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# **PERFORMANCE AUDIT OF THE CITY'S RIGHT-OF-WAY TREE MAINTENANCE PROGRAM**

The Transportation & Storm Water  
Department Urban Forestry  
Program Can Provide Greater  
Assurance That Tree Trimming  
Services Are Meeting Expectations  
Through Better Contract  
Administration and the Use of  
Additional Program Performance  
Measures

**Office of the  
City Auditor**

**City of San Diego**



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## THE CITY OF SAN DIEGO

May 31, 2019

Honorable Mayor, City Council, and Audit Committee Members  
City of San Diego, California

Transmitted herewith is a performance audit report on the City's Right-of-Way Tree Maintenance Program. This report was conducted in accordance with the City Auditor's Fiscal Year 2019 Audit Work Plan, and the report is presented in accordance with City Charter Section 39.2. The Results in Brief are presented on page 1. Audit Objectives, Scope, and Methodology are presented in Appendix B. Management's responses to our audit recommendations are presented after page 43 of this report.

We would like to thank staff from the Transportation & Storm Water Department for their assistance and cooperation during this audit. All of their valuable time and efforts spent on providing us information is greatly appreciated. The audit staff members responsible for this audit report are Laura Reyes-Cortez, Chris Kime, and Danielle Knighten.

Respectfully submitted,

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## Results in Brief

San Diego's urban forest provides significant contributions to the quality of life for residents and visitors, as trees make a vital and affordable contribution to the overall well-being of the community. The City adopted a five-year plan to manage its Urban Forestry Program (UFP) in 2017. The primary goals of the UFP are to:

- Increase the City's urban tree canopy cover and maximize the benefits of trees;
- Maximize the efficiencies in maintaining the benefits of trees; and
- Minimize the risk of trees in an urban environment.

According to the most recent estimate of the street tree inventory, there are over 200,000 street trees in the public right-of-way. Just over 20 percent of the street trees are some type of palm tree, and the other 80 percent are considered shade trees.

The Street Division of the Transportation & Storm Water Department (TSWD) is responsible for maintaining the City's street network, which includes management of the City's UFP. According to TSWD, the Urban Forestry team of the Street Division is responsible for the planting, maintenance, and preservation of most trees within the rights-of-way throughout the City that are not part of a maintenance agreement with a developer, home owner association, or other maintenance group.

The UFP goal has been to trim 44,000 trees per year and most of these trees are trimmed by the program's contractor as part of a \$2.4 million annual contract for Fiscal Years (FY) 2016–19.<sup>1</sup> Most of the service notifications received by the program for tree maintenance are addressed by City work crews and Arborists.

We found that the UFP does not have sufficient contract administration to provide assurance that the vendor responsible for tree maintenance is meeting contractual obligations. The contract scope of work includes specifications for the level of services to be provided, but there is not a contract compliance process in place to monitor Contractor performance. An effective contract administration process leads to lower operational cost, increased agency satisfaction and efficiency in delivering services to taxpayers. The invoice documentation provided by the Contractor for palm trees does not provide sufficient documentation of work performed to determine whether tree maintenance was billed at the correct rate. In addition, there could be supplementary tree characteristics included in the Contractor invoice documentation that could be useful for monitoring the impact of the UFP. Tree species, diameter, canopy and condition are included for shade trees, but palm tree invoices only show species.

The TSWD lacks key performance indicators (KPIs) that would help the UFP track and monitor its progress on addressing service notification workload. Most service notifications received by the program are addressed by City work crews and Arborists, but performance measures related specifically to these tree service notifications have not been published in the City's Annual Budget. Additional KPIs are necessary to demonstrate City staff's ability to respond to requests made by the public.

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<sup>1</sup> The proposed \$1.1 million reduction to non-palm tree trimming in Fiscal Year 2020 will effectively eliminate all scheduled non-palm tree trimming and reduce the total number of trees trimmed to 25,000.



To address the issues we mentioned above, we made four recommendations which include implementing a contract compliance plan, developing a requirement for palm tree characteristics to be submitted with invoice documentation, identifying and tracking key performance indicators and creating a mechanism for reporting on those indicators.

Management agreed to implement all four of our recommendations.

# Background

In accordance with the Office of the City Auditor's Fiscal Year (FY) 2019 Work Plan, we conducted this audit to determine if the Urban Forestry Program (UFP) is ensuring that the tree maintenance Contractor is adequately meeting contractual obligations and whether the UFP has the staffing and equipment capacity to complete their current backlog and maintain a reasonable level of open work orders.

***Transportation and  
Storm Water  
Department***

The Transportation and Storm Water Department's (TSWD) mission is to effectively manage and enhance the City's transportation network, reduce flood risk, and improve storm water quality. The TSWD works to fulfill its mission through four divisions: Right-of-Way Coordination, Storm Water, Transportation Engineering Operations, and Street.

The Street Division of the TSWD is responsible for maintaining the City's street network, which includes maintenance and repair of street and alley surfaces, sidewalks, street lights, traffic signals, traffic signs, and other traffic safety devices. This includes management of the City's Urban Forestry Program (UFP), which maintains and protects trees in the public right-of-way.

According to TSWD, the Urban Forestry team of the Street Division is responsible for the planting, maintenance, and preservation of most trees within the rights-of-way throughout the City that are not part of a maintenance agreement with a developer, home owner association, or other maintenance group.

***San Diego's Urban  
Forest and Five-Year  
Plan***

An urban forest includes trees and vegetation in and around a city environment, and usually needs help from people to survive. San Diego's urban forest provides significant contributions to the quality of life for residents and visitors, as trees make a vital and affordable contribution to the overall

well-being of the community. The City adopted a five-year plan to manage its Urban Forestry Program in 2017.

The three primary goals of the UFP are to:

1. Increase the City's urban tree canopy cover and maximize the benefits of trees;
2. Maximize the efficiencies in maintaining the benefits of trees; and
3. Minimize the risk of trees in an urban environment.

Overall, the City's tree canopy cover has been calculated at 13 percent as of 2014. A portion of this canopy comes from trees in the public right-of-way. According to the most recent estimate of the street tree inventory, there are over 200,000 street trees in the public right-of-way.<sup>2,3</sup> Just over 20 percent of the street trees are some type of palm tree, and the other 80 percent are considered shade trees. See **Exhibit 1** for the most common street trees in San Diego according to the tree inventory. Refer to **Appendix C** for a full listing.

**Exhibit 1:**

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**Five Most Common Street Tree Types in San Diego**

Tree Type	Quantity
Queen Palm	22,875
Carrot Wood	13,607
Pine	12,675
Eucalyptus	12,000
Mexican Fan Palm	11,630

Source: OCA, based on street tree inventory provided by TSWD.

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<sup>2</sup> The inventory count was conducted in 2002 and may be understated according to the City's Urban Forestry Five-Year Plan.

<sup>3</sup> This inventory does not include public right-of-way trees in the Maintenance Assessment Districts of the City according to the City's Urban Forestry Five-Year Plan.

The Urban Forestry team is responsible for the maintenance and preservation of the City's street trees, which includes regularly pruning established trees to promote continued survival and growth, and the protection of trees from disease, insects, drought, and construction. The Urban Forestry team of the Street Division also prunes and removes trees on an emergency basis to mitigate potential risks such as property damage, disruption of services, injury, or death.

Maintenance and tree removals may also be performed by request. After an assessment is completed by the Urban Forestry team, the City will remove trees if they are dead, a hazard, or damaging public improvements and the issue cannot be corrected with maintenance. The City's Urban Forestry Program is part of a broader, Citywide effort to implement the City's General Plan and Climate Action Plan.

**Urban Forestry Program Expenditures**

As shown in **Exhibit 2**, the program's most significant expenditures for the past three fiscal years (FY) are for contracted tree maintenance. Since FY 2016, the City has expended approximately \$2.4 million per year on the contract, which accounted for 60 percent of program expenditures each year.

Personnel and Fringe is the second most significant expenditure category, which accounted for nearly 30 percent of program expenditures per year since FY 2016. Overall, an average of \$3.5 million has been expended on the program each year since FY 2015.

**Exhibit 2:**

**Urban Forestry Program Expenditures, FYs 2015–2018**

Category	FY 2015	FY 2016	FY 2017	FY 2018
<i>Personnel and Fringe</i>	\$ 871,662	\$ 929,960	\$ 1,108,251	\$ 1,162,826
<i>Contract</i>	600,000	2,398,126	2,389,671	2,344,967
<i>Other Contracts</i>	1,213,201	366,688	481,230	259,436
<i>Supplies and Other Costs</i>	43,433	50,382	38,081	47,959
Total	\$ 2,728,296	\$ 3,745,156	\$ 4,017,233	\$ 3,815,188

Source: OCA, based on financial reports from SAP.

The UFP and related activities are mostly funded through the City's General Fund. The Street Division has also received grant funding to update the City's tree inventory and draft an Urban Forest Management Plan.

