient. Specifically, our review of the 8 construction and 12 non-construction contracts disclosed that contractors are adequately monitored by the District. Based on the contract requirements and deliverables, the extent of monitoring and the documentation requirements differ among contracts as described in the following sections.

Construction Contracts

Based on our discussions with the construction managers, review of data maintained in Expedition¹ for the eight sampled construction contracts, and other relevant documentation, we concluded that there are several controls in place to ensure that construction contracts are adequately monitored. The Engineering and Construction Bureau's construction managers are responsible for ensuring compliance with the terms and conditions set forth in District construction contracts. The following are some of the specific methods used by the construction managers to ensure construction contracts are monitored:

- Conducting frequent site visits, and reviewing and approving site inspection reports in Expedition. It should be noted that there is usually a District representative at the construction site who documents contractor's progress via inspection reports.
- Ensuring construction progress is documented via photographs and stored in LYNX, the District's photograph database.
- Conducting bi-weekly meetings with all relevant parties; such as, contractor, subcontractor, relevant District staff and stakeholders. Items discussed at the bi-

¹ Expedition is the software used the Engineering and Construction Bureau to document construction project information and activity; for example, communications with contractor, daily reports, bi-weekly meeting minutes, submittals (such as shop drawings, technical reports, and manuals), requests, and change orders.

weekly meetings typically include the following: contract information such as milestone dates, contractor's current and future activities, status of submittals, request for information, change orders, issues impacting construction schedule, pay application status, and safety and security at the construction site.

- Communicating with site inspectors, contractor's staff, and the engineer of record to resolve any issues.
- Reviewing and managing requests for information and clarification, value engineering proposals, and change orders.
- Paying the contractor in a timely manner for completed work and evaluating the contractor's performance.

Non-Construction Construction Contracts

Based on our discussions with the project managers and our review of relevant documentation for the 12 sampled non-construction contracts, we concluded that there are controls in place to also ensure that non-construction contracts are adequately monitored. The 12 non-construction contracts comprised of service contracts and work orders issued against work order based contracts; for example, General Engineering and Professional Services, and Science and Technology contracts.

Based on our review, the project managers monitor the non-construction contractors by conducting site visits and documenting the visits via reports and photographs, conducting meetings to discuss the status of deliverables, and communicating frequently with the contractors. In some instances, the contractors provide services at District facilities and report directly to the project managers.

Construction Contract Payments Adequately Substantiated

Overall, we found that the progress payments for the eight construction contracts were adequately substantiated. As part of our audit, we reviewed 28 payments made towards the eight construction contracts in our sample to determine whether the payments were adequately supported. Specifically, Contract Payment Authorizations were properly authorized, invoiced amounts were mathematically accurate, contractor's affidavits were submitted, and retainage amounts were correct. Further, as part of our tests, we selected specific invoiced line items and requested that the construction managers provide the documentation justifying that the amount paid was for completed work. The construction managers provided daily inspection reports, bi-weekly meeting minutes, vendor invoices, and photographs as substantiating documentation that adequately supported the payments. In addition, construction managers explained that prior to invoice approval they make site visits to assess the work completed and discuss draft invoices with the District's representatives stationed at the construction site and the contractor to ensure that the progress payment amounts requested are justified.

Further, Engineering and Construction Bureau's Project Controls/Scheduling Manager reviews all invoices and cost loaded schedules for various items; for example, percentage of construction completed, earned value, schedule and cost variances, and out of sequence activities. Further, it should be noted that after approval by the Engineering and Construction Bureau, all construction contract payments are approved by the Procurement Bureau's contract specialists to ensure that the invoiced amounts are in agreement with the contract, mathematically correct, and ensure that the amount have not already been paid.

Strengthened Controls Needed Over Non-Construction Contract Payments

As part of our audit, we reviewed 43 payments made against the 12 non-construction contracts/work orders in our sample to determine to whether the payments were adequately substantiated. We interviewed the project managers, selected specific invoiced items/deliverables, and requested that the project managers provide the documentation justifying the payments. The project managers provided various types of documentation including the following: status reports, weekly timesheets, inspection reports, photographs, specific deliverables provided the contractor, and vendor invoices. Our audit tests also included verifying the invoiced totals for accuracy and ensuring they were made in accordance with the payments and deliverable schedule or the rate schedule set forth in each contract. Overall, we found that payments were made in accordance with the contract deliverable or rate schedules; however, we noted issues with 9 of the 43 payments, which are summarized in the table below and detailed in the following sections.

