



Audit of the District's Use of Contract Workers

Project #19-14

Prepared by
Office of the Inspector General

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SOUTH FLORIDA WATER MANAGEMENT DISTRICT

November 12, 2020

Governing Board Members

Re: Audit of the District's Use of
Contract Workers - *Project No.*
19-14

This audit was performed pursuant to the Inspector General's authority set forth in Chapter 20.055, F.S. Our audit objective primarily focused on determining whether contract workers are used in a cost-effective manner. Dan Sooker and I prepared this report.

Sincerely,

A handwritten signature in blue ink, reading "J. Timothy Beirnes".

J. Timothy Beirnes, CPA
Inspector General

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BACKGROUND

In accordance with our Audit Plan, the Office of Inspector General conducted an Audit of the District's Use of Contract Workers. Contract workers are typically used for:

- 1) temporary work,
- 2) specific expertise that is needed for one-time projects,
- 3) to fill in for employees on temporary leave.

Using contract workers provides the District with the benefit of flexibility to maintain the number of full-time equivalent (FTE) employees by adding outside labor as the workload increases due to major restoration projects and related activities; however, contract labor is generally costlier than FTEs. As of February 19, 2020, District staff consists of approximately 1,371 FTEs, and 1,472 budgeted positions.

For the period October 1, 2016 through September 30, 2019, the District contracted 325 contract workers, which included engineers, scientists, information technology consultants, lock tenders, janitorial staff, and other services. Some of these contract workers replaced other contract workers that left assignments before completion.

When a contract worker is engaged, District internal controls require that the Project Managers complete the *Information Technology Account Request Form* to on-board the contract worker in the SAP Human Resource Information Systems (HRIS). The Project Managers must sign the form and remit it to HRIS for entry into the SAP system to issue an identification badge to the worker that allows facilities access and/or payment. The form includes information such as contract origination and expiration:-

The contract worker classifications for the period, October 1, 2016 - September 30, 2019 are as follows:

Contract Worker Classification	Number of Contract Workers
Engineering, Science and Hydrology	116
Facilities and Lock Tenders Services	104
Information Technology and SCADA	36
Government and University Partnerships for Scientific Studies and Support	45
Other Services	24
Total	325

Restoration and other project activities have increased significantly resulting in the need to augment current staff with contract workers possessing engineering, project management, modeling and other skills through the Professional Engineering Services for Restoration, and Operations, Maintenance, Repair, Replacement and Rehabilitation (OMRR&R) contracts. Work orders issued under these contracts were a combination of fixed price, not-to-exceed, and time and material. As noted in the adjacent table, 60% of the work orders issued were time and material.

Work Order Type	# of Work Orders	%
Fixed Price	77	31%
Not-to Exceed	23	9%
Time & Material	149	60%
Total	249	100%

Contract workers assigned to engineering, science and hydrology projects primarily support major restoration initiatives. The District hires outside contractors for certain functions; such as, landscaping, physical security, office cleaning, cafeteria operations, and other essential services. The District also outsources all lock tender services, which requires 37 contract workers. Information Technology consultants are assigned to SAP software services and other District software updating. Contractors working on SCADA primarily provide datalogger maintenance at remote water quality locations. The District also has partnerships with Federal and State of Florida governments to conduct scientific studies and other project support. Other assignments are mainly for risk and insurance, and aquatic vegetation control contract workers.

Seventy of the 375 contract workers were assigned to major restoration projects through Professional Engineering Services for Restoration, and OMRR&R contracts. Contract worker assignments to major projects are as follows:

Major Projects	Number of Contract Workers
Caloosahatchee River West Basin Storage Reservoir (C-43 Reservoir)	19
C-44 Reservoir and Stormwater Treatment Area (C-44 Reservoir)	27
S-5A Repowering and Automation (S-5A Repower)	19
Stormwater Treatment Area 1 West (STA 1W)	5
Total	70

The District executed work order contracts with approved professional engineering firms to provide project management services for the major restoration project's duration. Contract workers assigned to the C-43 Reservoir, C-44 Reservoir, S-5A Repower and STA 1W Restoration projects primarily provide design, engineering during construction (EDC) and construction management services (CMS). Contract workers, providing EDC and CMS, are usually assigned to the project site.