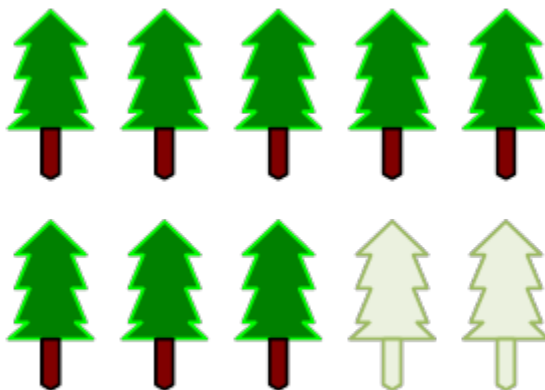
**Urban Forestry Contract Services**

As shown in **Exhibit 3**, the Contractor trims or removes just over 80 percent of the Street Division's targeted number of trees trimmed. This breaks down to approximately 21,500 palm trees and about 14,200 shade trees trimmed or removed—35,700 total—by the Contractor each year. The number of trees trimmed is the Street Division's only key performance indicator for tree maintenance and has been set at 44,000 trees trimmed since FY 2016. Contractor trims and removes trees based on schedules created and provided by the Urban Forester.

**Exhibit 3:**

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**Contractor Performs Approximately 80 percent of Street Division's Tree Maintenance Target**



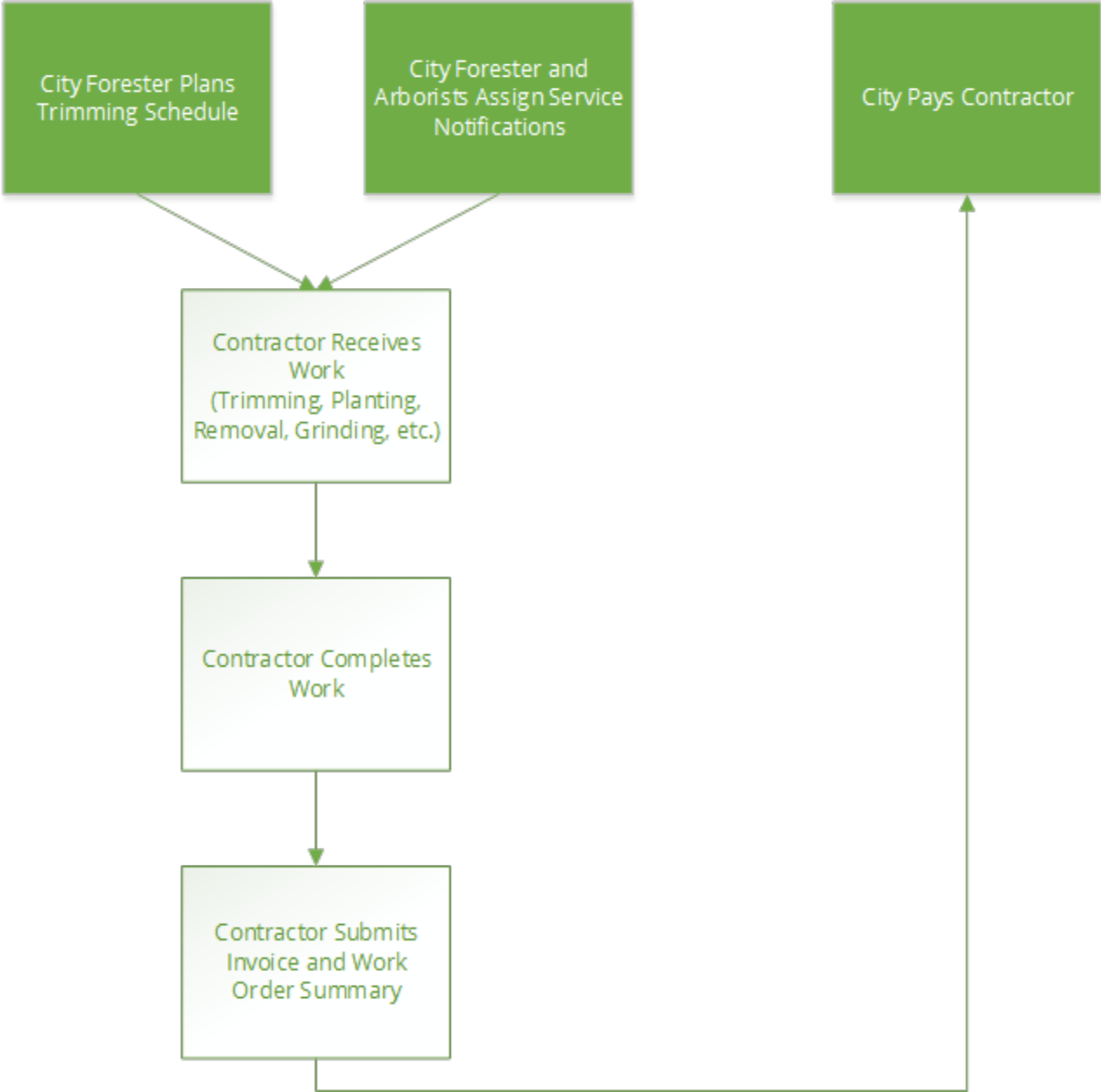
Source: OCA, based on information provided by City's Urban Forester.

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Work is assigned to the Contractor by the City Forester and Arborists, as shown in **Exhibit 4**. Most of the work is planned maintenance, according to the schedule prepared by the City Forester. Additional work is assigned from Service Notifications that are received through the Get It Done platform.

**Exhibit 4:**

**Contractor Work Process**



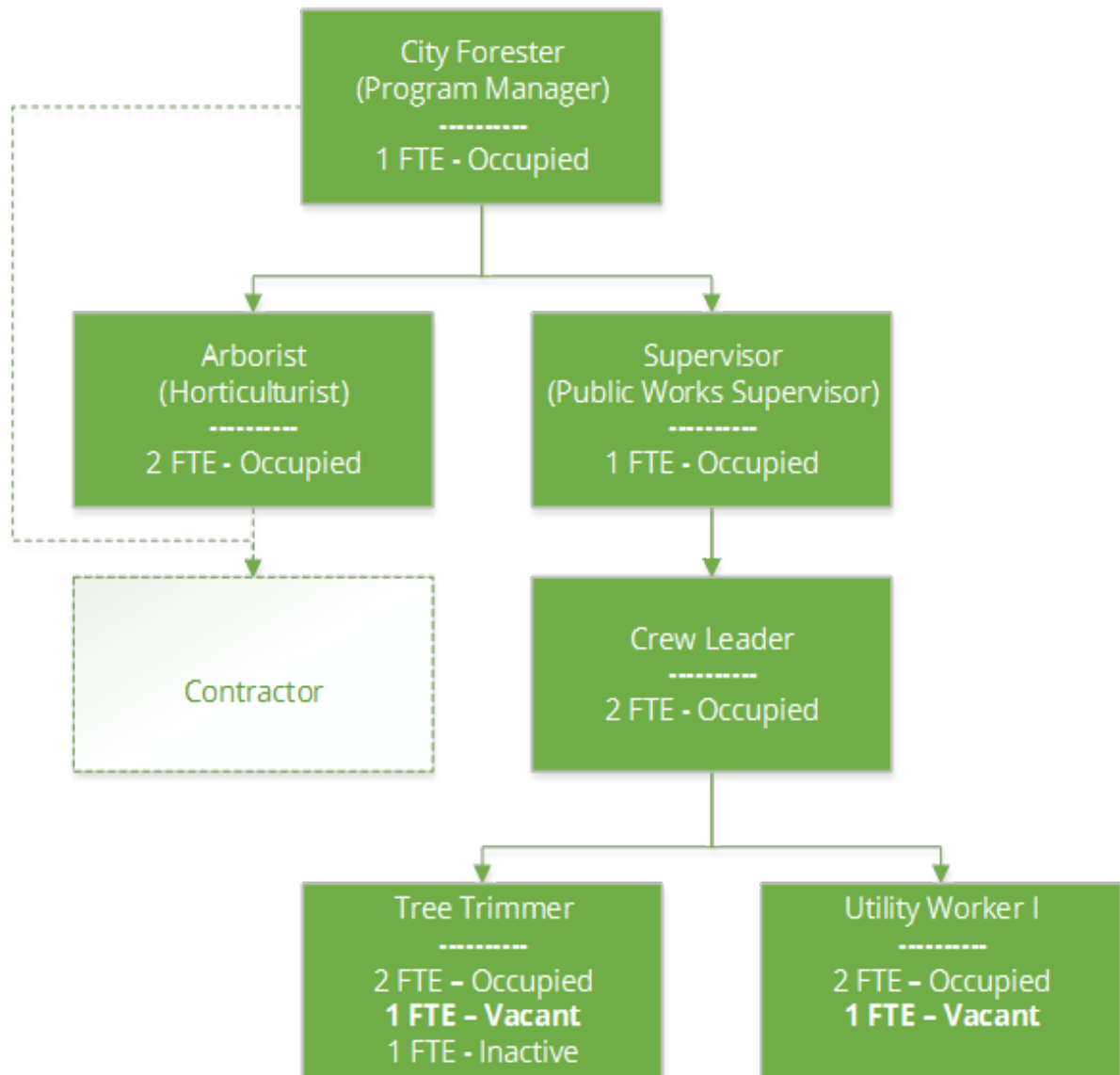
Source: OCA, based on staff interviews.

In addition to performing tree maintenance activities, Contractor also provides tree inventory information to the City as needed. The last renewable year of the contract was FY 2019 and the Street Division is currently in the process of preparing for a new bid.

**Urban Forestry Program Team** The UFP team within TSWD currently consists of 13 positions overall. As of February 2019, there were two vacancies and one inactive position as shown in **Exhibit 5**.