Audit Issues	Amount
Inadequate review of contracted and invoiced rates resulted in contractor overpayment	\$98,686
District to reimburse contractor for sales tax on herbicides used to treat nuisance vegetation	(\$3,829)
Insufficient documentation to support payment for consultant inspection services	\$3,556

Inadequate Review of Contracted and Invoiced Rates Resulted in Contractor Overpayment

Our review of five sampled payments made to Lake and Wetland Management, Inc., (contract #4600002498) for vegetation control services disclosed that services were invoiced and paid at a rate higher than the rate specified in the contract agreement. In addition, our review of the eight sampled invoices and payments made to Applied Aquatic Management, Inc., (contract #4600002497) found that the contractor overbilled the District in two instances for herbicides. District staff did not discover the billing

errors during the invoice approval process. Both contract agreements are for ground application services for aquatic, wetland, and terrestrial vegetation control and work is awarded as needed through the issuance of work orders. The agreements are for three years (Fiscal Years 2012 to 2014) with two one-year renewal options (Fiscal Years 2015 and 2016). Our findings are detailed in the following sections.

Contract #4600002498 with Lake and Wetland Management, Inc.

The contractor billed, and the District paid, \$22.00 per hour for laborer services. However, based on the contract, the rate for laborer services is \$20.00 per hour. Due to the billing rate discrepancy, we reviewed all payments made to the contractor for vegetation control services to determine whether there were any other discrepancies. During the period October 2011 to September 2012, the District issued 23 work orders and made 64 payments to the contractor. Our examination of the 64 invoices and payment information revealed that in all instances where the contractor provided laborer services, the contractor invoiced for these services at \$22.00 per hour and the District paid for the services at \$22.00 per hour. We concluded that the District overpaid the contractor \$97,371 during the period October 2011 to September 2012, as shown in the following table:

Analysis of Contract Agreement with Lake and Wetland Management, Inc. (Contract #4600002498)	
Number of Work Orders	23
Numbers of Payments	64
Total Amount Paid (as of September 2012)	\$1,517,048.75
Laborer Hours	
Number of Laborer Hours	48,685.50 hrs
Amount Paid by District for Laborer Hours at the Incorrect Rate of \$22 per Hour	\$1,071,081
Amount District should have Paid for Laborer Hours Based on the Contracted Rate of \$20 per Hour	\$973,710
Amount Overpaid by the District for Laborer Hours	\$97,371

Operations, Maintenance and Construction Division’s Vegetation Management Section staff responsible for managing the contract explained that payment was made at

the higher rate due to an error. During our audit, we provided the results of our analysis to the Vegetation Management Section staff. They informed the contractor of the overbilling and that the overpayment will have to be repaid to the District. Since the contract is for three years with two one-year renewal options, it is possible that the rate discrepancy would have remained undetected throughout the contract term.

Contract #4600002497 with Applied Aquatic Management, Inc.

As part of the contract agreement, the contractor may be required to purchase herbicides and then invoice the District for the actual amount used. In instances where the contractor supplies the herbicides, the contractor is required to submit the herbicide receipts as part of the monthly invoice package submitted to the District for payment. Our review of eight invoices and the corresponding payment information disclosed that in two instances the contractor overbilled the District for \$1,315 in herbicides and District staff who approved payments did not detect the discrepancy. Specifically, the herbicide receipts submitted by the contractor indicated that the contractor paid \$79 per gallon for a certain herbicide; however, the contractor invoiced the District at \$89 per gallon. During our audit, we brought this discrepancy to the Operations, Maintenance and Construction Division's Vegetation Management Section staff responsible for approving payments to the contractor. Staff explained that payment was made at the incorrect rate in error and they informed the contractor of the overpayment. The contractor agreed to reimburse the District.

