



## **Audit of Outsourced Functions**

**Project #20-10**

**Prepared by**  
Office of the Inspector General

**J. Timothy Beirnes, CPA, Inspector General**  
**Daniel Sooker, CPA, Chief Investigator**



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

April 8, 2021

Governing Board Members

Re: Audit of Outsourced Functions -  
*Project No. 20-10*

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 comparing the contractual cost of outsourcing service functions to the cost of using in-house resources to determine the best alternative for the District. Dan Sooner 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 the audit plan, we conducted an audit of outsourced functions. The primary audit objectives were to identify significant District functions outsourced to contractors and assess the cost-effectiveness of outsourcing these functions. The various District services provided through the use of outsourcing contracts are as follows:

- **Security** - The District contracts for security services at the West Palm Beach Campus Headquarters. Security officers are at Headquarters 24-hours per day, including holidays, and are assigned to the security control room and during regular working hours to the B-1 and B-2 lobby entrances. The annual cost for these services is approximately \$267,000.
- **Janitorial** - The District contracts for janitorial cleaning services at the West Palm Beach Campus Headquarters, which includes all buildings, B-1, B-2, B-3, the Emergency Operations Center and the microwave tower facility. The contractor is responsible for providing all staffing, equipment and supplies necessary to perform the cleaning services. Annual janitorial costs for routine work are approximately \$258,000; however, during the contract period, the District has negotiated for additional services on an as needed basis.
- **Lock Tenders** – Lock tender operations are outsourced through a competitive bid. The contractor is responsible for hiring multiple employees to staff the District’s eleven locks located on the Kissimmee River and Lake Okeechobee perimeter in accordance with a seasonal schedule. Lock tenders are required to operate these locks, record all daily operations and boat traffic, and conduct minor preventive maintenance activities. Annual costs are \$682,200 for lock tender services.
- **Mowing & Grading** - Mowing and grading services are outsourced to multiple contractors throughout the District. Contractors provide all staffing, and specialized equipment such as mowers, tractors, bat wing mowers, and graders. Contract totals for mowing and grading services is \$2.2 million, annually.
- **Vegetation Management** - Fifteen contractors provided vegetation management services, including aquatic and terrestrial exotic plant control. The District’s Vegetation Management Section and field station inspection staff oversees these contracts to ensure proper planning and eradication efforts. Vegetation management is

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the District's largest outsourced function at a cost of approximately \$17 million annually.

The District also outsources the District's cafeteria operations; however, due to the nature of this contract it was not necessary to assess the cost effectiveness of these services.

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## **OBJECTIVE, SCOPE AND METHODOLOGY**

The objective of this audit was to compare the contractual cost of outsourcing service functions to the cost of using in-house resources to determine the best alternative for the District. Project managers and supervisors overseeing outsourced services assisted us with assessing the District staffing needs and associated salaries to estimate the cost of performing the function in-house. We assessed the reasonableness of management's estimated in-house staffing and verified the reasonableness of salaries through internet websites for similar position and salary information obtained from the U.S Bureau of Labor Statistics website. Fringe benefits and leave time, in accordance District policies, were included in calculating in-house labor costs. Non-salary costs such as equipment and supplies were also added to the in-house cost analysis and were verified for reasonableness. To accomplish our objectives, we performed the following:

- Identified outsourced functions.
- Discussed the reasons for outsourcing with District management.
- Reviewed contracts for outsourced services.

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.

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## AUDIT RESULTS

### Executive Summary

A summary of our cost analysis for outsourcing security, mowing, lock tenders, and janitorial functions compared to the cost of providing these services using District FTEs is as follows:

Security, Mowing, Lock Tenders & Janitorial Cost Comparison				
Description	Security	Mowing	Lock Tenders	Janitorial
District Positions Needed	7	58	26	15
<b><u>In-house Staff Costs</u></b>				
Salaries	\$ 212,628	\$ 2,415,650	\$ 821,595	\$ 478,400
Benefits	163,762	1,462,287	613,389	354,588
<b>Total Salary and Benefits</b>	<b>\$ 376,390</b>	<b>\$ 3,877,937</b>	<b>\$ 1,433,384</b>	<b>\$ 832,988</b>
<b><u>Non-Salary Costs</u></b>				
Equipment Maintenance	-	\$ 246,079	-	-
Fuel	-	373,152	-	-
Depreciation	-	378,561	-	13,221
Other	9,400	60,000	69,658	9,457
<b>Total Non-Salary Costs</b>	<b>\$ 9,400</b>	<b>\$ 1,057,792</b>	<b>\$ 69,658</b>	<b>\$ 22,678</b>
<b>Total Cost</b>	<b>\$ 385,790</b>	<b>\$ 4,935,729</b>	<b>\$ 1,503,042</b>	<b>\$ 855,666</b>
<b>Annual Contract Costs</b>	<b>(\$ 266,905)</b>	<b>(\$ 2,204,165)</b>	<b>(\$ 682,200)</b>	<b>(\$ 257,800)</b>
<b>Annual Cost Saving (Increased Cost) from Outsourcing</b>	<b>\$ 118,885</b>	<b>\$ 2,731,564</b>	<b>\$ 823,273</b>	<b>\$ 597,860</b>
<b>COMBINE COST SAVINGS</b>	<b>\$ 4,271,582</b>			

Our overall analysis revealed that outsourcing security, mowing, lock tender and janitorial functions is the best alternative and most cost-effective and saves the District approximately \$4.3 million annually. Further, the initial equipment cost estimates to conduct these functions with in-house staff is \$5.7 million; however, it should be noted that the depreciation for this equipment is included in our annualized costs.

The District outsources all invasive plant control operations to contractors at an annual cost of approximately \$18 million. We separately analyzed field station and natural area vegetation management operations and compared the estimated cost of doing the vegetation management work with in-house staff to contractor costs.

A summary of our cost analysis for vegetation management is as follows:

<b>Vegetation Management Cost Comparison</b>		
<b>Description</b>	<b>Natural Areas</b>	<b>Field Stations</b>
<b>Acres Treated</b>	<b>248,401</b>	<b>36,974</b>
<b>Contractor Cost</b>		
Contractor Hours	\$ 453,728	\$ 39,416
Supervisor	4,530,075	1,624,628
Laborer	10,905,392	350,052
Other Contractor Costs	44,345	217,985
<b>Total Contractor Cost</b>	<b>\$ 15,479,812</b>	<b>\$ 2,192,664</b>
<b>District Costs</b>		
District Positions Needed	\$ 272	\$ 24
Salaries	10,986,352	1,029,558
Benefits	6,802,435	609,914
<b>Total Salary and Benefits</b>	<b>\$ 17,788,787</b>	<b>\$ 1,639,472</b>
<b>Non-Salary Costs</b>		
Equipment Maintenance	\$ 128,115	\$ 87,792
Fuel	231,765	163,056
Depreciation	212,325	149,726
<b>Total Non-Salary Costs</b>	<b>\$ 572,205</b>	<b>\$ 400,574</b>
<b>Total District Estimated Cost</b>	<b>\$ 18,360,992</b>	<b>\$ 2,040,046</b>
<b>Contractor Annual Costs</b>	<b>(\$15,479,812)</b>	<b>(\$2,192,664)</b>
<b>Annual Cost Saving (Increased Cost) from Outsourcing</b>	<b>\$ 2,881,180</b>	<b>(\$ 152,618)</b>

The estimated cost to perform field station vegetation management operations is fairly comparable using either contractors or District staff. Additional field station staff may also be beneficial to overall field station operations by providing additional staff availability when responding to hurricane recoveries, other emergency conditions, or cross training to assist with other functions during other employee's absences.

Conversely, the District realizes substantial savings of approximately \$2.9 million annually by using contractors in natural areas; thus, using in-house staff is not cost beneficial based on current contract prices. This is due to the labor intensity of treating natural areas, which would require an additional 272 staff to perform this function in-house.