**Exhibit 5:**

**Transportation & Storm Water Urban Forestry Team Positions**



Source: Auditor generated based on staff interviews and organizational data from SAP.

The UFP is overseen by the City Forester. The City Forester and the Arborists are responsible for numerous program duties such as:

- Contract administration;
- Climate Action Plan implementation;
- Evaluations of trees, roots, and sidewalk damage;
- Oversight of historical City trees;
- Public outreach;
- Tree pest management; and
- Support for other TSWD divisions, City departments, and the Community Forestry Advisory Board.

The City Forester serves as a senior-level administrator managing the City's public tree inventory and has a leadership role in policy development and furthering implementation of the Climate Action Plan. The City Forester also manages the Street Division tree maintenance work crew, which consists of a Supervisor, Crew Leads, Tree Trimmers, and Utility Workers. According to the Street Division, the City work crew trims or removes approximately 20 percent of the Division's tree-trimming goal.

***Reporting Service  
Requests***

As shown in **Exhibit 6**, non-emergency problems may be reported through Get It Done—a web interface and mobile application. Get It Done may be used for problems related to City assets, including City trees. It should not be used for emergencies as it may take up to 48 hours for City staff to review reports that are made. Emergency requests should be called in to the Street Division Customer Service phone number listed on the City TSWD website page. The length of time needed to resolve a problem reported through Get It Done may vary based on a variety of different circumstances and conditions that exist at the time the service request is submitted, such as ongoing City projects and other requests received.



**Exhibit 6:**

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**Get It Done San Diego**



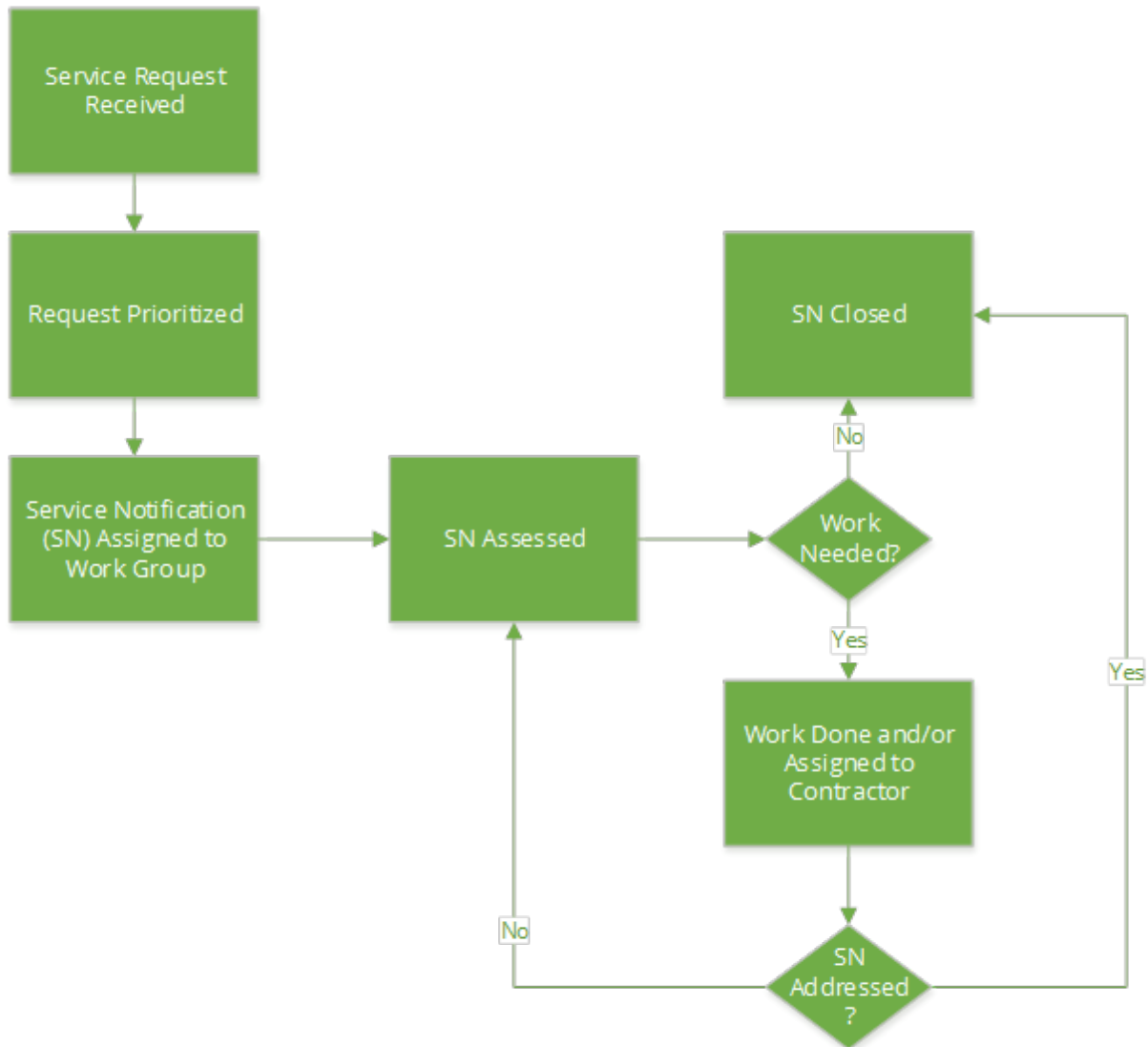
Source: Get It Done outreach materials.

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The Urban Forestry team is responsible for investigating each tree-related problem reported. As shown in **Exhibit 7**, the requests are prioritized and assigned to different work groups as appropriate. These tasks are performed on a reactive basis and include responding to various emergencies, performing maintenance, completing tree health and safety assessments, and removing trees.

**Exhibit 7:**

**Service Notification Process**



Source: OCA, based on staff interviews and data from SAP.

The Urban Forestry's work crew typically trims and removes trees based on the priority level assigned and level of resources available. As shown in **Exhibit 8**, priority levels also denote the TSWD's goals for closing service notifications.

**Exhibit 8:**

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**Service Notification Priority Levels**

<b>Priority Level</b>	<b>Targeted Close Time</b>
(1) Emergency	1 Day
(2) Medium	30 Days
(3) Routine	90 Days
(4) Low	365 Days
(5) Fixed Date	As Assigned

Source: OCA, Based on Service Notification Data Retrieved from SAP.

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The number and types of service notifications the crew work on may be limited by available resources. According to the Street Division, during the time of our audit, the Urban Forestry team did not have a working crane and only one bucket truck was available for use. This can limit the number of tall trees that the work crew can remove or trim at any given time. TSWD noted that the Street Division has not had a working stump grinder for years, but Streets Division prefers assigning stump grinding to the Contractor because of the equipment maintenance cost and amount of time needed to grind stumps.

## Audit Results

### ***Finding 1: The TSWD Urban Forestry Program Can Provide Greater Assurance That Tree Trimming Services Are Meeting Expectations Through Better Contract Administration***

The Urban Forestry Program (UFP) does not have sufficient contract administration to provide assurance that the vendor responsible for tree maintenance is meeting contractual obligations. The contract scope of work includes specifications for the level of services to be provided, but there is not a contract compliance process in place to monitor Contractor performance. Contract monitoring should include ongoing inspections and collection of monitoring data to assess the impact of the UFP. An effective contract administration process leads to lower operational cost, increased agency satisfaction and efficiency in delivering services to taxpayers.

#### ***Contract Administration***

According to the contract, the City must provide inspections of the Contractor's work areas to ensure that their service was adequate and that it complied with all specifications set forth in the contract. The contract states that "the City shall provide inspection of the work area to ensure that service is adequate and that all work complies with these specifications. Discrepancies and deficiencies will be noted on Field Inspection Notices (FIN) and shall be corrected within the time frame specified. If the Contractor fails to take corrective action within the noted time frame on the Field Inspection Notice, the City may withhold payment and/or proceed with termination of the contract." However, there is not a formal process in place for the UFP to inspect the adequacy of the Contractor work and communicate any discrepancies.

Some contracts require more oversight than others, depending on the complexity of the work performed, risk involved and dollar amount of the contract. As evidenced in the scope of work in **Appendix D**, the tree maintenance services included in the current \$2.4 million-dollar contract are wide-ranging, detailed and labor intensive. The contract includes standards for tree trimming, palm trimming, milling, tree removal/stump grinding/backfilling, root pruning and tree planting. These requirements described in the contract are often very specific and require a great deal of review and oversight to ensure quality standards are met. If supervision or staffing is not sufficient or adequately skilled, quality may not meet prescribed standards.

The UFP stated that staff have been spending a great deal of time updating the new EAM system with records of work completed by the Contractor and, combined with their other duties, the Arborist have not had time to develop a policy to perform regular site visits. All performance should follow the expectations stated within the contract.

***Contract Compliance  
Plan***

The Purchasing and Contract Department (P&C) has developed a Contract Administration Compliance Manual that contains several key elements for the achievement of stated contract goals and objectives. Contract Monitoring is a part of contract administration and includes:

- Performance Reports – All site visits, inspections, performance observations, evaluations, or audits should be properly documented and filed.
- Contract Compliance Plan – This includes pertinent information representing current and historical Contractor performance, evaluation criteria, and performance narratives and indicators.