District to Reimburse Contractor for Sales Tax on Herbicides Used to Treat Nuisance Vegetation

Based on the District’s contracts for ground application services for aquatic, wetland, and terrestrial vegetation controls, the District is required to reimburse the contractors for the cost of the herbicides used in vegetation control services including sales tax paid by the contractor. Our review of invoices and payments made to two of these contractors in our sample (Lake and Wetland Management, Inc., (contract #4600002498) and Applied Aquatic Management, Inc., (contract #4600002497)) disclosed that Applied Aquatic Management invoiced the District for the sales tax paid for the herbicides used to manage nuisance vegetation; however, Lake and Wetland Management, Inc., did not invoice the District for sales tax for the herbicide it used. Based on our review of the contractors’ herbicides invoices submitted to the District, both contractors paid sales tax on herbicides. Based on Florida Statutes and tax regulations, the District is required to pay the sales tax for any taxable parts and supplies provided by contractors. As a result, Lake and Wetland Management, Inc., should have billed the District for sales taxes. As part of our audit, we reviewed all invoices and payments made to result, Lake and Wetland Management, Inc., for herbicides to determine the total sales taxes that should have been billed to the District. During the period October 2011 to September 2012, the contractor should have invoiced the District \$3,829 in sales tax, as shown in the following table.

Analysis of Contract Agreement with Lake and Wetland Management, Inc. (Contract #4600002498)	
Herbicides Sales Tax	
Cost of Herbicides Supplied by the Contractor	\$63,868
Sales Tax Paid by Contractor (@ a rate of 7%)	\$3,829
Amount Due to Contractor for Sales Tax	\$3,829

During our audit, we brought this discrepancy to the Operations, Maintenance and Construction Division’s Vegetation Management Section staff responsible for approving payments to the contractor; they acknowledged that this was an oversight and informed

the contractor. It is important that District staff carefully review all invoices and understand what costs the District is responsible for paying.

Insufficient Documentation to Support Payments for Consultant Services

Our sampled payments included three payments made to HDR Construction Control Corporation (Contract #4600000771 - Work Order #4) for construction inspection services for the S-193 Navigational Lock construction project. Our review disclosed that for two of the three sampled payments there was insufficient documentation to support payments totaling \$3,556 for inspection services.

Specifically, our review of one invoice disclosed that a construction inspector worked 12 hours on June 3, 2012, (Sunday night shift) and was paid \$1,524 (12 hours @ \$127 per hour). Since the inspector performed construction inspection services, we reviewed Expedition to determine whether a daily inspection report was documented. We concluded that there was no daily inspection report in Expedition documenting the work performed by the contractor. According to Engineering and Construction Bureau staff, the contractor stated work was performed but neglected to prepare an inspection report. Since the work order specified that the consultant should provide an inspection report for each day, the District's project manager should have verified that a report was prepared before authorizing payment for the hours. Further, the reports provide additional substantiation that the consultant was at the site and provided the services billed to the District.

In addition, the approved timesheet for another construction inspector indicated that he worked the night shifts on July 12 and 13, 2012, for a total of 16 hours and was paid \$2,032 (16 hours @ \$127 per hour). However, our review of Expedition disclosed that there were no night crews at the construction site these nights. According to Engineering and Construction Bureau staff, the consultant stated that the construction contractor cancelled the night work without any notice and the District's project manager verbally authorized the inspector to remain at the site and review plans, specifications, and submittals. However, there was no documentation to substantiate the work

performed. At a minimum, the District's project manager should have required the consultant to provide a narrative of the work performed before approving payment.

Although these are the only instances we noted where the documentation appears insufficient, additional efforts should be undertaken to ensure that all payments for services are fully documented. Further, it should be noted that unlike construction contract payments, non-construction contract payments are not required to be approved by the Procurement Bureau's staff to ensure that the invoiced amounts are in agreement with the contract, mathematically correct, and have not been paid.

