Accreditation Report

Maui Fire Department
200 Dairy Road
Kahului, Hawaii 96732
United States of America

This report was prepared on February 27, 2017
by the
Commission on Fire Accreditation International
for the
Maui Fire Department

This report represents the findings
of the peer assessment team that visited the
Maui Fire Department
on January 22-26, 2017

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PREFACE

The Maui Fire Department recently received candidate status. On March 31, 2016, the department asked the Commission on Fire Accreditation International (CFAI) for a site visit to determine if it could be recommended for accreditation. On April 1, 2016, the CFAI appointed a peer assessment team. During the peer team review of the initial documents many deficiencies were found and ultimately the documents were not approved for a site visit on April 28, 2016. A letter was sent to the department by the CFAI program manager on May 12, 2016 outlining improvements required for the documents to be acceptable. The peer team leader following Center for Public Safety Excellence (CPSE) policy set a site visit on October 12, 2016. The peer assessment team conducted an on-site visit of the department on January 22-26, 2017.

SUMMARY

The CFAI peer assessment team has completed a comprehensive review and appraisal of the Maui Fire Department based upon the eighth edition of the *Fire & Emergency Service Self-Assessment Manual (FESSAM)*. The commission's goals are to promote organizational self-improvement and to award accreditation status in recognition of good performance. The peer assessment team's objectives were to validate the department's self-assessment study, identify and make recommendations for improvement, issue a report of findings, and conclude if the department is eligible for an award of accreditation.

The peer assessment team followed CFAI processes and the Maui Fire Department did not demonstrate that its self-study accreditation manual, community risk analysis, standards of cover (SOC), and strategic plan met all core competencies and criteria. The peer assessment team recommends deferred agency status for the Maui Fire Department from the Commission on Fire Accreditation International until the department has an opportunity to fully address all of the identified core competencies that were rated as unsatisfactory and a supplemental review and approval is made by the peer team leader.

The peer assessment team confirmed through an examination of available data, station visits, and interviews that it is not currently possible for the department to meet the established expectations for the following core competencies:

- Core competencies 2B.1[1] and 2C.1[2] are not being met. The department has begun a risk assessment of structures on the three occupied islands, however they cannot demonstrate all structures as being evaluated and placed in their Vision software, thus not being able to complete their fire and non-fire risk assessment.

[1] 2B.1 Each planning zone and population area is analyzed and risk factors are evaluated in order to establish a standards of cover.

[2] 2C.1 Each planning zone and population area is analyzed and non-fire risk factors are evaluated in order to establish a standards of cover.

- Core competencies 2B.5[3] and 2C.5[4] are not being met. The department has facilities located throughout the response areas; however, there is a need to do a complete assessment relying on the community risk assessment/standards of cover to evaluate the number and location of current and future stations.

- Core Competency 5A.1[5] is not being met. The department needs to evaluate FireRMS data on a frequent basis to determine areas of concern and make informed decisions on improvement of response capabilities for the citizens and visitors. The department should develop a process to make informed decisions when establishing benchmarks for response areas not having an effective response force baseline

- Core Competency 5F.7[6] is not being met. The department needs to develop a formal and measurable assessment process to determine the effectiveness of the hazardous materials program. This process should be supported by standard operating guidelines to substantiate the methodology and completion requirements.

- Core Competency 7F.5[7] is not being met. The department should establish the role of incident safety officer within the critical task analysis of the Community Risk Assessment/Standards of Cover for all program areas. This position should be filled at all incidents and the department should ensure that all individuals performing this function be properly trained and certified.

- Core Competency 10A.1[8] is not being met. The department is being dispatched by a combined system coordinate by the Maui County Police Department. Even though this is a county system there needs to be a formal agreement between the department and the dispatch center to establish dispatch expectations.

The department's success in meeting expectations is strongly tied to integrated processes for its standards of cover, strategic plan, and SOC. The SOC was and still is listed as a draft document with updates being completed while peer assessment team was on site. The SOC appropriately identifies the county as being urban, suburban, and rural, along with areas inaccessible by vehicular traffic. There are appropriate benchmark goals and actual baseline performance statements in place that identify and measure all components of the total response time continuum. All times were developed straight out of computer aided dispatch (CAD) data, and the department was aware times had some areas of concern.

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[3] 2B.5 Agency baseline and benchmark total response time objectives for fire response conform to industry best practices as prescribed on pages 70-71 for first due and effective response force (ERF).

[4] 2C.5 Agency baseline and benchmark total response time objectives for non-fire incident response conform to industry best practices as prescribed on pages 70-71 for first due and effective response force (ERF).

[5] 5A.1 Given the agency's standards of cover and emergency deployment objectives, the agency meets its staffing, response time, pumping capacity, apparatus and equipment deployment objectives for each type and magnitude of fire suppression emergency incidents.

[6] 5F.7 An appraisal is conducted, at least annually, to determine the effectiveness of the hazardous materials program.

[7] 7F.5 An occupational health and safety training program is established and designed to instruct the workforce in general safe work practices, from point of initial employment through each job assignment and/or whenever new substances, new processes, procedures, or equipment are introduced. It provides specific instructions on operations and hazards specific to the agency.

[8] 10A.1 The agency develops and maintains outside relationships that support its mission, operations or cost effectiveness.

Following a detailed assessment and analysis, the peer assessment team believes by consensus that the alarm handling time, turnout time, and travel time for the first-due and effective response force components of the total response time continuum, as contained in the SOC, are not in line with the industry best practices identified in the eighth edition of the *FESSAM* and constitute a gross deviation. It is clear the department is committed to taking steps to meet the expectations as demonstrated by their change in data entry into the FireRMS system and review of data entry. These steps will allow the department to make informed decisions as to changes in response methodology. This also allows the department to review recordings to verify times are appropriate on response data that is in question.

The peer assessment team identified opportunities for improvement that are captured in the recommendations and observations sections of the report. These recommendations flowed from discussions, interviews, and a review of department-supplied documentation to support its self-assessment conclusions. The department demonstrated its keen desire to immediately implement plans to address opportunities for improvement as was evident in the changes to their FireRMS system input and review of data.

The peer assessment team observed a commitment by the department to the CFAI accreditation process. The current accreditation manager has a support team, and one of its members will be selected as his replacement. The department during their delay had another peer assessor visit their department and talk with the mayor to gain support for the process, thus renewing the department’s commitment to the accreditation process.

Composition

Hawaii became the 50th state in the United States in 1959. Firefighting goes back to the late 1800's as a volunteer organization. At that time most of the fire protection was the result of plantation camps being accomplished by way of bucket brigades. Then in 1924 there were several significant fires that motivated the board of supervisors, predecessor to the county council, to begin upgrading fire protection for the island. The first chief and firefighters were hired July and August 1924.

According to the United States Census Bureau, the estimated population of Maui was 163,019 as of 2014. This number includes approximately 7,500 residents on Moloka'i and 3,500 on Lana'i islands and 1,000 in Hana district. In addition to the residents the county has an average visitor population of 55,822 per day, with spikes as high as 66,347 during peak travel time in December.

Maui County is unique as it is the only county in the State of Hawaii to have multiple islands. There are five islands that make up the county, of which only three are occupied. The total protected area for the department is 1,162 square miles of land and 1,237 square miles of ocean considered part of the jurisdiction.

The department responded to a total of 9,814 emergencies in 2015 including: 183 fire calls (1.9 percent); 4,645 emergency medical service (EMS) calls (47.3 percent); 224 technical rescue calls (2.3 percent); 44 hazardous material calls (0.4 percent); and 4,718 other responses (48.1 percent).

The fire department has managed to evolve with the growth of building stock and related population; it is a career service staffed by a minimum of 77 uniformed fire personnel on a daily basis working out of 14 fire stations.

Government

Mayor and 9 County Councilors
9 Fire and Public Safety Commissioners
Fire Chief

Fire Department

14 fire stations
302 uniformed, 61 ocean safety personnel, and 18 civilian personnel
3 shift system

Staffed Resources

14 engine companies
2 ladder companies
1 hazardous materials unit
1 heavy rescue
6 tankers
1 helicopter

Cross-staffed Resources

1 tanker
5 wildland units (mini pumpers)
3 rescue boats
5 rescue skis
9 utility trucks

Non-staffed Units

1 mobile command vehicle
1 rehabilitation unit
Multiple ready reserve apparatus

Daily Minimum Staffing (All Stations): 77 personnel

CONCLUSIONS

The self-study manual produced by the Maui Fire Department was of medium quality.

- The Maui Fire Department did not demonstrate that all core competencies were met and did not receive a credible rating. Core competencies not met include the following: 2B.1, 2C.1, 2B.5, 2C.5, 5A.1, 5F.7, 7F.5, and 10A.1.

- The Maui Fire Department did not demonstrate that all applicable criteria were met and did not receive a credible rating. Criteria not receiving a credible rating include the following: 2B, 2C, 5A, 5F, 7F, and 10A.

- The peer assessment team recommends deferred agency status for the Maui Fire Department from the Commission on Fire Accreditation International until March 2018.

- The peer assessment team recommends that if the deferred agency status timeframe is not met by the Maui Fire Department, the department should be denied accreditation.

RECOMMENDATIONS

The peer assessment team conducted an exit interview with the agency consisting of the fire chief, deputy chief, and accreditation manager. The purpose of the meeting was to review the team's findings and recommendations. The department was given an opportunity to respond to any errors of findings of fact.

Strategic Recommendations

Strategic recommendations were developed from information gathered from the onsite assessment visit and the evaluation of the criteria and core competencies.

Category II – Assessment and Planning

Criterion 2B: Fire Risk Assessment and Response Strategies
Criterion 2C: Non-Fire Risk Assessment and Response Strategies

Core Competencies

2B.1 Each planning zone and population area is analyzed and risk factors are evaluated in order to establish a standards of cover.