Each client department is responsible for designing a compliance plan and contract administration for each contract that they administer. The employee that is best able to observe and/or monitor the quality of goods or the level of service of a Contractor is the person that should be appointed as the Contract Administrator. The Contract Administrator has three areas of responsibility: 1) Contractor relationship, 2) Contract Management, and 3) Contract Compliance.

The Contract Compliance Plan is a key aspect of effective contract administration. It is a tool primarily used for performance-based contracts that focus on output and outcome. The Contract Compliance Plan is based upon the established tasks and requirements typically described in the Statement/Scope of Work or specifications in the contract. It can also be used to provide detailed information on how the Contract Administrator will audit, inspect, observe, test, evaluate, and document Contractor performance. The Contract Compliance Plan defines proposed actions that will be used to evaluate the Contractor's performance. The Contract Compliance Plan can include, but is not limited to, the following criteria:

- Deliverables/Tasks;
- Performance Standards;
- Acceptable Level/Quality;
- Method and Frequency of inspections/evaluations; and
- Narratives and Ratings.

***Benefits of Quality Tree Trimming Services***

According to the P&C Compliance Manual, contract compliance serves to provide a number of benefits. Compliance ensures that Contractors are meeting the City's needs and the appropriate use of public funds. The practice of compliance may also result in historical Contractor performance data which could be beneficial in determining future contracting opportunities for various Contractors.

There are many other benefits of ensuring the quality of tree-trimming services.

According to the Journal of Arboriculture, properly trimmed trees not only require less man-hours on their next cycle but some may not even need trimming. Furthermore, the use of proper tree maintenance techniques benefits the public because of reduced costs, reduced hazards, reduced public liability, protection from premature decline or death.

Per the Urban Forestry Five-Year Plan Summary, proper tree maintenance increases the longevity of trees, reduces premature failures, and maximizes the benefits trees provide. And finally, the San Diego Tree Advocacy Handbook states that when managing a large population of trees efficient maintenance is critical and requires up to date tools for communication, coordination, and documentation.

**Vendor Invoice Documentation Should Include More Information on Tree Characteristics to Verify Palm Tree Charges and Collect Additional Data for Monitoring the Impact of the Urban Forestry Program**

The invoice documentation provided by the Contractor for palm trees does not provide sufficient documentation of work performed to determine whether tree maintenance was billed at the correct rate. In addition, there could be additional tree characteristics included in the Contractor invoice documentation that could be useful for monitoring the impact of the urban forestry program. Tree species, diameter, canopy and condition are included for shade trees, but palm tree invoices only show species.

According to the Invoicing and Payment contract terms, the Contractor shall be required to provide one (1) monthly invoice in triplicate for all work performed. Billing is by address and includes tree species, caliper, variety (botanical and common), trim/removal/planting or preservation date, condition, and appropriate data acceptable to the Contract Administrator.

The Contractor charges different rates for the trimming of palm trees based on years of growth, for example Queen palm (1-2 years of growth) are \$25.46 and Queen palm (over 2 years of growth) are \$32.59 each. From a review of 25 invoices, we found 4,233 palms billed at the 1-2-year growth rate and 9,785 billed at the over 2 years growth rate.

However, there was no documentation of tree characteristics to substantiate the rates billed by years of growth for palm trees. The Urban Forestry department said diameter (caliper) would not indicate years of growth for palm trees and they did not know why that was included in the contract. Therefore, there is not a way based on the current contract for TSWD to determine if they are paying the correct rate for trimming palm trees. Shade trees are billed at one rate for maintenance regardless of years of growth.

According to the International Society of Arboriculture, the most commonly recorded tree characteristics for urban tree monitoring programs were species, condition rating, mortality status, diameter at breast height and specific health problems. Programs used monitoring results to inform tree planting and maintenance practices, provide feedback to individuals responsible for tree care, and manage tree risk. Municipalities that managed mature urban trees tracked potential hazard trees and used the results to prioritize maintenance and also used the monitoring data to tout records of tree survival and health, rather than sheer number of trees planted. It is important to carefully consider what data to collect, set clear goals and develop an appropriate database to assist in the development of standardized urban forestry monitoring protocols.

Therefore, it may be beneficial for the UFP to request additional data from the Contractor to ensure contract rates are billed correctly and that appropriate tree characteristics are recorded for monitoring palm tree maintenance practices and results.



**Recommendation #1:** We recommend that the Transportation & Storm Water Department's Urban Forestry Program develop and implement a Contract Compliance Plan for the tree trimming contract that includes, but is not limited to, the following criteria:

- Deliverables/Tasks;
- Performance Standards;
- Acceptable Level/Quality;
- Method and Frequency of inspections/evaluations; and
- Narratives and Ratings. (Priority 2)

**Recommendation #2:** We recommend that Transportation & Storm Water Department's Urban Forestry Program require the Contractor to include additional palm tree characteristics along with invoice documentation to support contract rates billed and provide palm tree characteristics for program monitoring purposes. Palm tree characteristics may include but not be limited to species, years of growth, condition and any other useful characteristics identified by the Urban Forestry Program. (Priority 2)

***Finding 2: The Transportation & Storm Water Department's Urban Forestry Program Can Provide Greater Assurance That Tree Trimming Services Are Meeting Expectations Through the Use of Additional Program Performance Measures***

The Transportation & Storm Water Department (TSWD) lacks key performance indicators (KPIs) that would help the Urban Forestry Program track and monitor their progress on addressing its service notification workload. Most service notifications received by the program are addressed by City work crews and Arborists, but performance measures related specifically to these tree service notifications have not been published in the City's Annual Budget. While the past several annual City Budgets indicate that the UFP goal is to trim 44,000 trees each year, most of these trees are trimmed by the program's Contractor. Therefore, this KPI does not necessarily reflect City staff's response to service notifications. Additional KPIs are necessary to demonstrate City staff's ability to respond to requests made by the public.

***Tracking Service Notifications Received Overall***

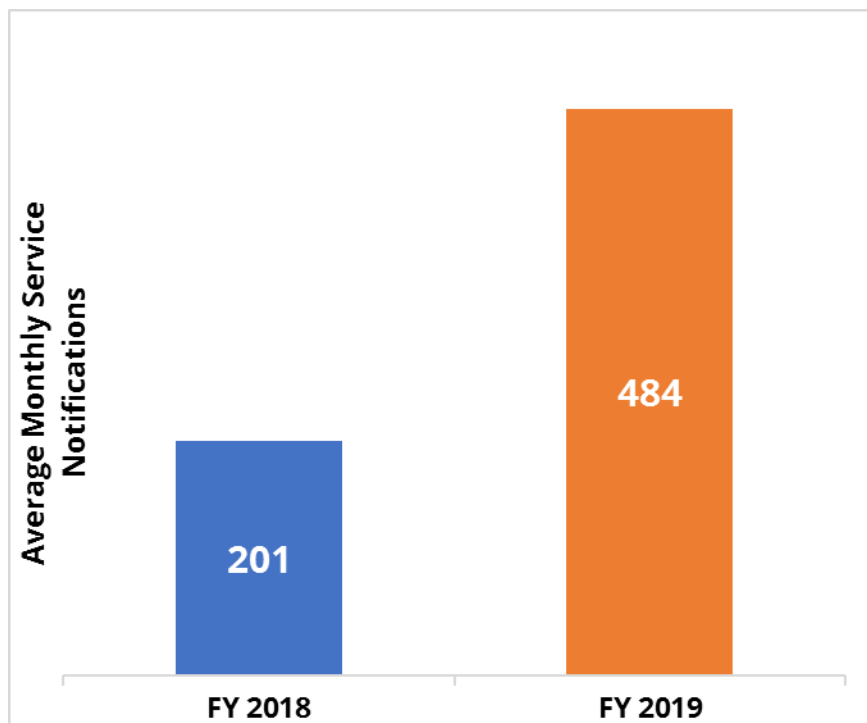
We reviewed all Urban Forestry service notifications in the Enterprise Asset Management (EAM) module of SAP as of February 2019. Since the beginning of Fiscal Year (FY) 2017, the program has received nearly 7,000 service notifications. During the same period, the program closed approximately 5,200 new and existing service notifications. As of February 2019, the UFP had a backlog of 1,700 outstanding service notifications.

The UFP has seen a significant increase in the number of service notifications year over year. In FY 2018, the program received an average of 201 service notifications per month. As shown in **Exhibit 9**, average monthly notifications increased in FY 2019 to 484 notifications per month, which is an increase of 141 percent.

**Exhibit 9:**

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**Urban Forestry Program Received Almost 2.5 Times More Service Notifications per Month in FY 2019 than in FY 2018**



Source: OCA, Based on Service Notification Data Retrieved from SAP.

