March 20, 2018

MEMO TO: BF-136 File

F R O M: Mike White
Council Chair

SUBJECT: **TRANSMITTAL OF INFORMATIONAL DOCUMENT RELATING TO PERFORMANCE AND FISCAL AUDIT OF THE DEPARTMENT OF FIRE AND PUBLIC SAFETY** (BF-136)

The attached informational document pertains to Item BF-136 on the Committee's agenda.

paf:tntf:18-090a

Attachment

COUNTY OF MAUI, HI

PERFORMANCE AND FISCAL AUDIT OF THE DEPARTMENT OF FIRE AND PUBLIC SAFETY

MARCH 20, 2018

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EXECUTIVE SUMMARY

The Council of the County of Maui, Hawaii retained Citygate Associates, LLC (Citygate) to perform a Performance and Fiscal Audit for the County of Maui Department of Fire and Public Safety (Department). This study included reviewing detailed operational abilities, personnel, and other operating budget costs. Records were provided under Citygate direction, and multiple interviews were held on site with Department and County of Maui (Maui County) staff. In every information request and interview, Citygate found Department and County staff very transparent and they provided all the information requested.

While this study makes numerous findings and recommendations, they need to be taken in the context of a best practices tune-up for a very good Department in a unique operating environment. While Citygate finds that budget processes need to be improved, the system is not broken, and Citygate found interest in improving fire services cost forecasting and resultant Council policy decisions at all levels

Overall, there are 44 key findings and 23 specific action item recommendations. This Executive Summary will summarize major challenges and recommendations. Specific findings are contained throughout the study and numbered in sequence, not priority. Section 7 provides a comprehensive list of recommendations.

POLICY CHOICES FRAMEWORK

First, as the Council understands, there are no mandatory federal or state regulations directing the level of fire service response times and outcomes. The level of service and resultant costs are a matter of community choice in the United States. The body of regulations on the fire service states that *if fire services are provided, they must be done so with the safety of the Firefighters and the people they serve in mind*. There is a constructive tension between the desired level of fire services and the level that can be funded. Thus, many communities do not have the level of fire services they may desire.

In Maui County, matching revenues to expenses is more difficult because the State handles the negotiation for wages, benefits, hours, and many working conditions. The counties must set the actual service levels within the Statewide construct.

The fundamental service level policy choices are derived from two key questions:

1. *What outcome is desired* for an emergency? Is the desire to limit a building fire to the room, building, or block of origin, and to provide emergency medical care in time to decrease the possibility of preventable death and severe disability?

2. *Should equitable response time coverage be provided* to all similar risk neighborhoods? Once the desired outcomes are stated, the fire and emergency medical services (EMS) deployment system must be designed to cover the most geography in the fewest minutes to meet the desired outcomes.

Within these two questions, Maui County must protect different and widely separated neighborhoods, yet within a common Statewide construct.

CITYGATE'S OVERALL OPINIONS ON THE STATE OF THE COUNTY'S FIRE SERVICES

Citygate is impressed with the Department's wide array of services tailored to each area's different needs, all within a robust best practices view. The Department has been striving to improve certifications, safety, training, and adherence to standards. This is commendable and not true in all departments. The Department has set out on path to prove these traits by becoming accredited.

The Department and County legacy budget processes and finance systems are not in conformance with best practices in many respects. Both Department- and County-level budget and finance teams have insufficient analytical staff. For a typical agency, this would not cause undue friction. But fire service personnel costing is not only atypical, it is a year-round, around-the-clock operation, *heavily regulated* by special sections of the Federal Fair Labor Standards Act (FLSA) for Firefighter work schedules and hours given their unique 24-hour shift schedule needs. In addition, the Occupational Health and Safety Administration (OSHA) has significantly tightened the safety

regulations on America's fire services at all levels. This has resulted in more safety, but at considerable costs in training, personal protective clothing, equipment, and fire apparatus.

The Firefighters' Collective Bargaining Agreement (CBA) is one of the most expensive to manage that Citygate has seen. It is not expensive in so far as the core salaries and benefits, but in the multiple, overlapping specialty pays and staffing rules. There are at least 16 such clauses in the CBA in addition to vacation and sick leave accrual and usage. In a statewide CBA, some of these rules may make sense for Oahu, but not in the diverse Maui County fire services operation. Ideally, there would be a way to negotiate more "Maui-County-centric" policies as an appendix to the CBA that could be reflective of a three-island department with many fire stations that are widely separated.

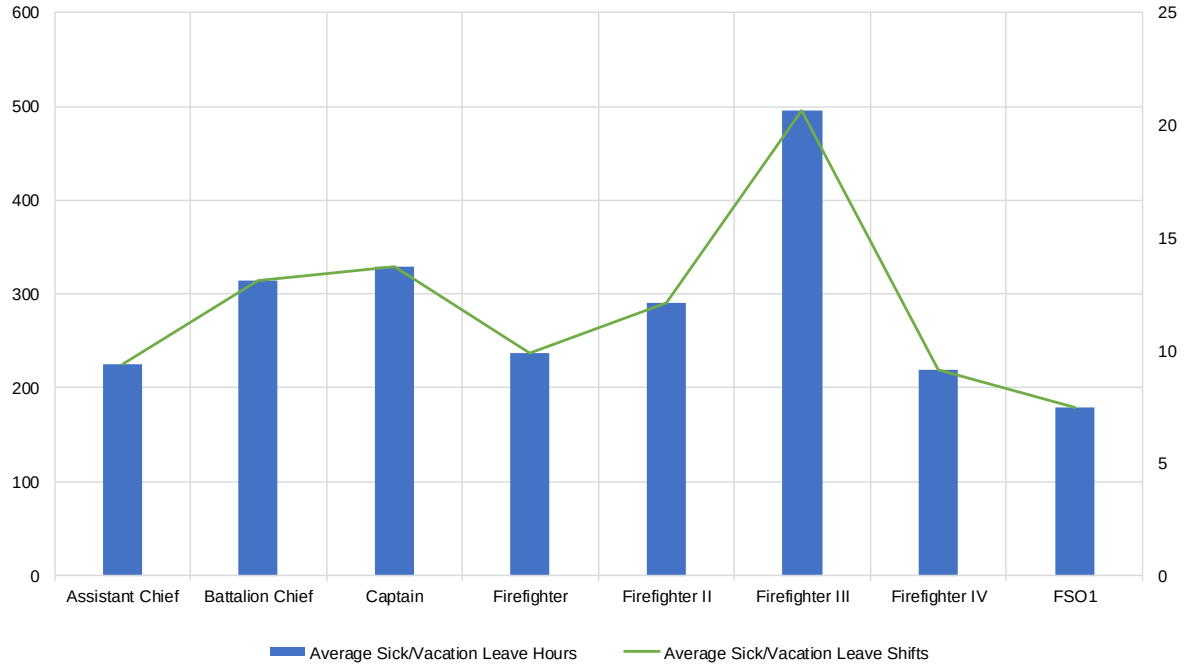
To complete the "perfect storm" of fire service cost increases, the salary, health, and pension costs for public safety personnel of all types increased significantly over the same decades. It is not surprising that jurisdictions are increasingly challenged to provide the level of fire services they want within available revenues. This is the bind the County finds itself in—it must understand very technical fire service costs and regulations, *but the existing County budget and approval processes do not allow an informed, effective, technical conversation.*

CHALLENGE #1 – MODELING, REQUESTING, AND ADOPTING A FIRE SERVICES BUDGET

The current budget request process, calculations, projecting of costs, and justifications are too high level for the complexities of fire service personnel costing. The result is a fragmented, incomplete understanding of fire service personnel costs and the interplay of the Firefighters' Collective Bargaining Agreement (CBA) requirements versus the Fire Chief's operational policy ability. The result is what appears to be regular budget overruns. The reality is that there is systematic under budgeting as well as confusing exchanges regarding the Department and County staffs' ability to truly estimate fire service personnel costs. There are six major themes to Citygate's fiscal findings and three of them can be visualized in three charts from this study.

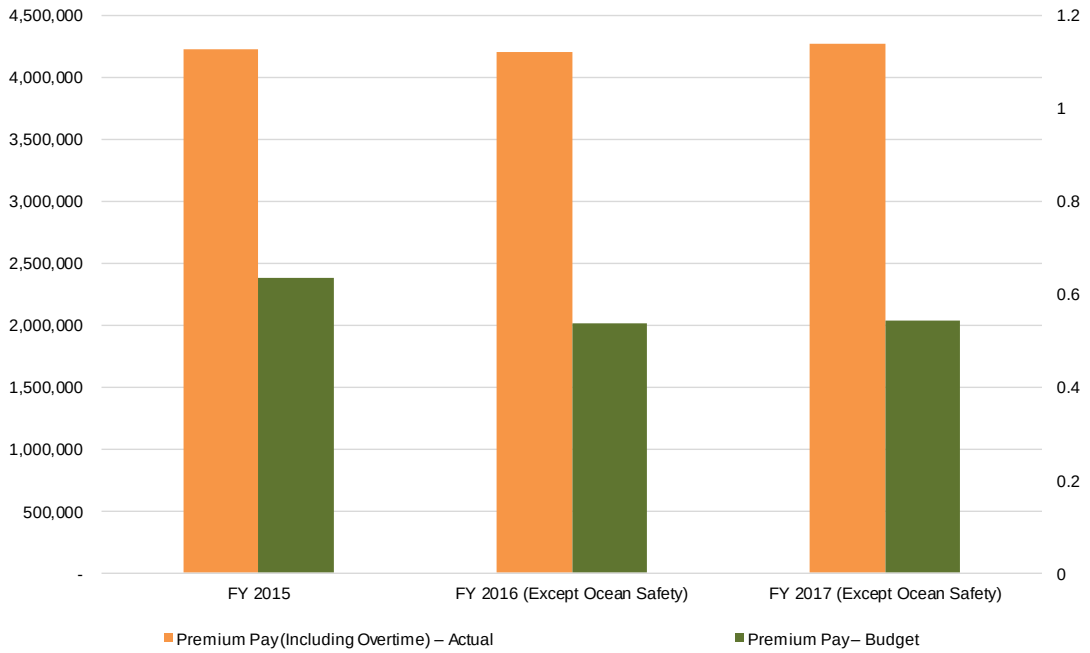
- Sick Leave Usage – While there are vacation and sick leave allowances in the CBA, usage of sick leave is high in the Firefighter III ranks and contributes to the multiple causes of overtime usage.

Figure 1—Average Total Sick and Vacation Leave Usage by Rank – Fiscal Year (FY) 2017



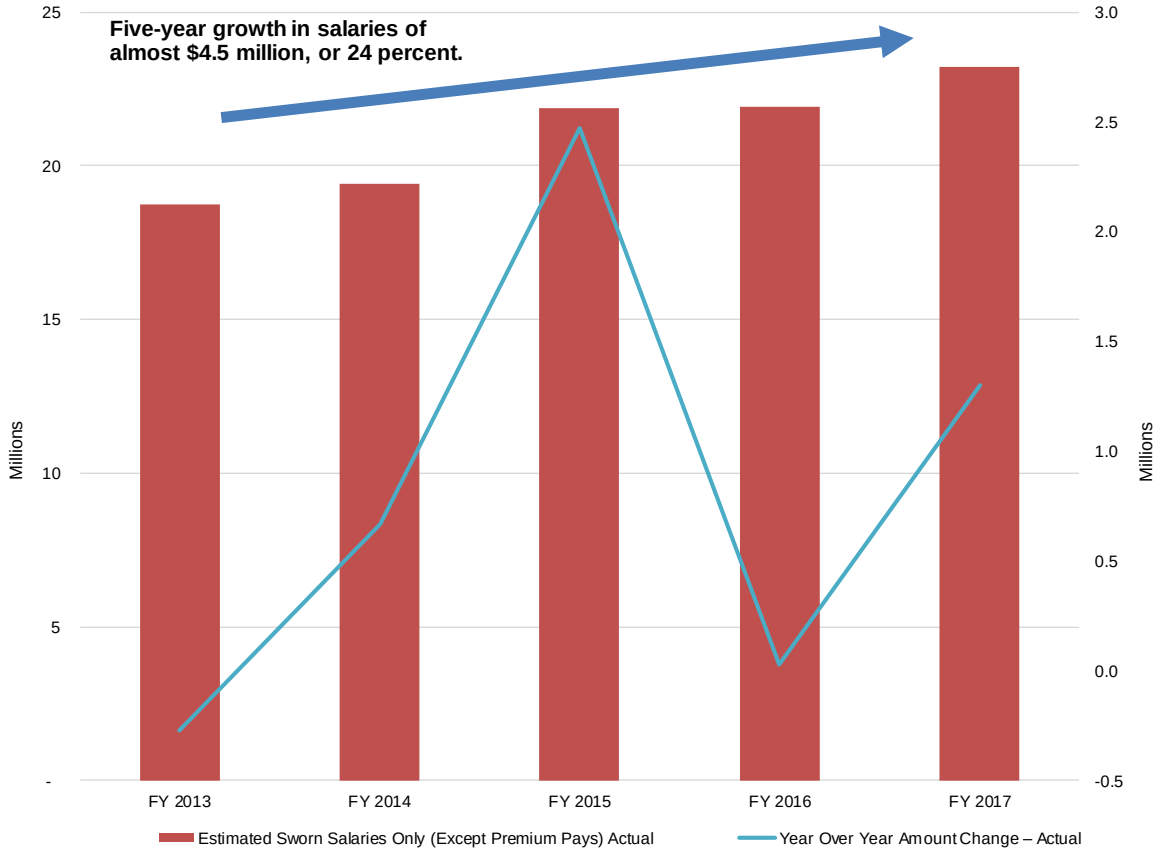
- Overtime Budget Requests – The budget request and approval processes are not sufficiently detailed regarding premium pays and overtime (which is 85 percent of the premium pay category); the Department needs and is ultimately funded for overtime to meet scheduling and CBA needs.

Figure 2—Premium Pay Adopted versus Actual – General Fund (Except Ocean Safety)



- Wage Increase Impacts – Overtime costs are a function of base salaries, and thus a major driver of increased overtime cost is the rate of increase in base salaries per the CBA.

Figure 3—Estimated Impact of Collective Bargaining Agreements on Sworn Salaries



- Fifth Crew Position Staffing Policies – The Department staffs with a minimum crew size of four positions but funds a fifth position per crew as "overstaffing" to absorb the need for overtime when vacation, sick leave, or other absences occur. The overstaffing utilization is about 85 percent of the fifth position cost and as close to a complete use of the fifth positions for overtime reduction as Citygate would expect given the scheduling dynamics the Department confronts every day. Overall, the fifth position *overstaffing* program is saving the County approximately $4.5 million dollars per year versus using 100 percent overtime to maintain a minimum crew of four. The Department's staffing policies, including rank-for-rank[1] and scheduling, are consistent with and driven by the Statewide Firefighters' CBA.

- General Fire and County Budget Methods – The current budgeting and finance charts of line-item account details do not provide sufficient clarity or tracking for

[1] Certified Driver/Operators and Fire Captains on overtime replace the same type of position off on leave.

understanding highly regulated fire services cost and scheduling, and thus do not assist the policymakers with understanding federal- or state-driven cost causes versus local policy.

In this study, Citygate presents specific findings on these friction points, illustrating through data modeling the way that high-level estimation of costs can be significantly inaccurate. These findings are followed by actionable recommendations to build a very specific model for fire personnel use of leave types based on the resultant overtime and premium pays. Citygate recommends this forecast model, and its inputs and assumptions, be agreed upon annually by County budget staff. By the time the Council reviews the budget, all involved should be able to trust the Department's requests for overtime and premium pays. The result will be that the requests can be assessed in light of service levels rather than if the overtime can be lowered without a deep reduction of services.

The broad themes of Citygate's fiscal recommendations are as follows:

- Build a detailed, predictive premium pay and overtime model that the Department and County Budget Office will use in Council budget presentations.
- The Department, County Budget, and County Finance staffs must create additional overtime codes in the payroll system and the overtime accounts in the general ledger to improve overtime tracking. The overall budget documentation and approval process needs improvement.
- In Mayoral and Council budget reviews, use improved data to focus on service level policy choices over which local control is possible. Many agencies ask the elected leadership to establish upcoming services policy direction before staff starts a new budget preparation cycle. Doing so allows elected officials to set priorities early on and focus on results in the end; not on line-item details with operational nuances.

CHALLENGE #2 – FIELD OPERATIONS

As Maui County leadership knows, its Fire Department consists of a collection of small neighborhood fire stations with long distances between other populated areas and fire stations. No one area, other than the eastern central areas of Maui County, have sufficient fire stations to deal with serious emergencies without assistance from afar and, at times, over narrow, congested roads or across ocean channels. Given this geography, when combined with a very complex Firefighters' CBA, the cost and complexities of personnel scheduling and apparatus deployment are much more challenging than a mainland fire department experiences in a contiguous urban/suburban area.

The recent recession also placed strains on the Department's apparatus replacement, repair, and small tool equipment levels. The Department's headquarters staff is lean, especially for budget and strategic finance, capital facilities maintenance, and fleet repair. The Department does a very good

job on operational procedures, training, safety, and personnel certifications. It is a Department of which to be proud, even with it needing some additional resources over time.

The broad themes of Citygate's operational recommendations are as follows:

- Review the job task workload in key fire administration support functions and look to add finance and strategic planning analysis skills; consider use of non-sworn positions instead of rotational firefighting line personnel.
- Identify a long-term fleet replacement funding source and replace the most urgently needed apparatus as soon as possible.
- Add a fleet mechanic position; make it mobile so it can travel to stations for routine maintenance and repairs.
- Use better tracking data regarding the use of sick leave and work within the Statewide Firefighters' CBA process to gain better oversight, while remaining respectful, of necessary sick time.
- The specialty teams for technical rescue and hazardous materials response are justified given the risks to be protected in the three-island County; however, their staffing could be deployed more quickly when serious events occur far from the Kahului area.

OTHER NOTEWORTHY ITEMS

While Citygate was commissioned for an audit of personnel costs and core service drivers of costs, it was also necessary to learn enough about the Department's operation to note two items outside the initial scope of work.

Fire Department Accreditation

Maui County is, of course, in a very different environment than the mainland. The Department has spent years improving and is ready to pursue accreditation. This is an intensive self- and peer-review process. It is also heavily weighted toward a department's deployment plan and resultant response times.

The Department submitted a very credible application but was not granted accreditation on its first attempt. In and of itself, that is not unusual; accreditation is difficult to obtain. A primary factor was the Department's deployment structure and response times. The Department's deployment structure and response times were not within the norms of the accreditation process and, in Citygate's review of the results, the accreditation peer review site team and mainland leadership could not meld traditional measures into what Maui County needs for its separated population clusters and specialty risks.

While the Department can continue to pursue accreditation and can improve other areas noted in its denial, Citygate would remind Maui County's leadership that the value of accreditation is in the journey of self-assessment and continuous process improvement. The Commission on Accreditation may never accept Maui County's deployment needs.