OBJECTIVE, SCOPE AND METHODOLOGY

The primary objectives of our audit were to determine whether contract workers are used in a cost-effective manner for job functions that appear to be:

- temporary in nature,
- and/or requires specific expertise for a one-time project,
- and/or to fill in for employees on a temporary leave of absence.

To accomplish our objectives, we performed the following:

- Obtained schedule of contract workers from the Administrative Services Bureau.
- Sampled and reviewed contract worker invoices and work orders.
- Discussed contract worker's responsibilities with Project Managers.

The scope of our audit covered contract worker assignments for Fiscal Years 2017 through 2019.

Judgmental Sampling method was used throughout the audit. Judgmental Sampling was considered the preferred methodology based on consideration of the audit population's size and characteristics, as well as audit efficiency and professional judgment. Although the sample cannot be statistically projected to the total population, we believe the sample, along with the results of the audit tests, provide reasonable assurance for us to determine whether adequate internal controls are in place.

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

To minimize the impact of staff shortages in certain professions over the past several years, contract workers were added through level-of-effort work orders. These contract workers essentially performed the same day-to-day activities on a full-time basis as District staff, often at District headquarters. Generally, District staff performing the same job activities are less costly than contract workers for recurring day-to-day activities. As a result, the District should consider hiring staff to replace contract workers assigned to long term projects and day-to-day activities ordinarily performed by District staff where it is cost-effective.

The District engaged two contract workers through work orders with professional engineering firms for over three years to augment project management staff and oversee various priority projects in the 5-Year Capital Improvement Plan. The District paid between \$119 and \$175 per hour for these contract workers, which is considerably more than the amount paid to District project management staff. The District could save approximately \$288,000 annually if District staff performed these job functions.

We also found opportunities for savings in the water quality monitoring discipline. The District conducts water quality monitoring with a blend of contractors and staff. We identified two contractors conducting recurring water quality monitoring that can be done more cost effectively with in-house staff. The District could save approximately \$100,000, annually after an initial investment of \$69,000 for vehicles and other equipment, if the work was conducted by in-house staff rather than contractors. Other savings opportunities may arise as water quality monitoring contracts expire.

The District is responsible for approximately 1,200 monitoring sites. The number of monitoring sites continues to increase as new restoration projects are brought on-line. The District maintains these sites with a combination of employees and contract workers. Eleven SCADA contract workers perform regular and preventive maintenance on 380 sites, while 22 District employees in the SCADA Maintenance Unit maintain the 820 remaining sites. Our analysis of contractor and District costs to perform all SCADA preventive maintenance work indicated that in-house costs including salary, benefits, and annual vehicle maintenance expenses, would be only slightly higher than contractor costs after an initial investment of \$142,000 for trucks and tools to

equip staff. The SCADA Project Manager contends that District staff do a better job and are better trained to address technical and other on-site issues.

Prior to the COVID-19 pandemic, the District was having difficulty recruiting for engineering, information technology, heavy equipment operators and hydrological positions. The *District Vacant Position Report* revealed that many of these positions were opened for over 100 days, with some high demand engineering and information technology jobs were opened for over 200 days. Contract workers were added to augment staff to meet workload demands due to the unfilled positions.

During periods of low unemployment, governments are under intense competition from the private sector, which often pays higher salaries; thus, making it generally more difficult to recruit experienced talent. Conversely, governments have an easier time recruiting during economic downturns. In a strong economy, wages tend to rise to attract the best talent and meet demand. Prior to the pandemic, it appears that District compensation had not kept competitive with the private sector and had fallen below market rates for certain positions, based on discussions with District supervisors regarding their recruiting experiences. The COVID-19 pandemic has had a substantial impact on the job market; however, the longer-term impact is uncertain for high demand job which have previously been difficult to fill.

The District should consider periodically reviewing and monitoring its compensation package, particularly for job categories in high demand (e.g., engineering and SAP software services) to determine whether the District compensation is competitive.