## District Headquarters Security

The District outsources its 24-hour West Palm Beach Campus security to G4S Secure Solutions USA, Inc. (G4S Security) through a Florida Department of Management Services proposal. Our analysis of the estimated cost to provide security guard services with in-house staff as compared to G4S Security is as follows:

Description	Note	Security Officer Level I	Security Officer Level II	Total
<b>District Positions Needed</b>	<b>1</b>	<b>6</b>	<b>1</b>	<b>7</b>
Annual Hours		2,080	2,080	
Total Regular Hours		12,480	2,080	
Regular Hourly Rate	1	\$13	\$15	
Regular Salaries		\$162,240	\$31,200	\$193,440
Overtime Hours	2	984	-	
Overtime Rate	2	\$19.50	\$22.50	
Overtime Salaries		\$19,188	-	\$19,188
<b>Total District Salary</b>		<b>\$181,428</b>	<b>\$31,200</b>	<b>\$212,628</b>
<b>Benefits</b>				
FICA	3	\$13,879	\$2,387	\$16,266
FRS	4	15,367	2,643	18,010
Medical Insurance	5	110,988	18,498	129,486
<b>Total Benefits</b>		<b>\$140,234</b>	<b>\$23,528</b>	<b>\$163,762</b>
<b>Total District Labor Costs</b>				<b>\$376,390</b>
<b>Non-Salary Costs</b>				
Uniforms				\$1,400
Training				7,000
Miscellaneous				1,000
<b>Total Non-Salary Costs</b>				<b>\$9,400</b>
<b>Total Annual In-House Costs</b>				<b>\$385,790</b>
G4S Security Annual Costs (FY 2019)				<b>(\$266,905)</b>
<b>Cost Savings by Outsourcing</b>				<b>\$118,885</b>

Note 1- Providing the same security coverage as G4S Security would require 7 full-time equivalent employees. Total hours needed to secure the West Palm Beach Campus is approximately 13,500 hours.

Note 2 - Overtime is based on 2,080 hours less estimated reductions for leave time, holidays and training hours. Overtime is calculated at 1.5 times the regular hourly rate.

Note 3 – Employer portion of FICA is 7.65% of salaries.

Note 4 – Employer contribution rate to the Florida Retirement System is 8.47% of salaries.

Note 5 – See Addendum 1 for medical benefit costs.

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## **Conclusion**

The cost to provide security services using District employees would be approximately \$386,000 annually. In comparison, G4S Security charges \$267,000 to provide these services, which results in a savings of approximately \$119,000 annually by outsourcing this service rather than performing the work with FTE'S. Accordingly, continuing to outsource is the best alternative and the most cost cost-effective method of providing security services.

## Mowing and Grading Services

The District outsources all of its mowing and grading services. Multiple contractors under fixed price contracts provide all labor, equipment, tools and fuel related to these mowing and grading services to ensure field station operations staff have adequate and safe access to flood control structures. Our analysis of the cost to provide these services with in-house staff as compared to contractors is as follows:

Description	Notes	Equipment Operators	Fleet Tech	Crew Chief	Field Supervisor	Total
<b>District Positions Needed</b>	<b>1</b>	<b>45</b>	<b>6</b>	<b>6</b>	<b>1</b>	<b>58</b>
Annual Hours		2,080	2,080	2,080	2,080	
Total Hours		93,600	12,480	12,480	2,080	
Hourly Rate		\$19.10	\$21.03	\$24.35	\$29.59	
<b>Total District Salaries</b>		<b>\$1,787,760</b>	<b>\$262,454</b>	<b>\$303,888</b>	<b>\$61,547</b>	<b>\$2,415,649</b>
<b>Benefits</b>						
FICA	2	\$136,764	\$20,078	\$23,247	\$4,708	\$184,797
FRS	3	151,423	22,230	25,739	5,213	204,606
Medical Insurance	4	832,410	110,988	110,988	18,498	1,072,884
<b>Total Benefits</b>		<b>\$1,120,597</b>	<b>\$153,296</b>	<b>\$159,975</b>	<b>\$28,419</b>	<b>\$1,462,287</b>
<b>Total Labor Costs</b>						<b>\$3,877,936</b>
<b>Non-Salary Costs</b>						
Equipment Maintenance						\$246,079
Fuel						373,152
Equipment Depreciation						378,561
Disposal Fees						30,000
Hand Tools & PPE						30,000
<b>Total Non-Salary Costs</b>						<b>\$1,057,792</b>
<b>Total Annual In-House Cost</b>						<b>\$4,935,728</b>
Annual Contract Cost						<b>(\$2,204,165)</b>
<b>Annual Labor and Non-Salary Cost Savings by Outsourcing</b>						<b>\$2,731,563</b>