Recommendations

- 1. Implement procedures to ensure that project managers responsible for approving payments are comparing the contracted and invoiced rates for services.**

Management Response: Once a vegetation management contract is executed, the project manager enters the hourly rates into the Weed Data Acquisition and Report (WEEDDAR) database. The hourly rates do not usually change and are in place for the life of the contract, typically 3-5 years. Contractors usually enter vegetation management operation information into WEEDDAR and run reports of operations in order to invoice the District. These reports of operations use the hourly rates that are entered into WEEDDAR by the project manager to calculate cost. In the case of over payment to Lake and Wetland Management, Inc., the hourly rate entered in WEEDDAR was higher (\$22.00) than the rate specified in the contract (\$20.00). Since the hourly rate varies amongst the vegetation management contractors, this may have caused confusion to the project manager entering the data into WEEDDAR. The hourly rate has been corrected in the system and Vegetation Management has implemented an hourly rate verification process to ensure that the appropriate hourly rates entered for each contractor are correct.

- The project manager will enter the hourly rate into WEEDDAR.
- The project manager will ask another staff member to verify the rate entered.

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- Once verified, the project manager will email the unit lead requesting final verification and approval of the rates entered.

Additionally, contractors have been instructed to list the hourly rates on the invoice in an itemized format. This will facilitate verification by project managers when confirming the hourly rates on the invoices prior to receiving in SAP.

Responsible Division: Operations, Maintenance and Construction

Estimated Completion: Completed

- 2. Require project managers to compare invoiced amounts to supporting documentation submitted by contractors for cost reimbursements.**

Management Response: The Vegetation Management Section Administrator met with appropriate project managers and instructed them to always verify the amounts on the supporting documents and compare to the amounts listed on the invoices. This step is required of all project managers approving invoices prior to receiving in SAP.

Responsible Division: Operations, Maintenance and Construction

Estimated Completion: Completed

- 3. Ensure that all project managers are aware of the District's responsibilities relating to sales and other types of taxes.**

Management Response: Agree. Procurement will update PM training documentation; PM training will be scheduled for all District PMs.

Responsible Division: Administrative Services

Estimated Completion: August 2013

- 4. Ensure that the District recoups the \$98,686 in overpayments made to the Lake and Wetland Management, Inc.**

Management Response: Vegetation Management Section staff met with Lake and Wetland Management, Inc., on November 7, 2012, the contractor has agreed to credit the District on future work, in the amount of \$ 93,239, the total amount of the overpayment, less the sales tax amount due to the contractor. Subsequently, Vegetation Management staff met with Procurement to implement a process for recouping the funds. Lake and Wetland Management, Inc., has an ongoing contract with the District, it was determined that additional work will be provided on new work orders at no cost to the District until the overpaid amount is recovered. Amount recovered will be credited to specific projects that were previously overcharged. The total amount to be credited per work order will be tracked and the credited amount will be shown on each invoices. This process has been implemented and we anticipate recovery of the overcharged amount by the end of Fiscal Year 2013. Vegetation Management staff has developed a spreadsheet to keep tract of this process. To date, a total of \$6,214.74 has been credited to the District.

Responsible Division: Operations, Maintenance and Construction

Estimated Completion: September 30, 2013

5. Ensure that the District remits the \$3,829 in sales tax due to the Lake and Wetland Management, Inc.

Management Response: The amount due to Lake and Wetland Management, Inc., for sales tax is less than the amount due to the District. Consequently, the amount due to the District was reduced by the value of the tax owed to Lake and Wetland Management, Inc., (see response to Recommendation #4).

Responsible Division: Operations, Maintenance and Construction

Estimated Completion: Completed

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- 6. Consider training project managers on how to correctly review invoices and supporting documentation for compliance contract terms and conditions / deliverables.**

Management Response: Management concurs with the recommendation to train Project Managers (PMs) on the proper procedures for processing invoices associated with GEPS, Science & Technology, and Surveying & Mapping Services work orders. The initial training was conducted at the Engineering and Construction (E&C) Bureau meeting held on April 30, 2013. Subsequent training and/or discussions will be conducted by E&C Section Leaders during monthly meetings with PMs; whereby actual invoices, and associated documentation, can be discussed and reviewed, prior to processing them for payment.