2C.1 Each planning zone and population area is analyzed and non-fire risk factors evaluated in order to establish a standards of cover.

It is recommended the department determine what structures have not been captured in the Vision software and complete the risk analysis process.

2B.5 Agency baseline and benchmark travel time objectives for fire response conform to industry best practices as prescribed on pages 70-71 for first due and effective response force (ERF).

2C.5 Agency baseline and benchmark travel time objectives for non-fire incident response conform to industry best practices as prescribed on pages 70-71 for first due and effective response force (ERF).

- It is recommended the department conduct a fire station location study to determine the number and location of stations to provide the appropriate distribution of resources to bring travel times for the ERF in line with industry best practice. It is noted that this recommendation also applies to other program areas.

- It is recommended the department work with the dispatch center to ensure that when the one dispatcher is on an emergency call, another dispatcher ensures additional calls for fire department services are handled appropriately.

Criterion 2C: Non-Fire Risk Assessment and Response Strategies

Core Competency

2C.6 Given the importance and magnitude of service demands, a standards of cover strategy is established for each type of non-fire risk(s) and service demand.

It is recommended the department utilize the same process used for the other non-fire risks to complete the development of the ocean rescue program standards of cover strategy.

Category III – Goals and Objectives

Criterion 3A: Goals and Objectives

Core Competency

3A.1 The agency publishes general organizational goals directed toward achieving the agency's long range plans. Corresponding specific objectives are published to implement these goals and incorporate the measurable elements of time, quantity, quality.

3B.1 Some form of organizational management process is identified and used to implement and track the agency's goals and objectives.

- It is recommended all goal statements have a more defined measurement consideration for quantity and quality.

- It is recommended the department ensure that each program area is addressed in future goal and objective development.

Criterion 3C: Measurement of Organization Progress

Core Competency

3C.1 The agency's goals and objectives are examined and modified at least annually for quality and to ensure they remain current and consistent with the agency's mission, vision, and long range plan(s).

It is recommended the department formalize the approach to assure each goal and objective is examined and modified on at least an annual basis.

Category IV – Financial Resources

Criterion 4C: Resource Allocation

Core Competency

4C.1 Programs and activities based on current and anticipated revenues are adequate to maintain adopted levels of service.

- It is recommended the department identify and address all program and position needs (risks, hazards, and tasks) to maintain expected levels of service.

- It is recommended the department look for other possible revenue sources.

- It is recommended the department develop a plan to prioritize the training program budget requirements.

Category V – Programs

Criterion 5A: Fire Suppression

Core Competencies

5A.1 Given the agency's standards of cover and emergency deployment objectives, the agency meets its staffing, response time, pumping capacity, apparatus and equipment deployment objectives for each type and magnitude of fire suppression emergency incidents.

- It is recommended the department work with the budget department and mayor to seek approval from the county commission to fill the two vacant battalion chief positions.

- It is recommended the department develop a plan to address staffing at Pukoʻo station to bring it in line with 4 person staffing.

- It is recommended the department establish frequent intervals for the analysis of data in its FireRMS related to baseline performance to more immediately identify changes in levels of service and identify opportunities for improvement. It is noted that this recommendation also applies to several other program areas.

- It is recommended the department validate benchmark statements in program areas that have no response data to support statements.

5A.4 Current standard operating procedures or general guidelines are in place to direct fire suppression activities.

It is recommended the department formalize the process for reviewing and updating the standard operating guidelines and ensure there are appropriate standard operating guidelines for all program areas within the department. With this process the department should build for the distribution and training of personnel as needed on changes, beginning with the March 2016 edition of the standard operating guidelines.

5A.7 An appraisal is conducted, at least annually, to determine the effectiveness of the fire suppression program.

It is recommended the department formalize the annual appraisal process for the suppression program.

Criterion 5B: Fire Prevention/Life Safety Program

Core Competency

5B.2 The code enforcement program is designed to ensure compliance with applicable fire protection law and agency objectives.

It is recommended the department institute a formal inspection tracking and enforcement policy that is based on actual inspection activities and supported by the agency legal counsel.

5B.3 The program has adequate staff with specific expertise to meet the fire prevention/life safety program goals and objectives.

It is recommended the department develop and implement a risk-based inspection frequency schedule that is correlated with the risk assessment found in the standards of cover and provide appropriate staffing to meet departmental goals and objectives.

5B.8 An appraisal is conducted, at least annually, to determine the effectiveness of the fire prevention program and its efforts in risk reduction.

It is recommended the department formalize the appraisal of the fire prevention program including prevention data related to inspection violations/corrections, plan review data, and code enforcement activities to align resources with emergent community needs and risks.

Criterion 5C: Public Education Program

Core Competency

5C.4 The public education program targets specific risks and risk audiences as identified through incident, demographic, and program data analysis.

It is recommended the department utilize response, risk analysis, and demographic data to expand the public education program to include other non-fire related topics (e.g.: tourist populations, stroke, heart attack, drowning, etc.).

Criterion 5D: Fire Investigation Program

Core Competency

5D.3 The program has adequate staff with specific expertise, training, and credentials to accomplish the program goals and objectives

It is recommended the department enhance its existing training program by creating a continuing education component for fire investigation.

5D.8 An appraisal is conducted, at least annually, to determine the effectiveness of the fire investigation program.

It is recommended the department develop a formal process to determine the effectiveness of the fire investigation program against defined program goals and objectives.

Criterion 5F: Hazardous Materials

Core Competency

5F.7 An appraisal is conducted, at least annually, to determine the effectiveness of the hazardous materials program.

It is recommended the department develop a formal and measureable assessment process to determine the effectiveness of the hazardous materials program. The process should be supported by operating guidelines that substantiate the process methodology and completion requirements.

Category VI – Physical Resources

Criterion 6B: Fixed Facilities

Core Competency

6B.4 Facilities comply with federal, state/provincial and local codes and regulations.

It is recommended the department develop and implement a facilities inspection program to ensure all facilities meet applicable codes and regulations.

Criterion 6C: Apparatus and Vehicles

Core Competency

6C.1 Apparatus are located strategically to accomplish the stated standards of cover and service level objectives.

It is recommended the department assess and plan its apparatus locations to align with the community risk assessment in the standards of cover (SOC).

Criterion 6F: Safety Equipment

Core Competency

6F.1 Safety equipment is identified and distributed to appropriate personnel.

It is recommended the department evaluate hearing protection on response apparatus and develop a plan to implement a complete hearing protection program for all apparatus.

Category VII – Human Resources

Criterion 7F: Occupational Health and Safety and Risk Management

Core Competency

7F.5 An occupational health and safety training program is established and designed to instruct the workforce in general safe work practices, from point of initial employment through each job assignment and/or whenever new substances, new processes,

procedures, or equipment are introduced. It provides specific instructions on operations and hazards specific to the agency.

It is recommended the department establish the "incident safety officer" role within the critical task analysis and standards of cover for all hazardous incidents, including structure fires, hazard materials incidents, technical rescues, and ocean rescue incidents. The department should ensure that this position is filled during incidents and that the individuals are properly trained and certified.

Criterion 7G: Wellness/Fitness Programs

Core Competency

7G.1 The agency provides for initial, regular, and rehabilitative medical and physical fitness evaluations.

It is recommended the department acquire an occupational health physician to ensure effective evaluations of annual physicals, workers' compensation processes, drill medical logs, and provide fit for duty determination.

Category VIII – Training and Competency

Criterion 8B: Training and Education Program Performance

Core Competency

8B.4 The agency provides for evaluation of individual, company, or crew, and multi-company or crew performance through performance-based measurements.

It is recommended the department develop performance based measurement processes for all training program areas as related to multi-company drills and training processes.

Criterion 8C: Training and Education Resources

Core Competency

8C.1 Available training facilities and apparatus are provided to support the training needs of the agency.

It is recommended the department develop a plan and begin implementation to update and expand the current training facility to improve facilitation of all training programs.

Category IX – Essential Resources

Criterion 9A: Water Supply

Core Competency

9A.2 An adequate and reliable fixed or portable water supply is available for fire fighting purposes. The identified water supply sources are sufficient in volume and pressure to control and extinguish fires.

It is recommended the department develop and implement a plan for a water shuttle delivery test to determine current water capability as measured by an appropriate methodology (i.e., gpm) and if adequacy for firefighting demand issues are discovered, develop an expanded method for the delivery of larger volumes of water for extended periods of time.

Criterion 9C: Administrative Support Services and Office Systems

Core Competency

9C.1 The administrative support services are appropriate for the agency's size, function, complexity, and mission, and are adequately staffed and managed.

It is recommended the department work with human resources and finance department to pursue dedicated administrative support staff to assist chief fire officers in meeting administrative requirements while allowing them to focus more on core responsibilities.

Category X – External Systems Relationships

Criterion 10A: External Agency Relationships

Core Competencies

10A.1 The agency develops and maintains outside relationships that support its mission, operations or cost effectiveness.

It is recommended the department pursue a formal agreement with the dispatch center to include expectations for dispatching and tracking of units.

Criterion 10B: External Agency Agreements

10B.1 External agency agreements are current and support organizational objectives.

It is recommended the department develop a plan to ensure all agreements are reviewed on an annual basis and update as needed.

Specific Recommendations

Specific recommendations were developed from the appraisal of performance indicators in each of the ten categories.

Category III – Goals and Objectives

Criterion 3A: Goals and Objectives

Performance Indicator

3A.2 The agency establishes goals for each operational program with corresponding specific objectives that incorporate the measureable elements of time, quantity, and quality.

It is recommended the departments planning process be expanded to include the establishment of appropriate goals and objectives for all programs.

Category IV – Financial Resources
Criterion 4C: Resource Allocation

Performance Indicator

4C.3 Future asset maintenance costs are projected with related funding plans.