Citygate finds Maui County is well deployed to the disconnected population centers and is appropriately staffed and equipped at those locations. Response times will never meet mainland best practice goals.

Citygate recommends the Department do two things:

- Adopt a "Maui-County-centric" Standards of Coverage (SOC) deployment plan; do not placate accreditation's mainland-centric requirements.
- Complete a future fire station needs location study for the newly planned areas; use best practice geographic mapping (GIS) time-over-distance tools to model response time coverage, incident statistics, and risks to be protected to size crews and apparatus.

Helicopter Program

Citygate was asked to briefly review the options for the Department's leased helicopter program due to an early finding regarding the inability to rapidly deploy on-duty personnel to outer areas and escalating emergencies. This was not in the original scope.

Citygate's review found three risks not typically present in mainland fire department helicopter operations in addition to Maui County's separated population centers and its significant number and size of wildland fires: open ocean channel crossings; significant trade winds, in particular around mountain slopes; and the higher elevations of the mountains where patient extraction is a common occurrence due to recreational accidents.

Citygate noted that the hazardous materials and rescue crews field 8–10 Firefighters per day in eastern Maui at Station 10 in Kahului; however, if they are needed in far northwest or southwest Maui, or on an outer island, they cannot be moved quickly to the need. Yet, these two crews are minutes from the airport where the Department's leased helicopter operates. The legacy helicopter agreement only provides a four-seat craft, including pilot.

The current helicopter program, while a valuable, successful, public-private partnership, is providing a bare minimum level of service. The Department is paying, on average, $750,000 to $967,000 per year for availability and per-air-hour charges. The only other quasi-public safety helicopter is the medical evacuation ship operated by AMR ambulance, based at the hospital, and it receives a partial cost subsidy from Maui County and the State. It is not a technical rescue or firefighting craft. There is no law enforcement helicopter program.

For a modest, one-time cost increase, and acceptable annual operating cost increases, the County could operate a public safety helicopter with a capacity of at least eight passengers, plus pilot, in an on-going public-private partnership. This would make current County operations safer and would allow the rapid deployment of the 8–10 personnel on the two specialty teams that, being housed at Kahului station, are minutes from the airport. Used mainland helicopters in very good condition are becoming available as agencies upgrade after the recession.

An airborne Firefighter Strike Team would be a *force multiplier* that can deliver, in effect, the only rapid reinforcement to outer west coastal Maui areas, to Hana, and to the outer islands. The Strike Team would add support to the limited four to eight Firefighters based in that local area.

Citygate recommends the County undertake a modest effort Master Plan for the Department's helicopter program with the goal to increase the program's abilities to move 8–10 Firefighters quickly across the County and to operate with higher load capacities and increased safety.

Citygate also encourages County leaders to consider asking the private sector for one-time and/or ongoing support. Many mainland fire departments started aviation programs this way.

CAPSTONE RECOMMENDATIONS

The findings and recommendations for budget and operational changes should be understood in the context of a best-practice review. The Department has evolved as the County and service demands changed. The current leadership is in the process of meeting training, safety, and other best practices, but more must be done.

Citygate cautions the County's leadership that maintaining fire stations and personnel is not sufficient. The line personnel also must be led, equipped, trained, and provided quality oversight to comply with state and federal requirements. This requires the same serious commitment as providing Firefighters in stations. Citygate advises the County that if it cannot fund both line and headquarters positions in the safe manner required, that it first focus on *headquarters positions and logistical support, such as fleet repairs*. While this seems counterintuitive, line Firefighters that are not properly led, equipped, trained, and provided quality oversight are a danger to themselves and the community they serve. They can also become a costly liability for accidents, injury, and apparatus loss time and claims.

NEXT STEPS

The purpose of this assessment is to audit the key fiscal and operational issues as requested by the County Council. As a first step, the County Council could ask staff at both the Departmental and County budget review levels to report back to the Council within 60 days with a list of Citygate recommendations by priority and target fiscal year (FY) that can be worked on and/or

implemented. Recommendations deemed unfeasible should be reported as such. The Council could then issue final implementation directions.

Of course, some recommendations take time and resources. Not all can be high priority. Others, while not a highest priority, can be implemented quickly. Given the breadth if this study, Citygate believes an implementation plan would be in all stakeholders' best interest.

Citygate does suggest one immediate priority: Use, as needed, Citygate's overtime analysis as the first draft of a premium pay and overtime model (with an update to the numbers for FY 2018), for use in the budget discussions later this spring.

Based on this evaluation, Citygate offers these likely next steps to move the Department forward:

- County Council receive this study and require staff feedback and an implementation plan.
- Consider directing a more rigorous overtime model to be used for FY 2018 as a first step.
- Ask the Fire Chief and Commission to present a timeline and costs to enhance their deployment plan using time-over-distance geography mapping and robust incident demand statistics.
- Consider requesting a modest, enhanced-use helicopter study to expand the program's capabilities.
- Ask the Managing Director to report to the Council every six months regarding implementation progress on this audit's recommendations per the final priorities approved by the County Council.

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SECTION 1—HOW THE AUDIT WAS CONDUCTED

Citygate Associates, LLC (Citygate) was retained to conduct a Performance and Fiscal Audit of the County of Maui's Department of Fire and Public Safety (Department). Citygate's Work Plan was consistent with Citygate's Project Team members' experience in fire and public finance administration. Citygate utilizes various National Fire Protection Association (NFPA) and Government Finance Officers Association (GFOA) publications as best practice guidelines, along with the self-assessment criteria of the Commission on Fire Accreditation International (CFAI) and the regulations of the State of Hawaii and the County of Maui.

Citygate utilized multiple sources to gather, understand, and model information about the Department. Citygate began by requesting a large amount of background data and information via a questionnaire to better understand current costs; service levels; history of service level decisions; and what multiple years of budget reports were stating. Citygate also reviewed multiple budget hearing videos from the Council's agenda website.

In an initial site visit, Citygate followed up with focused interviews of the Department and County staffs to gain clarification on the materials initially reviewed for this project. Citygate then asked for further follow-up information and, in particular, compared the Department budget documents to the County General Ledger's finance and personnel system documentation. Citygate also gathered an understanding of the Department's operations, including reviewing its recent accreditation submittal and toured the Department's diverse service areas. In addition, Citygate assessed future County growth and the way growth could affect the Department's deployment planning.

In every information request and interview, Citygate found Department and County staff very transparent and they provided all the information requested. The staff never gave an impression that they were not providing everything needed for the audit to be successful. On several occasions, more than one Department and County staff member showed an eagerness to learn from others' experiences and to accept best practices coaching from the Citygate team.

In completing the fiscal review, Citygate reviewed numerous documents to gain a general understanding of the financial activities and policies of the County of Maui and the Department. The document list that follows is only a partial list of the documents reviewed by Citygate to complete the fiscal review:

- FY 2017 operating and capital improvement plan (CIP) budget document
- FY 2015 Comprehensive Annual Financial Report (CAFR)
- FY 2018 budget instructions documents
- Budget and financial policies
- FY 2014 through FY 2016 detail financial information for Department of Fire and Public Safety
- Overtime policies
- Building and fleet maintenance polices
- Collective bargaining unit agreements
- Workers' compensation policies
- Vacancy reports
- Internal audit reports
- Long-term financial plan.

In addition to reviewing numerous documents and policies, face-to-face, telephonic, and email interviews were conducted with staff members in the following departments/divisions:

- Budget
- County Auditor
- Personnel Services
- County Councilmember
- Fire and Public Safety

- Risk Management
- Managing Director
- Finance Director.

Where Citygate needed to understand the County's fire service deployment as it drives cost, the core methodology for deployment analysis known as a Standards of Coverage (SOC) was used. The SOC method, as published by the CFAI, evaluates deployment as part of the self-assessment process of a fire agency. This approach uses risk and community expectations on outcomes to help elected officials make informed decisions on fire and EMS deployment levels. Citygate has adopted this methodology as a comprehensive tool to evaluate fire department deployment. The Department, as part of its accreditation submittal, had prepared a Standards of Coverage plan as well as a Strategic Plan. Both documents were reviewed and found to be very complete.

In the United States, there are no federal or state government requirements for a minimum level of fire services. Fire service levels are an issue for each community to consider and fund in protecting their risks as they choose. The SOC systems approach to deployment, rather than a one-size-fits-all prescriptive formula, allows for local determination. In this comprehensive approach, each agency can match local needs (risks and expectations) with the costs of various levels of service. In an informed public policy debate, a governing board "purchases" the fire and emergency medical service levels the community needs and can afford.

While working with multiple components to conduct a deployment analysis is admittedly more work, it yields a much better result than using only a singular component. For instance, if only travel time is considered, and frequency of multiple calls is not considered, the analysis could miss over-worked companies. If a risk assessment for deployment is not considered, and deployment is based only on travel time, a community could under-deploy to incidents.

Fire department deployment, simply stated, is about the **speed** and **weight** of the attack. **Speed** calls for first-due, all-risk intervention units (engines, trucks, and/or squads) strategically located across a city/department responding in an effective travel time. These units are tasked with controlling moderate emergencies without the incident escalating to second alarm or greater size, which unnecessarily depletes department resources as multiple requests for service occur. **Weight** is about multiple-unit response for serious emergencies such as a room-and-contents structure fire, a multiple-patient incident, a vehicle accident with extrication required, or a heavy-rescue incident. In these situations, enough Firefighters must be assembled within a reasonable time frame to safely control the emergency, thereby keeping it from escalating to greater alarms.

This deployment design paradigm is reiterated in the following table:

Table 1—Fire Department Deployment Simplified

	Meaning	Purpose
***Speed* of Attack**	Travel time of first-due, all-risk intervention units strategically located across a department.	Controlling moderate emergencies without the incident escalating to second alarm or greater size.
***Weight* of Attack**	Number of Firefighters in a multiple-unit response for serious emergencies.	Assembling enough Firefighters within a reasonable time frame to safely control the emergency.

Thus, small fires and medical emergencies require a single- or two-unit response (engine and specialty unit) with a quick response time. Larger incidents require more crews. In either case, if the crews arrive too late or the total personnel sent to the emergency are too few for the emergency type, they are drawn into a losing and more dangerous battle. The science of fire crew deployment is to spread crews out across a community for quick response to keep emergencies small with positive outcomes without spreading the crews so far apart that they cannot amass together quickly enough to be effective in major emergencies.

SECTION 2—DEPARTMENT OF FIRE AND PUBLIC SAFETY OVERVIEW

As the members of the Maui County Council understand, but longtime residents may forget, the Department serves to protect a very wide array of risks across three islands. The Department's service area is unique in topography, weather, and the distances between population clusters when compared to mainland United States areas. In many respects, due to topography and the resultant limited road network, the Department's fire stations are actually isolated one- or two-station "small town fire departments" that do not have rapid nearby help when serious incidents require multiple crews quickly to keep an incident from escalating to catastrophic proportions.

Maui County includes the "Islands of Maui, Molokaʻi, Lānaʻi, and Kahoʻolawe and all other islands lying within three nautical miles off the shores thereof and the waters adjacent thereto, except that portion of the Island of Molokaʻi known as Kalaupapa, Kalawao and Waikolu, and commonly designated as the Kalaupapa Settlement." While the Kalaupapa Settlement is not technically a part of the County, the Department has a written agreement to provide service to the area as needed. Maui County encompasses 1,162 square miles of land and 1,237 square miles of water.[2]

According to data from the U.S. Census Bureau, there were 154,924 residents in Maui County in 2010. Of those, 144,444 were on Maui, 7,345 on Molokaʻi, and 3,135 on Lānaʻi. By 2013, the County's total resident population had grown to 160,880. The 2016 estimate, according to the U.S.

[2] Fire Department Standards of Response Cover, 2016.

Census Bureau, is 165,386. The County's overall population concentration is 133 persons per square mile. Almost half of the population (about 45 percent) lives in urban areas that account for only about 30 square miles. The rest of the population reside in less densely populated suburban or rural areas. Large areas of land within the County are completely unpopulated.[3]

The Department operates 14 fire stations spread across three different islands; 10 on Maui, three on Molokaʻi, and one on Lānaʻi. All are staffed 24 hours a day throughout the year. The Department responds to incidents that fall into the following four service categories:

- Fire suppression
- Emergency medical services
- Technical rescue
- Hazardous materials.

At a minimum, every station houses a structure fire engine company, with some also housing support companies or other additional resources. All engine companies operate with a minimum of four personnel, except for Pukoo, which operates with two personnel. Minimum daily staffing Department-wide is 77 firefighting personnel.

This daily minimum staffing is maintained 24 hours a day throughout the year. The Department operates on a "Kelly Schedule" at most stations, with personnel working three 24-hour shifts each nine-day work cycle. Two remote stations (Hana and Lānaʻi) are staffed by personnel working 72 hours straight followed by six days off.[4]

2.1 FIREFIGHTING

The Department has 14 engines and four fire ground support (FGS) companies (Ladder 3, Rescue 10, Hazmat 10, and Ladder 14) available to respond to structure fires. All fire companies are staffed with a minimum of four personnel at all times, except Pukoo, which has two personnel. The Department also has six water tankers available to provide mobile water supply for structure fires.[5]

The Department's 14 engine companies and six tankers also respond to brush/wildland fires. In addition, there are six mini-pumpers assigned to engine companies to assist with wildland firefighting. These mini-pumpers carry less water than an engine (500 gallons or less) but have better accessibility to wilderness areas due to compact size and four-wheel drive capability. When

[3] Ibid SOC.
[4] Ibid SOC.
[5] Ibid SOC.

wildland fires cannot be controlled by ground resources alone, the Department's Air-1 helicopter is available and equipped for water drops.

2.2 TECHNICAL RESCUE

The Department has a dedicated heavy rescue company (Rescue 10) housed at the Kahului fire station with a minimum of four personnel daily. Rescue 10 performs and is equipped for high- and low-angle rope rescue, dive rescue and recovery, confined space rescue, vehicle extrication, and ocean/surf rescue. The rescue apparatus is equipped with specialized equipment for all these disciplines, along with a rescue watercraft (RWC), a rescue boat, and a utility truck. Rescue 10 also has access to a leased, dedicated fire helicopter that can be used for search and rescue operations.

In addition to Rescue 10, other companies are trained and equipped to respond to technical rescue incidents. All companies perform and are equipped for vehicle extrication. All personnel receive ocean rescue training, and companies are equipped with basic ocean rescue equipment.

In addition, Engines 4, 7, and 9 and Ladder 14 have rescue watercraft (RWC). Ladder 3 and Engine 4 have rescue boats. Hazmat 10 personnel are trained to the Technician level and are capable of providing additional support for confined space rescue. Engines 4, 7, 8, 9, and 13 and Ladder 3 are trained to the operations level for rope rescue and are equipped for high- and low-angle operations.[6]

2.3 HAZARDOUS MATERIALS

The Department has a dedicated hazardous materials company (Hazmat 10) housed at the Kahului fire station with a minimum of four personnel daily. Personnel are trained to the Technician level. Companies are capable of Level A and Level B toxic environment entries and are equipped with a variety of electronic monitoring devices, tools, and equipment for response to chemical, biological, and nuclear incidents. All Department personnel are trained to the hazardous materials first responder operations (FRO) level. As such, first responder companies are capable of initial response and defensive actions on hazardous materials calls prior to the arrival of Hazmat 10. All personnel are also trained in setting up technical decontamination corridors for fire personnel and mass decontamination corridors for the public.[7]

2.4 SPECIALTY RESOURCES

Four stations house Fire Ground Support (FGS) companies that perform truck company functions on structure fires. Each FGS company has a minimum daily staffing of four personnel. For calls

[6] Ibid SOC.
[7] Ibid SOC.

other than structure fires, these companies operate primarily within their home district unless their specialty capabilities are required elsewhere.

The Department operates six large capacity water tankers, five of which are permanently staffed with a Driver. Tankers are used primarily as water sources for fighting structure and wildland fires in areas with poor water supply (no fire hydrants).

2.5 OCEAN RESCUE

The Department operates three rescue boats and five rescue watercraft (RWC) to respond to ocean emergencies. The RWC have a limited range and typically respond to emergencies only in the waters nearby their respective districts, while the rescue boats have longer ranges and can respond to ocean emergencies anywhere in the County. Each craft is assigned to an engine, ladder, or rescue company and is staffed by personnel from the company when needed.

On July 1, 2016, the Department took over management of the Ocean Safety Division, including 60 lifeguards and one administrative clerk. The Ocean Safety Division is divided into four separate districts (North, South, West, and Makena). There are 12 guard towers within those areas. Lifeguards operate RWC at beaches in all districts and respond in conjunction with firefighting resources to 9-1-1 ocean rescue calls.[8]

[8] Ibid SOC.

SECTION 3—STAFFING AND OPERATIONS REVIEW

3.1 REVIEW OF THE FIRE OPERATIONS UNIT'S STAFFING PLAN AND COSTS

Each primary response unit is staffed every day with four personnel. As is common in much of the United States, Firefighters work a rotating schedule of 24 hours on and 24 hours off, which means, under the United States Fair Labor Standards Act (FLSA), the Department's work period is an average 56 hours/week over a nine-week cycle using 24, 24-hour shifts.[9]

As the federal workweek is set at 53 hours per week for Firefighters, the three-hour difference between 53 and 56 hours per week needs to be compensated at 1.5 overtime, called FLSA Overtime (OT).[10]

Given the federal government allowance for a public safety workweek other than a 40-hour week, the common concern is whether the number (cost) of Firefighters would be less on a "normal" work schedule of 40 hours per week or any other option less than 56 hours per week. This is not the case; the longer the work week, the fewer the Firefighters needed. While they are paid for staying overnight, the same crew is on duty, not a second or third crew for the same 24-hour period. In other words, eight-hour shifts for three shifts per day would be three crews needed every 24

[9] The 2011–2017 Firefighters Collective Bargaining Agreement (CBA), page 10.
[10] Ibid CBA.

hours. As a result, most fire departments in the United States works a variation of the 56-hour workweek.

There are two methods to replace a Firefighter on earned leave, such as vacation. One is to "overstaff" the Department-wide A, B, and C platoons with personnel above the minimum needed for each unit. These overstaff positions are used to absorb absences. The other method is "constant staffing," where the minimum number of Firefighters to fill all positions per day are employed and any absence results in an overtime callback.

Where overtime is needed to replace a person on vacation or other permitted time off, paying overtime is typically less costly to the taxpayer due to the cost per hour for full benefits to employ more personnel. This can be seen when comparing overtime to regular time with all benefit costs added in.

The Department's average overtime is $39.64 per hour versus an average total compensation (salary plus benefits) of $38.40 per hour; however, even the fully benefited cost per hour does not include workers' compensation and retirement liability exposure. It also is expensive to train and equip Firefighters. When the direct costs per hour are close to being the same, agencies pay overtime versus having a larger workforce—up to a point.

In larger Departments, where some Firefighters are off work for earned leave, sick, or injury time nearly every day, it is cost effective to *slightly* "overstaff" the daily platoon or unit crew to provide for some regular employee absorption of the need for overtime. Otherwise, the total overtime per person per year would be too high. Firefighters do need to be able to take their earned leave without having to work 100 percent of their leave back when someone else takes earned leave.