Responsible Division: Operations, Maintenance and Construction

Estimated Completion: December 2013

- 7. Consider requiring the Procurement Bureau to review non-construction contract invoices particularly those that are time and material based to ensure payments rates are accurate and in compliance with contract terms/deliverables.**

Management Response: While the responsibility for reviewing and approving invoices has resided in the line organization, Procurement Bureau has begun reviewing construction invoices for compliance with contract terms. We plan to start review of non-construction contract invoices in order to ensure compliance with contract terms.

Responsible Division: All

Estimated Completion: October 31, 2013

Better Understanding of Allowable and Non-Allowable Change Order Costs Needed

We concluded that the Engineering and Construction Bureau has controls in place to ensure that the District obtains the best prices for change orders work; for example,

- Costs provided by contractors are reviewed by construction managers, the Bureau's cost estimator, and other relevant staff for reasonableness.
- Costs may be negotiated to ensure the District receives the best prices for change order work.

However, construction managers need to thoroughly understand the general terms and conditions detailed in construction contracts relating to change order costs and carefully review the itemized costs provided by contractors to ensure the District does not pay for non-allowable costs. Specifically, we reviewed four change orders and found that in all four instances the District paid for costs clearly indicated in the general terms and conditions as non-allowable and certain costs that should have been questioned and disallowed. The District's construction contract's general terms and conditions specify that the District will pay for the cost for certain items; however, it will not pay a contractor's or subcontractor's fee (mark-up) for these items. For example, the District will pay for equipment, sales tax, and fuel; however, it will not pay a fee for these costs. We found that the change orders consistently included fees on non-allowable costs and identified \$37,988 in non-allowable change order costs.

A change order is a signed agreement between the District and the contractor that authorizes additions, deletions, and/or revisions to the contract documents, price or time issued after the contract has been executed; for example, errors and omissions, District directed changes, and unforeseen conditions. The cost of change order work is usually determined based on the cost of specific allowable items and the contractor's fee for change order work is determined by a mutually acceptable fixed fee or a percentage of specific costs associated with the change order. It should be noted that in some instances, the cost of change order work is negotiated as a lump sum amount. Examples of allowable costs include the following:

- Payroll costs (wages and salaries and fringe benefits) of contractor’s employees directly performing the work,
- Cost of all materials and equipment furnished and incorporated in the work,
- Payments made to subcontractors, and
- Supplemental costs; such as, equipment rental, fuel, utilities, and sales taxes.

Examples of non-allowable costs include the following:

- Cost of the contractor’s officers and executives,
- Expenses of the principal and branch offices, and
- Capital expenses.

The following table summarizes the non-allowable costs found during our audit.

Sampled Change Orders				
Contract Number	4600001875	4600001875	4600002041	4600002425
Change Order #	CO #5	CO #9	CO #1	CO #2
Number / Amount	\$155,064	\$1,989,578	\$194,600	\$54,904
Items Sampled	\$155,064	\$1,989,578	\$194,600	\$19,336
Unallowable Costs	\$6,452	\$26,757	\$4,711	\$68
Examples of Unallowable Costs Included in Change Order Cost	Subcontractor charged 10% fee on sales tax, equipment, and fuel, which also increased the prime contractor’s fee	Fee on equipment, 7% sales tax on non-taxable items	Fee on equipment and sales tax; transportation related expenses	Fee on sales tax

Examples of the non-allowable costs are as follows:

- Contract #4600001875 – Change Order #5: Examples of the \$6,452 in non-allowable costs are as follows:
 - The subcontractor’s costs included \$219 in fees charged on sales tax and \$1,495 in fees charged on equipment.
 - The contractor’s costs included \$2,100 in fees charged on equipment and \$648 in fees charged on fuel.