It is recommended the department assess the long term maintenance and life cycle costs associated with the current resources and ensure these costs are included in the annual budget.

Category V – Programs
Criterion 5F: Hazardous Materials

Performance Indicator

5F.3 Supplies and materials allocation is based on established objectives, is appropriate to meet the hazardous materials response operational needs, and is compliant with local, state/provincial and national standards.

It is recommended the department expand its risk analysis process to assist in the evaluation of equipment needs and determination processes.

Criterion 5H: Domestic Preparedness Planning and Response

Performance Indicator

5H.8 The agency conducts and documents a vulnerability assessment and has operational plans to protect and secure the agency's specific critical infrastructure, including but not limited to materials and supplies, apparatus and facilities security, fuel, and information systems.

It is recommended the department establish a formal vulnerability assessment process that establishes priorities for defining fire station exposure potential, create a plan to limit the extent of vulnerability, and achieve a more secure environment at those locations.

Category VI – Physical Resources
Criterion 6B: Fixed Facilities

Performance Indicator

6B.2 Buildings and outbuildings are clean and in good repair and the surrounding grounds are well kept. Maintenance is conducted in a systematic and planned manner.

It is recommended the department develop a plan to inspect fire stations and make needed repairs as deemed appropriate for routine maintenance issues to reduce potential problems with significant costs in the future.

Criterion 6D: Apparatus Maintenance

Performance Indicator

6D.2 The maintenance and repair facility is provided with sufficient space and equipped with appropriate tools.

It is recommended the department assess and develop a plan of its maintenance and repair facility to ensure space appropriate based on the expansion of services.

Category VIII – Training and Competency

Criterion 8B: Training and Education Program Performance

Performance Indicator

8B.5 The agency maintains individual/member training records.

It is recommended the department develop and implement a plan to ensure each individual's training record is updated to include: all training areas attained during practical skill drills, including multi-company drills and all other trainings attended.

Category IX – Essential Resources

Criterion 9A: Water Supply

Performance Indicators

9A.4 The agency maintains regular contact with the managers of public and private water systems to stay informed about all sources of water availability for fighting fires.

It is recommended the department expand contact opportunities with current water system owners/managers to stay informed about water availability for fighting fires.

9A.8 Fire hydrants are inspected, tested and maintained and the agency's related processes are evaluated periodically to ensure adequate and readily available public or private water for fire protection.

It is recommended the department work to improve working relationships with the smaller water system owners/managers to assure proper testing and maintenance of water supply systems.

Category X – External Systems Relationships

Criterion 10A: External Agency Relationships

Performance Indicators

10A.3 A process is in place for developing, implementing and revising interagency policies and agreements.

It is recommended the department establish a process to review, assess, and update and/or create memorandums of understanding (MOUs) and/or memorandums of agreement (MOAs) as appropriate.

10A.4 A conflict resolution process exists between the organization and external agencies with whom it has a defined relationship.

It is recommended that a conflict resolution process be added into all existing and future MOUs and MOAs.

OBSERVATIONS

Category I — Governance and Administration

The Maui Fire Department operates within a mayor/county council form of municipal government. The fire chief reports to the Department of Fire and Public Safety Commission (commission). The mayor meets on a monthly basis with the fire chief, managing director, and commission. The fire chief meets as requested by the county council through the mayor.

The governing body and/or agency manager is legally established to provide general policies to guide the agency, approved programs and services, and appropriated financial resources. The department is legally established by the Constitution of Hawaii, Article VIII – Local Government, Local Self-Government; Section 2, which authorizes each political subdivision the power to frame and adopt a charter for self-government, which is then further defined by the Charter for County of Maui (2015 edition).

The established administrative structure provides an environment for achievement of the agency's mission, purposes, goals, strategies, and objectives. The city/county has several checks and balances to ensure there is compliance with legal requirements. There are policies and procedures that have been published and distributed to all city/county facilities. Fire department employees are required to read and acknowledge these policies, which include: workplace violence, sexual harassment, and illegal drugs in the workplace. The department has a departmental personnel officer, who works in conjunction with the county's Equal Employment Opportunity (EEO) Officer.

Category II — Assessment and Planning

The Maui Fire Department has embraced the use of the CFAI self-assessment process to logically and rationally define and align its self-assessment manual, community risk hazard analysis, standards of cover (SOC), and strategic plan. The department assigned staff to provide support to the overall accreditation process.

Two criterion statements and four core competencies were not met: criterion statements 2B and 2C and core competencies 2B.1, 2C.1, 2B.5, and 2C.5. Additional detail related to the team's findings is located below in the observations about the ability of the department to meet the criterion statement and core competency expectations.

The agency collects and analyzes data specific to the distinct characteristics of the community served and applies the findings to organizational planning. An analysis in the SOC appropriately identifies that the city's population densities have been evaluated and determined to be urban, suburban, and rural. The County of Maui is extremely diverse in its population densities with the population distributed among three islands and one district. The department has an analysis of the risk within the various population density areas. The results of the analysis and the associated identified needs are integrated into the SOC.

The department assesses the nature and magnitude of the hazards within its jurisdiction and develops appropriate response coverage strategies. Each significant fire and non-fire risk is categorized and listed to permit future analysis and study in determining standards of cover and related services.

Special attention is paid to identify, analyze and develop strategies for non-fire or limited fire risks that gain importance due to cultural, economic, environmental, or historical value.

Criterion statements 2B and 2C were not met. While the department has a risk assessment process established, they have no accounting as to how many commercial structures they have on the three occupied islands and the complete number of occupancies already entered into the Visions software that is being utilized to perform a complete hazard/risk analysis for fire and non-fire risks.

The department has 14 fire stations with personnel and apparatus strategically located on the three occupied islands; however, with the response times, there is a significant variation for arrival of apparatus to the various emergency incidents.

The benchmark service level objectives incorporated into the SOC are based on local needs and circumstances along with industry standards and best practices adopted from the: *Commission on Fire Accreditation International (CFAI) Fire & Emergency Service Self-Assessment Manual (FESSAM), eighth edition and the CFAI Standards of Cover, fifth edition*.

The department has developed an analysis process utilizing Vision software, which is not complete, to identify the fire and non-fire risks that are appropriate, acceptable, and affordable in relation to the identified needs of the community. The department's comprehensive evaluation and planning process provides very detailed information related to both the fire and non-fire risks in each of its 119 fire management zones (FMZs). This information was used by the SOC committee to identify appropriate responses capable of efficiently, effectively, and safely addressing the risks within the current capabilities of the department's delivery system.

Core competencies 2B.1[9] and 2C.1[10] are not being met. The department has begun a risk assessment of structures on the three occupied islands, however they cannot demonstrate all structures as being evaluated and placed in their Vision software, thus not being able to complete their fire and non-fire risk assessment.

It is recommended the department determine which structures have not been captured in the Vision software and complete the risk analysis process.

The department's assessment and planning process, used to develop its SOC, has considered the overall risk it protects, its areas of responsibility, the demographics of the county, the economic indicators influencing its ability to deliver services, the historical fire loss data, the available water supply, the use of automatic fire protection systems for certain occupancies, and the transient visitor population. Each fire company is responsible for continually assessing the changing fire risk within its area. This comprehensive approach has ensured the establishment of an SOC strategy for fire risks.

In the development of the SOC, careful consideration was given to the non-fire risks in the community. The non-fire risks include technical rescue, hazardous materials, emergency medical services (EMS), and ocean rescue.

[9] 2B.1 Each planning zone and population area is analyzed and risk factors are evaluated in order to establish a standards of cover.

[10] 2C.1 Each planning zone and population area is analyzed and non-fire risk factors evaluated in order to establish a standards of cover.

The department has completed an analysis and evaluation of the related service demands for each of these risk types with the exception of ocean rescue, which the ocean rescue program was just transferred to the department July 1, 2016. Appropriate performance objectives are contained in the SOC relative to the response of personnel within an identified time frame.

It is recommended the department utilize the same process used for the other non-fire risks to complete the development of the ocean rescue program standards of cover strategy. The department just took over complete operations of the ocean rescue program as of July 2016 from the parks department and has not been able to fully address all areas of this newly incorporated program.

The department uses data generated by its records management system to create reports that assist in assessing its past performance within the 119 FMZs. The results are used to update and revise the SOC document, as needed.

The department's practice is to document alarm handling as the time interval from when the alarm is acknowledged at the communication center/public safety answering point (PSAP) until the dispatcher hits the enter key to acknowledge the response apparatus is appropriate for the emergency response and at that time the station paging systems are activated.

Core competency 2B.5[11] and 2C.5[12] are not being met. Following a detailed assessment and analysis, the peer assessment team believes by consensus that the alarm handling time, turnout time, and travel time for the first-due and effective response force components of the total response time continuum, as identified in the standards of cover, are not in line with the industry best practices identified in the eighth edition of the *Fire & Emergency Service Self-Assessment Manual (FESSAM)*. The department's travel time for first-due units of 38 minutes and 1 second substantially exceeds the *FESSAM* benchmark expectations of 10 minutes and baseline expectations of 13 minutes in rural density areas. It is recommended the department conduct a fire station location study to determine the number and location of stations to provide the appropriate distribution of resources to bring travel times for the ERF in line with industry best practice. It is noted that this recommendation also applies to other program areas.

The one PSAP fire dispatcher has times when on an emergency call may have another call come in and that call will have to wait till the dispatcher is off that phone call prior to dispatching the next call or answer units on the first call when other dispatchers are in the center and available to assist the fire dispatcher. It is recommended the department work with the dispatch center to ensure that when the one dispatcher is on an emergency call, another dispatcher ensures additional calls for fire department services are handled appropriately.