Finding #1:	Due to federal work rules for Firefighters, the 56-hour, three Platoon work schedule is the most cost-efficient Maui County could operate.
Finding #2:	Given that Maui County's overtime rate per hour for Firefighters is very close to the cost per hour for a fully benefited Firefighter, it would be economical for a department the size of Maui County's to slightly overstaff and pay overtime for absences in lieu of employing an excessive number of personnel to reduce overtime substantially.

3.1.1 Maui County Fifth Firefighter Staffing Plan Analysis

Given the need to replace personnel on earned leave, the Department has chosen a mix of the overstaffing and overtime models to most cost-efficiently operate the Department. The starting premise is that a minimum crew size is provided every day at every station. The only policy choice

other than replacement of an absent employee would be to close one or more neighborhood companies per day due to absences.

The minimum size of a primary firefighting unit has been covered by the Firefighters' CBA Section 41 since at least the 2007 to 2011 version. That version described the staffing of fire engine crews this way: "Endeavor to maintain staffing in accordance with nationally recognized standards."

The most on-point advisory document on career fire department staffing is published as a best practice recommended "standard" by a private standards and building code development association named the National Fire Protection Association (NFPA). Since 2001, it has published a recommended standard titled NFPA 1710 – "Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments." Now in its 2016 Edition, NFPA 1710 has always recommended the staffing of firefighting units to be at four personnel per unit for safety and effectiveness reasons.

Since 1998, the Federal Occupational Safety and Health Administration (OSHA) has required, under a rule referred to in short as the "two-in/two-out"[11] rule, that Firefighters entering burning buildings where the atmosphere is so toxic as to require the wearing of self-contained breathing apparatus (SCBA) must operate in teams of two, in close proximity to each other and backed up by two Firefighters outside the building equipped with SCBA to immediately rescue the two inside if needed. Furthermore, a National Institute of Standards and Technology (NIST)[12] study in 2010 found that a four-Firefighter crew was significantly more effective.

The use of four Firefighters per crew in Hawaii is also supported by the fact that, in many locations outside of Honolulu, the fire stations operate with a nearby second unit. This means that, in a building fire, a first-due unit of only three Firefighters would need to wait a lengthy period to get a fourth Firefighter on-scene. In Maui County, this is very much the case outside of the Kahului area and on the outer islands. For these reasons, the County of Maui Fire Department maintains a daily fire crew size of four Firefighters, consisting of one Fire Captain, at least a Firefighter III trained to drive and operate the apparatus, and two Firefighters certified as Firefighter I or II.

To balance overstaffing versus overtime, the Department staffs each crew, per station primary unit, per duty platoon, with five Firefighters. The fifth position is the "overstaff" position for absence relief. The Department does not have just a few fifth positions in a central pool per duty platoon. Moving the fifth position from an overstaffed crew to an understaffed crew is difficult and expensive on short notice outside of areas without two or more fire stations. The Firefighters' CBA

[11] 29 CFR 1910.134(g)(4)(i).
[12] NIST Technical Note 1661, Report on Residential Fireground Field Experiments (April 2010).

and the Countywide separation of the fire stations across three islands creates everyday complexity for the movement of absence relief personnel, including:

- Costs driven by CBA movement between assignment rules, including reporting to their assigned station at the normal duty time to get their protective equipment before being relocated.
- The overtime being earned by the person staffed at the station with an absence while the replacement is en route, which adds up if the traveling fifth member has more than an hour or two in transit.
- The high cost of last-minute airfare to get a fifth member from Maui to Molokaʻi, as the ferry is out of business; the ferry to Lānaʻi does have a good schedule.
- Rescue boats are rough and costly for transfers across the channels, and each rescue boat must be staffed with two operators for safety.

Given these rules and costs, the Department uses a blended approach by placing a fifth person on each crew and immediately using that person for absences on their crew. When calling for overtime coverage from someone not already at the station, the Department calls personnel residing closest to the station in need. It also uses alternative work schedules at remote stations to lower the daily impact of absence movements. Thus, every day, the Department is considering these added factors to deploy the fifth position:

- Out of 39 personnel, 25 live on Molokaʻi.
- Out of 18 personnel, two live on Lānaʻi.
- The use of a Remote Station Work Schedule at Hana and on Lānaʻi, where personnel work a three-day 72-hour shift followed by six consecutive shifts off instead of a 24-hour on/off cycle.

The economic concern is then whether the fifth person per crew for absence relief is well utilized. The fifth person also has rights for earned leave, such as vacation. Any fire department's goal for overstaffing is to use the position as much as possible for backfilling absences, not having an extra person on duty. Citygate obtained detailed information across the last two years on usage of the fifth position for absence relief. This analysis showed:

- A fifth position is *never* maintained on overtime.
- The fifth positions are moved to other stations where economically feasible.
- If there are fifth positions on each of the rescue or hazardous materials units, they are left on those units due to the need for a minimum count of technical specialty certifications. On many days, other personnel at other stations may not have them.

- In FY 2015, a fifth person was "extra" only **15.3** percent of their work year.
- In FY 2016, a fifth person was "extra" only **11.5** percent of their work year.
- The fifth position reduced overtime by approximately 85 percent of each fifth position.
- Department-wide, the fifth positions reduced needed overtime by 104,880 hours.
- At average hourly overtime of $39.64, there was an overtime saving of $4,157,443, equivalent to 12 Firefighters at total compensation cost.

Finding #3:	Within the constraints of the Firefighters' CBA and local geography of fire station location, the Department is appropriately using an overstaffing model of a fifth person per crew to lower the need for overtime.
Finding #4:	The fifth position utilization of about 85 percent or more for overtime is very good and as close to complete use of the fifth positions for overtime reduction as Citygate would expect given the scheduling dynamics the Department confronts every day.
Finding #5:	Given the cost of overtime to fill employees on an hour-to-hour basis, the cost of overtime is less expensive than significantly overstaffing the Department further. The fifth position program is saving the County approximately $4.5 million per year overtime versus using 100 percent constant staffing overtime.

3.2 Review of the Department's Organization Design for Span of Control and for Needed Regulatory Oversight and Safety

In reviewing the Department's costs as requested by the County Council, Citygate reviewed the Department's organizational structure against United States best practices as published by the NFPA and CFAI.

NFPA 1201[13] states, in part, "the [Department] shall have a leader and organizational structure that facilitates efficient and effective management of its resources to carry out its mandate as required [in its mission statement]."

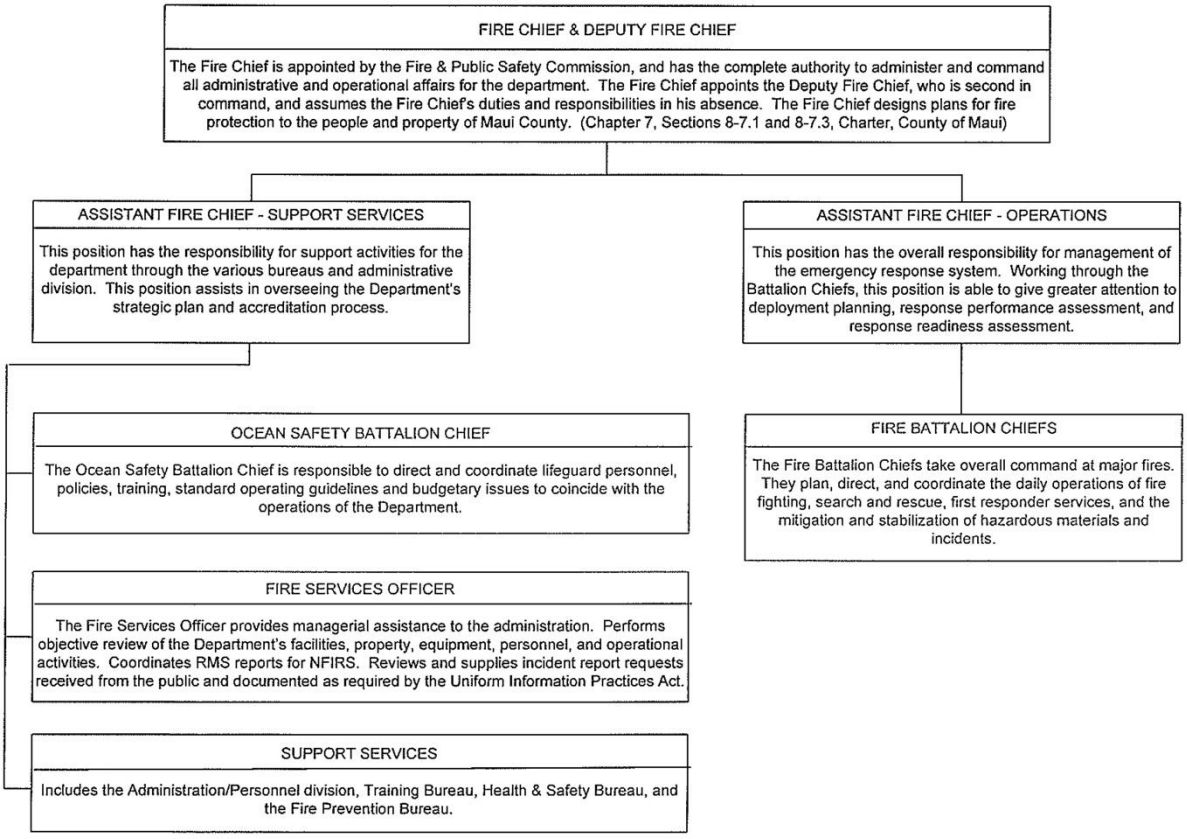
[13] *NFPA 1201 – Standard for Providing Emergency Services to the Public (2015 Edition)*

A fire department needs a committed management organization that is properly sized, adequately trained, and appropriately supported. Compliance regulations for fire services operation are increasing, so the proper hiring, training, and supervision of response employees requires a serious leadership and general management commitment. For a Department of 341.5 line personnel, the 25 40-hour-per-week headquarters positions are:

- 1 Fire Chief
- 1 Deputy Fire Chief
- 2 Assistant Fire Chiefs
- 1 Battalion Chief
- 1 Fire Services Officer
- 1 Ocean Safety Operations Manager
- 1 Clerk III
- 1 Internal Affairs Officer
- 4 Mechanics
- 1 Private Secretary
- 1 Secretary III
- 1 Business Administrator
- 1 Administrative Assistant
- 1 Department Personnel Clerk
- 4 Office Operations Assistants
- 2 Account Clerks
- 1 Purchasing Technician.

Figure 4 depicts the Department's current organizational structure.

Figure 4—Maui County Fire Department Organizational Structure



Source: Maui County Department of Public Safety

The headquarters positions are 7.3 percent of the line personnel total. In Citygate's experience, for a Department the size of Maui County's, this headquarters is on the lean side. While most of the necessary functions are represented, some are at capacity and others are not represented at all. There is no information technology or GIS mapping support staff, analytic staff for incident statistics and functional headquarters programs analysis, strategic budgeting staff, or capital facilities repair/replacement staff.

While the Department staff were very helpful in conducting this audit, they were clearly hampered in quickly and accurately providing the detailed fiscal and employee leave usage information this audit required. The current software systems are older, with very limited management reporting. Some information is not tracked at all. Some information came from County systems, and it did not immediately match Departmental counts. There is very limited analytical capacity beyond routine budgeting. There is no strategic fiscal or operational planning or inter-Departmental coordination unless the Fire Chief and Assistant Chief of Support Services find the time. Citygate also found there are too many sworn, rotational positions in key professional assignments. While

such assignments enhance career development, they also limit long-term and deep professional oversight of critical programs such as logistics and fire station repair/replacement.

The difficulty Citygate found in obtaining the information to model in this study was atypical for a fire department in 2017 with more than 300 employees. Some software tools and analytic techniques were not known by agency staff. Fiscal and inventory control oversight and timekeeping is either very spread out or consolidated into one position without back up and/or checks and balances under accounting best practices. Thus, fiscal oversight and budget-to-expense planning is very limited by both staffing and business systems.

While the County's new fiscal and personnel software system being implemented in 2018 will help with these issues, that system will not eliminate all the significant underserved needs in this public safety agency.

Finding #6:	The Department's organizational *structure* is designed to provide chain of command and management control.
Finding #7:	At a minimum, the Department's headquarters team lacks a senior management position for Strategic Finance and Planning. Also needed is one analytics position with the appropriate software tools.
Finding #8:	The Department uses too many sworn staff in key administrative duties that require in-depth, non-fire skills and multi-year time to accomplish.

3.3 Audit of the Method, Cost, and Need for Hazardous Materials Incident Responses

For incidents involving spilled or released hazardous materials, most urban fire departments are confronted by being not only first responders, but also mitigation/containment crews for hazardous materials incidents. These situations can range from a simple gasoline/diesel spill to industrial chemicals immediately dangerous or lethal to people. Releases can occur not just inside buildings, but from transportation methods such as trucking, pipelines, and aboard ships. Containing these spills, removing exposed workers or the public, and, at times, having to mechanically enter the chemical spill or cloud to shut off a leak is not only dangerous to the first responder, but also one of the activities most highly regulated by OSHA.

Departments that take on this work, either by policy choice or geographic location, need highly trained and equipped Hazardous Materials Technicians. Depending on an incident's severity, much like the two-in/two-out firefighting rule, OSHA requires teams of certified personnel at several key steps in an entry/leak stoppage process. Anything beyond a small gasoline or diesel spill will

require a full team of a minimum of eight certified hazardous materials personnel, including an Incident Commander to sign off on the entry plan. Larger, longer in-time incidents can require 12–16 personnel.

The Department strives to always have eight hazardous materials personnel on duty each day. Five of the eight are located together on the hazardous materials apparatus at the headquarters station in Kahului. The others are normally assigned crew members on other fire companies in the central Maui areas. The hazardous materials apparatus carries advanced sensor, weather monitoring, entry suits, and spill control tools. Some of these items require daily checks and calibration. Monthly training is required on all the equipment and procedures. To facilitate this, most fire departments place a core team on the apparatus and then, as needed, partner them with other personnel from the station(s) in the area of the incident.

Maui County does have risk exposure for these incidents. Under Federal Environmental Protection Agency requirements, for any hazardous chemical used or stored in the workplace, the facility in which it is stored must maintain a material safety data sheet (MSDS) (also known as a Safety Data Sheet or SDS). Facilities must submit MSDSs (or SDSs), or a list of hazardous chemicals, to their State Emergency Response Commission (SERC), Local Emergency Planning Committee (LEPC), and local fire department. The information submitted by facilities must be made available to the public.

These required reports are based on the quantity of chemicals located at a site. There are two tiers of reporting, with Tier 1 being the largest and not represented in Maui County. However, there are just under 300 Tier II facilities, most on Maui island. The other island sites are mostly fuel and agriculture chemicals.

Years ago, the Department developed a full hazardous materials team because the team on Oahu was too far and not available to respond in any weather on a 24/7/365 basis. An in-County team provides rapid assistance should a chemical release endanger lives, not to mention the sensitive environment and the ability for a revenue-producing business to quickly recover. A separate hazardous materials apparatus is funded as there is too much technical equipment for just one firefighting apparatus to also carry.

When the hazardous materials apparatus was designed, the Department thought ahead and ordered both hazardous materials and technical rescue apparatus with the capabilities to have a modest amount of water, hose, and pump for firefighting. The Department knew that, given the few fire stations in the central Maui area, these specialty crews could cover simultaneous incidents in the central Maui area when the primary fire truck is committed on another incident. Additionally, these crews would be the third- and fourth-due units for serious firefighting events, commonly called a First Alarm given the wide fire station spacing in central Maui.

Further, with four- or five-person staffing, when the specialty crews arrive at non-hazardous materials or technical rescue events and under OSHA rules, their crews can be split into smaller, two- or three-person teams. Therefore, given the small quantity of technical incidents per year, the Department tried to spread that staffing investment as far as possible to other uses without degrading the ability to always have a prompt hazardous materials or technical rescue response.

The understandable issue for Maui County is the cost of the specialty teams. There also are a significant quantity of technical rescues per year on all three islands, including those that require the use of a small contract helicopter. Given the diverse geography, possibility for quick weather changes, and visitors unfamiliar with local conditions, there is always the potential for a specialty rescue incident. Thus, for hazardous materials and technical rescues, the Department is deploying a modest number of technical specialties fitting a best practices risk management matrix.

Table 2—Probability and Consequence Matrix

	Low Consequence	High Consequence
High Probability	**Moderate Risk** (High Probability) (Low Consequence)	**Maximum Risk** (High Probability) (High Consequence)
Low Probability	**Low Isolated Risk** (Low Probability) (Low Consequence)	**High/Special Risk** (Low Probability) (High Consequence)

The hazardous materials and technical rescue risks are of low probability but high consequence and, as such, should be deployed in case built-in safety control mitigations do not work on chemicals, or employees and tourists get themselves into situations requiring complex technical rescues.

Finding #9: The County has a need for an in-County hazardous materials team for immediate deployment. Teams on other islands cannot reach Maui County quickly enough for acute, escalating emergencies. The approach of using a combination of dedicated staffing and additional certified personnel at other stations is a common American fire service best practice and cost-effective approach.

Finding #10: Reducing staffing on the hazardous materials and/or rescue units would significantly increase the complexity of maintaining eight technical personnel per day in central Maui and would likely increase specialty position rank-for-rank vacancy overtime to maintain the technical positions. Reducing staffing on the specialty units will also delay the response of the unit with enough personnel to immediately begin incident assessment and mitigation upon the specialty unit's arrival.

Finding #11: The Department operates a hazardous materials and a technical rescue unit with firefighting capabilities to leverage the use of the crews for simultaneous and First Alarm incidents on central Maui.

Finding #12: Given the Department's intent to leverage the use of the specialty team crews, it should explore a way to get them more rapidly to single or dual fire station areas on Maui and the outer islands when serious complex incidents require an effective response force of at least 16 personnel in less than 15:00–20:00 minutes of first notification. This is equivalent to a First Alarm force in a contiguous urban area.

3.4 Review of the Firefighting Apparatus Abilities to Meet the County's Risks to Be Protected

The Department provides fire, rescue, and ocean safety services with a fleet of 145 vehicles, including 14 rescue pumpers, two quint ladder trucks, one heavy rescue, one hazardous materials response unit, six tankers, three wildland engines, five mini-pumpers, one air/lighting unit, three rescue boats, 19 personal watercrafts, 12 all-terrain vehicles (ATV), and 11 utility vehicles. In addition, the Department has nine reserve engines, two reserve tankers, and one reserve ladder truck, all located on Maui, except for two reserve engines and one reserve tanker on Molokaʻi and one reserve engine on Lānaʻi.

The Department documented well its risks to be protected in its Standards of Coverage self-assessment document prepared for accreditation submitted in late 2016. Citygate extensively reviewed this document and found it to be completed well and meeting the risk assessment and desired outcomes elements for accreditation. In summary, the Department is charged with providing emergency response services to:

- First responder emergency medical incidents
- Structure fires
- Wildland fires
- Technical rescues – on land and in the ocean
- Hazardous materials incidents.