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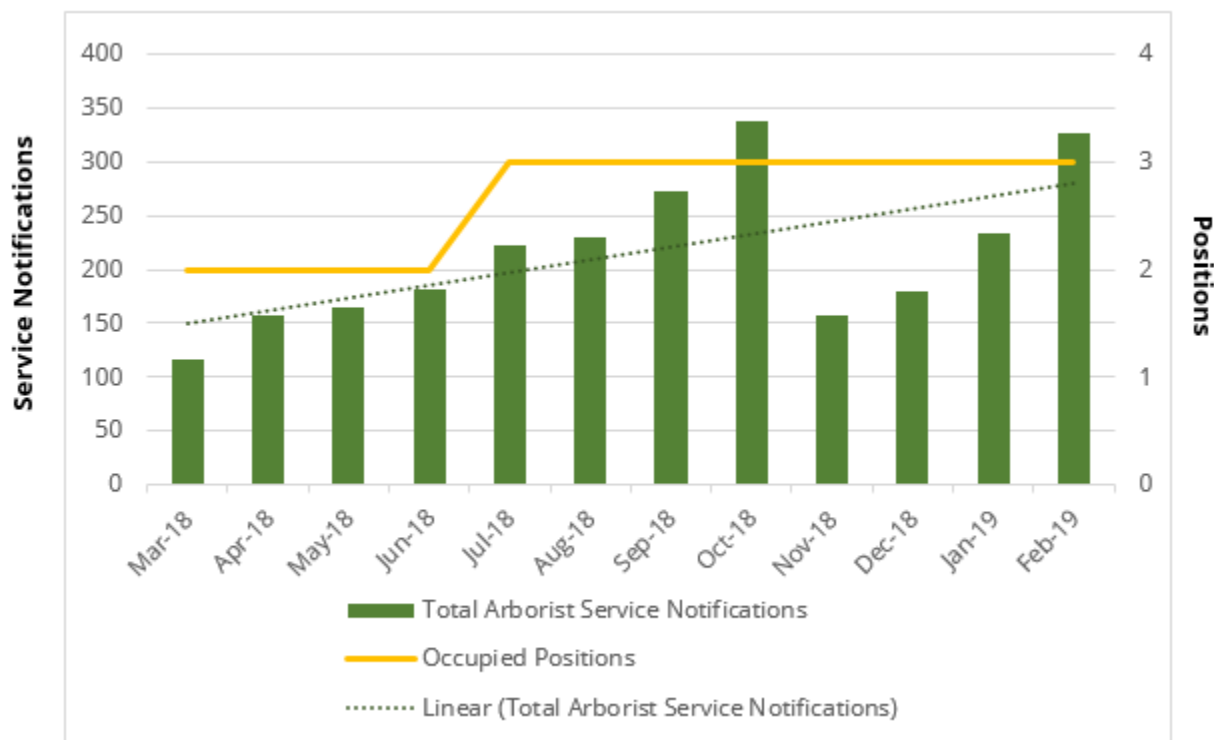
***Tracking Service Notifications by Urban Forestry Positions***

Whereas the UFP has experienced a high rate of increase in service notifications received, the program's budgeted personnel costs have remained relatively flat. In FY 2019, budgeted personnel costs increased by approximately 10 percent from FY 2018. This increase included an Arborist position and a Citywide raise of 3.3 percent. As of February 2019, there were 10 occupied Urban Forestry positions.

Additionally, occupied positions within the program have also remained relatively flat, while the number of service notifications continues to grow steadily. As shown in **Exhibit 10**, the number of occupied Arborist positions changed only once throughout the year, whereas the number of service notifications have fluctuated month-to-month.

**Exhibit 10:**

**Monthly Service Notifications Relative to Occupied Arborist Positions**

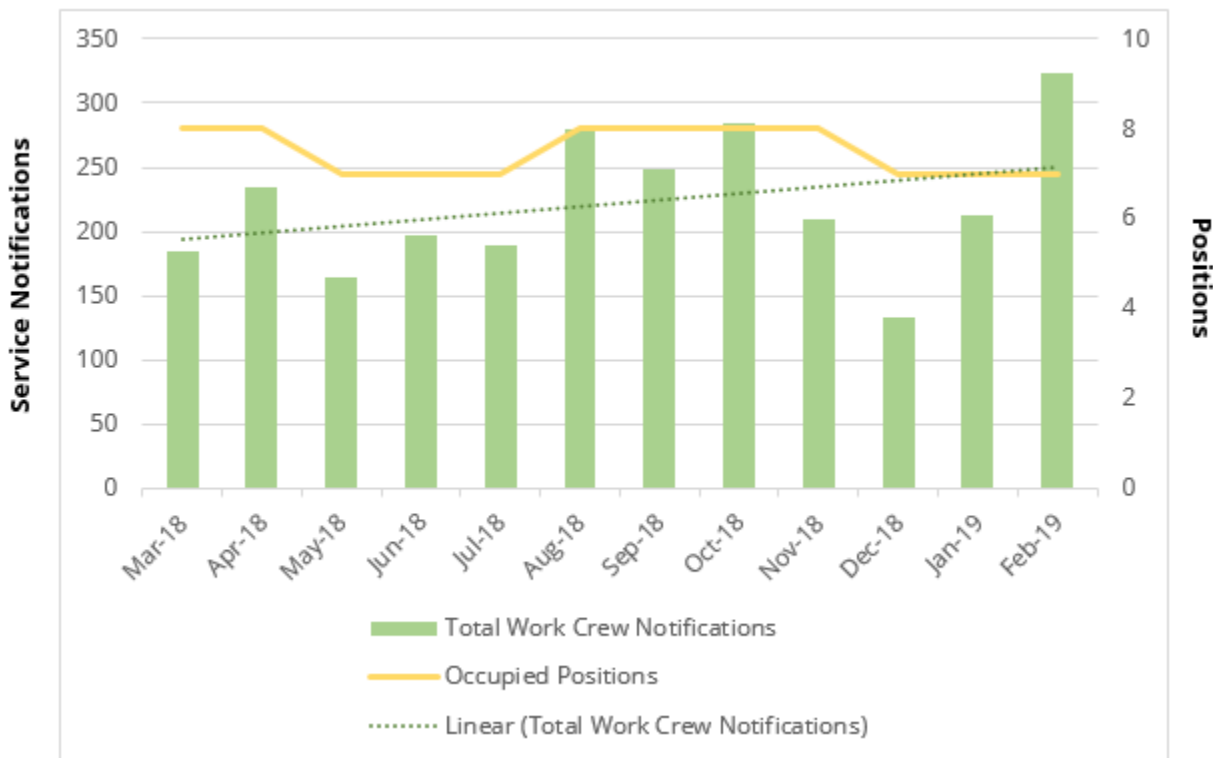


Source: OCA, Based on Service Notification Data and Position Detail Reports Retrieved from SAP.

Similarly, **Exhibit 11** shows that service notifications assigned to City work crews continue to increase while occupied positions do not change significantly throughout the year.

**Exhibit 11:**

**Monthly Service Notifications Relative to Occupied City Work Crew Positions**



Source: OCA, Based on Service Notification Data and Position Detail Reports Retrieved from SAP.

**Tracking Service Notifications by Priority Level**

Another measure of program performance is the rate at which service notifications are closed. Although the UFP monitors closed notifications to calculate the program's backlog, the program does not track the closures by priority level. The TSWD categorizes service notifications into five different priority levels as shown in **Exhibit 12**. Applying priority levels to the different service requests is based on the judgement of dispatchers and supervisors. Many of the request types overlap in the different priority levels.

**Exhibit 12:**

**Service Notification Priority Levels and Examples**

Priority Level	Targeted Closed Time	Examples of Service Notification Types
(1) Emergency	1 Day	<ul style="list-style-type: none"> <li>• Fallen limbs or branches</li> <li>• Fallen tree</li> <li>• Trimming tree blocking traffic device</li> </ul>
(2) Medium	30 Days	<ul style="list-style-type: none"> <li>• Contractual trimming</li> <li>• Tree evaluation by Arborist</li> <li>• Free tree planting request</li> <li>• Trimming tree for pedestrian or vehicle clearance</li> </ul>
(3) Routine	90 Days	<ul style="list-style-type: none"> <li>• Contractual trimming</li> <li>• Free tree planting request</li> <li>• Tree evaluation by Arborist</li> <li>• Trimming tree for pedestrian or vehicle clearance</li> </ul>
(4) Low	365 Days	<ul style="list-style-type: none"> <li>• Contractual trimming</li> <li>• Contractual stump grinding</li> <li>• Free tree planting request</li> <li>• Tree evaluation by Arborist</li> <li>• Trimming tree for pedestrian or vehicle clearance</li> </ul>
(5) Fixed Date	As Assigned	<ul style="list-style-type: none"> <li>• Investigating cost schedule</li> <li>• Fallen tree</li> <li>• Tree evaluation by Arborist</li> </ul>

Source: OCA, Based on Service Notification Data Retrieved from SAP.

From July 2018 through February 2019, the UFP has received nearly 4,000 service notifications and has closed over two-thirds of them. However, this measure does not demonstrate how well the program is responding to the more urgent and emergency-level service notifications. To see that, the service notifications received and closed should be broken down by priority level as shown in **Exhibit 13**.

**Exhibit 13:**

**Service Notifications Received and Closed by Priority Level, July 2018–February 2019**

Priority	Received	Closed	Percent Closed
1	519	512	99%
2	1,885	1,464	78%
3	231	60	26%
4	1,209	632	52%
5	31	18	58%
<b>Total</b>	<b>3,875</b>	<b>2,686</b>	<b>69%</b>

Source: OCA, Based on Service Notification Data Retrieved from SAP.

A breakdown by priority level would show the UFP where resources are most needed. Although staff may already be aware of the general breakdown since they are working on the service notifications every day, this information could be useful in a summary format to City leadership and the public.

This could also be used as a tool to demonstrate the levels of service that can be provided with the current amount of resources allocated to the program. As safety is of the utmost importance to the City, resources are typically focused toward responding to the emergencies. If resources are decreased, it could be expected that the levels of service that are put toward less urgent service notifications would decrease as well.