A master strategic plan for 2016-2020 is in place and, along with the budget, is guiding the activities of the department. The plan is submitted to the Mayor and County Council. The Master Strategic Plan 2016-2020 for Maui Fire Department was developed utilizing internal and external input. The plan was distributed to the Department of Fire and Public Safety Commission, mayor, and county council, along with posting on the department's internal network. The plan has goals and objectives

[11] 2B.5 Agency baseline and benchmark total response time objectives for fire response conform to industry best practices as prescribed on pages 70-71 for first due and effective response force (ERF).

[12] 2C.5 Agency baseline and benchmark total response time objectives for non-fire incident response conform to industry best practices as prescribed on pages 70-71 for first due and effective response force (ERF).

that are formatted to the CFAI category model format, with short/medium/long term and ongoing projects.

Category III — Goals and Objectives

The Maui Fire Department has established a long range planning process that is guided by a mission statement, vision considerations, and core values. The strategic plan stipulates goals and objectives that were established during the planning process. The strategic plan was recently updated for the period of 2016 through 2020.

The agency has established general goals and specific objectives that direct the agency's priorities in a manner consistent with its mission and appropriate for the community it serves. The department utilized a strength, weakness, opportunity, and threat approach in the establishment of the goals and objectives which are appropriate to its planning efforts. The process included input from internal and external stakeholders. The planning process adopted by the department was carefully tuned to the identified needs of the department for today and in the future with specific considerations of the service provision and standards of coverage.

Many of the goals and objectives pertain specifically to the major divisions of the department. As well, goals were established for ongoing organizational situations and needs. Assuring that specific goals were established for each program area was not a focus for this particular planning period; however, the department has indicated that those efforts will be a future planning objective. Additionally, though some goals contained considerations of quantity and quality, others did not include specific considerations for these measurement characteristics. A more formal effort to include measurement capabilities for quantity and quality is needed.

It is recommended all goal statements have a more defined measurement consideration for quantity and quality.

In many cases goals were established that focused on some program areas, however the current planning process was not developed to drive the establishment and inclusion of goals for each program area. It is recommended the department's planning process be expanded to include the establishment of appropriate goals and objectives for all programs.

A management process is utilized for implementation of goals and objectives. The department just recently adopted a process to track the implementation and completion of its goals and objectives. It is planned to expand this tracking process to assure a more frequent notification to all members of the status of each goal. It has been an objective for each staff meeting to discuss the current status of each goal and its progress; however, in some meetings the magnitude of the agenda prevents a sufficient consideration of the current status of all goals or objectives.

Processes are in place to measure and evaluate progress towards completion of specific objectives and overall system performance. The goals and objectives are re-examined and modified periodically.

The assistant chief reviews and maintains records of the status of each goal on a periodic basis for status and accomplishments. It is estimated this review occurs on a somewhat monthly basis; however, there is no formal process in place to assure the timely review. A formal process for the review of the goals and objectives is in the planning and development stages.

It is recommended the department formalize the approach to assure each goal and objective is examined and modified on at least an annual basis.

Category IV — Financial Resources

The processes to be followed during the development and approval stages of the operating and capital budgets are clearly articulated in various city and county policies and procedures. The Maui Fire Department uses internal staff to develop the budgets.

Financial planning and resource allocation is based on agency planning involving broad staff participation. The department follows and complies with all policies, guidelines, and processes for budget preparation, provided to all city/county departments by the finance department in March of each year. The county budget director from the mayor's office works with the chief officers, uniformed firefighters, and administrative civilian staff to gather input on program budgets that make up the overall budget. The proposed budget is presented to the fire chief by the deputy and assistant chiefs and amended based upon identified and required performance measures. The final budget is submitted to the Department of Fire and Public Safety Commission for review before it is submitted to the mayor for inclusion in the overall budget for adoption.

Financial management of the agency exhibits sound budgeting and control, proper recording, reporting and auditing. The peer assessment team confirmed that Maui County is in receipt of the most currently available Certificate of Achievement for Excellence in Financial Reporting (certificate) from the Government Finance Officers Association of the United States and Canada (GFOA) for its Comprehensive Annual Financial Report (CAFR). The department has submitted its most recent GFOA certificate and CAFR as prima facie compliance with this criterion.

Financial resources are appropriately allocated to support the established organizational mission, the stated long-term plan, goals and objectives, and maintain the quality of programs and services. Historically, the council is generally supportive of the department's mission and provides close to the projected fiscal resources that are identified in the budget as being necessary to adequately fund the programs required to continue delivering quality services. However, in recent years, budget allocations do not meet the increase of compensation figures in the collective bargaining agreement. The denial to fill two battalion chief positions, which are identified as crucial in response activities, may decrease expected levels of service.

It is recommended the department identify and address all program and position needs (risks, hazards, and tasks) to maintain expected levels of service.

It is recommended the department look for other possible revenue sources.

It is recommended the department develop a plan to prioritize the training program budget requirements.

The department does not currently project maintenance costs associated with all assets. Many assets are in need of repairs due to the fact the maintenance of these assets was not accounted for.

It is recommended the department assess the long-term maintenance and life cycle costs associated with the current resources and ensure these costs are included in the annual budget.

Category V — Programs

Criterion 5A – Fire Suppression

The Maui Fire Department is a full-service fire and rescue organization designed to provide essential public safety and emergency services to a growing population base. To meet the needs of its residents, the department currently staffs 14 engines, 4 fire ground support companies (Ladder 3, Rescue 10, Hazmat 10, and Ladder 14), 6 tankers/tenders, and 6 mini-pumpers (wildland firefighting apparatus) from 14 fire stations. The pump capacity of all engines and ladders is a minimum of 1,250 and most having 1,500 gallons per minute.

The department operates a three-shift system and has established a minimum staffing benchmark of 77 firefighters per shift, per day. The department maintains a minimum of four firefighters per company on all front-line companies. The only exception to this is the two firefighters assigned to the Pukoʻo fire station located on Molokaʻi.

One criterion statement and one core competency were not met: criterion statement 5A and core competency 5A.1. Additional detail related to the team's findings is located below in its observations about the ability of the department to meet the criterion statement and core competency expectations.

The agency currently cannot demonstrate that it operates an adequate, effective, and efficient fire suppression program directed toward controlling and/or extinguishing fires for the purposes of protecting people from injury or death, and reducing property loss.

The department has a FireRMS system that tracks data and information related to the fire suppression program. The department should review the data for response times on a frequent basis to determine effectiveness of the response to emergency incidents are continuing to remain in line with previous baseline times and if there is progress towards established benchmarks. The areas where there are no baselines times the department needs to develop a system to ensure benchmarks that have been established are appropriate.

The department completed a comprehensive review of all standard operating guidelines related to all programs in August 2016. However, during the peer team on-site visit, it was determined that even though there were several departmental members involved in the review process, the complete cycle of distribution and training had not been completed.

It is recommended the department formalize the process for reviewing and updating the standard operating guidelines and ensure there are appropriate standard operating guidelines for all program areas within the department. With this process the department should build for the distribution and training of personnel as needed on changes, beginning with the March 2016 edition of the standard operating guidelines.

The department has adopted an incident management system and routinely uses it during all emergency responses, regardless of the size or complexity of the incident to manage personnel and resources. The department has adopted and follows the expectations of the National Incident Management System (NIMS). All personnel have been trained to the NIMS 100/200 levels. All officers and apparatus drivers have been trained and certified in Blue Card operations.

The department frequently appraises the effectiveness of its fire suppression program through monthly reporting, annual reports, officer meetings, post-incident analysis, and single/multi-company drills. This process has appeared to work for the department; however it has not been formalized within the department.

It is recommended the department formalize the annual appraisal process for the suppression program.

Core competency 5A.1[13] was not met. The department needs to evaluate FireRMS data on a frequent basis to determine areas of concern and make informed decisions on improvement of response capabilities for the citizens and visitors. The department should develop a process to make informed decisions when establishing benchmarks for response areas not having an effective response force baseline. It is recommended the department establish frequent intervals for the analysis of data in its FireRMS related to baseline performance to more immediately identify changes in levels of service and identify opportunities for improvement.

The department has two battalion chief positions that have been allowed to remain unfilled at the present time by the county council; with these two positions going unfilled the department has had to rely on staff officers to fill these positions leaving those staff functions to be handled by the remainder of the staff. It is recommended the department work with the budget department and mayor to seek approval from the county commission to fill the two vacant battalion chief positions.

The department staffing at the Pukoʻo station is currently at two personnel. The personnel at this station were questioned by the peer assessment team and explained that, when they arrive on scene of a structure fire, they conduct defensive operations and, once an additional engine arrives, then and only then do they begin offensive operations. The station is a 90+ year old structure that will not support additional staffing. The department is aware of this and is seeking approval to move this station out of the tsunami area; this is a plan that is already in place. It is recommended the department develop a plan to address staffing at Pukoʻo station to bring it in line with four-person staffing.

The department has noted the times for baseline performance from the computer aided dispatch (CAD) are not consistent with those in the FireRMS system and has taken steps to validate the times in the FireRMS system. The department has only started reviewing response data in the last year and has found it to be deficient and needing to be completed and reviewed on a more frequent basis. It is recommended the department establish frequent intervals for the analysis of data in its FireRMS related to baseline performance to more immediately identify changes in levels of service and identify opportunities for improvement. It is noted that this recommendation also applies to several other program areas.