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- It is important to note that since the District pays the contractor a fee of 10% of any subcontractor's costs, therefore, any non-allowable subcontractor's costs also increases the prime contractor's fees. For this change order, we determined that the prime contractor's fee increased by approximately \$181 due to non-allowable subcontractor costs.
- Contract #4600001875 – Change Order #9: Examples of the \$26,757 in non-allowable costs are as follows:
- The contractor's costs included \$8,409 in fees charged on equipment.
 - The contractor's itemized cost breakdown included fuel as a material and charged the District a 7% sales tax on all materials (no fee was charged on the sales tax amount). As a result, the District paid \$5,887 in sales tax for fuel. However, this is a non-allowable cost since the cost of a gallon of fuel already included federal, state, county, and other applicable taxes. A close review of the change order would have alerted staff that this cost is not allowable.
 - The contractor charged the District 7% sales tax on several items in the itemized materials cost breakdown that were not for materials purchased. Specifically, the change order costs included \$4,136 in sales tax for activities such as excavating, dewatering, and backfilling.
- Contract #4600002041 – Change Order #1: Examples of the \$4,711 in non-allowable costs are as follows:
- The contractor's costs included \$2,232 in fees charged on equipment and \$414 in fees charged on sales tax.
 - The contractor's itemized labor costs included reimbursements to employees for transportation expenses. Based on the general terms and conditions, actual transportation costs are reimbursed; but, the contractor is not entitled to a fee. However, we noted several issues that resulted in \$1,999 in non-allowable
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transportation related costs. Specifically, the contractor included the transportation costs as part of the employees' hourly wages and the wages was subjected to a 50% fringe benefit cost. In addition, the contractor's costs included a 10% fee on the transportation costs plus the related fringe benefits costs and 2.5% bond premium on all costs. The effects of including the transportation costs as part of the employees' wages are detailed in the following table:

Analysis of \$4,999 in Transportation Related Costs Paid to Contractor		
Cost Description	Allowable	Non-Allowable
Total Paid for Travel Expenses (Included in Labor Costs)	\$3,000	
Total Fringe Benefits for Travel Expenses Included in Labor Costs (50% of Labor Costs = 50% of \$3,000)		\$1,500
10% Contractor's Fee for Travel Expenses (10% of Total Labor Cost + Fringe Benefits = 10% of \$4,500)		\$450
Additional Bond Premium (2.5% Fringe Benefits + Contractor's Fee = 2.5% of \$1,500 + \$450)		\$49
Total Allowable / Non-Allowable	\$3,000	\$1,999

It is important to note that over seven years ago our Office conducted an *Audit of Construction Contract Management Practices* (Audit #05-10) in which the same change order fee issues were identified. In the previous audit, we concluded that staff were not very familiar with the general terms and conditions as they related to change orders and identified potential savings of \$87,873. We identified some of the same change order issues; for example, fees were paid on sales tax, equipment, and employee travel expense. Although the non-allowable costs are small compared to the total cost of the work orders, the Engineering and Construction Bureau can take action to ensure that construction managers thoroughly understand the general terms and conditions as this could eliminate non-allowable change order costs.

Recommendations

- 8. Ensure that construction managers clearly understand the general terms and conditions relating to cost change order work.**

Management Response: Management concurs that the Construction Managers (CMs) need to have a better understanding of the General Terms and Conditions (GT&Cs), as they pertain to change orders. In an effort to improve their knowledge of the subject matter, on-going training will be implemented. The initial training was conducted at the Engineering and Construction (E&C) Bureau meeting held on April 30, 2013. Subsequent training and/or discussions will be conducted by E&C Section Leaders during monthly meetings with Construction Managers; whereby actual change orders, and associated documentation, can be discussed and reviewed, prior to execution. To further aid the Construction Manager in his/her understanding of the overall change order process, and the GT&Cs as they relate to change orders, the E&C Bureau will work closely with the Procurement Bureau and the Office of Counsel to develop a Work Change Directive form directing the Contractor to proceed with the work while adjustments to the Contract Price and/or Time are negotiated. In addition, the District will consider amending the applicable articles of the GT&Cs for clarity, and the E&C Bureau will develop a change order checklist.

Responsible Division: Operations, Maintenance and Construction

Estimated Completion: Section Leader Training – December 2013
Develop Work Change Directive Form – September 2013
Amend GT&Cs – August 2013
Change Order Checklist – August 2013

- 9. Consider requiring senior contract management staff to review change order costs in detail to ensure compliance with the general terms and conditions.**

Management Response: Management believes the Engineering and Construction Bureau should be solely responsible for ensuring that change order costs comply with

the Contract Documents; simply due to their detailed understanding of the change order in question, and their overall knowledge of the project. As stated in the response to Recommendation 8, on-going training will be implemented. The initial training was conducted at the Engineering and Construction Bureau meeting held on April 30, 2013. Subsequent training and/or discussions will be conducted by E&C Section Leaders during monthly meetings with Construction Managers; whereby actual change orders, and associated documentation, can be discussed and reviewed, prior to execution.