The most common Department response is EMS, as it is in most fire departments today. The structure fire rate is very low. There is an impressive number of wildland fires, averaging 79 per year over the last three years, with acreage burned averaging 4,836 per year. The Department has a very current and modern Community Wildfire Protection Plan (CWPP) that identifies by neighborhood the wildland fire problem, along with recommended mitigation and fire suppression measures.

Outside of the Kahului area and central Maui, the Department is really a collection of one- or two-station areas operating more like small town fire departments. For a middle size, 14-station fire department, there is a very wide array of specialty responses needed, including the part-time helicopter program.

There is significant delay in multiple-unit arrival times to very serious emergencies outside of the center of Maui. The outer fire station districts cannot receive multiple-unit assistance in less than 10:00 minutes as would be found in mainland urban/suburban areas. As such, the apparatus assigned to each station or cluster of two stations must include multiple units capable of firefighting, both structural and wildland. Additionally, in many districts, water tankers are staffed for firefighting in areas without fire hydrants on the potable water supply. Some stations also house immediate response water rescue equipment. Advanced technical rescue and hazardous materials equipment are carried on very large units at Station 10 in Kahului.

Finding #13: Based on the isolated station areas and diverse risks to be protected, the type and quantity of the Department's apparatus meet local and Countywide tactical objectives.

3.5 Review of the Firefighting Apparatus Life Cycles, Costs, Procurement, and Replacement Policy

The primary front-line fire/ocean rescue fleet ranges in age from one to 16 years, with an average age of 7.8 years. The reserve fire/ocean rescue fleet ranges in age from 13 to 25 years, with an average age of 18.3 years. According to Department staff, the reserve apparatus are not fully equipped and immediately available for service. Most have very little, if any, fire, rescue, or EMS equipment assigned, and many are regularly unavailable due to mechanical problems.

Department staff further advised Citygate that the front-line apparatus fleet is in very good condition with good service reliability. The reserve apparatus fleet, however, is generally mechanically unreliable and should be replaced as funding permits, particularly those apparatus more than 18 years of age.

3.5.1 Fire Apparatus Design and Cost

According to Department staff, fire apparatus design has been standardized to the extent possible to meet the operational capabilities required of each apparatus type based on critical tasks the apparatus and crew are expected to perform. Such standardization is desirable to provide uniformity of operation and equipment location to facilitate training, operational competence, and safety, as well as minimize maintenance and spare parts inventory requirements.

The State of Hawaii heavily regulates auto and truck vendors requiring in-State licensing and a physical presence. Fire apparatus vendors, all on the mainland, must comply with these regulations. Therefore, very few fire truck vendors have made the investment for a small number of units to be sold occasionally in a small state. Those that have made the investment are quality vendors, but the fact remains there is little price competition, plus there is the cost of shipping units to the State. To what extent this alone drives up apparatus cost cannot be determined, but there could well be State overhead costs contained in the fire truck costs.

The most significant issue for Department apparatus and vehicles is corrosion resulting from the County's marine environment. This exposure to salt air and moisture corrodes uncoated metals commonly used in vehicles much more quickly than in a non-marine environment, particularly the fasteners and plumbing on a fire apparatus. Where a 20- to 25-year service life is not unusual in non-marine environments, Department apparatus service life is substantially reduced as a result of the corrosion factor. The Department's current apparatus specifications include aluminum bodies and stainless-steel plumbing and fasteners to minimize the corrosion problem, which is anticipated to facilitate a longer useful service life.

Department rescue pumper and quint aerial ladder truck specifications reviewed for this assessment reflect top-of-the-line, state-of-the-art custom apparatus with numerous optional features to enhance operator/crew safety, corrosion protection, maintenance, and operational

efficiency given the risks to be protected, limited staffing, station spacing, and long travel times to many areas of the County. While these optional features may be highly desirable, they add, in aggregate, approximately $250,000 to the overall apparatus cost. In addition, the Department specifies a particular manufacturer's chassis model for its rescue pumpers that provides pumping capability while the apparatus is moving. This feature additionally adds approximately $75,000 to the cost.

Finding #14: The Department's rescue pumper and quint truck specifications reflect state-of-the-art custom apparatus and include numerous optional features to enhance operator/crew safety, corrosion protection, ease of maintenance, and operational efficiency given the risks to be protected, limited staffing, station spacing, and long travel times to many areas of the County.

Finding #15: The Department's rescue pumper and quint truck specifications include numerous optional custom features that cost approximately $325,000 more than similar apparatus with more typical specifications.

Finding #16: State law controls fire truck vendors as it controls auto and light truck vendors. This limits the quantity of bidders for the State's fire truck business and might increase costs to an unknown degree.

3.5.2 Vehicle Maintenance and Reserve Apparatus

Located adjacent to the administrative headquarters offices in Kahului and staffed with three Fire Equipment Mechanics and one Lead Fire Equipment Mechanic, the Department has an approximately 3,000 square-foot, four-bay fleet maintenance facility, including an additional 1,000 square feet on the second-floor containing an office and parts storage. The staff is responsible for developing apparatus and equipment specifications, ensuring specification conformance at delivery, and maintenance and repair of all mobile Department equipment.

These four personnel provide preventive maintenance and repairs for 47 front and reserve firefighting units; 36 light-duty vehicles; 38 off-road units, trailers, watercrafts, and boats; and another 53 vehicles, boats, and trailers in the newly absorbed Ocean Safety Division. These total 174 units, and while all do not consume the same hours for preventive maintenance and repairs per year, it is still a large inventory to maintain in a constant mission-ready state.

While the Department does have a preventive maintenance schedule by vehicle type, the Lead Mechanic advised that it is rarely followed due to insufficient mechanic capacity and competing

shop priorities. The Lead Mechanic advised Citygate that the shop is continually backlogged at least four months on needed maintenance and repairs; however, every vehicle is maintained at least annually. Most repairs are performed by certified Department mechanics; however, in some cases, repairs are contracted out to qualified local repair facilities.

Keeping the fleet in operating condition is quite difficult; in addition, the reserve units are not fully equipped. When a front-line apparatus needs repairs or personnel are recalled to duty for major emergencies, reserve apparatus are needed. When a reserve is used to replace a front-line unit receiving maintenance, it can take the crew one to two hours to transfer the needed equipment between units. At these times, the crew is not available for response. Many of the Department's reserve units are not kept fully equipped due to operating budget leanness. Citygate asked for the cost to fully equip the units with all basic firefighting and EMS tools. The one-time cost is $135,000 if bought soon at current prices.

Finding #17: The Department's preventive maintenance and repair program is continually backlogged by several months due insufficient mechanic capacity.

Finding #18: All Department vehicles receive a safety inspection and preventive maintenance at least annually.

Finding #19: The Department's reserve firefighting units are not fully equipped for prompt use, either as front-line replacements or for major emergency recall of personnel to staff additional units.

3.5.3 Vehicle Replacement

Based on expected useful service life, the Department has a vehicle replacement schedule that ranges from five years for personal watercraft to 20 years for rescue boats. The expected useful service life for fire apparatus is approximately 15 years given the harsh marine environment. Given a current estimated fleet replacement value of $41.7 million, approximately $2.9 million would be required annually to prefund a fleet replacement schedule. However, a flat replacement calculation based on a set number of years may not be the best. More common today is a cost-per-operated-mile factor that takes into consideration a well-specified unit, cost of repair labor, repair frequency, and availability of spare parts. Thus, some units that become high cost to maintain should be replaced sooner than the flat year trend line, and others can go longer than the estimate.

Vehicle replacement is funded through the Department's annual operating budget rather than a more common capital replacement fund. The annual budget process starts with the Department budget request in October, which is then reviewed and adjusted by the Mayor's Office and

reviewed and approved by the Fire and Public Safety Commission before it is considered by the County Council in March, where further adjustments can occur. The Department's FY 2018 budget request includes $4.3 million to fund replacement of 24 various types of vehicles. Department staff advised Citygate that apparatus/vehicle replacement is several years behind schedule.

Finding #20:	The Department has an apparatus/vehicle replacement schedule that considers local factors influencing expected useful service life for a fixed number of years.
Finding #21:	Apparatus/vehicle replacement is funded solely through the Department's annual operating budget.
Finding #22:	The Department's apparatus/vehicle replacement plan requires an annual investment of approximately $2.5 million.
Finding #23:	The Department's apparatus/vehicle replacement plan is several years behind schedule due to fiscal constraints during the recession.

SECTION 4—REVIEW OF SPECIFIC PERSONNEL COSTS

In the discussion to follow, specific causes for employee costs will be reviewed. In every one of the subsections, there are one or more Firefighters' CBA requirements and/or federal wage and hour rules for Firefighters to follow. As for the CBA rules, Citygate had to review three CBAs from 2007 through the present. At times, the successor CBAs rolled forward some issues and modified others. There is no single, current document that necessarily gives a complete picture regarding compensation rules to the casual reader that is outside the day-to-day management of the Department's payroll and workforce scheduling. In all, Citygate had to review 164 pages across the three documents. Where significant, this study will footnote some of the CBA clauses for tracking clarity.

In addition to vacation and sick leave allowances and rules for usage, the Firefighters' CBA has at least 16 other clauses that drive costs. At times, these clauses overlap and complicate the implementation of others. To gain a solid fiscal understanding, Citygate had to obtain detailed hours and payment data from both Departmental and County data systems. Due to some items not being tracked at all, others being tracked on paper and then entered in batches into the payroll system, or other "disconnects" between the budget and the County's accounts payable and General Ledger system, the task was complicated. Several times, Citygate had to ask staff to custom export data that could then be re-compiled and analyzed. At the mid-project draft findings briefing, Department and County staff cross-checked the work summarized in this report.

While the work was more difficult than either County Council staff or Citygate initially expected, sound data was obtained and modeled. If there are gaps in the analyses to follow, due to Citygate's

methods and fire service fiscal understanding, they would be tiny and not significant enough to change any of the resultant findings and recommendations.

Overall, Citygate also observes that the Department's and County's methods follow all apparent Fair Labor Standards Act (FLSA), federal, County, and CBA requirements. The methods may be manual and hard to retrospectively understand or project forward into budget requests, but the laws themselves are followed and understood by Department managers and County accounting and payroll staffs.

4.1 Earned Leave – Vacation and Sick Leave

There are two major types of earned leave for fire personnel under the CBA—vacation and sick leave. Smaller leave types are workers' compensation for on-duty injuries or leaves for training, family medical issues, court testimony, etc.

Under the CBA, Firefighters earn 24-hour shifts per year of County service, up to a limit of 10 shifts per year of service, then capped at a total accrual of 44 shifts. However, on their anniversary date, the employee's vacation balance is refilled based on years of service up to their capped amount. This policy and the total hours off are consistent with other County CBAs. However, as Firefighters work 10–12 shifts per month on average, an employee with 44 shifts per year can easily take one or more months of vacation when the cap of 44 is reached. An employee can take 10 shifts of vacation (one month) in a year and, at the next anniversary date, refill the 10 shifts if they are at the annual earning cap, thus returning to 44 shifts. While this may be the norm in Hawaii, in Citygate's experience with other Firefighter agreements over several decades, employees earn vacation more slowly and, when they take vacation, must slowly build back their leave balance without receiving a large annual refill.

As for sick leave, the CBA for line Firefighters provides 10 shifts per year of service, with unlimited accrual during County employment. Thus, mid- and senior-career Firefighters can build up a very large sick leave account from which to withdraw.

Table 3 reflects sick and vacation usage by rank for FY 2017. Even through the information is for only one year, Citygate believes it provides an accurate pattern illustration.

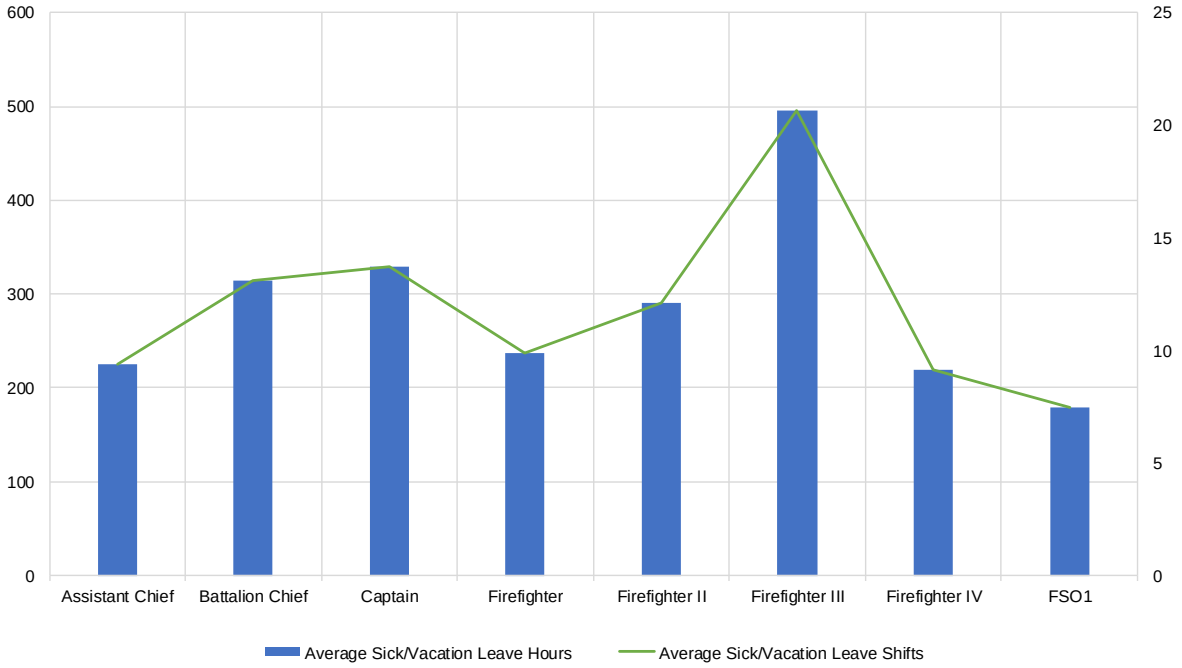
Table 3—Sworn Employee Sick and Vacation Leave by Rank

Rank	Average Sick Leave Hours	Average Sick Leave Shifts	Average Vacation Leave Hours	Average Vacation Leave Shifts	Average Sick/Vacation Leave Hours	Average Sick/Vacation Leave Shifts
Assistant Chief	-	-	225.50	9.40	225.50	9.40
Battalion Chief	46.92	1.95	267.00	11.13	313.92	13.08
Captain	85.62	3.57	243.69	10.15	329.31	13.72
Firefighter	88.26	3.68	148.27	6.18	236.52	9.86
Firefighter II	83.04	3.46	207.28	8.64	290.32	12.10
Firefighter III	216.86	9.04	279.09	11.63	495.95	20.66
Firefighter IV	46.50	1.94	172.75	7.20	219.25	9.14
FSO1	-	-	178.75	7.45	178.75	7.45

As can be seen from this table, the Firefighter III rank, on average, takes significantly more sick and vacation time off than is the industry norm, or even the norm for the Department. Industry norms range between 10 to 12 shifts off per year for sick and vacation leave. The Maui County Firefighter III rank averages approximately 72 percent above the high norm. This area needs a more in-depth review to determine the cause of this high leave usage. Given Maui County's necessary minimum staffing policy of four personnel per crew, it is very likely that this abnormal leave use contributes to increased overtime costs.

The information reflected in Table 3 is shown graphically in Figure 5.

Figure 5—Average Total Sick and Vacation Leave Usage by Rank – FY 2017



Focusing on sick leave usage alone because of the potential large sick leave usage caused by extraordinary illnesses or injuries, Citygate reformatted the information to create a use distribution bell-curve graph to reflect whether this situation is due to sick leave anomalies or a general pattern. The results of *sick leave usage* are presented in the following graph and Table 4.

Figure 6—Histograms of Sick and Vacation Leave by Rank

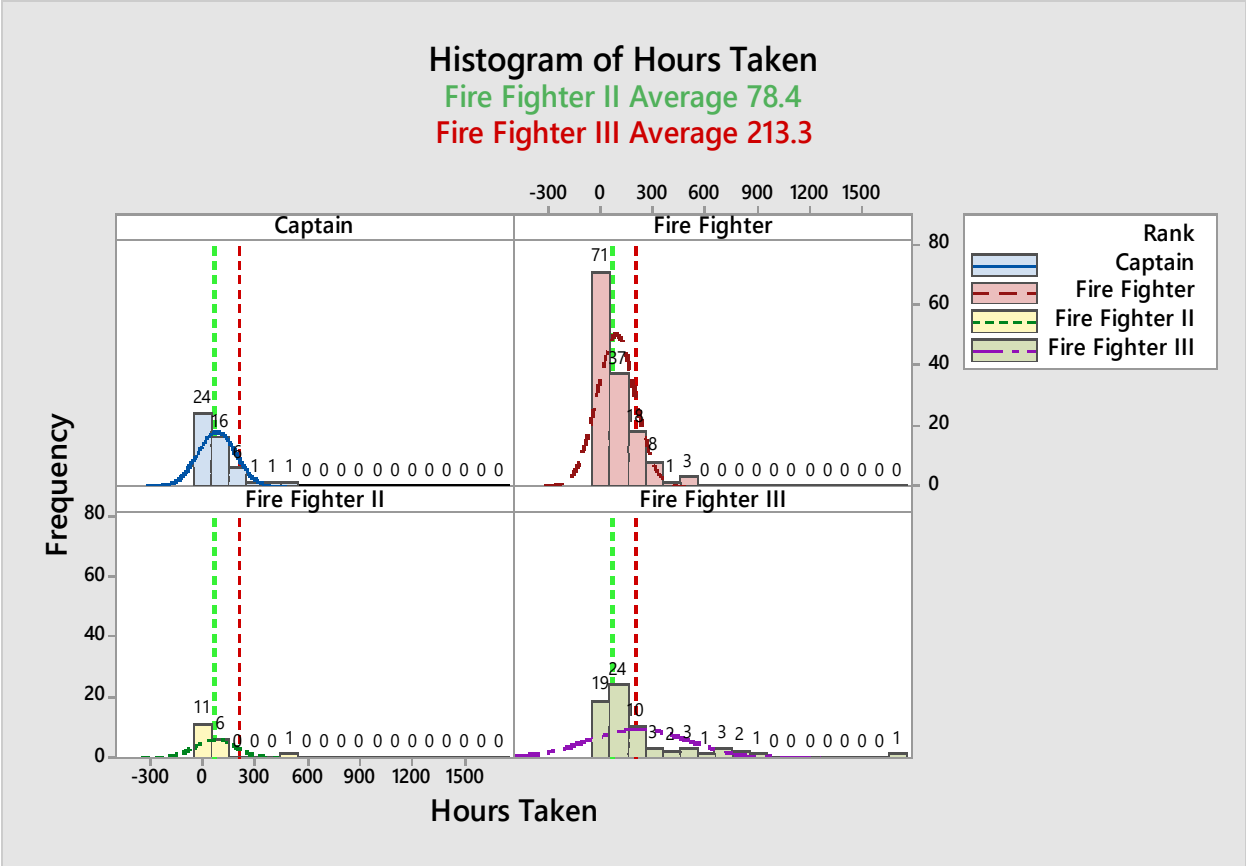


Table 4—Sick Leave Usage by Rank

Rank	Total Count	Mean	Minimum	Median	Q3	Maximum
Captain	49	89.1	0	52	120	528
Firefighter	138	88.9	0	48	133	544.25
Firefighter II	18	78.4	0	48	102	493.8
Firefighter III	69	213.3	0	120	211.3	1,688

The usage distribution graph is divided into four quadrants representing the ranks of Captain, Firefighter, Firefighter II, and Firefighter III. These ranks were selected for this graph because they make up most of the sick leave usage shifts. A flatter bell curve indicates a larger number of individuals at the high end of usage, which is the case with the Firefighter III rank.