The department's response and deployment standards are based upon the urban, suburban, and rural population densities, and the fire demand of the community. Fourteen fire stations provide county-wide coverage; department staffing is based on station design and layout and consistently staffed at four on all apparatus, with the exception of the Pukoʻo station which is staffed with two. The targeted service level objectives in the standards of cover benchmark statements are based on industry

[13] 5A.1 Given the agency's standards of cover and emergency deployment objectives, the agency meets its staffing, response time, pumping capacity, apparatus and equipment deployment objectives for each type and magnitude of fire suppression emergency incidents.

standards and best practices, as identified earlier in this report in Category II – Assessment and Planning. The objectives have been approved and adopted by fire department management and presented to the mayor, fire and public safety commission, and county council. The department's benchmark service level objectives are as follows:

> For 90 percent of all moderate risk structure fires on Maui Island, the total response time for the arrival of the first-due engine, staffed with 4 personnel, shall be: 12 minutes and 34 seconds in urban areas; 19 minutes and 25 seconds in suburban areas; and 29 minutes and 39 seconds in rural areas. The first-due engine company for moderate risk level shall be capable of: providing 750 gallons of water and 1,000 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 150 gpm; securing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing overhaul and salvage operations. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.
>
> For 90 percent of all moderate risk residential structure fires on Maui Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 13 personnel, shall be: 11 minutes and 37 seconds in urban areas; 19 minutes and 45 seconds in suburban areas; and 31 minutes and 53 seconds in rural areas. For 90 percent of all moderate risk commercial structure fires on Maui Island, the total response time for the arrival of the ERF, staffed with 17 personnel, shall be: 35 minutes in urban areas; 1 hour and 17 minutes in suburban areas; and 1 hour and 25 minutes in rural areas. The ERF for moderate risk structure fires shall be capable of: providing a minimum of 750 gallons of water and a minimum of 1,000 gpm pumping capacity; establishing command; requesting additional resources; securing an uninterrupted water supply; advancing an attack line and a backup line each flowing a minimum of 150 gpm for fire control; complying with the Occupational Safety and Health Administration (OSHA) requirements of two-in and two-out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure; controlling utilities; and performing salvage and overhaul. These operations shall be done in accordance with departmental standard operating procedures while providing for the safety of responders and the general public.
>
> For 90 percent of all moderate risk structure fires on Moloka‘i Island, the total response time for the arrival of the first-due engine, staffed with 2 personnel, shall be: 24 minutes and 28 seconds in urban areas; and 28 minutes and 15 seconds in rural areas. The first-due engine company for moderate risk level shall be capable of: providing 500 gallons of water and 500 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 150 gpm; securing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing overhaul and salvage operations. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public. NOTE: For Moloka‘i, there are no areas designated as suburban, so times are only given for urban and rural.
>
> For 90 percent of all moderate risk structure fires on Moloka‘i Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 11 personnel, shall be: 30 minutes and 10 seconds in urban areas; and 36 minutes and 15 seconds in rural areas. The ERF for moderate risk structure fires shall be capable of: providing a minimum of

4,500 gallons of water and a minimum of 3,500 gpm pumping capacity; establishing command; requesting additional resources; securing an uninterrupted water supply; advancing an attack line and a backup line each flowing a minimum of 150 gpm for fire control; complying with the Occupational Safety and Health Administration (OSHA) requirements of two-in and two-out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure; controlling utilities; and performing salvage and overhaul. These operations shall be done in accordance with departmental standard operating procedures while providing for the safety of responders and the general public.

For 90 percent of all moderate risk structure fires on Lana‘i Island, the total response time for the arrival of the first-due engine, staffed with 4 personnel, shall be: 16 minutes and 41 seconds in urban areas; and no times available in rural areas. The first-due engine company for moderate risk level shall be capable of: providing 750 gallons of water and 1,000 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 150 gpm; securing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing overhaul and salvage operations. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public. Note: For Lana‘i, there are no areas designated as suburban, so times are only given for urban and rural.

For 90 percent of all moderate risk structure fires on Lana‘i Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 5 personnel, shall be: 18 minutes and 30 seconds in urban areas; and 2 minutes in rural areas. The ERF for moderate risk structure fires shall be capable of: providing a minimum of 2,750 gallons of water and a minimum of 1,500 gpm pumping capacity; establishing command; requesting additional resources; securing an uninterrupted water supply; advancing an attack line and a backup line each flowing a minimum of 150 gpm for fire control; complying with the Occupational Safety and Health Administration (OSHA) requirements of two-in and two-out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure; controlling utilities; and performing salvage and overhaul. These operations shall be done in accordance with departmental standard operating procedures while providing for the safety of responders and the general public.

For 90 percent of all moderate risk structure fires on Hana District, the total response time for the arrival of the first-due engine, staffed with 4 personnel, shall be: 17 minutes in urban areas; and 48 minutes in rural areas. The first-due engine company for moderate risk level shall be capable of: providing 750 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 150 gpm; securing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing overhaul and salvage operations. These operations shall be done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public. Note: Concentration performance measures are not given for structure fires in Hana District because the first arriving company is considered to be the entire ERF. If additional resources are needed they are approximately 2 hours away by road. For Hana District, there are no areas designated as urban, so times are only given for suburban and rural.

For 90 percent of all moderate risk structure fires on Hana District, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 4 personnel, shall be: 17 minutes in urban areas; and 48 minutes in rural areas. The ERF for moderate risk structure fires shall be capable of: providing a minimum of 2,750 gallons of water and a minimum of 1,500 gpm pumping capacity; establishing command; requesting additional resources; securing an uninterrupted water supply; advancing an attack line and a backup line each flowing a minimum of 150 gpm for fire control; complying with the Occupational Safety and Health Administration (OSHA) requirements of two-in and two-out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure; controlling utilities; and performing salvage and overhaul. These operations shall be done in accordance with departmental standard operating procedures while providing for the safety of responders and the general public. Note: Concentration performance measures are not given for structure fires in Hana District because the first arriving company is considered to be the entire ERF. If additional resources are needed they are approximately 2 hours away by road.

The department's baseline statements reflect actual performance during 2013 to 2015. The department does not rely on the use of automatic or mutual aid from neighboring fire departments to provide its effective response force complement of personnel. The department's actual baseline service level performance is as follows:

Maui Island Performance Measures

For 90 percent of all moderate risk structure fires on Maui Island, the total response time for the arrival of the first-due engine, staffed with 4 personnel, is: 12 minutes and 54 seconds in urban areas; 19 minutes and 45 seconds in suburban areas; and 29 minutes and 59 seconds in rural areas. The first-due engine company for moderate risk level is capable of: providing 750 gallons of water and 1,000 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 150 gpm; securing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing overhaul and salvage operations. These operations are done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public.

For 90 percent of all moderate risk residential structure fires on Maui Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 13 personnel, is: 47 minutes and 8 seconds in urban areas; 17 minutes and 7 seconds in suburban areas; and 5 hours, 18 minutes and 0 seconds in rural areas. For 90 percent of all moderate risk commercial structure fires on Maui Island, the total response time for the arrival of the ERF, staffed with 17 personnel, is: 59 minutes and 44 seconds in urban areas; 1 hour, 17 minutes, and 59 seconds in suburban areas; and 3 hour, 5 minutes, and 35 seconds in rural areas. The ERF for moderate risk structure fires is capable of: providing a minimum of 750 gallons of water and a minimum of 1,000 gpm pumping capacity; establishing command; requesting additional resources; securing an uninterrupted water supply; advancing an attack line and a backup line each flowing a minimum of 150 gpm for fire control; complying with the Occupational Safety and Health Administration (OSHA) requirements of two-in and two-out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure; controlling utilities; and performing salvage and overhaul. These operations are done in accordance with departmental standard operating procedures while providing for the safety of responders and the general public.

Maui Island Structure Fires 90th Percentile Times									
		2013-2015		**2015**		**2014**		**2013**	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**3:00**	**173**	**2:37**	**63**	**3:06**	**46**	**3:17**	**64**
	Urban	3:00	127	2:26	45	3:23	35	3:26	47
	Suburban	2:42	23	4:38	9	2:13	6	3:12	8
	Rural	3:19	23	3:31	9	3:15	5	3:23	9
Turnout Time 1st Unit on Scene	**Overall**	**4:01**	**173**	**4:05**	**63**	**3:56**	**46**	**4:03**	**64**
	Urban	4:22	127	4:45	45	4:12	35	4:24	47
	Suburban	3:59	23	4:04	9	3:36	6	4:00	8
	Rural	3:38	23	3:23	9	3:32	5	3:51	9
Distribution Travel Time 1st Unit on Scene	**Overall**	**12:10**	**173**	**10:46**	**63**	**14:29**	**46**	**12:53**	**64**
	Urban	7:42	127	7:42	45	7:16	35	8:40	47
	Suburban	12:08	23	13:50	9	7:17	6	13:58	8
	Rural	25:37	23	29:06	9	38:01	5	22:08	9
Distribution Total Response Time 1st Unit on Scene	**Overall**	**17:36**	**173**	**14:48**	**63**	**18:59**	**46**	**17:50**	**64**
	Urban	12:54	127	11:57	45	12:54	35	14:28	47
	Suburban	19:45	23	19:45	9	11:23	6	20:10	8
	Rural	29:59	23	32:03	9	41:53	5	27:55	9

NOTE: Distribution performance measures are provided on the following pages and are split into two categories: moderate risk RESIDENTIAL and moderate risk COMMERCIAL. The department dispatches three companies (typically 2 engines and 1 FGS company) to residential structure fires and four companies (typically 3 engines and 1 FGS company) to commercial structure fires. The additional personnel assigned to commercial fires are necessary to allow the advancement of a larger hoseline flowing greater gpm. Because the ERF differs depending on the occupancy type, the performance measures are provided separately for moderate risk residential and commercial.