Responsible Division: Operations, Maintenance and Construction

Estimated Completion: December 2013

APPENDIX I
Office of the Inspector General
Audit of Contract Monitoring
Listing of Sampled Contracts

	Contract / Work Order #	Contractor	Project Name	Contract / Work Order Amount Total	# of Sampled Payments	Total Sampled Payment Amounts	
Construction Contracts	1	4600001875	Harry Pepper & Associates, Inc.	Compartment C Buildout Construction of Pump Station G-508	37,450,863	5	2,814,933
	2	4600002656	Dickerson Florida, Inc.	C-41A Canal Bank Stabilization, Segment 3	8,917,000	3	2,579,304
	3	4600002667	Globetec Construction, LLC	East Coast Protective Levee L-3 Rehab. Phase 2 – Segments 1, 2, & 3	6,927,500	2	1,356,231
	4	4600002514	Worth Contracting, Inc	S-193 Navigational Lock Refurbishment	4,792,811	3	1,105,042
	5	4600002041	Intercounty Engineering, Inc.	S-140 Pump Station Refurbishment	4,756,373	3	1,252,302
	6	4600002570	Murray Logan Construction, Inc.	Culvert Replacements in Palm Beach County (#1, #3, and #10)	2,569,557	4	1,249,586
	7	4600002425	Lucas Marine Construction, LLC	S-44 and G-57 Gate Operator Replacement	1,384,904	4	509,363
	8	4600002522	Shoreline Foundation, Inc	Three Lakes Wildlife Management Area Hydrologic Restoration Project Phase III G-113 Structure	1,068,581	4	587,113
Non-Construction Contracts	9	4600002497 (WO #31, #32, & #40)	Applied Aquatic Management, Inc.	Ground Application Services for Aquatic, Wetland, and Terrestrial Vegetation Control	825,366	8	521,415
	10	4600002498 (WO#17, #19, & #20)	Lake and Wetland Management, Inc	Ground Application Services for Aquatic, Wetland, and Terrestrial Vegetation Control	262,000	5	260,598
	11	4600000857 (WO #8)	WRS Infrastructure & Environment, Inc.	EAA A-1 Flow Equalization Basin Project – Design Documentation Report and Preliminary Design	1,351,312	3	1,162,167
	12	4600000861 (WO #12)	Carollo Engineers, Inc	L-8 Reservoir Pump Station & Inflow Structure – Engineering Services	1,445,351	3	629,178
	13	4600000796 (WO #5)	TKW Consulting Engineers, Inc.	Southern Corkscrew Regional Ecosystem Watershed – Civil / Structural Services	556,411	3	254,949
	14	4600001450	Complete Services of South Florida, Inc.	Master Lock Tender Services	865,234	3	145,920
	15	4600000771 (WO #4)	HDR Construction Control Corp.	S-193 Navigational Lock Construction Project – Construction Inspection Services	483,932	3	140,017
	16	4600002019 (WO #5)	Nu Info, Systems, Inc.	Operations Decision Support System – Lead Java Developer	147,440	3	52,060
	17	4600001926	DBA Toshiba Business Solutions Florida	Multi-Function Printer/Copier Devices District-Wide	490,000	3	42,044
	18	4600002333 (WO #3 & #4)	John Brown and Sons, Inc	Removal of vegetation along selected District levees per Army Corps of Engineers inspections	275,156	3	42,981
	19	4600002401 (WO #2 & #6)	Environmental Consulting & Technology, Inc.	Various Environmental Risk Assessment Services	414,880	3	97,299
	20	4600002193 (WO #1)	Sutron Corporation	Uncertainty Analysis of Flow Data - Major Water Control Structures in the STAs	309,005	3	29,778
Totals				\$ 75,293,676	71	\$ 14,832,280	