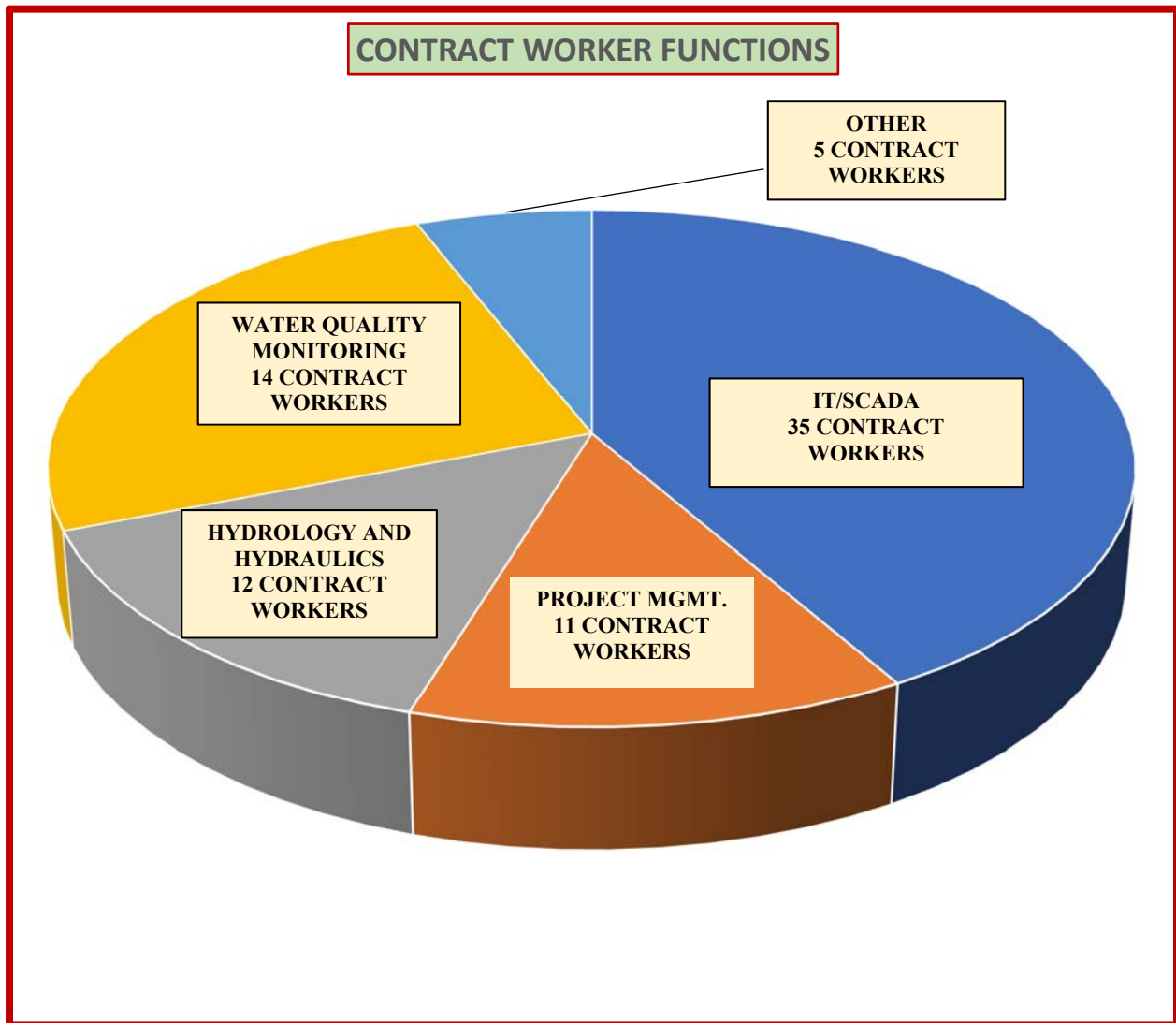
Managing District Workload with District Staff and Contract Workers

We reviewed the schedule of 325 contract workers that worked on various District projects and assignments to determine whether the use of contract workers for various tasks is cost-effective. We excluded contract workers that were assigned to the cafeteria, cleaning staff, lock tending, security and landscaping since use of contract workers for these services are usually procured through fixed bid contracts. Further, we excluded contract workers assigned to engineering during construction (EDC) and construction management services (CMS). Contract workers are more effective in providing these services since they possess the appropriate experience and skill levels for the specific project and are usually assigned to worksites until the project is completed. Our review also excluded government and university partnership workers as projects under this description are collaborative efforts with the United States Army Corps of Engineers, Florida Department of Environmental Protection, and Florida Atlantic University. The table below summarizes the remaining contract workers after these exclusions:

Description	Contract Workers
Total Contract Workers	325
Less Exclusions:	
Lock Tenders and Facilities Cleaners	(104)
CMS and EDC Workers	(79)
Government & University Partnerships Workers	(45)
Other Workers	(20)
Remaining Contract Workers	77

From the remaining 77 contract workers, we selected a sample of 45, which included engineers, IT consultants, scientists, hydrologic modelers, field technicians and other positions performing various functions, to review work activities and determine whether the use of contract workers was most appropriate and cost-effective method for the District.