**Tracking Service Notification Response Times**

It is also important to note that tracking service notifications may need to go beyond what was received and closed in a given period. In addition to the service notification close dates, we also reviewed the activity dates associated with applicable service notifications. In our review, we found that many service notifications appear to not be closed within the targeted timeframes, which may contribute to the lower percentages shown in **Exhibit 13**. However, as shown in **Exhibit 14**, we found that the UFP had at least responded to most service notifications in some capacity within the targeted timeframe between July 2018 and February 2019.

**Exhibit 14:**

**Average Initial Response by Priority Level, July 2018–February 2019**

Priority	Average Initial Response (Days)	Targeted Close Time
1	1	1 Day
2	15	30 Days
3	1	90 Days
4	52	365 Days
5	65	As Assigned

Source: OCA, Based on Service Notification Data Retrieved from SAP.

According to staff, various factors, such as a lack of working vehicles and cranes, may be inhibiting their ability to fully address and close the service notifications. Additionally, the TSWD is still developing processes for using EAM, which was rolled out to TSWD in March 2018. As EAM is currently configured, the UFP may need to consider using a combination of service notification close and activity dates to best monitor performance.

By tracking the service notifications by priority, the UFP can better monitor its progress in improving its response to and closure of service notifications received. Additionally, these performance measures can be communicated to City leadership and the public to begin to set service level expectations with regard to the level of resources allocated to the program.

**Key Performance Indicators**

According to the City's Strategic Plan, the City values responding to requests, measuring results, and seeking improvement in everything it does. These values could be reflected in the reporting of relevant service notification KPIs. However, the Urban Forestry management stated that while it maintains some internal tracking of service notifications, it does not report this information in the City's Annual Budget along with other department KPIs. Based on the information provided by the program, it also appears that service



notifications had not been tracked by priority as of our review.

Additionally, it appears that very limited service notification information is reported in a public forum.

***Keeping Pace with Service Notifications***

Although the level of occupied positions appears to have generally kept pace with the service notifications received by the Urban Forestry team, the trendlines in **Exhibits 10** and **11** indicate that staffing levels may not keep pace with service notifications in the near future. As the City's Get It Done application and website continue to grow in popularity, the number of service notifications will continue to rise as well.

Tracking and reporting this information in a summarized format to management and City leadership could bolster a request for additional resources if they are deemed necessary to sustain an adequate response rate to service notifications received.

If staffing levels do not keep pace with service notifications, the Urban Forestry team may have to defer tree maintenance services. According to urban forestry experts, tree pruning is the most essential tree management activity for long-term tree safety and survival.<sup>4</sup> Therefore, deferred tree maintenance may lead to a decline in the health of City trees. Unhealthy trees could result in the loss of expensive and beneficial tree assets, impede the City's ability to meet certain Climate Action Plan goals, and increase public safety risks.

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<sup>4</sup> Miller, Robert W., Hauer, Richard J., and Werner, Les P. *Urban Forestry: Planning and Managing Urban Greenspaces*. Third Edition. Long Gove: Waveland Press, Inc., 2015.

**Recommendation #3:** We recommend that the Transportation & Storm Water Department Urban Forestry Program should develop a process to track and monitor key performance indicators related to service notifications. Program management should identify relevant key performance indicators that will address the program's workload and resource capacity. Specific performance measures to be tracked should include, but not be limited to, the following:

- a. Total service notifications received and closed during each fiscal year, broken down by priority; and
- b. Average response time for service notifications received and responded to during each fiscal year, broken down by priority. (Priority 2)

**Recommendation #4:** We recommend that the Transportation & Storm Water Department Urban Forestry Program should develop a mechanism for reporting service notification performance measures to City leadership and the public. The key performance indicators should be reported in a formal document, such as the City's Annual Budget and/or an annual report to relevant City boards and committees. At a minimum, the total number of service notifications received, closed, and average response time should be reported in the City's Annual Budget along with other Transportation & Storm Water Department key performance indicators. (Priority 2)

## Conclusion

San Diego's urban forest provides significant contributions to the quality of life for residents and visitors, as trees make a vital and affordable contribution to the overall well-being of the community. The Street Division of the Transportation & Storm Water Department (TSWD) is responsible for maintaining the City's street network, which includes management of the City's Urban Forestry Program (UFP). According to TSWD, the UFP team of the Street Division is responsible for the planting, maintenance, and preservation of most trees within the rights-of-way throughout the City that are not part of a maintenance agreement with a developer, home owner association, or other maintenance group.

We found that the Urban Forestry Program (UFP) does not have sufficient contract administration to provide assurance that the vendor responsible for tree maintenance is meeting contractual obligations. In addition, the invoice documentation provided by the Contractor for palm trees does not provide sufficient documentation of work performed to determine whether tree maintenance was billed at the correct rate. There could also be additional tree characteristics included in the Contractor invoice documentation that would be useful for monitoring the impact of the urban forestry program. Tree species, diameter, canopy and condition are included for shade trees, but palm tree invoices only show species.

The TSWD lacks key performance indicators (KPIs) that would help the UFP track and monitor their progress on addressing its service notification workload. Additional KPIs are necessary to demonstrate City staff's ability to respond to requests made by the public.

To address the issues we mentioned above, we made four recommendations which include implementing a contract compliance plan, developing a requirement for palm tree characteristics to be submitted with invoice documentation, identifying and tracking key performance indicators and creating a mechanism for reporting on those indicators.

# Recommendations

**Recommendation #1:** We recommend that the Transportation & Storm Water Department's Urban Forestry Program develop and implement a Contract Compliance Plan for the tree trimming contract that includes, but is not limited to, the following criteria:

- Deliverables/Tasks;
- Performance Standards;
- Acceptable Level/Quality;
- Method and Frequency of inspections/evaluations; and
- Narratives and Ratings. (Priority 2)

**Recommendation #2:** We recommend that Transportation & Storm Water Department's Urban Forestry Program require the Contractor to include additional palm tree characteristics along with invoice documentation to support contract rates billed and provide palm tree characteristics for program monitoring purposes. Palm tree characteristics may include but not be limited to species, years of growth, condition and any other useful characteristics identified by the Urban Forestry Program. (Priority 2)

**Recommendation #3:** We recommend that the Transportation & Storm Water Department Urban Forestry Program should develop a process to track and monitor key performance indicators related to service notifications. Program management should identify relevant key performance indicators that will address the program's workload and resource capacity. Specific performance measures to be tracked should include, but not be limited to, the following:

- a. Total service notifications received and closed during each fiscal year, broken down by priority; and
- b. Average response time for service notifications received and responded to during each fiscal year, broken down by priority. (Priority 2)

**Recommendation #4:**

We recommend that the Transportation & Storm Water Department Urban Forestry Program should develop a mechanism for reporting service notification performance measures to City leadership and the public. The key performance indicators should be reported in a formal document, such as the City's Annual Budget and/or an annual report to relevant City boards and committees.

At a minimum, the total number of service notifications received, closed, and average response time should be reported in the City's Annual Budget along with other Transportation & Storm Water Department key performance indicators. (Priority 2)

# Appendix A: Definition of Audit Recommendation Priorities

## DEFINITIONS OF PRIORITY 1, 2, AND 3

### AUDIT RECOMMENDATIONS

The Office of the City Auditor maintains a priority classification scheme for audit recommendations based on the importance of each recommendation to the City, as described in the table below. While the City Auditor is responsible for providing a priority classification for recommendations, it is the City Administration's responsibility to establish a target date to implement each recommendation taking into consideration its priority. The City Auditor requests that target dates be included in the Administration's official response to the audit findings and recommendations.

Priority Class <sup>5</sup>	Description
1	Fraud or serious violations are being committed. Significant fiscal and/or equivalent non-fiscal losses are occurring. Costly and/or detrimental operational inefficiencies are taking place. A significant internal control weakness has been identified.
2	The potential for incurring significant fiscal and/or equivalent non-fiscal losses exists. The potential for costly and/or detrimental operational inefficiencies exists. The potential for strengthening or improving internal controls exists.
3	Operation or administrative process will be improved.

<sup>5</sup> The City Auditor is responsible for assigning audit recommendation priority class numbers. A recommendation which clearly fits the description for more than one priority class shall be assigned the higher priority.

# Appendix B: Objectives, Scope, and Methodology

In accordance with the Office of the City Auditor's Fiscal Year (FY) 2019 Work Plan, we conducted this audit to determine if the Urban Forestry Program is ensuring that the tree maintenance Contractor is adequately meeting contractual obligations and whether the Urban Forestry Program has the staffing and equipment capacity to complete their current backlog and maintain a reasonable level of open work orders.

## **Scope and Methodology**

To achieve our audit objectives, we interviewed City staff, reviewed the tree maintenance contract and pricing documents, compared invoices to pricing documents, evaluated contract monitoring procedures and performed an analysis of the service notification and service delivery process. In addition, we reviewed the staffing model and staffing levels for tree maintenance services in the City right-of-way. Our scope included the time period of FY 2015-19.

Our internal control testing included an evaluation of the Urban Forestry Programs' oversight responsibility, accountability for accomplishing program objectives, policies and procedures, the use of relevant information to communicate both internally and externally and the need for ongoing evaluations of the Contractor work product to communicate any deficiencies for tree maintenance services.