Maui Island Structure Fires – Moderate Risk Residential 90th Percentile Times									
		2013-2015		2015		2014		2013	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Concentration Travel Time Effective Response Force (ERF)	**Overall**	**1:45:09**	**17**	**5:13:23**	**9**	**1:45:09**	**4**	**30:18**	**4**
	Urban	37:14	13	50:27	7	35:50	3	30:18	3
	Suburban	15:22	2	15:22	1	00:00	0	12:12	1
	Rural	5:13:23	2	5:13:23	1	1:45:09	1	00:00	0
Concentration Total Response Time Effective Response Force (ERF)	**Overall**	**3:33:55**	**17**	**5:18:00**	**9**	**1:49:50**	**4**	**35:55**	**4**
	Urban	47:08	13	54:15	7	36:53	3	35:55	3
	Suburban	17:07	2	17:07	1	00:00	0	16:21	1
	Rural	5:18:00	2	5:18:00	1	1:49:50	1	00:00	0

Maui Island Structure Fires – Moderate Risk Commercial 90th Percentile Times									
		2013-2015		2015		2014		2013	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Concentration Travel Time Effective Response Force (ERF)	**Overall**	**2:08:08**	**8**	**1:15:00**	**1**	**50:45**	**2**	**3:01:17**	**5**
	Urban	57:05	6		0	50:45	2	57:05	4
	Suburban	1:15:00	1	1:15:00	1		0		0
	Rural	3:01:17	1		0		0	3:01:17	1
Concentration Total Response Time Effective Response Force (ERF)	**Overall**	**2:11:47**	**8**	**1:17:59**	**1**	**53:12**	**2**	**3:05:35**	**5**
	Urban	59:44	6		0	53:12	2	59:44	4
	Suburban	1:17:59	1	1:17:59	1		0		0
	Rural	3:05:35	1		0		0	3:05:35	1

Molokaʻi Island Performance Measures

For 90 percent of all moderate risk structure fires on Molokaʻi Island, the total response time for the arrival of the first-due engine, staffed with 2 personnel, is: 24 minutes and 48 seconds in urban areas, and 28 minutes and 35 seconds in rural areas. The first-due engine company for moderate risk level is capable of: providing 500 gallons of water and 500 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 150 gpm; securing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing overhaul and salvage operations. These operations are done in accordance with departmental standard operating

guidelines while providing for the safety of responders and the general public. NOTE: For Molokaʻi, there are no areas designated as suburban, so times are only given for urban and rural.

For 90 percent of all moderate risk structure fires on Molokaʻi Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 11 personnel, is 25 minutes and 50 seconds in urban areas; there were no times available in rural areas. The ERF for moderate risk structure fires is capable of: providing a minimum of 4,500 gallons of water and a minimum of 3,500 gpm pumping capacity; establishing command; requesting additional resources; securing an uninterrupted water supply; advancing an attack line and a backup line each flowing a minimum of 150 gpm for fire control; complying with the Occupational Safety and Health Administration (OSHA) requirements of two-in and two-out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure; controlling utilities; and performing salvage and overhaul. These operations are done in accordance with departmental standard operating procedures while providing for the safety of responders and the general public.

Moloka‘i Island Structure Fires 90th Percentile Times									
		2013-2015		**2015**		**2014**		**2013**	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**8:35**	**15**	**3:30**	**6**	**8:16**	**5**	**8:55**	**4**
	Urban	8:55	1		0		0	8:55	1
	Suburban		0		0		0		0
	Rural	7:01	14	3:30	6	8:16	5	1:23	3
Turnout Time 1st Unit on Scene	**Overall**	**5:38**	**15**	**6:47**	**6**	**3:00**	**5**	**4:29**	**4**
	Urban	0:31	1		0		0	0:31	1
	Suburban		0		0		0		0
	Rural	5:38	14	6:47	6	3:00	5	4:29	3
Distribution Travel Time 1st Unit on Scene	**Overall**	**24:17**	**15**	**26:53**	**6**	**20:41**	**5**	**21:42**	**4**
	Urban	21:42	1		0		0	21:42	1
	Suburban		0		0		0		0
	Rural	23:47	14	26:53	6	20:41	5	10:00	3
Concentration Travel Time Effective Response Force (ERF)	**Overall**	**21:21**	**2**	**21:03**	**1**	**21:21**	**1**		**0**
	Urban	21:21	2	21:03	1	21:21	1		0
	Suburban		0		0		0		0
	Rural		0		0		0		0
Distribution Total Response Time 1st Unit on Scene	**Overall**	**28:35**	**15**	**31:23**	**6**	**25:48**	**5**	**24:48**	**4**
	Urban	24:48	1		0		0	24:48	1
	Suburban		0		0		0		0
	Rural	28:35	14	31:23	6	25:48	5	15:29	3
Concentration Total Response Time Effective Response Force (ERF)	**Overall**	**25:50**	**2**	**22:26**	**1**	**25:50**	**1**		**0**
	Urban	25:50	2	22:26	1	25:50	1		0
	Suburban		0		0		0		0
	Rural		0		0		0		0

Lana‘i Island Performance Measures

For 90 percent of all moderate risk structure fires on Lana‘i Island, the total response time for the arrival of the first-due engine, staffed with 4 personnel, is 16 minutes and 41 seconds in urban areas; no times were available in rural areas. The first-due engine company for

moderate risk level shall capable of: providing 750 gallons of water and 1,000 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 150 gpm; securing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing overhaul and salvage operations. These operations are done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public. NOTE: For Lana‘i, there are no areas designated as suburban, so times are only given for urban and rural.

For 90 percent of all moderate risk structure fires on Lana‘i Island, the total response time for the arrival of the effective response force (ERF), staffed Lana‘i with a minimum of 5 personnel, is 21 minutes and 1 second in urban areas; there were no times available in rural areas. The ERF for moderate risk structure fires is capable of: providing a minimum of 2,750 gallons of water and a minimum of 1,500 gpm pumping capacity; establishing command; requesting additional resources; securing an uninterrupted water supply; advancing an attack line and a backup line each flowing a minimum of 150 gpm for fire control; complying with the Occupational Safety and Health Administration (OSHA) requirements of two-in and two-out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure; controlling utilities; and performing salvage and overhaul. These operations are done in accordance with departmental standard operating procedures while providing for the safety of responders and the general public.

Lana‘i Island Structure Fires 90th Percentile Times									
		2013-2015		**2015**		**2014**		**2013**	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**2:46**	**10**	**3:01**	**4**	**1:16**	**1**	**2:03**	**5**
	Urban	2:46	10	3:01	4	1:16	1	2:03	5
	Suburban		0		0		0		0
	Rural		0		0		0		0
Turnout Time 1st Unit on Scene	**Overall**	**2:58**	**10**	**3:10**	**4**	**1:04**	**1**	**2:46**	**5**
	Urban	2:58	10	3:10	4	1:04	1	2:46	5
	Suburban		0		0		0		0
	Rural		0		0		0		0
Distribution Travel Time 1st Unit on Scene	**Overall**	**12:46**	**10**	**16:13**	**4**	**0:45**	**1**	**6:10**	**5**
	Urban	12:46	10	16:13	4	0:45	1	6:10	5
	Suburban		0		0		0		0
	Rural		0		0		0		0
Concentration Travel Time Effective Response Force (ERF)	**Overall**	**16:13**	**7**	**16:13**	**4**		**0**	**6:28**	**3**
	Urban	16:13	7	16:13	4		0	6:28	3
	Suburban		0		0		0		0
	Rural		0		0		0		0
Distribution Total Response Time 1st Unit on Scene	**Overall**	**16:41**	**10**	**21:01**	**4**	**1:17**	**1**	**9:44**	**5**
	Urban	16:41	10	21:01	4	1:17	1	9:44	5
	Suburban		0		0		0		0
	Rural		0		0		0		0
Concentration Total Response Time Effective Response Force (ERF)	**Overall**	**21:01**	**7**	**21:01**	**4**		**0**	**10:02**	**3**
	Urban	21:01	7	21:01	4		0	10:02	3
	Suburban		0		0		0		0
	Rural		0		0		0		0

Hana District Performance Measures

For 90 percent of all moderate risk structure fires on Hana District, the total response time for the arrival of the first-due engine, staffed with 4 personnel, is no responses for urban areas and 48 minutes 55 seconds in rural areas. The first-due engine company for moderate risk

level shall be capable of: providing 750 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 150 gpm; securing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing overhaul and salvage operations. These operations are done in accordance with departmental standard operating guidelines while providing for the safety of responders and the general public. Note: Concentration performance measures are not given for structure fires in Hana District because the first arriving company is considered to be the entire ERF. If additional resources are needed they are approximately 2 hours away by road. For Hana District, there are no areas designated as urban, so times are only given for suburban and rural.

For 90 percent of all moderate risk structure fires on Hana District, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 4 personnel, is no times available in urban areas, and 48 minutes and 55 seconds in rural areas. The ERF for moderate risk structure fires is capable of: providing a minimum of 2,750 gallons of water and a minimum of 1,500 gpm pumping capacity; establishing command; requesting additional resources; securing an uninterrupted water supply; advancing an attack line and a backup line each flowing a minimum of 150 gpm for fire control; complying with the Occupational Safety and Health Administration (OSHA) requirements of two-in and two-out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure; controlling utilities; and performing salvage and overhaul. These operations are done in accordance with departmental standard operating procedures while providing for the safety of responders and the general public. Note: Concentration performance measures are not given for structure fires in Hana District because the first arriving company is considered to be the entire ERF. If additional resources are needed they are approximately 2 hours away by road.