Note 1 – District field operations management estimated that 58 employees would be needed to undertake all mowing, includes flat and side slope and grading responsibilities.

Note 2 – Employer portion of FICA is 7.65% of salaries.

Note 3 – Employer contribution rate to the Florida Retirement System is 8.47% of salaries.

Note 4 – See Addendum 1 for medical benefit costs.

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## **Conclusion**

The estimated cost to perform mowing and grading operations using District staff would be approximately \$4.9 million annually. Initial investment in equipment necessary to perform mowing and grading with in-house staff is approximately \$5.7 million; however, it should be noted that the depreciation for this equipment is included in our annualized cost. In comparison, the cost for contractors to provide these services is approximately \$2.2 million annually, which results in a savings of approximately \$2.7 million annually. Accordingly, continuing to outsource is the best alternative and the most cost-effective method of providing mowing and grading services.

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## Lock Tender Services

The District has outsourced Kissimmee River and Lake Okeechobee lock tender operations for many years. The contractor operates 11 locks seven days a week during the year unless low water conditions or other issues suspend service. The lock tenders are responsible for operating locks, logging boat traffic, and minor preventive maintenance. Our analysis of the cost to provide these services with in-house staff as compared to contractors is as follows:

Description	Notes	Lock Tenders
<b>District Positions Needed</b>	1	<b>26</b>
Annual Hours		2,080
Total Regular Hours		54,080
Regular Hourly Rate	1	\$15
Regular Salaries		\$811,200
Holiday Pay		10,395
<b>Total District Salary</b>		<b>\$821,595</b>
<b>Benefits</b>		
FICA	2	\$62,852
FRS	3	69,589
Medical Insurance	4	\$480,948
<b>Total Benefits</b>		<b>\$613,389</b>
<b>Total District Labor Costs</b>		<b>\$1,434,984</b>
<b>Non-Salary Costs</b>		
Supplies		\$7,378
Telephone, Pest Control, Etc.		62,280
Equipment Depreciation		831
<b>Total Non-Salary Costs</b>		<b>\$70,489</b>
<b>Total Annual In-House Costs</b>		<b>\$1,505,473</b>
Contractor Annual Costs (FY 2019)		(\$682,200)
<b>Annual Labor and Non-Salary Cost Savings by Outsourcing</b>		<b>\$823,273</b>

Note 1 – Lock tender operations require multiple employees per location to staff the locks for the operational hours. Management determined that 26 lock tenders would be required to operate the locks with in-house staff. The USACE paid lock tenders \$20.73 per hour in FY 2017, but our analysis used a very conservative rate of \$15 per hour plus benefits to calculate in-house labor cost, which approximates the Bureau of Labor Statistics lock tenders' hourly rates.

Note 2 – Employer portion of FICA is 7.65% of salaries.

Note 3 – Employer contribution rate to the Florida Retirement System is 8.47% of salaries.

Note 4 – See Addendum 1 for medical benefits.

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## **Conclusion**

The estimated cost to perform lock tender operations using District staff would be approximately \$1.5 million annually. Initial investment in equipment necessary to perform lock tender operations with in-house staff is approximately \$2,494; however, it should be noted that the depreciation for this equipment is included in our annualized cost. In comparison, the cost for contractors to provide these services is approximately \$682,000 annually, which results in a savings of approximately \$823,000 annually. Accordingly, continuing to outsource is the best alternative and the most cost cost-effective method of providing lock tender operations.