We conducted this performance audit in accordance with the Generally Accepted Government Auditing Standards. These standards require that we plan and perform audits 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 the audit objectives.

# Appendix C: Right-of-Way Tree Inventory

## Exhibit 15:

### Right-of-Way Tree Types and Quantity in City of San Diego

Tree Type	Quantity
Queen Palm	22,875
Carrot Wood	13,607
Pine	12,675
Eucalyptus	12,000
Mexican Fan Palm	11,630
Sweet Gum	10,322
Jacaranda	9,787
Brisbane Box	7,590
California Sycamore	7,324
African Fern Pine	6,161
Italian Cypress	5,501
Brazilian Pepper Tree	4,755
Melaleuca	3,988
Palm	3,544
Magnolia St. Mary's	3,463
Chinese Flame	3,233
Ash	3,150
King Palm	3,061
California Fan Palm	3,038
Juniper	3,025
Yucca	2,742
Ficus	2,608
California Pepper Tree	2,443
Camphor Tree	2,267
Evergreen Pear	2,210
Crape Myrtle	2,207
Purple Leaf Plum	2,200
Myoporum	2,127
Acacia Sp	2,113
Bradford Pear	1,986
London Plane	1,907
Oleander	1,850
Canary Island Date Palm	1,644
Chinese Elm	1,349

Tree Type	Quantity
Olive-Fruitless	1,161
Tipu Tree	1,115
Bottle Brush	1,110
White Alder	1,086
Bottle Tree	1,066
Carob	1,047
Lemon Bottle Brush	1,029
Gold Medallion Tree	956
Fruit Tree	947
Purple Orchid Tree	933
New Zealand Christmas	880
Coral Tree	849
Victorian Box	791
Eugenia	790
Coast Live Oak	774
Australian Willow	765
Kaffir Plum	724
Poplar	635
Weeping Chinese Banyan	535
Norfolk Island Pine	496
Peppermint Willow	473
Canary Island Pine	469
Loquat	450
Siberian Elm	448
Date Palm	446
Holly Oak	423
Moreton Bay Fig	421
Torrey Pine	418
Cedar	366
Guadalupe Palm	363
Pink Trumpet	349
Silk Oak	348
Birch	339
Golden Rain	328

Performance Audit of the City's Right-of-Way Tree Trimming Maintenance Program

Tree Type	Quantity
Indian Laurel Fig	1,333
Red Ironbark	1,260
Fruitless Mulberry	299
Red Flowering Gum	297
Silk Tree	292
African Sumac	267
Fig	261
Citrus	257
Willow Pittosporum	250
Cajeput Tree	227
Hong Kong Orchid	213
Chinese Tallow Tree	206
Floss Silk	199
Cork Oak	195
Silver Dollar Gum	175
Pencil Tree	164
Bronze Loquat	134
Hibiscus	133
Chinaberry	130
Black Acacia	124
Chinese Pistache	115
Maidenhair Tree	113
Unknown Palm	98
Cape Chestnut	92
Leyandi Cypress	90
Silver Maple	89
Flame Tree	88
Avocado	84
Purple Robe	80
Schefflera	75
Deodar Cedar	71
Unknown Canopy Tree	70
Purple Hopseed	65
Blue Gum	64
She-Oak	63
Tulip Tree	60
Sapphire Dragon	56
Jerusalem Thorn	53

Tree Type	Quantity
Weeping Bottle Brush	301
Yew Pine	301
Cow Itch Tree	47
Chitalpa	41
Xylosma	41
Macadamia Tree	32
Markhamia hildebrandtii	32
Australian Tea Tree	27
Redbud	27
Redwood	27
Sweetshade	25
Chinese Fringe Tree	22
Madrona	22
Fir	20
Nut Tree	17
Desert Willow	16
Lilly-Pilly Tree	16
Monterey Cypress	16
Lemon Gum	13
Plumeria	13
White Orchid Tree	13
Cottonwood	12
Incense Cedar	8
Smoke Tree	8
Tamarisk	6
Rustyleaf Fig	5
Flaxleaf Paperbark	4
Brugmansia	3
Almond	2
Red Cap Gum	2
Mediterranean Fan Palm	1
Australian Firewheel	1
Desert Gum	1

Source: OCA, based on street tree inventory provided by TSWD.

# Appendix D: Contract Scope of Work

## Tree Maintenance Services for Street Right-of-Way

### Contract General Specifications

#### Method of Performing Work

##### 1. Tree Trimming

All trees shall be maintained in their natural shapes. Pruning shall follow A.N.S.I. 300 Standards and be performed in such a manner as to promote the best growth habits, appearance, and health of the tree, and to prevent encroachment which blocks vision or is in any manner deemed undesirable by the Contract Administrator. Trees shall not be topped or shaped into balls. Drop crotch work shall be done only when directed or approved by Contract Administrator.

- a. Good horticultural and safety practices shall be used at all times, with pruning for a natural-looking shape with branches growing radically outward and upward. No formal pruning or shearing shall be permitted without written authorization from the Contract Administrator.
- b. The Contractor shall bring to the attention of the Contract Administrator within twelve (12) hours any tree that shows any signs of cracking branch collars, root heaving or leaning, or is in any manner a safety hazard. The Contractor shall be responsible for the complete removal of those trees as authorized by the Contract Administrator.
- c. All trees shall be trimmed per specifications or as directed by the Contract Administrator.
- d. Trimming shall require removal of low branches overhanging residential streets to a height above the street grade of fourteen (14) feet unless otherwise directed. Low branches overhanging sidewalks shall be trimmed to a height of eight (8) feet.
- e. At the direction of the Contract Administrator, tree trimming shall include the removal of all dead, broken, diseased, insect-infested branches and stubs larger than one-half (1/2) inch in diameter throughout the tree. Exceptions may be made for specific species.
- f. Shorten the length of limbs which extend beyond the natural perimeter of an otherwise symmetrical form.
- g. Prune end branches to lighten end weights where such overburden appears likely to cause breakage of limbs. Remove cross limbs and water sprouts(suckers).

- h. Thin areas of heavy growth to reduce pressure on the tree from wind.
- i. Final pruning cuts shall be made without leaving a stub. They shall be made in a manner to favor the earliest covering of the wound with callous growth. This requires that the wound be as small as practicable, that the cut be reasonably flush within the branch bark collar, and that the cambium tissues at the edge of the cut be alive and healthy. Extremely flush cuts which produce large wounds and weaken the tree at the cut shall not be made.
- j. Pruning and cutting tools shall be maintained sharpened to a condition which results in leaving an un-abraded cambium edge on final cuts. Such tools shall also, be kept clean and free from infectious materials.
- k. The use of climbing spurs or spike shoes shall not be permitted except for removals or as approved by the Contract Administrator.
- l. Trimming of the trees shall provide adequate clearance from street lights (5' Radial clearance) and signs.
- m. Trim tree limbs to clear all adjacent structures minimum of five (5) feet.
- n. "Lion Tailing" of limbs of trees shall not be permitted.
- o. Trees shall be trimmed in such a manner to promote a strong central leader.
- p. Smaller trees encountered with stakes and ties shall be trimmed to promote an upward strong central leader and, if stable, shall have stakes and ties removed.
- q. The Contractor shall exercise precautions as necessary when working adjacent to aerial and subterranean utilities. If aerial utility wires present a hazard to the Contractor's personnel or others near the work site, work is to immediately cease and the Contractor shall notify San Diego Gas & Electric or the appropriate utility. Work shall then commence in accordance with instructions from the utility company. Contractor shall notify Contract Administrator of such occurrences that may affect scheduling of work.
- r. No more than twenty percent (20%) of the crown shall be removed within an annual growing season. The percentage of foliage removed shall be adjusted according to age, health, and species considerations. Stressed trees are less tolerant of pruning and leaf area, and removal should be minimal.

In cases where more than twenty percent (20%) of the crown needs to be removed, such as to reduce the potential for structural failure, a qualified arborist shall assess the amount of pruning needed to abate the hazard. When possible, such pruning should be scheduled over a two (2) or three (3) years period. Pruning should be minimal on

species prone to water sprout development. For such species, pruning during the summer months may reduce the potential for water sprout development. For species susceptible to sunburn injury, pruning shall not expose bark tissue of the trunk and scaffold branches to sunlight levels that lead to injury.

- s. Topping is not an acceptable pruning practice.
- t. Palm pruning should be limited to the removal of dead, broken, and strongly chlorotic fronds. Live, healthy fronds should not be removed. Fronds should be severed close to the petiole base without damaging living trunk tissue. Palm fruit, flowers, and loose petiole bases shall be removed without causing damage to the parent tree. A disinfectant (such as Clorox or rubbing alcohol) shall be used on all Palm pruning tools before and after pruning individual trees unless otherwise specified by the Contract Administrator. Climbing spikes or spurs shall not be used to climb palms for pruning.

## 2. Palm Trimming

- a. Queen Palms; (Seagrass Romanzoffiana)

Removal of all dead fronds, loose petioles, flower spikes, seed stalks, seed clusters, sheaths, foreign growth and similar vegetative material(s) from the crown shaft of the palm. Loose petioles are those which may be removed by pulling with reasonable force. When properly trimmed, the lowest remaining fronds shall be live and not below horizontal tree trimming.