Finding #24: Average sick leave usage for the Firefighter III rank is significantly (approximately 72 percent) above Citygate's experienced industry norms and is also significantly above the normal usage patterns of the other ranks within the Department.

The Firefighters' CBA and Departmental policies have tools for monitoring sick leave. These include:

- Requesting a doctor's verification for five or more consecutive calendar days and/or two or more consecutive working shifts, or when small sick leave usage suggests a pattern.
- Sick and workers' compensation investigations.
- Mirroring the CBA and other state fire departments in the Department's policies.
- Use of light duty as a return to work program.

However, as can be seen in the data, the methods are not sufficiently robust, and changes must come from changes to the CBA. For example, there is not clarity regarding what "pattern" usage means, and there are no review limits after which a person has passed a per-quarter or half-year "normal" amount of usage. Firefighters must be fit and healthy, and they should not report to duty ill or injured. However, sick leave is not another "annual leave" right, and the Department should have the ability to obtain doctors' reviews when an employee appears to be habitually unable to report to work over a year's time.

4.2 Overtime, Scheduling, and Assignment Procedures

Per the CBA, overtime is paid at the rate of 1.5 times base hourly rate for hours worked outside of an employee's regular work schedule. The largest reason for overtime is to maintain each fire crew at a minimum count of four, though a fifth crew position is used when possible. Smaller uses of overtime typical for any fire department are holiday pay differential, training, meetings, moving to backfill a station crew once notified, being held over at the end of a shift awaiting a last-minute relief person to arrive, and other small uses. Citygate observed the Department's policies were well within the CBA and FLSA requirements.

The Department tries to avoid compounding overtime costs under the CBA, such as paying a relief person for travel time while a holdover person is held on overtime, especially when the relief person at times also must incur ferry or airfare expenses.

The CBA is very restrictive for moving assigned Firefighters from their home duty station on short notice. The CBA requires Firefighters always report to their assigned duty station at the normal

time or, when reporting for overtime anywhere, to gather their personal protective equipment.[14] When medium-term absences of less than a month are known in advance, per the CBA, a Firefighter cannot be reassigned to another station or duty platoon with less than 30-days' notice.[15]

For some vacancy assignments, needed certifications and qualifications must be met by the employee assigned the relief. Examples are Driver/Operator, Captain, hazardous materials, Rescue Technician, Tanker Operator, etc. Some of these backfill movements also trigger the Driver/Operator and Fire Captain rank-for-rank overtime replacement CBA clause to be discussed in the next subsection of this report.

A final issue that generates fire service overtime is the delaying of promotional exams and entry level hiring. Fire departments must keep up with annual retirements and other employee separations to control overtime. During the years of this requested audit, the Department's entry level hiring was delayed due to testing re-certifications. Doing so increases vacancies, which increases overtime.

4.3 RANK-FOR-RANK BACKFILL

When a certified Firefighter, principally a Fire Captain or Firefighter III Driver/Operator, is on earned leave, a trained, qualified employee must backfill the position. It goes without saying that a junior, under-qualified employee should not be making officer-level decisions, especially in isolated fire station areas. Fire apparatus are heavy and complicated to operate, especially under the stress of an emergency to an unfamiliar Operator. For safety reasons, every fire department requires apparatus Operators to be qualified.

There are two ways in the fire service to backfill absences on overtime: bring back a qualified person who has not yet been promoted to "act up," or hire back a qualified, promoted person under the method called "rank-for-rank."

While Citygate observed that there has been considerable recent discussion regarding rank-for-rank as somewhat new or discretionary and thus increasing overtime significantly, Citygate does not find this to be the case.

Rank-for-rank was first placed in the CBA in 2003. Its use was arbitrated on Oahu in 2009. The use of rank-for-rank was suspended by the Union during the recession. Effective July 1, 2014, it was reinstated.[16]

Rank-for-rank was limited to 288 hours per eligible employee per year. In 24-hour shifts, this is 12 shifts per year. A rank-for-rank assignment is *voluntary* in that the employee being asked is not

[14] CBA 2007–2011, page 15
[15] CBA 2011–2017, page 10
[16] 2011–2017 CBA, page 15

required to accept the assignment. If no one accepts the assignment, then acting positions are used, with mandatory overtime if needed. Therefore, the Department must offer rank-for-rank, but employees are not required to accept it or work the entire 288-hour allocation. The word "voluntary" has caused confusion, with some believing the program is voluntary; the program is not voluntary and never was. Only the per-person use of it is voluntary.

Further, in the most recent CBA, all the State's fire departments were to meet and strive for a uniform implementation policy across all departments. Citygate obtained all the policies, and Maui County's is very consistent with the others, save for small nuances caused by some of the Department's very remote stations.

Citygate observed the Department's use of rank-for-rank was consistent with the CBA and its administrative rules. In Citygate's analysis, rank-for-rank overtime was not always used; acting positions are still needed at times. As the sick leave analysis and base salary costs will show, cost of overtime is increasing year over year, but not due to a new or misapplied rank-for-rank CBA requirement.

Finding #25: The rank-for-rank overtime policy is used consistent with the Firefighters' Collective Bargaining Agreement.

4.4 PREMIUM PAYS AND OVERTIME

The Maui County financial system consolidates pay other than pay for regular salary (special pays) into a budget and expenses category called premium pays. The following is a brief description of the individual components of premium pay currently used by Maui County based on FY 2017 activity.

Overtime is the largest component of premium pay at approximately 88 percent. It is paid in compensation for any time worked beyond a regular work period, as set by the Fair Labor Standards Act enacted in 1938. In 1974, FLSA was amended to establish section 7(k), which required public employers with fire departments to pay overtime for hours worked beyond 53 hours per week or beyond 212 hours within a 28-day work cycle. In addition to federal overtime requirements, Maui County has approved other overtime requirements through the collective bargaining process. Under the current Hawaii Firefighters Association-International Association of Firefighters Local 1463 CBA, members are also paid overtime for circumstances such as working over 72 consecutive hours (paid at regular time or time-and-a-half depending on notification time) and continuous day overtime for hours worked over 36 hours (paid at double time until released for at least eight hours).

4.4.1 Categorical Premium Pays[17]

Per the Firefighter's CBA, the following specialty payments above base salary are considered as time worked for overtime computation purposes.

- *Temporary assignment* is payment to individuals who are required to work higher grade assignments outside of their normal assignment on a temporary basis. This component makes up approximately 6.6 percent of premium pay.
- *Longevity* is paid to an individual for having worked for the jurisdiction for a specified period. There was no payment reflected in the FY 2017 financial report for this item likely because it was reflected in regular salaries in FY 2017.
- *Hazardous Pay* is paid to individuals who are required to work assignments that are more hazardous than their normal assignments. This component makes up approximately 2 percent of premium pay.
- *Night Differential* is paid to individuals who are required to work in periods other than a normal daytime schedule (usually non-sworn or administrative sworn working a 40-hour week). This component makes up approximately 1.8 percent of premium pay.
- *Standby* is paid to individuals required to be on a standby basis for emergencies, limiting their freedom during their regular off time. This component makes up approximately 0.5 percent of premium pay.
- *Relocation Pay* is travel reimbursement paid to individuals who are required to work at a location other than their assigned station. This component makes up approximately 1.1 percent of premium pay.
- *Emergency Call Back* is paid to individuals required to come back to work after their normal work period due to an emergency. The activity for this component is included in the overtime component.

4.4.2 Overtime and Premium Pay Budgeting

Overtime makes up about 88 percent of the actual amount spent for premium pays in FY 2017. Premium pays are budgeted in lump sum in account #5215 with no delineation of the budget requests for the individual components. The actual amounts spent for the various components of premium pay are recorded in various accounts corresponding to the various premium pay components. The account for the overtime component is account #5205. The budget for premium pay has averaged approximately $3.1 million per year over the past four fiscal years. Based on the

[17] Multiple sections in both the 2007 and 2011 CBAs and as documented in County payroll data

review of financial statement documents, overtime has averaged approximately 88 percent of the amount actually spent for premium pay per year for the past three fiscal years. Applying this trend to the average annual premium pay budget of approximately $3.1 million per year, the overtime component of the budget would be approximately $2.7 million annually.

However, in the overtime component, account #5205, actual expenditures have averaged $3.8 million annually over the past three fiscal years, resulting in an average *over-authorized budget* expenditure of approximately $1.1 million per year.

Maui County's current practice of combining the overtime budget into one account with other premium pays and then recording the actual expense for these premium pay components in other itemized General ledger accounts is contrary to best practice, creates a disconnect for budget tracking purposes, and is confusing to leadership receiving the information.

Currently, during the budget process, the only justification for premium pay presented by the Department, which includes overtime requests, is based on prior year actuals and upcoming collective bargaining labor contract language. There does not seem to be any real explanation or discussion of the components that are driving the overtime component usage. For example, the Department does not know or track all components of overtime, such as overtime due to normal operation (station personnel leave time backfills), rank-for-rank requirements of collective bargaining agreement, and unanticipated (emergency) overtime needs.

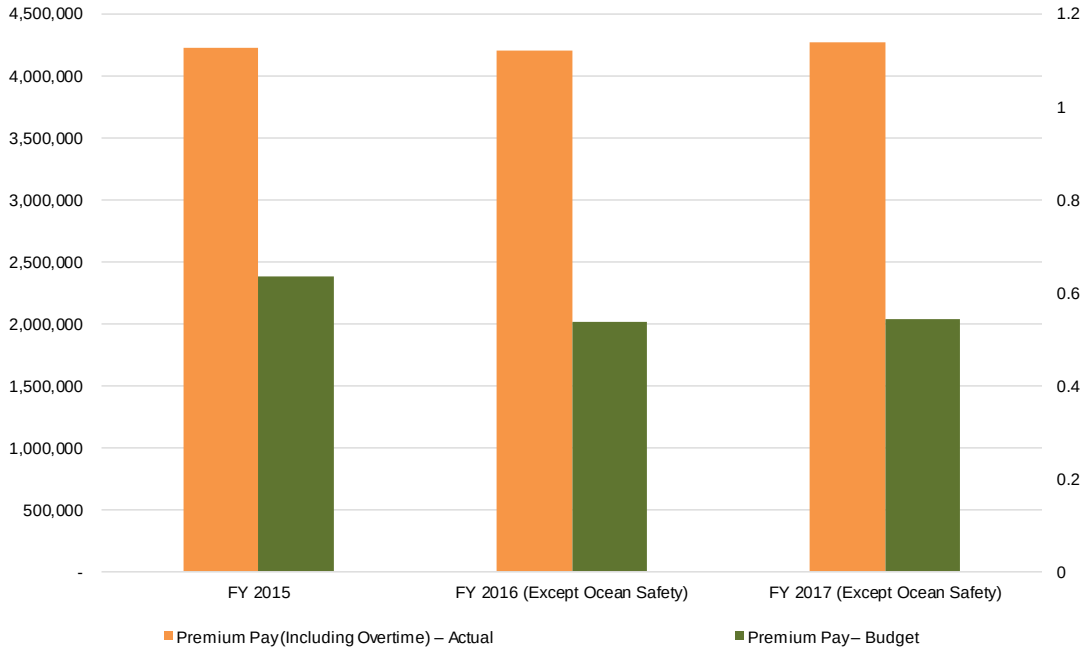
Understanding what components are driving overtime usage will allow Department management to control usage where possible and, where not possible, articulate the reason the overtime was needed and what steps were taken to ensure the efficient use of overtime. The budget staff in the Mayor's Office seems to accept the Department's claim that they have no control over what overtime is used because they cannot predict major emergencies. This assumption is being made because the Mayor's budget staff have not tried to assist the Department with the development of a justification framework for overtime and premium pays.

To conduct this review of premium pay / overtime, Citygate asked for detailed information, by fiscal year, from both the Department and County data systems. The data was not easily and normally exportable. The Department still uses paper time cards. Not all uses of time are detailed by type. Everyone from the Department to the Mayor, Managing Director, and Council are using large categories to estimate, budget, and fund premium pay / overtime.

Both the Department and County fiscal staffs provided several raw data exports which Citygate had to compile into a detailed historical model with use of earned leave, premium pays, and overtime. This Citygate model was provided back to the County teams and could be used to build a more predictable premium pay / overtime budget request model. In interviews and in some of the video budget discussions, the statement was made that premium pay / overtime could not be closely modeled for appropriation requests and management tracking. This is not an accurate

statement; fire departments have been doing so for years, increasingly with electronic time-keeping software specifically designed for fire departments. It *takes effort* to build the first model, but then only requires modest annual effort to update for specific trends of usage both from history and new CBA requirements. The model can be explained and can gain acceptance in the County staff budget review. By the point the request reaches the County Council, there should be no disagreement on the amount needed *to maintain full station staffing and the mandates of the CBA*. Figure 7 shows the wide swings between total premium pay / overtime requested versus expended.

Figure 7—Premium Pay Budget versus Actual



Finding #26: The Department and County budget processes do not use detailed, accurate, and predictable premium pay / overtime forecasting and tracking tools. Lacking this, the budget discussions around all types of premium pays are confusing and, at times, not fully correct. This leaves the policy decisions for the appropriation of overtime to not be reflective of actual need.

There are numerous factors that drive overtime, ranging from federally mandated factors such as the FLSA; to CBA-negotiated factors such as minimum staffing, rank-for-rank; to general safety issues such as absences caused by leave time, workers' compensation injuries, and fire emergency incidents. There are also different pay requirements for overtime depending on the circumstances for which the overtime is earned. Requirements include 0.5 times the FLSA workweek differential,

1.5 times the FLSA workweek differential (most typical overtime situations), and 2 times the FLSA workweek differential (continuous workday that is in excess of 36 hours per CBA requirements). All these factors and requirements make monitoring overtime extremely complicated; however, given the large cost of overtime, a logical and detailed model for developing budget requests is very important, and other agencies commonly use one.

To address this issue, Citygate recommends the creation of a premium pay / overtime model that identifies the specific overtime trends generated under normal circumstances, such as overtime necessary due to normal annual occurrences of items (sick leave, vacation leave, etc.) and whether rank-for-rank requirements are applicable based on past trends. Additionally, as a part of the model Department staff should develop most likely estimates of fire and other emergency incidents based on prior activity information for input into the model.

It is understood that staff will not be able to identify future emergency incidents with absolute accuracy, but they will at least be able to articulate the rationale used to develop the overtime request and identify the variances to the model assumptions that require additional funding from Council. Department staff should present this model to County budget staff and the Council for input and make necessary adjustments. The final model should be approved and accepted by budget staff and the Council and should become a regular part of the budget process and should be used during the year to support overtime budget requests. By the point the County Council sees the annual budget request, the entire budget team will be speaking with one, detailed voice on premium pay / overtime needs for the coming fiscal year. This will help improve the trust issues in the overtime area, which were evident in Citygate's review.

As a part of the model, additional overtime codes in the forthcoming new fiscal/personnel/time-keeping software system will need to be created to improve the tracking of overtime. Examples of additional overtime tracking codes are as follows:

- Planned OT code – includes OT reasons, vacation, FLSA, and rank-for-rank if applicable.
- Unplanned Normal Operations OT code – includes OT reasons, sick, Family Medical Leave Act (FMLA), workers' compensation, and rank-for-rank if applicable.
- Unplanned Emergency Operations OT code – includes OT reasons, fires, hazmat, other natural disasters, and rank-for-rank if applicable.

The following overtime code examples could be established to provide a more detailed tracking process:

- Vacation – rank-for-rank
- Vacation – non-rank-for-rank

- Sick – rank-for-rank
- Sick – non-rank-for-rank
- Workers' compensation – rank-for-rank
- Workers' compensation C – non-rank-for-rank
- FLSA – rank-for-rank
- FLSA – non-rank-for-rank
- FMLA – rank-for-rank
- FMLA – non-rank-for-rank
- Mutual aid – rank-for-rank
- Mutual aid – non-rank-for-rank
- Emergencies (unforeseen County fires/hazmat events) – rank-for-rank
- Emergencies (unforeseen County fires/hazmat events) – non-rank-for-rank.

The dollar information associated with the new codes must be obtainable, which should be accomplished through the creation of new general ledger account numbers for each new overtime code. Maui County's current payroll system is ADP. The payroll system is where the various pay and deduction codes reside. ADP could be contacted to determine the process for implementing new overtime codes; however, since the County in the process of implementing a new payroll system (Workday) beginning October 1, 2018, it would be more practical to build in new overtime pay codes and account number links with the implementation of the new system. The existing special pays, such as hazardous duty, temporary assignment, etc., would remain as they are currently established. The overtime account #5205 would be the account impacted with this recommendation.

Improved estimating and tracking of overtime will provide a more defensible justification of overtime requests to the Council. It will also improve coordination and understanding between the budget staff in the Mayor's Office and the Department.

4.4.3 Workers' Compensation

The State of Hawaii, as do most states, requires local agencies to provide certain benefits for its injured workers. These benefits include items such as paid leave, paid medical costs, rehabilitation, work accommodations, etc. As discussed in Section 3, the Department has a policy of minimum staffing, which means that if a sworn staff member is injured and temporarily cannot perform their normal work duties, overtime may be required to be paid to another sworn staff member to cover the injured staff member's duties. Maui County's fifth-position-per-crew policy, also discussed in

Section 3, helps to mitigate against this. Review of Maui County's workers' compensation activity for the Department reveals a 28-month average for new cases per year, at an average closed claim of $6,832. From Citygate's experience, this is good; however, there are a few high-dollar, long-term claims that are being monitored. Additionally, the Department showed an understandable increase in claims with the transfer of the Ocean Safety Division into the Department in FY 2017.

Maui County has a Countywide Risk Manager and individual Department personnel officers who handle the risk management program. Through its review, Citygate was told that the Countywide Risk Manager is more of a facilitator for departments regarding workers' compensation as opposed to significant case management and safety policy development. This can be problematic because the individual departments will not see the overall "big-picture" workers' compensation issues that should be addressed. Workers' compensation can spiral out of control very quickly and should have a Countywide oversight perspective to identify and develop policies and procedures to address potential issues.