The 77 Contract workers were assigned the following functions:



Functions were determined by the type of services provided. We reviewed the related work orders and invoices for the 45 sampled contract workers. The results are detailed in the following sections.

Project Management Contract Workers

Project management services includes oversight of priority projects and major restorations that are outlined in the District's 5-year Capital Improvements Plan. The District pays between \$92 and \$221 per hour for contract workers providing project oversight, construction safety, quality control, inspection and engineering.

Our review of the 11 contract workers performing project management services revealed instances in which the District engaged contract workers for recurring projects and activities ordinarily performed by District staff. We found that increased District-wide workloads, including restoration and water quality monitoring activities and staff shortages in key positions, have contributed to the need for contracted labor.

Nine of the 11 contract workers were assigned to restoration and other projects that appeared appropriate for contract workers (i.e. offsite locations and finite project duration); however, over the last three years, two contract workers have been providing project management services for various priority projects that would ordinarily be done by District project management staff. To meet the Engineering and Construction Bureau's workload, contract workers were added to in-house project management staff to support priority projects in the Capital Improvement Plans. These contract workers essentially serve as District staff providing project management services on a full-time basis on-site at District headquarters. Through work order contracts with approved professional engineering services firms, the District pays \$119 and \$175 per hour for each contract worker.

We found considerable variances between the hourly rates of contract workers and District project management staff. District Project Managers with similar responsibilities are paid substantially less, including fringe benefits. Based on the District's organization chart, Project Managers in the Engineering and Construction Bureau are assigned pay grade 21 or 23 but most are in the latter category. The midpoint for a pay grade 23 Project Manager is \$40 per hour. Adding a 66% fringe benefit rate, determined by the Finance Bureau, results in a \$66.59 per hour loaded salary rate, which is considerably less than the contract workers' rates of \$119 and \$175 per hour. The District could save approximately \$288,000 annually if District staff performed these job functions instead of contract workers.

Prior to the COVID-19 pandemic, the District was recruiting for numerous constructions, engineering, science and project management positions. Our review of the *District Vacant Position Report* indicated that many of these positions had been opened for over 200 days. District managers stated that it was difficult to attract much needed experienced project managers. As a result, the two contract workers were added to augment District project management staff to meet workload demands. In a strong economy, wages have a tendency to rise to attract the best recruits and meet expanding demand. Based on discussions with District supervisors and their recruiting experience, it appears that District compensation has not kept competitive with the private sector and has fallen below market rates for certain positions. The District should consider reviewing its compensation, particularly for job categories (e.g., engineering and SAP software services) in high demand, to determine whether the District is offering competitive compensation packages; however, the COVID-19 pandemic may significantly alter the future market dynamics for experienced engineers.

Scientific Monitoring Contract Workers

Increased workloads and time sensitive projects have also resulted in the need for contract workers to augment District staff. Eighteen contract workers, which included, scientists, hydrologists and chemists, have provided recurring professional services through level-of-effort work orders for water sample collection and analysis, and hydrologic modelers to study flow and quantity of water resources (surface water, soil water, wetland, groundwater, estuary). The Water Quality Bureau has had to outsource functions in the areas of field monitoring, quality assurance, data validation, chemistry and report preparation. According to Water Quality Monitoring Bureau staff, the reliance on vendor outsourcing to support these functions has steadily increased since 2012 due to decreases in the FTE count and increases in workload. Just in the past year, the Northern Everglades Expanded Monitoring effort was added to the Bureau's workload. Funding for contract workers performing Northern Everglades and Estuaries Expanded Monitoring is currently reimbursed through a Florida Department of Environmental Protection (FDEP) grant.