Hana District Structure Fires 90th Percentile Times									
		2013-2015		**2015**		**2014**		**2013**	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**2:37**	**5**	**2:04**	**2**	**2:37**	**3**		**0**
	Urban		0		0		0		0
	Suburban		0		0		0		0
	Rural	2:37	5	2:04	2	2:37	3		0
Turnout Time 1st Unit on Scene	**Overall**	**4:01**	**5**	**4:01**	**2**	**3:40**	**3**		**0**
	Urban		0		0		0		0
	Suburban		0		0		0		0
	Rural	4:01	5	4:01	2	3:40	3		0
Distribution Travel Time 1st Unit on Scene	**Overall**	**43:19**	**5**	**43:19**	**2**	**20:39**	**3**		**0**
	Urban		0		0		0		0
	Suburban		0		0		0		0
	Rural	43:19	5	43:19	2	20:39	3		0
Distribution Total Response Time 1st Unit on Scene	**Overall**	**48:55**	**5**	**48:55**	**2**	**24:31**	**3**		**0**
	Urban		0		0		0		0
	Suburban		0		0		0		0
	Rural	48:55	5	48:55	2	24:31	3		0

Benchmark Performance measures – Wildland fires

Maui Island Performance Measures

For 90 percent of all wildland fires on Maui Island, the total response time for the arrival of the first-due engine company, staffed with a minimum of 4 personnel, shall be within 12 minutes and 30 seconds for urban areas; 15 minutes and 30 seconds for suburban areas; and 21 minutes and 30 seconds for rural areas. The first-due engine company shall be capable of providing 750 gallons of water and 1,000 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 70 gpm; protecting exposures; containing the fire; and evacuating at-risk persons. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all wildland fires on Maui Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 5 personnel, shall be within 37 minutes and 30 seconds for urban areas; 28 minutes and 30 seconds for suburban areas; and 1

hour and 8 minutes for rural areas. The ERF shall be capable of providing a combined 2,750 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 70 gpm; protecting exposures; containing the fire; and evacuating at-risk persons. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

Molokaʻi Island Performance Measures

For 90 percent of all wildland fires on Molokaʻi Island, the total response time for the arrival of the first-due engine company, staffed with a minimum of 2 personnel, shall be within 8 minutes and 30 seconds for urban areas and 26 minutes for rural areas. The first-due engine company shall be capable of providing 500 gallons of water and 500 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 70 gpm; protecting exposures; containing the fire; and evacuating at risk persons. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all wildland fires on Molokaʻi Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 3 personnel, shall arrive within 9 minutes and 40 seconds for urban areas and 36 minutes and 50 seconds for rural areas. The ERF shall be capable of providing a combined 3,000 gallons of water and 1,000 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 70 gpm; protecting exposures; containing the fire; and evacuating at risk persons. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

Lanaʻi Island Performance Measures

For 90 percent of all wildland fires on Lanaʻi Island, the total response time for the arrival of the first-due engine company, staffed with a minimum of 4 personnel, shall be within 10 minutes and 30 seconds for urban areas and 24 minutes for rural areas. The first-due engine company shall be capable of providing 750 gallons of water and 1000 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 70 gpm; protecting exposures; containing the fire; and evacuating at-risk persons. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all wildland fires on Lanaʻi Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 5 personnel, shall be within 11 minutes and 30 seconds for urban areas and 26 minutes for rural areas. The ERF shall be capable of providing a combined 2750 gallons of water and 1500 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 70 gpm; protecting exposures; containing the fire; and evacuating at-risk persons. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

Hana District Performance Measures

For 90 percent of all wildland fires in Hana District, the total response time for the arrival of the first-due engine company, staffed with a minimum of 4 personnel, shall be within 18 minutes for suburban areas and 46 minutes and 15 seconds for rural areas. The first-due engine company shall be capable of providing 750 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 70 gpm; protecting exposures; containing the fire; and evacuating at-risk persons. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public. Note: Concentration performance measures are not given for wildland fires in Hana District because the first arriving company is considered to be the entire effective response force (ERF). Hana does also have a 1,800 gallon tanker available, but it is not permanently staffed. If used it is operated by a firefighter from Engine 7.

Baseline Performance measures – Wildland fires

Maui Island Performance Measures

For 90 percent of all wildland fires on Maui Island, the total response time for the arrival of the first-due engine company, staffed with a minimum of 4 personnel, is within 12 minutes and 37 seconds for urban areas; 15 minutes and 36 seconds for suburban areas; and 22 minutes and 58 seconds for rural areas. The first-due engine company is capable of providing 750 gallons of water and 1,000 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 70 gpm; protecting exposures; containing the fire; and evacuating at-risk persons. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all wildland fires on Maui Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 5 personnel, is within 37 minutes and 2 seconds for urban areas; 29 minutes and 2 seconds for suburban areas; and 1 hour, 8 minutes and 14 seconds for rural areas. The ERF shall be capable of providing a combined 2,750 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 70 gpm; protecting exposures; containing the fire; and evacuating at-risk persons. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

Maui Island Wildland Fires 90th Percentile Times									
		2013-2015		**2013**		**2014**		**2013**	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**3:10**	**359**	**3:51**	**97**	**2:37**	**97**	**3:09**	**161**
	Urban	2:46	207	3:10	57	3:10	57	2:48	87
	Suburban	3:39	37	5:06	8	5:06	8	3:16	18
	Rural	3:39	115	6:55	32	6:55	32	3:39	56
Turnout Time 1st Unit on Scene	**Overall**	**3:59**	**359**	**4:00**	**97**	**4:00**	**97**	**4:02**	**161**
	Urban	3:55	207	3:44	57	3:44	57	4:04	87
	Suburban	3:52	37	4:05	8	4:05	8	3:54	18
	Rural	4:22	115	4:42	32	4:42	32	4:18	56
Distribution Travel Time 1st Unit on Scene	**Overall**	**12:12**	**359**	**12:13**	**97**	**12:13**	**97**	**13:06**	**161**
	Urban	8:15	207	11:14	57	11:14	57	7:29	87
	Suburban	11:11	37	10:45	8	10:45	8	10:52	18
	Rural	17:43	115	19:22	32	19:22	32	26:23	56
Concentration Travel Time Effective Response Force (ERF)	**Overall**	**38:53**	**224**	**1:01:08**	**64**	**1:01:08**	**64**	**34:54**	**102**
	Urban	31:34	111	1:17:29	34	1:17:29	34	24:32	44
	Suburban	23:53	18	44:36	4	44:36	4	20:20	7
	Rural	1:00:54	94	1:00:54	25	1:00:54	25	50:58	51
Distribution Total Response Time 1st Unit on Scene	**Overall**	**16:45**	**359**	**17:33**	**97**	**17:33**	**97**	**17:28**	**161**
	Urban	12:37	207	16:23	57	16:23	57	11:48	87
	Suburban	15:36	37	14:57	8	14:57	8	16:46	18
	Rural	22:58	115	22:25	32	22:25	32	28:12	56
Concentration Total Response Time Effective Response Force (ERF)	**Overall**	**43:12**	**224**	**1:19:34**	**64**	**1:19:34**	**64**	**39:17**	**102**
	Urban	37:02	111	1:19:34	34	1:19:34	34	25:37	44
	Suburban	29:02	18	49:10	4	49:10	4	26:25	7
	Rural	1:08:14	94	1:21:29	25	1:21:29	25	55:42	51

Moloka‘i Island Performance Measures

For 90 percent of all wildland fires on Moloka‘i Island, the total response time for the arrival of the first-due engine company, staffed with a minimum of 2 personnel, is within 4 minutes and 44 seconds for urban areas and 28 minutes and 36 seconds for rural areas. The first-due engine company is capable of providing 500 gallons of water and 500 gallons per minute

(gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 70 gpm; protecting exposures; containing the fire; and evacuating at-risk persons. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all wildland fires on Molokaʻi Island, the total response for the arrival of the effective response force (ERF), staffed with a minimum of 3 personnel, is within 9 minutes and 44 seconds for urban areas and 36 minutes and 55 seconds for rural areas. The ERF is capable of providing a combined 3,000 gallons of water and 1,000 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 70 gpm; protecting exposures; containing the fire; and evacuating at risk persons. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

Moloka‘i Island Wildland Fires 90th Percentile Times									
		2013-2015		**2015**		**2014**		**2013**	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**4:09**	**17**	**4:20**	**6**	**1:25**	**5**	**3:01**	**6**
	Urban	1:59	2	1:59	2		0		0
	Suburban		0		0		0		0
	Rural	4:09	15	4:20	4	1:25	5	3:01	6
Turnout Time 1st Unit on Scene	**Overall**	**3:58**	**17**	**4:16**	**6**	**0:31**	**5**	**2:01**	**6**
	Urban	1:27	2	1:27	2		0		0
	Suburban		0		0		0		0
	Rural	3:58	15	4:16	4	0:31	5	2:01	6
Distribution Travel Time 1st Unit on Scene	**Overall**	**26:06**	**17**	**9:38**	**6**	**42:22**	**5**	**6:01**	**6**
	Urban	2:33	2	2:33	2		0		0
	Suburban		0		0		0		0
	Rural	26:06	15	9:38	4	42:22	5	6:01	6
Concentration Travel Time Effective Response Force (ERF)	**Overall**	**36:55**	**16**	**33:11**	**6**	**35:29**	**5**	**38:32**	**5**
	Urban	4:51	3	4:35	2	4:51	1		0
	Suburban		0		0		0		0
	Rural	35:29	13	33:11	4	35:29	4	38:32	5
Distribution Total Response Time 1st Unit on Scene	**Overall**	**38:36**	**17**	**14:51**	**6**	**42:22**	**5**	**8:39**	**6**
	Urban	4:44	2	4:44	2		0		0
	Suburban		0		0		0		0
	Rural	28:36	15	14:51	4	42:22	5	8:39	6
Concentration Total Response Time Effective Response Force (ERF)	**Overall**	**36:55**	**16**	**33:37**	**6**	**36:55**	**5**	**38:34**	**5**
	Urban	9:44	3	8:01	2	9:44	1		0
	Suburban		0		0		0		0
	Rural	36:55	13	33:37	4	36:55	4	38:34	5

Lana‘i Island Performance Measures

For 90 percent of all wildland fires on Lana‘i Island, the total response time for the arrival of the first-due engine company, staffed with a minimum of 4 personnel, is within 10 minutes and 54 seconds for urban areas; there were no responses for rural areas. The first-due engine

company is capable of providing 750 gallons of water and 1,000 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 70 gpm; protecting exposures; containing the fire; and evacuating at risk persons. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all wildland fires on Lanaʻi Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 5 personnel, is 11 minutes and 31 seconds for urban areas; there were no responses for rural areas. The ERF is capable of providing a combined 2,750 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 70 gpm; protecting exposures; containing the fire; and evacuating at-risk persons. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

There were no wildland fire incidents reported on Lanaʻi Island in 2013 and 2014. Therefore the baseline performance statements and table include only the year 2015.