A good policy to help minimize workers' compensation costs is a return-to-work (RTW) program. Under a RTW program, injured employees who cannot perform their normal duties but can, with a doctor's approval, perform other duties must agree to perform the other approved duties, even if the duties are in another department. Refusal can result in termination. The program has various review and approval processes to ensure that the injured employee is treated fairly and legally and that the new duties will not aggravate the injury.

The County of Maui has a robust RTW program, which has probably contributed to lower workers' compensation costs. The Department and County also use investigations of employees suspected of workers' compensation fraud. Under Maui County's current RTW program, the Department personnel officer makes the final decision for program placement.

The RTW policy could be strengthened by providing the Countywide Risk Manager with more authority to place injured workers in other approved and authorized duties. Because the Risk Manager does not work with the employees on a day-to-day basis, this individual is more important than a Department officer. Moving this authority to an individual who is more impartial might provide even greater incentive not to abuse the workers' compensation system.

Finding #27: The County Risk Manager acts in the role of facilitator for the Department, including the return-to-work program. This can lead to a fragmented approach when analyzing and developing plans to address Countywide workers' compensation and safety issues.

SECTION 5—BUDGET PROCESS REVIEW

5.1 GENERAL OVERVIEW OF BUDGET PROCESS AND BUDGETING BEST PRACTICES

As a part of the financial review of the Department, Citygate conducted a cursory review of Maui County's General Fund revenue and expenditures for FY 2015 and FY 2016 per the County of Maui's Comprehensive Annual Financial Report (CAFR). The CAFR for FY 2017 was not reviewed because it was unavailable at the time of Citygate's review.

Some general observations of this review include:

- County General Fund revenue growth from FY 2015 through FY 2016 was approximately $12.3 million, or 4 percent.
- County General Fund expenditure growth from FY 2015 through FY 2016 was approximately $7 million, or 2.4 percent.
- Although General Fund revenue growth outpaced expenditure growth during this time, the combined structural deficits of both years reduced fund balance by over $12 million.
- Unassigned fund balance, combined with the fund balance reserved for emergencies, totaled approximately $53.9 million, or 16.7 percent of expenditures as of FY 2016.

- The Governmental Finance Officer Association (GFOA), a national organization established to provide principles and guidance to governmental agencies regarding finance, recommends an available fund balance minimum equal to two months' operating expenditures, or approximately 16.7 percent. Although Maui County's unassigned and committed fund balance as of FY 2016 is within the *minimum* recommendation, the more available fund balance an agency has, the better equipped it is to handle unanticipated downturns and minimize service level reductions.
- Ongoing structural deficits where annual spending exceeds a year's actual revenues are, of course, not best practice.

5.1.1 Fund Balance Described

Fund balance represents reserves that have accumulated and can be used for specific expenses where revenues are insufficient. Per standards established by the Government Accounting Standards Board (GASB), which sets national governmental accounting standards, fund balance should be segregated into the five following classifications.

- *Non-spendable* – includes amounts that cannot be spent because the amount supports other entity assets, such as inventories.
- *Restricted* – includes amounts that can be spent only for the specific purposes stipulated by constitution, external resource providers, or through enabling legislation.
- *Committed* – includes amounts that can be used only for the specific purposes determined by a formal action of the government's highest level of decision-making authority.
- *Assigned* – includes amounts for government-specific purposes but do not meet the criteria to be classified as restricted or committed.
- *Unassigned* – includes all residual spendable amounts not contained in the other classifications.

5.1.2 Budgeting Best Practices

Governments allocate scarce resources to programs and services through the budget process. As a result, it is one of the most important activities undertaken by governments. As the focal point for key resource decisions, the budget process is a powerful tool. The quality of decisions resulting from the budget process and the level of their acceptance depends on the characteristics of the budget process that is used.

A budget process that is well-integrated with other activities of government, such as the planning and management functions, will provide better financial and program decisions and lead to improved governmental operations. A process that effectively involves all stakeholders, elected officials, governmental administrators, employees and their representatives, citizen groups, and business leaders—and reflects their needs and priorities—will serve as a positive force in maintaining good public relations and enhancing stakeholders' overall impressions of government.

In 1995, the GFOA and seven other state and local government associations created the National Advisory Council on State and Local Budgeting (NACSLB). The NACSLB was charged with developing a set of recommended practices in the area of state and local budgeting. The NACSLB completed its task in December 1997 with the adoption of a budgeting framework and recommended budget practice statements, which were endorsed by the GFOA.

The framework[18] consisted of the following:

Definition of the Budget Process: The budget process consists of activities that encompass the development, implementation, and evaluation of a plan for the provision of services and capital assets.

Mission of the Budget Process: To help decision makers make informed choices about the provision of services and capital assets and to promote stakeholder participation in the process.

Key Characteristics of the Budget Process:

- Incorporates a long-term perspective;
- Establishes linkages to broad organizational goals;
- Focuses budget decisions on results and outcomes;
- Involves and promotes effective communication with stakeholders; and
- Provides incentives to government management and employees.

Almost 60 recommended budget practices were identified by the NACSLB in its 1998 Recommended Budget Practices publication. It is suggested by NACSLB that these practices be used as guidelines as opposed to mandates; however, implementing these practices will improve the overall budgeting process. Some of the recommended budget practices which are most relevant are discussed in the following subsections.

[18] http://www.gfoa.org/recommended-budget-practices-national-advisory-council-state-and-local-budgeting

1. Development of a budget calendar.

Finding #28: Maui County has developed and uses a budget calendar in conformance with best practices. The calendar process is outlined in Maui County's budget document. Maui County's calendar process is relatively standard throughout the local government industry.

2. Identify stakeholder concerns, needs and priorities.

- Conduct a strategic planning meeting prior to budget process initiation to determine priorities/objectives of elected officials. This meeting should include input from residents regarding their priorities and expectations.
- Evaluate community condition, external factors, opportunities, and challenges.

Finding #29: Although Maui County conducts various community meetings at the beginning of its budget process to solicit public input, the Council does not develop measurable priorities or provide policy direction to staff prior to the beginning of the budget process. Omitting this step can lead to the development of budgets that are contrary to the Council's intent, which then can unnecessarily complicate the budget hearing process.

3. Development and adoption of financial policies which can be used to achieve the overall operational goals of the agency.

Examples of these policies include:

- Stabilization (reserve) funds
- Fees and charges
- Debt issuance and management
- Budget development (samples not all inclusive)
  - Revenue/expenditure projections
  - Capital needs
  - Performance measures and benchmarks
- Use of one-time or unexpected revenues

- Long-term fiscal planning.

Finding #30:	Maui County has the basic written financial policies recommended by the NACSLB and GFOA. However, adherence to the policies could be enhanced and the policy detail should be expanded.

4. Standardize department presentations to elected officials to ensure that consistent pertinent information is presented by all departments as a base to beginning the budget process.

- Recommended information
  - Department name and division/program names
  - Actual for previous two years, revised current year, and recommended new budget year amounts by division and total department
  - Discussion of major changes in dollars from current revised year to recommended year
  - Major accomplishments of current year
  - Major goals/objectives for upcoming year
  - Major issues that will need to be addressed in upcoming year and how they will be addressed through the recommended budget.

Finding #31:	Maui County does not have a standard presentation format for departments to present their budget requests to the Council. Consequently, the budget presentation process appears disjointed and inefficient. Presenting concise, statistical, and easily understood information justifying needs and baseline versus new programs will help departments provide a basic level of understanding to enhance Council decision making.

5. Maximize coordination and understanding of numbers between budget staff and respective Department staff.

Finding #32: Department management lacks a deep understanding of where some of the numbers created by the Mayor's budget staff come from and the Mayor's budget staff seems to be unclear regarding the rationale behind some of the requests submitted by the Department. This has negatively impacted the teamwork that is needed to develop and present a cohesive budget document to the Council.

6. Determine what level of detail elected officials require to make informed decisions on the budget.

Finding #33: Maui County provides line-item budget detail to Council. Although this provides the Council with a large amount of detail with which to make decisions, if Maui County truly desires to move to a results-based or budget-for-objectives budget format, less line-item detail should be used.

7. Budget review should be done regularly throughout the year, with a more formal and detailed review completed at least semi-annually. This mid-year review should include review and update on budget objectives/performance measures and adjustments made accordingly.

Finding #34: Maui County's charter requires the Finance Director to produce a quarterly report which provides revenue and expenditure budget versus actual activity for all County operations, including capital improvement plan activity updates. The report does not provide analytical narrative and includes only numbers.

Additionally, the budget staff in the Mayor's Office provides quarterly budget implementation reports which provide updates on goals/objectives/performance measures of the various departments of the County of Maui. Performance measures could be improved to be more informative, at least where the Department is concerned.

The Maui County Charter outlines how the adopted budget can be amended during the fiscal year. The amendment process is very formal and requires a resolution or ordinance approved by the County Council depending on the nature of the amendment.

8. The budget estimate process should include not simply review of prior-year activity, but review of the activity of multiple prior years to develop trend information. Additionally, known and potential impacts that can be identified and measured should be used to develop estimates. This would include discussions with service providers, vendors, revenue generators, resource agencies, colleagues, etc.

Finding #35: Maui County's processes for estimating revenues and expenditures are very basic. In most cases, they include only the prior fiscal year activity. Although requested, Citygate has not seen any trend analysis using multiple fiscal year activity, contacts with comparable entities outside of the County of Maui to compare estimation rationale, or processes involving vendor contact to determine operational or capital improvement plan estimates.

9. Development and consistent utilization of financial systems that provide information required to make sound operational decisions.

Finding #36: Maui County uses SunGuard for its financial system and ADP for its payroll system. Maui County does not use a formal budgeting module but instead uses Microsoft Excel spreadsheets for budget development. These systems do not easily mesh, which requires extra steps to reconcile data.

10. Training of Departmental budget/administrative personnel to ensure consistent knowledge and recordation of financial information.

Finding #37: Maui County personnel receive and are encouraged to pursue training to ensure consistency regarding financial information. However, a major non-compliance issue revolves around how fringe benefits costs are allocated. Maui County, as is the case with other counties in the State of Hawaii, budgets and records General Fund fringe benefit activity in the Finance Department. This results in an understatement of actual cost of personnel services by each department in the General Fund.

11. Departmental meetings to gather budget needs requests from divisions. Divisions should be required to justify requests and show the measurable benefits of the request. After the final decision is made by the Department head for budget request submittals, division managers should be briefed so that they understand the Department's priorities.

Finding #38: Department division managers are given the opportunity to meet and discuss/justify requests with the Fire Chief, however, notification of the decision of the Fire Chief is not shared with the division managers before submission to the Budget Office.

5.2 ANNUAL MAUI COUNTYWIDE BUDGET DEVELOPMENT PROCESS

Maui County does not have a dedicated budget software program. The current budget development and reporting system consists of Microsoft Excel spreadsheets. The County uses SunGard for its financial system. According to Staff, the County reviewed a budget module when deciding to implement a new financial system but decided not to use a new budget module due to fact that, as the Mayor changes, the tendency is to hire new staff that may want to use different software.

Current budget staff are in the process of developing a working manual for incoming staff, but lack of time and changing Department priorities caused by staff turnover associated with Mayoral election changes has delayed completion.

Although the County's use of Excel spreadsheets is addressing the basic budget development needs, implementation of a formal budget module should be considered. A formal budget module will provide a platform for a uniformed entry of data by departments and an easier process for budget staff and the staffs of the various departments to monitor and analyze information and produce reports.

The current budget process steps used by the County of Maui are, for the most part, typical of other local governments. However, based on Citygate's review, the current budget process is missing a crucial initial step. That step is the development and communication of Council-established priorities and policy direction at the beginning of the budget process. According to staff, budget goals and priorities are established at staff level without Council input or direction. This can and has led to a disconnect between the budget requests by departments, the proposed budget from the Mayor's Office, and the budget ultimately approved by Council. This disconnect results in inefficiencies that increase the time required to complete the budget process, confusion and misunderstanding of the budget information presented and, most impactful, a level of distrust between Council and staff.

An example of the budget inefficiencies and lack of cohesiveness of Maui County staff and Council identified by Citygate's review is reflected in Tables 5 and Table 6.

Citygate compared General Fund expenditures for the Department in a combined summary for fiscal years 2015 through 2017. The amounts were broken down by the major components currently used by Maui County during the budget process and on-going fiscal monitoring. These components are salaries and wages (excludes fringe benefits discussed previously); operations, Countywide expenditures (departments share specific Countywide expenditures not designated for a particular department); and equipment. The amounts were compared for the Mayor's proposed budget, the approved Council budget, and the actual expenditures. As can be seen in the tables, large variances exist between what was actually spent during this period and the respective budgets of the Mayor's Office and Council.

Table 5—Combined FY 2015–FY 2017 General Fund Proposed/Adopted/Actual Expenditure Comparison

	FY 15–FY 17 Totals					
	Mayor Proposed	Council Adopted	Actual	Council Adopted versus Mayor Proposed Difference	Mayor Proposed versus Actual Difference	Council Adopted versus Actual Difference
General Fund Total	116,975,598.00	97,621,847.00	100,778,465.00	(19,353,751.00)	16,197,133.00	(3,156,618.00)
Salaries and Wages	96,273,005.00	81,277,914.00	85,560,236.00	(14,995,091.00)	10,712,769.00	(4,282,322.00)
Operations	15,947,606.00	13,135,546.00	12,750,612.00	(2,812,060.00)	3,196,994.00	384,934.00
Countywide Expenditures	91,200.00	91,200.00	31,746.00	-	59,454.00	59,454.00
Equipment	4,663,787.00	3,117,187.00	2,435,871.00	(1,546,600.00)	2,227,916.00	681,316.00

Wide swing between Mayor proposed versus actual and Council adopted versus actual indicates a need for better analysis during the budget process.

Table 6—Combined FY 2015–FY 2017 Other Funds Proposed/Adopted/Actual Expenditure Comparison

	FY 15–FY 17 Totals					
	Mayor Proposed	Council Adopted	Actual	Council Adopted versus Mayor Proposed Difference	Mayor Proposed versus Actual Difference	Council Adopted versus Actual Difference
Other Fund Total	12,573,728.00	7,659,106.00	1,673,686.00	(4,914,622.00)	10,900,042.00	5,985,420.00
Salaries and Wages	5,885,664.00	4,635,231.00	1,106,009.00	(1,250,433.00)	4,779,655.00	3,529,222.00
Operations	5,885,664.00	2,261,875.00	349,682.00	(3,623,789.00)	5,535,982.00	1,912,193.00
Countywide Expenditures	-	-	-	-	-	-
Equipment	802,400.00	762,000.00	217,995.00	(40,400.00)	584,405.00	544,005.00

Wide swing between Mayor proposed versus actual and Council adopted versus actual indicates a need for better analysis during the budget process.

Tables 5 and 6 do not reflect the budget amendments authorized by Council during each year. Per the Schedule of Appropriations, Expenditures and Encumbrances in the FY 2015, FY 2016, and FY 2017 Comprehensive Annual Financial Reports (CAFR), the Council authorized a cumulative net increase in the Fire and Public Safety originally adopted General Fund budget and grant funds budget of $4,995,068 and $1,093,196, respectively, after additional justification based on actual activity during the applicable fiscal year was presented.

This issue can be addressed through the establishment of a process where the Council meets to develop goals, priorities, and policy direction to staff prior to beginning the budget process. Another way to improve communication and understanding during the budget process is for the Mayor's Office to establish a standardized presentation format for departments to use during budget hearings with the Council Finance Committee. Every department should be required to present certain information during their presentation, such as:

- Budget and FTE amounts comparing the prior two-year actual, current revised budget, and upcoming year proposed budget.
- Major changes between revised budget and proposed budget.
- Major accomplishments (three or four) expected to be achieved by the end of the current fiscal year.
- Major objectives which could be accomplished with approval of proposed budget.
- Major issues on the horizon that could impact service levels (positively or negatively).

Standardized department presentations will provide Council with a consistent base to develop questions.

5.2.1 Maui County Processes/Procedures Inconsistent with Best Practice

Although this report identifies several practices that are inconsistent with best practice and should be revised, there are two financial/budget issues that are inconsistent with best practices that Citygate considers significant. A discussion of these items follows.

Premium Pay Budgeting and Tracking

Budget best practices attempt to provide a clear picture of the spending plan and results of an organization. The County's current practice of budgeting premium pay in one account and reflecting the actual expenses of the components of premium pay in other individual accounts creates unnecessary confusion and analysis difficulty.

Countywide Fringe Benefit Accounting

The County has followed a practice of budgeting and expending fringe benefit items, such as retirement, medical, workers' compensation, unemployment insurance, and general liability costs in one division in the Finance Department instead of in each applicable department in the General Fund. Maui County staff is uncertain regarding how long this practice has been followed; however, this is contrary to budgeting best practices. For FY 2018, this amount totaled approximately $103 million for the General Fund. Although this amount is included in the total amount budgeted for the General Fund for all departments, accounting and budgeting for this amount in a lump sum

instead of allocating these costs to the applicable departments generating these costs results in an under-statement of the cost of service provided by each General Fund department. In other words, when residents, the County Council, or staff try to determine the true service cost for the Fire and Public Safety or any General Fund departments, it is not readily found in the any of the financial documents provided online or internally.

Given the FY 2018 General Fund budget of approximately $416 million, and the budget lump-sum costs for fringe benefits of approximately $103 million, General Fund department total costs could be understated by as much as 25 percent. For the Fire and Public Safety Department, this would represent a swing of almost $9 million. It must be emphasized that identifying the actual under-statement amount would require an extensive review of how the fringe benefit numbers were developed and the application of an allocation methodology.

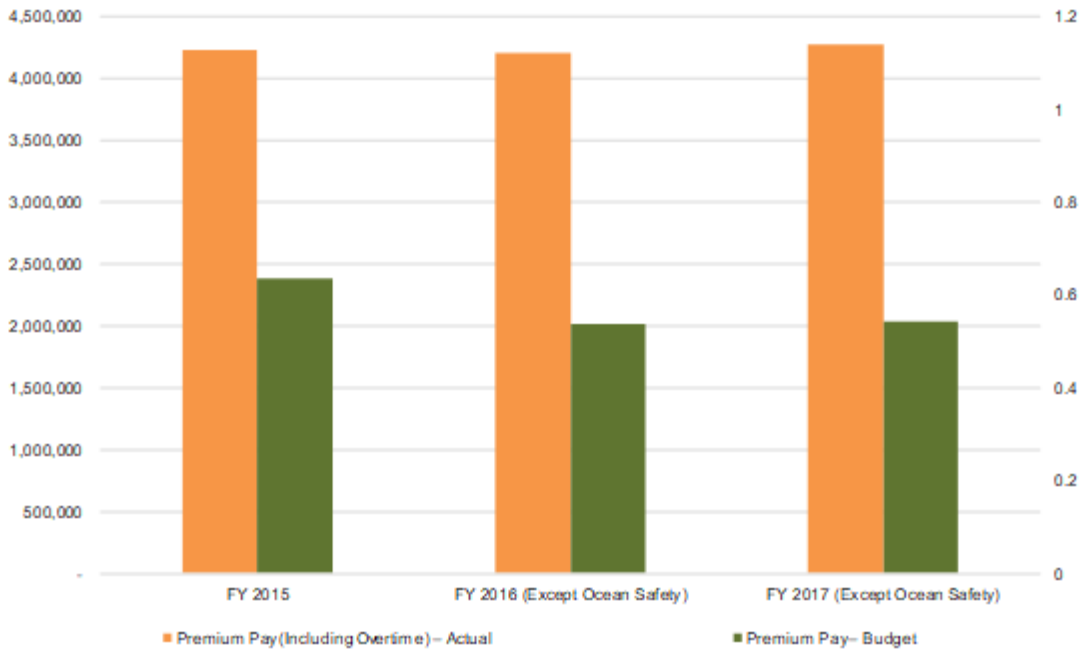
A GFOA best practice calls for the development of personnel estimates which address total compensation. This ensures the reporting of true personnel costs. Maui County's current practice results in understating FY 2018 departmental budgets personnel costs of $103 million and an overstating of FY 2018 non-personnel costs by the same amount. Citygate found that this practice is also used by other counties in the State. This practice, however, limits analytical and comparative analyses to within the State unless some reconciliation process is completed. Future budgets should be developed to allocate these costs to the applicable department budget and category.