Generally, contracting for Water Quality Bureau projects is often costlier than hiring District FTEs except for short-term projects. We identified two contractors conducting recurring water quality monitoring that could be done more cost effectively with in-house staff. The District could save approximately \$100,000, annually after an initial investment of \$69,000 for vehicles

and other equipment. Other savings opportunities may arise as water quality monitoring contracts expire,

Prior to the COVID-19 pandemic, the District was also recruiting to fill open positions in the monitoring discipline. These positions had been open for extended periods. The Applied Science Bureau was recruiting for nine science positions and the *District Vacant Position Report* indicates that five of these positions had been open for over 100 days. Recruiting for open positions in the hydrology and hydraulics discipline has been difficult. The *District Vacant Position Report* indicates that a senior engineer position had been opened for over 300 days. Similar to open engineering positions in other bureaus, demand for engineers is high and District compensation may be below market rates.

Information Technology and SCADA Contract Workers

Thirty-five contract workers were assigned to various Information Technology (IT) and SCADA¹ projects during the audit period. Twenty-four of these contract workers assisted with IT projects such as technical support for SAP HCM² which included problem solving design, Success Factors consulting, software consulting and permit system replacement. We found that the contract workers were providing professional services through time and material work orders, which appeared appropriate for the nature of the IT services.

Prior to the COVID-19 pandemic, the District was recruiting for SAP software services positions. We found that the rate paid for contract workers assigned to SAP projects ranged from \$130-\$140 per hour. Filling these positions may reduce the need for contract workers but District hiring managers are having difficulties recruiting for these and other IT positions. Our review of the *District Vacant Position Report* indicates that many of these positions had been opened for over 250 days. The District has difficulty competing with outside firms for IT positions. Accordingly, it appears that District compensation is not competitive and has fallen below market rates for certain positions.

Eleven SCADA contract workers have performed regular and preventive maintenance and three other contract workers are assigned to update SCADA software. New restoration projects continuously increase the number of monitoring sites throughout the District as they are brought

¹ SCADA – Supervisory Control and Data Acquisition

² HCM – Human Capital Management

on-line. These sites provide continuous monitoring of surface and ground water levels, gate and pump status, water quality and meteorological parameters. The District is responsible for approximately 1,200 monitoring sites, which includes performing routine and emergency maintenance to keep sites in good operating condition. The District maintains these sites with a blend of employees and contract workers. Contractor technicians routinely provided regular and preventive maintenance for 380 sites throughout the District, many of which are in remote locations. Twenty-two employees in the SCADA Maintenance Unit maintain the 820 remaining sites, by conducting preventive maintenance, emergency repairs, and managing outside contractor's work. Prior to COVID-19, the SCADA Maintenance Unit was also trying to fill open positions, of which some had been open for 60 to 90 days.

Our analysis of contractor and District cost to perform all SCADA preventive maintenance work indicated that in-house costs including salary, benefits, and annual vehicle maintenance expenses, would be only slightly higher than contractor costs after an initial investment of approximately \$142,000 for vehicles and tools, if all SCADA maintenance was performed by in-house staff. The SCADA Project Manager contends that District SCADA staff do a better job and are better trained to address technical and other on-site issues.

Other Contract Workers

Some contract workers were primarily assigned short-term regulation activities. Work order statements of work were for staff administrative and support activities on a part-time basis. Contract worker hourly rates were competitive with the rates paid to District staff.

RECOMMENDATIONS

1. **Consider hiring staff to replace contract workers that are assigned to long term projects and day-to-day activities ordinarily performed by District staff, where it is cost-effective.**

Management Response:

Over the last several years District managers have identified several contract positions that were more cost effective to be performed with in house resources and full time positions were redirected to those areas to bring those resources in house. This can most notably be seen within the SCADA section where several contract positions were converted to full time equivalent position through a recruitment process. District managers will continually strive to implement cost effective resources and approaches to deliver the District's missions.

Responsible Division:

Everglades Restoration and Capital Projects, Real Estate, Field & Operations, Information Technology, and Water Resources

Estimated Completion:

On-going

2. **The District should consider performing a review of its compensation particularly for job categories in high demand to determine whether the District is offering competitive compensation.**

Management Response:

The District recently conducted a job study to compare the compensation of our job categories with other similar government entities. In August 2019, the District implemented salary increases for particular job categories identified in the study to bring them closer to the market midpoint consistent with similar government entities. We will continue to monitor District job categories to ensure we are offering competitive compensation, as appropriate.

Responsible Division

All Divisions:

Estimated Completion:

On-going