## Janitorial Services

The District outsources janitorial services for its West Palm Beach Campus through a Florida Department of Management Services proposal. Our analysis of the estimated cost to provide janitorial services with in-house staff as compared to a contractor is as follows:

Description	Notes	Janitorial Staff	Day Porters	Supervisor	Total
<b>District Positions Needed</b>	1	<b>11</b>	<b>3</b>	<b>1</b>	<b>15</b>
Annual Hours		2,080	2,080	2,080	
Total Hours		22,880	6,240	2,080	
Hourly Rate		\$15.00	\$16.00	\$17.00	-
<b>Total District Salaries</b>		<b>\$343,200</b>	<b>\$99,840</b>	<b>\$35,360</b>	<b>\$478,400</b>
<b>Benefits</b>					
FICA	2	\$26,255	\$7,638	\$2,705	\$36,598
FRS	3	29,069	8,456	2,995	40,520
Medical Insurance	4	203,478	55,494	18,498	277,470
<b>Total Benefits</b>		<b>\$258,802</b>	<b>\$71,588</b>	<b>\$24,198</b>	<b>\$354,588</b>
<b>Total Salary and Benefits</b>					<b>\$832,988</b>
<b>Non-Salary Costs</b>					
Equipment Maintenance					\$9,457
Depreciation					13,221
<b>Total Non-Salary Costs</b>					<b>\$22,678</b>
<b>Total Annual In-House Cost</b>					<b>\$855,666</b>
Annual Contract Cost					<b>(\$257,800)</b>
<b>Annual Labor and Non-Salary Cost Savings by Outsourcing</b>					<b>\$597,866</b>

Note 1 – Facilities management determined that 15 in-house staff would be required to replace the contractor and perform janitorial services at the West Palm Beach Campus. Most janitorial staff would work between the hours of 5PM – 12AM, Monday through Friday.

Note 2 – Employer portion of FICA is 7.65% of salaries.

Note 3 – Employer contribution rate to the Florida Retirement System is 8.47% of salaries.

Note 4 – See Addendum 1 for medical benefits.

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## **Conclusion**

The estimated cost to provide janitorial services using District staff would be approximately \$856,000 annually. Initial investment in equipment necessary to perform janitorial services with in-house staff is approximately \$40,000; however, it should be noted that the depreciation for this equipment is included in our annualized cost. In comparison, the cost for contractors to provide these services is approximately \$258,000 annually, which results in a savings of approximately \$598,000 annually. Accordingly, continuing to outsource is the best alternative and the most cost cost-effective method of providing janitorial services.



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## **Vegetation Management Operations**

The District outsources all invasive plant control operations to contractors. Invasive plant control operations include exotic plants in public lakes and rivers, water conservation areas, storm water treatment areas, Everglades restoration projects, water preserve areas and on public conservation lands. We separately analyzed vegetation management activities at field station areas of responsibilities and natural areas. Field Station vegetation management operations primarily involves aquatic weed control in canals and on canal banks using spray boats and trucks with spray guns and or attached booms, which in the past was performed by District staff. Natural area vegetation management eradication efforts involve vast areas, such as water conservation areas, and require large amounts of manpower.

This analysis compared District and outside contractor labor, benefits and equipment costs. Herbicide costs were excluded since the costs are approximately the same for the District and outside contractors. Due to the nature of the work, contractor staffing conducting vegetation management operations at field station areas of responsibility require more experience and therefore more costly than vegetation management efforts in natural areas.

## Field Stations

Our cost analysis to provide vegetation management services with in-house staff at the 7 field stations and the Big Cypress Basin areas of responsibility as compared to contractors is as follows:

Vegetation Management Field Stations								
Description	Okee	Miami/ HS	Clew	Ft. Laud	St. Cloud	WPB	BCB	Total
Acres Treated	6,114	5,405	6,018	2,531	6,100	3,539	7,267	36,974
<b>Contractor Cost</b>								
Herbicide Application:								
Supervisor (1)	\$280,907	\$227,788	\$189,548	\$209,710	\$277,385	\$177,073	\$262,218	\$1,624,628
Laborer (2)	68,286	25,917	50,319	10,557	66,976	39,180	88,816	350,051
Other (3)	14,652	47,444	39,132	47,860	14,653	15,109	39,135	217,985
<b>Total Contractor Cost</b>	<b>\$363,845</b>	<b>\$301,149</b>	<b>\$278,999</b>	<b>\$268,127</b>	<b>\$359,014</b>	<b>\$231,362</b>	<b>\$390,169</b>	<b>\$2,192,664</b>
<b>District Costs</b>								
District Positions Needed	4	3	3	3	4	3	4	24
Salaries	\$169,770	\$130,062	\$130,062	\$130,062	\$169,770	\$130,062	\$169,770	1,029,558
Benefits	101,358	76,460	76,460	76,460	101,358	76,460	101,358	609,914
<b>Total Salary and Benefits</b>	<b>\$271,128</b>	<b>\$206,522</b>	<b>\$206,522</b>	<b>\$206,522</b>	<b>\$271,128</b>	<b>\$206,522</b>	<b>\$271,128</b>	<b>\$1,639,472</b>
<b>Non-Salary Costs</b>								
Equipment Maintenance	\$19,532	\$7,299	\$7,299	\$7,299	\$19,532	\$7,299	\$19,532	\$87,792
Fuel	34,628	14,793	14,793	14,793	34,628	14,793	34,628	\$163,056
Depreciation	32,342	13,175	13,175	13,175	32,342	13,175	32,342	\$149,726
<b>Total Non-Salary Costs</b>	<b>\$86,502</b>	<b>\$35,267</b>	<b>\$35,267</b>	<b>\$35,267</b>	<b>\$86,502</b>	<b>\$35,267</b>	<b>\$86,502</b>	<b>\$400,574</b>
<b>Total District Estimated Cost</b>	<b>\$357,630</b>	<b>\$241,789</b>	<b>\$241,789</b>	<b>\$241,789</b>	<b>\$357,630</b>	<b>\$241,789</b>	<b>\$357,630</b>	<b>\$2,040,046</b>
<b>Annual Cost Saving (Increased Cost) from Outsourcing</b>	<b>(\$6,215)</b>	<b>(\$59,360)</b>	<b>(\$37,210)</b>	<b>(\$26,338)</b>	<b>(\$1,384)</b>	<b>\$10,428</b>	<b>(\$32,539)</b>	<b>(\$152,618)</b>

- (1) Five contractors provide vegetation management services in the field station areas of responsibility. Contractor hourly rates include all labor, equipment, maintenance, fuel and any other necessary costs.
- (2) Under the most recent contracts, supervisor hourly rates range from \$48.00 - \$72.00 and laborer hourly rates were \$25.50 - \$30.00.
- (3) Other costs primarily include contract monitoring costs.

Acres treated, contractor costs, and hourly rates, were determined by reviewing contractor agreements and the District's vegetation management activity reports. The District positions needed to conduct the same vegetation management operations as the contractors is based on field station management's estimated staffing needs and the salary

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grade of the positions. We assessed the reasonableness of managements estimated in-house staffing levels and verified the reasonableness of salaries through internet websites for similar position and salary information obtained from the U.S Bureau of Labor Statistics website. Fringe benefits and leave time, in accordance District policies, were included in calculating in-house labor costs. Non-salary costs such as equipment and supplies were also added to the in-house cost analysis and were verified for reasonableness. District benefits include; medical insurance, employer portion of FICA, and Florida State Retirement contributions. In addition to personnel costs, the District would incur an initial equipment costs of approximately \$1.8 million to purchase trucks, airboats and sprayers; however, it should be noted that the depreciation for this equipment is included in our annualized cost.

### **Conclusion**

The result of our analysis revealed that the annual cost to perform field station vegetation management operations with in-house staff is \$2,040,000 compared to \$2,192,000 for contractors, or about \$152,000 less. Although our analysis revealed that the cost of performing this function with in-house staff is less, the difference is not significant (~7.5%). Considering the inherent nature of variabilities in estimating cost, we conclude that the cost of performing the vegetation management function at field stations by contractors and in-house staff is comparable. This is one function that management could consider performing with District staff. Additional field station staff may also provide other benefits, such as availability to assist with hurricane recoveries or other emergency conditions, or cross training to assist with other functions during other employee absences.