5.3 Review of the Budgeting and Forecasting Process for Overtime and Specialty Pays

For FY 2018, the amount budgeted for overtime and special pays (premium pays) totaled approximately $4.5 million for all funds (General Fund approximately $3.3 million). The current procedure of lump-sum budgeting for premium pays creates a disconnect between the budget and actual expense, complicating analysis, tracking, and the accuracy of budget projections. An example of the problem caused by this practice is the fact that actual General Fund premium pay has exceeded budget by a minimum of $2 million per year for each of the last three fiscal years. Approximately 88 percent, or $1.8 million, of this over-expenditure can be traced to overtime.

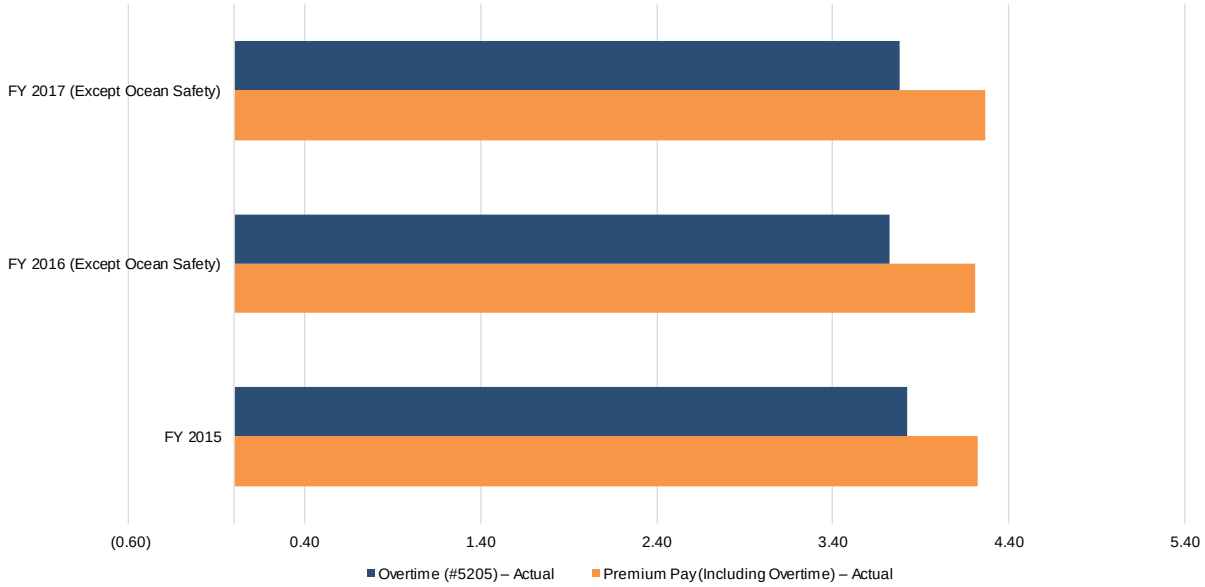
The following graph reflects a three-year comparison of budgeted premium pay versus actual premium pay for the General Fund. General Fund numbers were used to develop most of the various tables, graphs, and charts in this report because the General Fund numbers are those supported by the General Fund of the County of Maui. Other fund activity within the Fire and Public Safety Department are supported by grants and other special revenues and not the general revenues of the County. The figures to follow also exclude the Ocean Safety Division, which was transferred into the Department in FY 2017, because its recent inclusion in the Department do not allow a three-year analysis.

Figure 8—Premium Pay versus Actual



The following graph reflects a three-year comparison of total actual premium pay (which includes overtime) for the Fire Department General Fund (but excludes Ocean Safety Division) versus actual General Fund overtime pay (excluding Ocean Safety Division).

Figure 9—Premium Pay (Including Overtime) versus Overtime Pay Actual



As these figures reflect, overtime as a component of premium pay has averaged about 88 percent for each of the last three fiscal years. This indicates that the clear majority of the over-expenditure has been in the overtime component. To gather the information needed to identify this fact and create the previous figure, Citygate had to *unnecessarily restructure* Maui County's annual financial reports to compare budgeted premium pay, which only reflected the budget amount to the actual expenditures recorded in the various components of premium pay in the General Ledger. Best practice would have been to reflect budget and actual amounts in each of the individual component. This would allow for issues such as over-expenditure trends to be easily and quickly identified by Department staff responsible for budget monitoring and a timely plan of action to address the issue.

County staff was unable to provide Citygate with a logical reason for this variation from best practices; however, Citygate's review reflects that both Department- and County-level staffs do not have a thorough understanding of the factors driving the over-expenditure in the overtime category, which is in reality an under-budgeting problem. Neither staff teams have a supportable methodology for developing budget projections for overtime. As a result, staff has been unable to answer Council questions regarding the budget projections and actual use of overtime, which has fostered a level of distrust between various levels of staff and the Council.

Table 7 provides a comparison of the Department request, Mayor recommendation, Council adoption, and actual expenditure for premium pay, which includes overtime for the General Fund since FY 2014.

Table 7—Overtime Budget

Year	Initial Fire Department Request	Budget Office / Mayor Request	Council Appropriation	Year End Actual Expense
FY 2018	$4,513,554	$3,171,496	$3,131,496	-
FY 2017	$4,699,579	$4,816,579	$2,243,496	$4,588,704
FY 2016	$5,620,526	$4,445,016	$2,154,144	$4,443,044
FY 2015	$3,132,900	$4,975,574	$2,379,526	$4,469,282
FY 2014	$2,325,000	$2,954,600	$2,638,200	$2,844,346

Table 7 is another example of the disconnect and distrust between staff and Council. Beginning in FY 2015, Council began to only approve about half of the *needed and supportable* premium pay (which includes overtime) requested.

Finding #39: The County budgets premium pay in a single large category but records the actual expenses in individual component accounts, which is contrary to budgeting best practice and complicates analysis.

Finding #40: The Department does not track overtime usage, which is the largest component of premium pay, at a sufficient level of detail to develop and justify budget requests.

Finding #41: The lack of an effective overtime justification methodology has led to a level of distrust by the Council of the accuracy of the premium pay request resulting in the Council reducing the Department's request by more than 50 percent each year since FY 2015, also without a realistic justification. This has caused the Department to return to Council each year since FY 2015 to request increases in the premium pay budget, which Council has approved. This process is very inefficient.

5.4 Review the Design and Functionality of the Overall Fire Department Budget Structure

The Department has a total FY 2018 operating budget of approximately $39.4 million, which is approximately $400,000, or 1.2 percent, less than the adopted FY 2017 budget and approximately $1.9 million, or 5 percent, above FY 2017 operating budget actuals. The budget amounts listed do not include fringe benefit costs because of the County's current budgeting practices. This is not considered a best practice. Approximately $33.1 million, or 84 percent, of the FY 2018 budget consists of salary and wages, as compared to approximately $32 million, or 80 percent, in the prior year. The majority of the remaining operating budget for FY 2018 consists of operations and equipment at approximately $5.6 million and $629,000, respectively. The combined amount of these two categories represents an approximately $1.2 million, or 21 percent, decrease when compared to the prior year.

The FY 2018 capital improvement project budget is $285,000, which is an increase of $275,000 over the prior year.

FY 2018 estimated revenues of approximately $3.8 million anticipated by the Department consist entirely of grants and inspection fees. Approximately 90 percent, or $35.3 million (which excludes fringe benefits), of the Department FY 2018 budget is supported by the County of Maui's General Fund. This support consists of County General Fund revenues collected from taxes, user fees, revenue received from other governmental agencies, and other miscellaneous sources. References

throughout this report to the Department's General Fund pertains to this fact. The Department's FY 2018 General Fund budget is approximately $1.1 million, or 3 percent, less than the prior year's adopted budget due primarily to reductions in the budget for equipment.

The Department has a total of 385.5 full time equivalents (FTEs) within five divisions. The Department budget overview identifies the following Countywide outcomes:

- An Efficient, Effective and Responsive Government
- A Prepared, Safe and Livable County
- A Healthy and Sustainable Community.

Financial activity for the Department is reflected using the following hierarchy:

- Fund
- Department
- Division
- Character
- Object description.

5.4.1 Fund

Funds are the GASB accounting devices that are used to account for and report specific aspects of a government's financial activities. The funds used to account for the financial activities of the Department include the:

- General Fund – reflects general activity of the Department.
- Grant Funds – reflects the various financial activity related to various grants received by the Department.
- Revolving Fund – reflects financial activities that are self-supporting and funded by specific revenue sources or transfers from other funds. This fund reflects financial activity related to plan review, processing, and inspections of building from a fire safety perspective.

5.4.2 Department

The Department is the Department of Fire and Public Safety.

5.4.3 Divisions

The divisions are subsets of the Department which reflect operational activity for specific programs of the Department. A brief description of the five divisions follow:

- Administration/Maintenance – Provides general administrative mechanical service support to the divisions of the Department. This division also provides staff support to the Fire and Public Safety Commission.
- Training – Coordinates all fire training activities for all areas of the Department, including evaluation of tools and equipment, certification of personnel, and administration of applicable training-related grants.
- Fire/Rescue Operations – Provides firefighting, rescue, and first-responder emergency medical services, in addition to oversight of various safety-related grants.
- Fire Prevention – Provides inspections of schools, hospitals, and commercial buildings to identify and seek correction of hazards, educates residents on fire prevention practices, review of plans for proposed buildings, updates and enforces fire code, and investigates fires.
- Ocean Safety – Provides lifeguard services, first-aid, and water safety educational outreach, and provides ocean safety officer training. This division was transferred to the Department in FY 2017 from the Department of Parks and Recreation per a 2012 charter amendment.

5.4.4 Character

Represents the major category of expense (i.e., salaries and wages, operations, and equipment).

5.4.5 Object Description

Reflects a further breakdown of expense (i.e., salaries, benefits, premium pay, materials/supplies, services, utilities, machinery, etc.)

5.5 Fire and Public Safety Department – All Funds

Table 8 reflects a breakdown of the total FY 2018 Fire and Public Safety budget by division for all funds.

Table 8—FY 2018 Budget by Division

Program	General Fund	Other Funds (Grant/Revolving)	Total – All Funds
Administration/Maintenance Program	1,829,062.00	-	1,829,062.00
Program Total – FTEs	15.00	-	15.00
Training Program	1,093,292.00	185,000.00	1,278,292.00
Program Total – FTEs	8.00	-	8.00
Fire/Rescue Operations Program	27,963,093.00	2,392,786.00	30,355,879.00
Program Total – FTEs	286.00	3.00	289.00
Fire Prevention Program	873,535.00	318,872.00	1,192,407.00
Program Total – FTEs	9.00	2.00	11.00
Ocean Safety Program	3,551,622.00	1,204,741.00	4,756,363.00
Program Total – FTEs	52.00	10.50	62.50
Department Total – General Fund	35,310,604.00	4,101,399.00	39,412,003.00
Fund Total – FTEs	370.00	15.50	385.50

During the budget process, the Department, as is the case with all County departments, develops operating and capital budget requests and revenue estimates for the General Fund and all other applicable funds that are submitted to the County Budget Office. The Budget Office, which is a division of the Mayor's Office, reviews and discusses the budget requests with each applicable department. Based on their review and discussions, the Budget Office develops a proposed budget for the Mayor to present to the County Council.

All capital projects recommended for inclusion in the six-year CIP are initially prioritized by the Department. Once a master list has been compiled, the applicable department directors convene to discuss the County's project priorities based upon various criteria. A draft is submitted before being further analyzed by the Budget Office. This assessment is designed to measure both the overall need for a project, the relative urgency of a project, available funding sources, and is not a substitute for the decision-making process undertaken by the Mayor and the County Council. Pursuant to Section 8-8.3 of the Charter, the proposed capital improvement projects are also reviewed by the Planning Director in relation to the Maui Island Plan and community plans.

For FY 2018, the County Council's adopted operating budget and capital budget for the Fire and Public Safety Department was only reduced $181,000 and $182,000 respectively from what was proposed by the Mayor. The FY 2018 adopted budget was approximately $400,000, or 1.1 percent,

less than FY 2017. Although the FY 2018 reduction of the Mayor's proposed budget is relatively small, reductions in previous years have been more substantive. For example, the cumulative proposed operating budgets in the General Fund between FY 2015 and FY 2017 were reduced by a total of almost $20 million. However, a review of the actual expenditures for the same period reflected a $3.2 million shortfall when compared to the adopted budget.

No net FTE reductions were made in the Department's FY 2018 budget adopted by the Council. Citygate was unable to ascertain the original requests submitted by the Department to the budget division of the Mayor's Office.

Table 9 reflects a comparison between the Mayor's recommended FY 2018 budget and the Council adopted FY 2018 operating budget for the Fire and Public Safety department by division.

Table 9—FY 2018 Proposed by Mayor versus Adopted by Council

Program	Proposed by Mayor General Fund	Adopted by Council General Fund	Difference	Proposed by Mayor Other Funds	Adopted by Council Other Funds	Difference
Administration/Maintenance Program	2,593,891.00	1,829,062.00	(764,829.00)			-
Program Total – FTEs	20.00	15.00	(5.00)			-
Training Program	1,093,292.00	1,093,292.00	-	185,000.00	185,000.00	-
Program Total – FTEs	8.00	8.00	-	-	-	-
Fire/Rescue Operations Program	27,281,140.00	27,963,093.00	681,953.00	2,392,786.00	2,392,786.00	-
Program Total – FTEs	282.00	286.00	4.00	3.00	3.00	-
Fire Prevention Program	873,535.00	873,535.00	-	318,872.00	318,872.00	-
Program Total – FTEs	9.00	9.00	-	2.00	2.00	-
Ocean Safety Program	3,649,746.00	3,551,622.00	(98,124.00)	1,204,741.00	1,204,741.00	-
Program Total – FTEs	51.00	52.00	1.00	10.50	10.50	-
Department Total – General Fund	35,491,604.00	35,310,604.00	(181,000.00)	4,101,399.00	4,101,399.00	-
Fund Total – FTEs	370.00	370.00	-	15.50	15.50	-

5.5.1 Fiscal Year 2018 Revenues

Revenues for the Department consist entirely of grants and special fees, such as fire inspection fees, which are budgeted and recorded in other funds. Funding sources for the General Fund portion of operations comes from General Fund revenues.

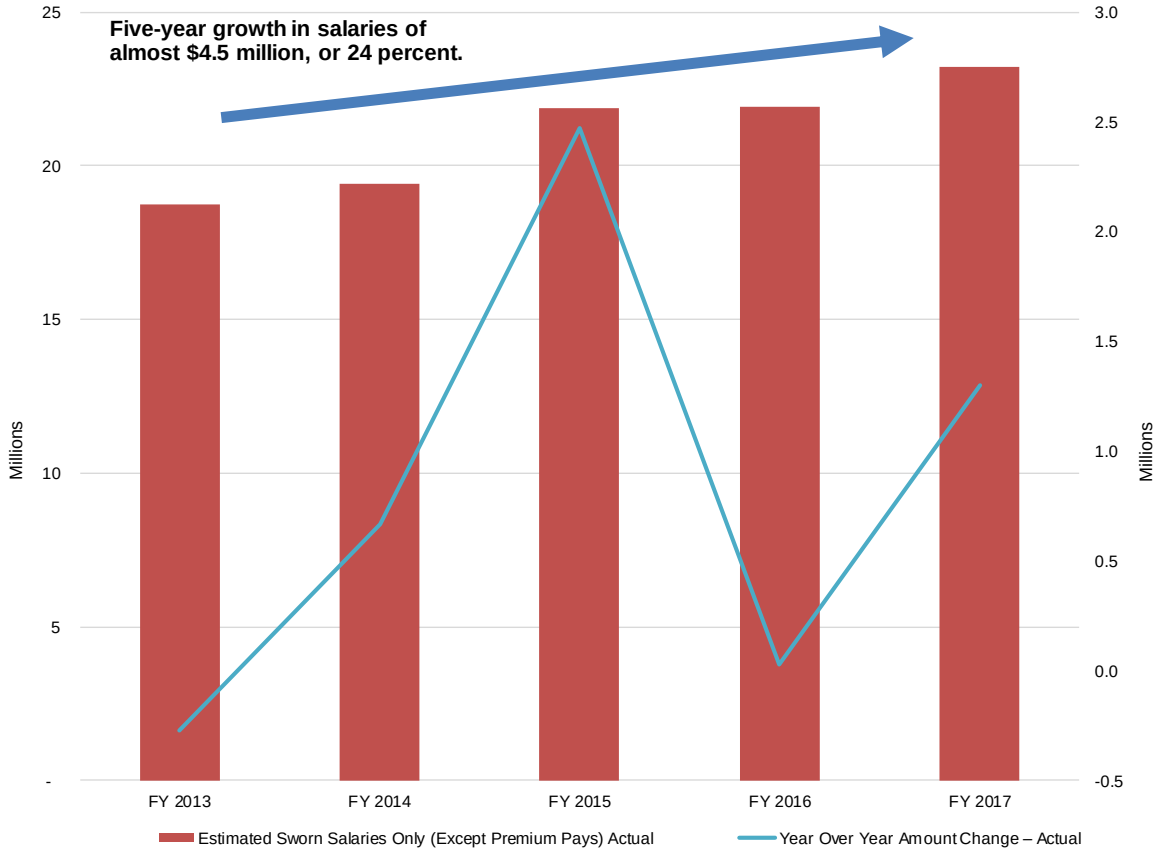
Budgeted FY 2018 Other Fund revenues totaled approximately $4.1 million, which is approximately $700,000, or 21 percent, above the FY 2017 budget amount due to additional grants that were acquired.