- b. Fan Palms, (Brahea, Erythea, Washingtonia, Filifera and subsequent Hybrids):

Removal of all dead fronds, necessary live fronds, loose wraps, flower spikes, seed stalks, seed clusters, sheaths, foreign growth and similar vegetative material(s) from the crownshaft of the palm. When properly trimmed, the lowest remaining fronds shall be live and horizontal.

- c. Date Palms, (Phoenix Canariensis (Canary Island Date Palm), Phoenix Dactylifera and Phoenix Reclinata):

Removal of all dead fronds, necessary live fronds, tips of old butt stubs four (4) inches or longer, flower spikes, seed stalks, seed clusters, foreign growth and similar vegetative material(s) from the crownshaft of the palm. When properly trimmed, the lowest remaining fronds shall be live and horizontal. Any remaining seed clusters, sheaths, flower spikes and flower buds that do not hang out at the lower most two (2) rows of fronds must be left intact.

Butts cut from Date Palms shall be cut close and perpendicular to the base of the frond.

To control the spread of disease the following shall be practiced for pruning all Palm Species unless otherwise specified by the Contract Administrator:

- 1) All pruning tools shall be disinfected before being used to trim a palm.
- 2) All tools shall be disinfected between trees being trimmed when several palms are timed in succession. Disinfecting shall consist of immersing pruning tools in a solution of equal parts of household bleach (5.2% sodium hypochlorite) and water for a minimum of five (5) minutes before re-use.
- 3) Climbing palms is prohibited; exception may be made on a case by case basis only with prior approval by the Contract Administrator.

d. Overhead Utility Lines

Contractor shall trim all palms adjacent to energized power transmission lines in accordance with the appropriate California safety regulations for line clearance operations. Contractor shall exercise precautions as necessary when working adjacent to aerial and subterranean utilities. In the event aerial utility wires present a hazard to Contractor's personnel or others near the work site, work is to immediately cease and the Contractor shall notify San Diego Gas and Electric at (800) 611-7343, as well as the Contract Administrator. Work shall then commence in accordance with instructions from the utility company and Contract Administrator.

e. Minimum Height for Palms to be Trimmed

Contractor shall NOT trim any palm with less than six (6) feet of brown trunk.

### 3. Milling Specifications

As may be requested by the Contract Administrator as milling services are not mandatory.

In an effort to reduce waste from the urban forest, the City will require the Contractor to mill suitable logs from tree removals and create usable lumber. The benefit of diverting greenwaste from landfills and creating a useful wood product is environmentally conscious and provides alternative wood resources. The goals are to have the City of San Diego receive a usable wood product at a minimal expense, and the Contractor to divert dumping fees, both as a step toward environmental preservation. The method by which the Contractor will provide usable lumber is as follows:

- a. Prior to the commencement of work, the Contractor and the City will meet to establish a criterion that determines which logs can be made into usable lumber. The criterion shall define tree species, sizing, and tree characteristics necessary for creating lumber.
- b. Logs suitable for milling shall be those that have a caliper between 12" and 36" in diameter, with a length of a minimum of 4' and a maximum of 20' long, and be as vertically straight as possible. The City shall determine if a tree is not suitable for milling.
- c. Logs shall be "clear," free of significant decay, and with minimal lateral branches and/or stubs.
- d. The Contractor shall have the necessary equipment to remove the logs in these sizes (i.e., cranes, loaders, etc.).
- e. Contractor shall be capable of salvaging tree logs designated by the Contract Administrator or designee for milling into lumber to be used as a recycled wood product and dried to a moisture content of 6-8% for use as furniture, interior wood, or for use at the City's discretion.
- f. Milled logs shall be produced into lumber with a thickness of 4-8 quarters (4 quarters equal 1") or at a thickness designated by the City.
- g. The lumber shall be kiln dried to the specifications requested by the City, typically, 6-8% moisture content and shall be non-graded.
- h. Milling operations shall be performed at the Contractor's site and delivered to the City's designated location between ninety (90) and one hundred eighty (180) calendar days.
- i. The standard unit measure is a board foot. A board foot is a section 1" thick by 12" in width by 12" in length.
- j. Payment shall be made based on a "per board foot" price and shall include all hauling and delivery charges.

#### 4. Tree Removal/Stump Grinding/Backfilling Services

- a. Removal of a tree shall include removing from the site (at the end of each work day) all trimmings, wood stumps, roots (4" or larger), surface roots, other vegetation, debris, and litter resulting from the Contractor's operation. Cut trees shall not be stacked for future pick-up and/or chipping.



- b. Roots having a diameter of 4" or more shall be traced out and removed to a minimum of 2' from the stump crown. All roots 4" or more in diameter, the tops of which are 6" or less below the existing soil level, shall be considered part of the stump and shall be removed, except where such removal is prevented by existing sidewalks, curbs, buildings, or other improvements.
- c. Stumps shall be removed to a minimum of 15" below existing finish grade or at the depth approved by the Contract Administrator. Where the stump removal operation intercepts an in-service utility line, removal of the stump shall be made to the top of said utility line with the remaining portion of the stump, not obstructed by the utility line, removed to the required 15" minimum depth. No stump shall be left for more than one (1) day following removal and shall be secured with barricades and mounted flashes.



THE CITY OF SAN DIEGO

M E M O R A N D U M

DATE: May 30, 2019

TO: Kyle Elser, Interim City Auditor

FROM: Kris McFadden, Director, Transportation & Storm Water Department

SUBJECT: Management Response to Audit of the Right-of-Way Tree Maintenance Program

---

The purpose of this memorandum is to provide Management's response to the Audit Report titled "Performance Audit of the City's Right-of-Way Tree Maintenance Program." The Audit's primary objectives were to:

- Objective 1: Assess whether the Urban Forestry Program is ensuring that the tree maintenance contractor is adequately meeting contracted obligations and City standards.
- Objective 2: Assess whether efficiency improvements can be made to the service notification and work order processes to shorten completion times.
- Objective 3: Assess whether the Urban Forestry Program has the staffing and equipment capacity to complete their current backlog and maintain a reasonable level of open work orders.

The Audit Report provided recommendations to improve the effectiveness and efficiency of the City's Right-of-Way Tree Maintenance Program. Below are the Departments' responses to the Audit Recommendations.

**Recommendation #1:** We recommend that the Transportation & Storm Water Department's Urban Forestry Program develop and implement a Contract Compliance Plan for the tree trimming contract that includes, but is not limited to, the following criteria:

- Deliverables/Tasks;
- Performance Standards;
- Acceptable Level/Quality;
- Method and Frequency of inspections/evaluations; and
- Narratives and Ratings. (Priority 2)

**Management Response:** Management agrees with this recommendation. Transportation & Storm Water staff are coordinating now with Purchasing & Contracting to incorporate those criteria into the new contract for Right-of-Way tree maintenance that is currently being solicited.

**Target Implementation Date:** December 2019

**Recommendation #2:** We recommend that Transportation & Storm Water Department's Urban Forestry Program require the Contractor to include additional palm tree

characteristics along with invoice documentation to support contract rates billed and provide palm tree characteristics for program monitoring purposes. Palm tree characteristics may include but not be limited to species, years of growth, condition and any other useful characteristics identified by the Urban Forestry Program. (Priority 2)

**Management Response:** Management agrees with this recommendation. Once the additional palm characteristics have been identified for both contractor work reports and invoicing, Transportation & Storm Water Department will send a written directive to the contractor to include these palm tree characteristics.

**Target Implementation Date: December 2019**

**Recommendation #3:** The Transportation & Storm Water Department Urban Forestry Program should develop a process to track and monitor key performance indicators related to service notifications. Program management should identify relevant key performance indicators that will address the program's workload and resource capacity. Specific performance measures to be tracked should include, but not be limited to, the following:

- a. Total service notifications received and closed during each fiscal year, broken down by priority; and
- b. Average response time for service notifications received and responded to during each fiscal year, broken down by priority. (Priority 2)

**Management Response:** Management agrees with this recommendation. Tracking the receipt and closure of notifications by type rather than priority has already helped the Program to manage public expectations for services that are provided by the Department such as tree planting. The City Forester will coordinate with the Transportation & Storm Water Administrative Services and Fiscal Manager to identify and implement key performance indicators related to service notifications that address program workload and resource capacity.

**Target Implementation: March 2020**

**Recommendation #4:** The Transportation & Storm Water Department Urban Forestry Program should develop a mechanism for reporting service notification performance measures to City leadership and the public. The key performance indicators should be reported in a formal document, such as the City's Annual Budget and/or an annual report to relevant City boards and committees.

At a minimum, the total number of service notifications received, closed, and average response time should be reported in the City's Annual Budget along with other Transportation & Storm Water Department key performance indicators. (Priority 2)

**Management Response:** Management agrees with this recommendation. Although not formally shared as key performance indicators, Transportation & Storm Water already shares and reviews service notification performance measures both internally with City leadership and with the Community Forestry Advisory Board on a periodic basis. The City Forester will publish key performance indicators and service notification performance measures in an annual report and/or the City's Annual Budget.

**Target Implementation: April 2020**

Page 3  
Kyle Elser, Interim City Auditor  
May 30, 2019

If there are any questions in this matter, please contact me at 619-236-6594.



Kris McFadden  
Director, Transportation & Storm Water Department

BW/rm

cc: Kris Michell, Chief Operating Officer  
Andrea Tevlin, Independent Budget Analyst, Office of the IBA  
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