### **Natural Areas**

Natural areas such as, water conservation areas, Everglades restoration projects, and water preserve areas, involve thousands of acres. Vegetation management operations in these areas are performed by contractors. Natural areas are labor intensive and often involve difficult terrain. For example, herbicides are usually applied by laborers with backpacks and spray bottles or with spray equipment on vehicles and airboats. To manage herbicide applications, the contractors are required to have at least 3 licensed supervisors

with valid pesticide applicator licenses issued by the Florida Department of Agriculture and Consumer Services (FDAC) for the duration of the contract with the District. Licensed supervisor hourly rates range from \$48 - \$71.88, which include equipment costs.

Our cost analysis to provide vegetation management services with in-house staff in natural areas as compared to contractors is as follows:

<b>Vegetation Management Natural Areas</b>	
<b>Description</b>	<b>Natural Areas</b>
Acres Treated	248,401
<b>Contractor Cost</b>	
Contractor Hours	453,728
Supervisor (1)	\$4,530,075
Laborers (2)	10,905,392
Other (3)	44,345
<b>Total Contractor Cost</b>	<b>\$15,479,812</b>
<b>District Costs</b>	
District Positions Needed	272
Salaries	\$10,986,352
Benefits	6,802,435
<b>Total Salary and Benefits</b>	<b>\$17,788,787</b>
<b>Non-Salary Costs</b>	
Equipment Maintenance	\$128,115
Fuel	231,765
Depreciation	212,325
<b>Total Non-Salary Costs</b>	<b>\$572,205</b>
<b>Total District Estimated Cost</b>	<b>\$18,360,992</b>
<b>Contractor Annual Costs</b>	<b>\$15,479,812</b>
<b>Annual Cost Saving (Increased Cost) from Outsourcing</b>	<b>\$2,881,180</b>

- (1) Contractor hourly rates include all labor, equipment, maintenance, fuel and any other necessary costs.
- (2) Per recent contracts: supervisor hourly rates range is 48.00 - \$72.00, laborer hourly rates range is \$25.50 - \$30.00.
- (3) Other costs primarily include contract monitoring costs.

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### **Conclusion**

Vegetation management operations in natural areas are labor intensive, usually performed by day laborers in difficult terrain. Herbicides are usually applied by laborers with backpacks and spray bottles or with spray equipment on vehicles and airboats. We calculated that the District would need 272 staff and numerous trucks and airboats, estimated at \$2.5 million, to conduct vegetation management operations in these natural areas; accordingly, performing this work with in-house staff is not cost beneficial.

## **RECOMMENDATION**

- 1. Consider whether performing the field station vegetation management function using District staff instead of contractors would be beneficial to overall field station operations, considering the comparable cost of both methods.**

### **Management Response:**

The Field Operation Division does not have the available Fulltime Equivalent Employees (FTEs) to consider taking on the vegetation management function that is now being performed by contractors. Please note that not all vegetation management is contracted out. Field Operations currently performs vegetation management in the form of slope mowing of the East Coast Protective Levee and select areas, aquatic vegetation management and emergency tree removals. With “New Works Projects” such as; the C-44 Reservoir and Stormwater Treatment Area (STA), C-43 Reservoir and the A-2 Reservoir and STA, Field Operations will be further limited in the area of staffing to be able to take on the function of vegetation management that is currently performed by contractors.

**Responsible Division:** Field Operations

**Estimated Completion:** Completed

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### Calculation of Insurance Cost Per Employee

<b>Insurance Type</b>	<b>Budget FY 2019 Insurance Cost</b>	<b>Budgeted Positions</b>	<b>Cost per Employee</b>
Medical	\$24,601,502	1,475	\$16,679
Dental	1,799,500	1,475	1,220
Vision	202,079	1,475	137
Accidental D&D	22,452	1,475	15
LT Disability	294,800	1,475	200
Life	364,105	1,475	247
<b>Total</b>	<b>\$27,284,438</b>		<b>\$18,498</b>