5.5.2 Budget Activity in Prior Years

For FY 2015 through FY 2017, the total all funds operating annual budget has increased from approximately $32 million to approximately $39.8 million. An increase of $7.8 million, or 24.3 percent. However, in FY 2017, the Division of Ocean Safety was transferred into the Department because of a charter change mandate. The FY 2017 Ocean Safety budget totaled approximately $4.5 million and 61.5 full-time equivalents (FTEs). Adjusting for this anomaly, the Department budget would have grown $3.3 million, or 10.3 percent. Salary and Wages have averaged approximately 82 percent of the Departments total operating budget per year for FY 2015 to FY 2017.

However, based on actual activity for FY 2015 through FY 2017, Salary and Wages represented approximately 85 percent of costs. As reflected in the following figure, salary and wages growth due to CBA changes increased by approximately $4.5 million, or 24 percent, between FY 2013 and FY 2017 in the General Fund (excluding Ocean Safety Division). This amount represents salaries and wages only and *does not* include the salary-driven increases such as overtime, retirement, etc. These CBA cost increases, once negotiated and approved, limit the County Council's control of the Department.

Figure 10—Estimated Impact of Collective Bargaining Agreements on Sworn Salaries



Revenues for FY 2015 to FY 2017 went from approximately $2.1 million to $3.4 million, an increase of $1.3 million, or 62 percent. However approximately $1.1 million of this increase was due to the transfer of the Ocean Safety Division into the Department. Absent this transfer, the increase would have been $200,000, or 9.5 percent.

Another factor revealed through Citygate's review of the budget process that seems to contribute to inefficiency and confusion during the budget process is the frequent staff turnover or reassignment of the staff in the Budget Office. The Budget Office does not have an internal operation manual to direct new staff to maintain consistency. Consequently, there is an atmosphere of perpetual learning in the Budget Office, which impacts understanding and confidence levels of the Fire Department's very specialized budget requests.

The lack of consistency also leads to Fire Department staff feeling alone during the budget process and throughout the year. It is understood that, given the operational structure of the Budget Office being part of the Mayor's Office, addressing turnover immediately might be difficult; however, it is recommended that the development of an internal budget operations manual, in addition to a

jointly agreed-to fire premium pay / overtime model, be initiated soon. This will provide new budget staff with a consistent basis on which to develop budgets, work with staff of other departments, and help to minimize inefficiencies and confusion throughout the budget process.

Finding #42:	The Department staff assigned to payroll and budget/accounting are not cross-trained. This could result in support service disruption in the event of an unanticipated or prolonged absence of one of the individuals.
Finding #43:	The Department/County does not have a process to take advantage of large quantity purchase of goods and services, which could save money.
Finding #44:	The Department feels that there is a lack of understanding of their operations and unique staffing costs with Budget Office staff, primarily due to staff turnover.

SECTION 6—ALTERNATIVE STRATEGIES REVIEW

During an audit of operations, it is always appropriate for agencies to ask outside audit/peer reviewers to identify opportunities for value-added shared resources, and/or other possible areas for cost control. There are both great challenges and limitations to making changes at the County policy level.

Due to its size and geographic dispersion, over the past decades, the State of Hawaii has developed a form of government that allows the State to set many standards for the provision of local government services that, in actuality, are carried out by the individual counties. In many respects, this is atypical to the relationship between mainland states and cities.

Over the recent years, and in particular during the Great Recession, the counties have set the tax levies and directly provide the fire and safety services. The State can also set uniform rules for all counties that counties cannot afford and that do not fit the counties' unique needs.

Two of the largest cost issues in this audit—personnel and fire apparatus—are heavily regulated by the State. Though there are singular Statewide Firefighter and Ocean Safety Officer CBAs negotiated by a multi-county committee, the State still has the majority influence on the agreement outcomes. Overlaying this is the complexity of the Federal Fair Labor Standards Act that tightly controls the work week and overtime calculations for the nation's Firefighters.

In addition to sick and vacation leave allowances, the Firefighters' CBA contains at least 16 other clauses that drive cost of premium pay and overtime. While some scheduling and personnel movement may work well on Oahu, they might not be optimum in the three islands of Maui.

The State also sets regulations for fire apparatus and small vehicle vendors. This often raises the costs of these goods to such a high level that many vendors are unable sell in the State.

In the State-regulated personnel and fire apparatus areas, Maui County must pay the resultant costs and is not allowed to directly deal with their local Firefighters on many issues in these areas.

As Maui County's historic economy changes with the times, it still must pay the costs for fire services that leave the County little local control over anything except local service levels. While under significant budget pressure, the County remains trapped by this lack of control.

Short of gaining Statewide support for changes to the Firefighters' CBA, the County's single most significant cost saving option is to lower service levels of fire companies and response times. The geography also challenges the County Council's options as most communities each have only one to three fire stations. Even a part-time closing of any one station crew is a serious reduction in that area's level of service. Because the neighborhood fire stations are also widely spread across the population centers, it is not possible for stations to provide timely assistance to each other as would be possible in a mainland urban area.

For operational savings in the near term, Citygate does not recommend adopting minimum staff levels for some of the water tenders on Maui. Minimizing water tender staff on Maui would bring only slight near-term operational savings. The Department has stated that water tenders are important for extinguishing both wildland fires and house fires where there are no fire hydrants. Even a partial removal of a single Driver/Operators from three tankers would save very little overtime.

Should the County's revenue situation worsen, it is Citygate's opinion that the Department is not yet prepared with the impact data to consider closing stations, companies, or to relocate stations. The Department's Standards of Coverage submittal stated the "as is" case and briefly discussed possible new growth areas but did not use travel time geographic mapping models to explore coverages to current or new areas. The Department has limited internal ability to analyze trends in its incident statistics. The Department should perform deployment coverage analysis to best practices before either a service level reduction or increase proposal can be properly submitted to the Fire Commission and County Council.

The other recommendations in this study on personnel issues can be included in future CBA discussions.

6.1 Department of Fire and Public Safety Helicopter Program – High-Level Review

Citygate was asked to briefly review the options for the Department's leased helicopter program due to an early finding regarding the inability to rapidly deploy on-duty personnel to outer areas and escalating emergencies. This was not in the original scope.

Citygate noted that the hazardous materials and rescue crews field 8–10 Firefighters per day in eastern Maui at Station 10 in Kahului; however, if they are needed in far northwest or southwest Maui, or on an outer island, they cannot be moved quickly to the need. Yet, these two crews are minutes from the airport where the Department's leased helicopter operates. The legacy helicopter agreement only provides a four-seat craft, including pilot.

Given the diverse risks and isolated communities that the Department protects, a helicopter program is an important tool and advantage. From technical land or water rescues to water drops on wildland fires and command chief aerial observation of a large-scale event, being in the air is a critical advantage. Many public safety agencies in the United States have a variety of programs, and the largest agencies heavily investing in day and, recently, night wildfire operations.

Citygate's review found three risks not typically present in mainland fire department helicopter operations in addition to Maui County's separated population centers and its significant number and size of wildland fires: open ocean channel crossings; significant trade winds, in particular around mountain slopes; and the higher elevations of the mountains where patient extraction is a common occurrence due to recreational accidents.

When Citygate interviewed the Fire Management and the Helicopter program contractor regarding these operations, two serious limitations became apparent.

The first and main limitation is that the helicopter is a small, 4-seat, one-engine ship. At a maximum, the ship can only carry three Firefighters or passengers. The single engine is a twofold drawback—there is no second engine as a safety backup when flying over open ocean channels and at high altitudes in the mountains. One engine also limits the water-dropping ability, which then increases the frequency and cost of flying time on wildland fires to make more, smaller water drops. The single engine also limits load capacity at higher altitudes and even more so at higher temperatures. Helicopters require more horsepower and blade lift in thinner air. Haleakala's summit is at 10,023 feet and Mauna Kahalawai's is 5,788 feet. Having more load/lift ability also means being able to carry more passengers and water and faster transit for the long distances to outer islands.

The current helicopter program, while a valuable, successful, public-private partnership, is providing a bare minimum level of service. The Department is paying, on average, $750,000 to $967,000 per year for availability and per-air-hour charges. The County does not own the ship or expense major maintenance. The only other quasi-public safety helicopter is the medical evacuation ship operated by AMR ambulance, based at the hospital, and it receives a partial cost subsidy from Maui County and the State. It is not a technical rescue or firefighting craft. There is no law enforcement helicopter program, though Maui County police occasionally borrow the Department's ship.

After observing that a multi-passenger, higher-load, and water-dropping helicopter would be safer and more useful, Citygate consulted with other fire departments that use larger helicopters to quickly deploy fully equipped Firefighters to serious and remote locations. All stated that at least an eight-passenger-plus-pilot, two-engine ship would not only make current Maui County operations safer, but would allow for the rapid deployment of the eight to ten personnel on the two specialty teams housed at Kahului station, located just minutes from the airport.

In a Firefighter deployment scenario, at dispatch alert, the two teams would report to the airport where the helicopter had also been alerted to begin pre-flight checks and warming up the engines. Loading a Fire Strike team for safe takeoff takes only minutes. The Fire Strike team becomes a *force multiplier* that can deliver the only rapid reinforcement third- and fourth-due teams to outer west coastal Maui fire station areas, Hana, and the outer islands. On the outer islands with their limited four to eight local-area Firefighters, the Strike team would add valuable support.

While not a full audit of the helicopter program, the following is an abbreviated list of strengths, limitations, and a *reasonable*, cost-effective operational enhancement.

6.1.1 Current Program Benefits

- Modest operational costs.
- Reliable aircraft.
- County Contractor's (Windward Aviation) extensive experience and reputation.
- Windward provides a backup helicopter when the primary helicopter is unavailable due to maintenance.
- Windward has several helicopters of the same size and can spread its major repair costs across a larger customer base.

6.1.2 Current Program Weakness

- MD500 capabilities:
  - Passenger seats limited to three.
- Aerial fire suppression water drops are approximately 106-120 gallons/drop.
- As wildland fires are getting larger with current weather trends and vegetation fuel models, there is an increasing need for prompt aerial fire suppression.
- Limited rescue hoist lift ability.
- Limited capability for medevac—transverse patient load and care limitations.

- Single engine:
  - No safety reserve over water.
  - Limited lift capacity at higher upslope altitudes.

6.1.3 Enhanced Program Goals

1. For a modest increased investment, maximize abilities and safety.
2. Quickly deploy rescue and hazardous materials staffing to outer areas that do not have second- through fourth-unit support in sufficient time on serious emergencies.
3. Increased safety margins with twin engine for crews and rescued victims.
4. Increased hoist lift weight, especially at high altitude.
5. Increased water dropping for wildfires. Less drop trips mean smaller fires, which translates to less helicopter cost hours per fire.
6. Ability for multiple-person evacuations, including around natural hazard road blockages.
7. Could eventually lead to increased bad-weather flying ability and night vision operations.

Larger Helicopter Required

1. Upgrade to a twin engine Firefighting type II medium helicopter (7–14 passengers, 300 gallons water carrying), such as, but not limited to:
   A. MMB-KawBKK117-850D2 – twin engine is approximately $2.4M–$3M delivered and equipped:
      - 6–9 Firefighters/victims, 300 gallons water.
      - Cost per hour is approximately $1,350.

   B. Bell 212 – twin engine could be $1.5M-$2M used, but equipped for fire/rescue:
      - 8–13 Firefighters/victims, 300 gallons water.
      - Cost per hour is approximately $2,000.

C. Sikorsky FIREHAWK (military Blackhawk variation) – new, equipped $18M. Citygate believes that this model is more than the County needs, but has presented it to illustrate what the largest fire departments are beginning to purchase:

- 14 Firefighters/victims, 1,000 gallons water, cost per hour $3,943.

The following are images of the Department's current helicopter compared to the three identified helicopter options.

Figure 11—Maui County Current

Figure 12—BKK-117

Figure 13—Bell 212

Figure 14—Firehawk

Aircraft and Operating Cost Considerations

1. If the County purchases, it can use one-time funds. For a lease, the County can obtain much lower costs, including insurance, than a private company can obtain.
2. Buy a maintenance contract for major items.
3. Many west coast agencies purchase an aircraft and maintenance package and, if purchased new, spread costs over up to 18 years.
4. Consider corporate donations and/or an annual, voluntary subscription program to offset costs.
5. Currently, the County is spending about $750,000–$967,000 per year for base provision cost, and $500 per hour for flying, which partially offsets increased expenses.

Recommendation #23:	Undertake a small aviation Master Plan to include the police and EMS users. The planning effort should use a neutral expert to vet aircraft type and all-inclusive ownership costs. In the meantime, continue the public-private partnership with the County's contractor, including for backup aircraft.

SECTION 7—RECOMMENDATIONS

Based on Citygate's analysis and factual findings, we offer the following recommendations. Some will take time, added resources, and priorities to be determined. Taken as a whole, they provide a road map for leadership to make a very good Fire Department even better.

Note: The following Recommendations are in report order for this document; they are not in a Citygate priority order.

Recommendation #1: To control overtime, the Department should continue use of the fifth position overstaffing program on all crews.

Recommendation #2: When practical, the Department could consider using the fifth position on the rescue and hazardous materials units for lending relief staff to other companies in central Maui as long as the daily needed technical rescue and hazardous materials specialties are on duty elsewhere in central Maui.

Recommendation #3: The reserve firefighting units should be fully equipped for immediate use. The inventories should be brought back to normal at a one-time cost of $135,000.

Recommendation #4: As funding permits, the Department should consider adding a mobile mechanic to help relieve the ongoing maintenance shop backlog. This position would travel to the fire stations to provide basic repairs and servicing.

Recommendation #5: To ensure a mechanically reliable front-line and reserve fleet, the Department should consider utilizing a cost-per-mile replacement plan rather than only using age of equipment.

Recommendation #6: The County should identify a long-term funding strategy for the necessary replacement of fire apparatus. This could include a pre-funding fleet replacement plan or the use of borrowing/leasing.

Recommendation #7: The Department's headquarters team should add a senior management position for Strategic Finance and Planning and, at minimum, one analytics position with the appropriate software tools.

Recommendation #8: Over time, the Department should study and consider replacing some administrative sworn staff with career non-sworn public administration professional staff. As a first step, the Department should conduct a job task analysis for all headquarters positions not required to be sworn positions.

Recommendation #9: The Department should work within the Statewide Firefighters' CBA construct to gain improved controls over the appropriate use of sick leave.

Recommendation #10: The Department and County budget staff should build a detailed, predictive premium pay and overtime model and use it in Council budget presentations. Implementation of this recommendation will help address the trust issues in the overtime area that were evident in Citygate's review, as well as improve the overall efficiency and effectiveness of the budget process.

Recommendation #11: The Department and County Finance should create additional overtime codes in the payroll system and in the overtime accounts in the general ledger to improve tracking of where overtime is used. The number of new overtime codes would replace those assigned to Account # 5205.

Recommendation #12: The Department should explore the use of Firefighter time keeping software such as Telestaff or the new Workday payroll system, which Maui County will be implementing in October 2018. Improved estimating and tracking of all leave types and determining causes of premium pay will provide a more defensible justification of overtime requests to the County Council.

Recommendation #13: Ultimately, the County should be adopting a realistic premium/overtime pay budget. Once the overtime model in Recommendation #10 is accepted, the Council will be provided with acceptable justification of the overtime requested and should approve the overtime request unless the Council makes policy decisions to lower staffing and resultant service levels. Doing so will help build trust between the Department and Council on this issue.

Recommendation #14: The County should budget fringe benefits within individual department budgets to reflect true cost of the programs. The new Workday payroll system, which Maui County will be implementing in October 2018, is also a good tool to help address this issue.

Recommendation #15: Annually, prior to initiating the budget process, Council should meet to develop priorities and provide policy direction for the operations of the County of Maui. Staff should then use these priorities and direction to develop the budget. During budget hearings, the Council should focus on whether the budget as presented meets Council-established priorities and direction as opposed to line-item detail.

Recommendation #16: Provide training to applicable department staff of budget process changes and requirements to ensure consistency and accountability. Clarify the departments or individuals responsible for enforcing fiscal policies and provide required authority to ensure compliance from departments.

Recommendation #17: Clarify the role of 9000-series employees in relation to the vacancy report. Vacancy listings currently being created are confusing because the reports do not indicate that the positions designated as 9000-series positions are trainees that will be moved into the vacant slots following their training and probation completion. Consequently, the report indicates a vacancy when, in fact, an employee is being paid and using the vacancy funding.

Recommendation #18: Increase Department cross-training of administrative staff in departments (payroll, accounting, budgeting, etc.). The Fire and Public Safety Department has one person who manages payroll and a separate person who manages budget and accounting. Currently, there is no cross-training between these two individuals.

Recommendation #19: Work with Countywide purchasing to develop pre-negotiated annual purchase orders to minimize costs for recurring purchases. Determining in advance the materials, services, and supplies that are typically needed in the fiscal year and developing requests for proposals in bulk will help provide a cost savings when purchasing these items.

Recommendation #20: Develop a budget operations manual for County and Department budget staff to provide consistent analysis, monitoring, and to improve accountability. New budget personnel could use the budget operations manual to maintain consistency and improve the analysis performed to provide a more comprehensive recommendation to the Council.

Recommendation #21: Provide the Countywide Risk Management Officer with authority to initiate and enforce Countywide programs on workers' compensation issues.

Recommendation #22: Standardize Department presentations at budget workshops to provide the Council and the public with a consistent measure of Department operations. The budget information presented to Council should be standardized to provide a consistent basis for the Council to make policy and service level decisions and used to determine if established priorities are being met.

Recommendation #23: Undertake a small aviation Master Plan to include the police and EMS users. The planning effort should use a neutral expert to vet aircraft type and all-inclusive ownership costs. In the meantime, continue the public-private partnership with the County's contractor, including for backup aircraft.

SECTION 8—NEXT STEPS

The purpose of this assessment is to audit the key fiscal and operational issues as requested by the County Council. As a first step, the County Council could ask staff at both the Departmental and County budget review levels to report back to the Council within 60 days with a list of Citygate recommendations by priority and target fiscal year (FY) that can be worked on and/or implemented. Recommendations deemed unfeasible should be reported as such. The Council could then issue final implementation directions.

Of course, some recommendations take time and resources. Not all can be high priority. Others, while not a highest priority, can be implemented quickly. Given the breadth if this study, Citygate believes an implementation plan would be in all stakeholders' best interest.

Citygate does suggest one immediate priority: Use, as needed, Citygate's overtime analysis as the first draft of a premium pay and overtime model (with an update to the numbers for FY 2018), for use in the budget discussions later this spring.

Based on this evaluation, Citygate offers these likely next steps to move the Department forward:

- County Council receive this study and require staff feedback and an implementation plan.
- Consider directing a more rigorous overtime model to be used for FY 2018 as a first step.

- Ask the Fire Chief and Commission to present a timeline and costs to enhance their deployment plan using time-over-distance geography mapping and robust incident demand statistics.
- Consider requesting a modest, enhanced-use helicopter study to expand the program's capabilities.
- Ask the Managing Director to report to the Council every six months regarding implementation progress on this audit's recommendations per the final priorities approved by the County Council.