Lanaʻi Island Wildland Fires 90th Percentile Times			
		2015	
		Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**2:44**	**2**
	Urban	2:44	2
Turnout Time 1st Unit on Scene	**Overall**	**2:48**	**2**
	Urban	2:48	2
Distribution Travel Time 1st Unit on Scene	**Overall**	**6:03**	**2**
	Urban	6:03	2
Concentration Travel Time Effective Response Force (ERF)	**Overall**	**6:40**	**2**
	Urban	6:40	2
Distribution Total Response Time 1st Unit on Scene	**Overall**	**10:54**	**2**
	Urban	10:54	2
Concentration Total Response Time Effective Response Force (ERF)	**Overall**	**11:31**	**2**
	Urban	11:31	2

Hana District Performance Measures

For 90 percent of all wildland fires in Hana District, the total response time for the arrival of the first-due engine company, staffed with a minimum of 4 personnel, is within 18 minutes and 5 seconds for suburban areas, and 49 minutes and 20 seconds for rural areas. The first-due engine company is capable of providing 750 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; establishing command; requesting additional resources; advancing an attack line flowing a minimum of 70 gpm; protecting exposures; containing the fire; and evacuating at-risk persons. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public. Note: Concentration performance measures are not given for wildland fires in Hana District because the first arriving company is considered to be the entire effective response force (ERF). Hana does also have a 1,800 gallon tanker available, but it is not permanently staffed. If used it is operated by a firefighter from Engine 7.

No wildland fire incidents were reported in Hana District in 2013.

Hana District Wildland Fires 90th Percentile Times							
		2014-2015		**2015**		**2014**	
		Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**2:37**	**4**	**2:37**	**2**	**1:51**	**2**
	Suburban	0:59	1		0	0:59	1
	Rural	2:37	3	2:37	2	1:51	1
Turnout Time 1st Unit on Scene	**Overall**	**4:24**	**4**	**3:49**	**2**	**4:24**	**2**
	Suburban	2:19	1		0	2:19	1
	Rural	4:24	3	3:49	2	4:24	1
Distribution Travel Time 1st Unit on Scene	**Overall**	**43:55**	**4**	**43:55**	**2**	**15:17**	**2**
	Suburban	14:47	1		0	14:47	1
	Rural	43:55	3	43:55	2	15:17	1
Distribution Total Response Time 1st Unit on Scene	**Overall**	**49:20**	**4**	**49:20**	**2**	**21:32**	**2**
	Suburban	18:05	1		0	18:05	1
	Rural	49:20	3	49:20	2	21:32	1

The team was not able to review 2016 response time data, and, since it was being evaluated and compiled by the person hired to assist with data management, it was not going to be available for another 30 days after the site visit.

Criterion 5B – Fire Prevention / Life Safety Program

Maui Fire Department (MFD), Fire Prevention Bureau's (FPB) goals are supported by the department strategic plan. The fire prevention/life safety program is in the FPB. A plan review process is in place that is coordinated with the building permit process. A fire inspection program is in place to comply with the inspection requirements of the Hawaii State Fire Code and the Hawaii Revised Statutes 132.

The agency operates an adequate, effective, and efficient program directed toward fire prevention, life safety, hazard risk reduction, the detection, reporting, and control of fires and other emergencies, the provision of occupant safety and exiting, and the provisions for first aid fire fighting equipment.

MFD has adopted the 2012 Edition of National Fire Protection Association (NFPA) Fire Code as adopted by the State of Hawaii and County of Maui and found in the Hawaii Revised Statutes, Chapter 132 Fire Protection, Section 132-3. The County of Maui has amended and codified the state fire code by ordinance, and it is published in the Codification of the General Ordinances of the County of Maui, Hawaii section 16.04C.010 - The State Fire Code incorporated. Chapter 12-45.3, Hawaii Administrative Rules, entitled "State Fire Code" as adopted by the State of Hawaii on 15 August 2014 as required by Section 132-3, Hawaii Revised Statutes, which adopts, with modifications, the NFPA 1, Fire Code, 2012 Edition, (NFPA 1) as published and copyrighted by NFPA, and is made a part of this chapter, subject to the amendments set forth in this chapter. (Ord. No. 4232, § 3, 2015)

The FPB utilizes plans review, permits, and a progressive correction program when it comes to ensuring compliance with applicable fire protection and life safety laws that have been adopted. Education, inspection reports, warning notices, notices of violation, and fines are components to a progressive path to correction.

The enforcement program regarding compliance with fire protection law has been effective. In addition, MFD issued permits for hazardous processes such as flammable/combustible liquids, liquid propane gas, and hazardous materials. MFD inspects all public schools on an annual basis. A "request for services" process has been used by the department to handle public concerns on fire and life safety and ultimately gain compliance. MFD conducted maintenance inspections on several new and existing occupancies to include all associated fire and life safety systems.

MFD will seek out ways to increase the number of inspections completed by the department. MFD will work with Corporation Counsel to shore up/tighten up/strengthen the progressive correction program to eventually include a summons process.

It is recommended the department institute a formal inspection tracking and enforcement policy that is based on actual inspection activities and supported by the agency legal counsel.

The program is staffed with the following personnel: one captain, two lieutenants, six inspectors, one account clerk, and one operation assistant. The lieutenants handle all activities regarding plans review. The inspectors handle all activities regarding inspections. All uniformed personnel with more than two years in the bureau are certified as Fire Inspector 1. Six out of the nine fire inspectors have obtained Pro Board Fire Inspector 1 certification. The County of Maui has established a maximum time limit of 30 days for plan reviewers to conduct initial review of submitted plans.

Two of the eleven personnel in the FPB are assigned to review plans and have been adequate to meet the workload. The duties regarding inspections and public education are shared amongst all staff members. FPB has been able to meet most community requests in a timely manner; this approach has been more reactive.

FPB will continue to meet the current workloads generated by community requests. A better organization of the bureau will be sought to address the issue with span of control. FPB will look to increase staffing so that the following responsibilities could be improved: keeping track of new construction projects, completing timely maintenance inspections for existing occupancies, and taking a more proactive approach to public education.

It is recommended the department develop and implement a risk-based inspection frequency schedule that is correlated with the risk assessment found in the standards of cover and provide appropriate staffing to meet departmental goals and objectives.

Statistics on the activities of the FPB are provided quarterly as part of the Fiscal Year Budget Implementation Report. This report contains statistics on the following activities: plans reviewed, maintenance inspections, brush abatement inspections, public school inspections, fire safety presentations, fire investigations, and number of people trained in the use of fire extinguishers. These numbers are derived from the FPB's activities report.

The Fiscal Year Budget Implementation Report was implemented in 2011. This report has allowed the department to compare activities throughout the year with previous years. Prior to the start of each fiscal year numbers are projected for each activity based upon statistics from previous years and goals of the department. By having this report, the amount of work being done by the bureau can be tracked and identified; however, it does not provide a true appraisal of the risk reduction efforts effectiveness within the community.

It is recommended the department formalize the appraisal of the fire prevention program including prevention data related to inspection violations/corrections, plan review data, and code enforcement activities to align resources with emergent community needs and risks.

Criterion 5C – Public Education Program

Public education is a core component to fulfill the Maui Fire Department's (MFD) mission statement of protecting lives, the environment, and property. In 2007, the fire prevention bureau (FPB) dedicated a specific position to plan, create, and implement public education programs throughout the County of Maui (COM). The programs entailed a firefighter safety guide, a fire safety house, fire extinguisher training, and a free smoke alarm giveaway program. In addition, public displays, school visits, and participation in safety fairs have become the norm for the MFD. Although a particular person does the planning and tracking of these events, the entire department assists to accomplish the public education goals.

A public education program is in place and directed toward identifying and reducing specific risks in a manner consistent with the agency's mission. The department's public education programs target school aged children, senior citizens, service and civic organizations, homeowners, disabled individuals, low income families, and members of the community. The department uses nationwide data and current events to develop public education programs. The education programs main

priorities are school aged children and senior citizens. MFD's public education programs are based upon community needs as identified through requests to the department.

The department's public education programs are meeting the needs of the public as identified through requests. These programs are based upon nationally recognized programs. At this time, the programs are not based upon incident analysis because no incident analysis process is in place and the bureau lacks sufficient staffing to accomplish this task.

It is recommended the department utilize response, risk analysis, and demographic data to expand the public education program to include other non-fire related topics (e.g.: tourist populations, stroke, heart attack, drowning, etc.).

Paragraph 691.03 of the department's rules and regulations provides general guidelines for the public education program. The guidelines provided in Par. 691.03 are very general. The department is currently working on standard operating guidelines (SOGs). The department will continue to follow Par. 691.03 of the MFD's rules and regulations. The department recognizes that SOGs for the public education program are a priority, and will work on completing these guidelines. SOGs were updated department-wide in March 2016.

Statistics on the educational activities of the FPB are provided quarterly as part of the Fiscal Year Performance Measures Report. This report contains statistics on the following activities: fire safety presentations and number of people trained in the use of fire extinguishers. These numbers are derived from the department's public education Excel spreadsheets.

The Fiscal Year Performance Measures Report was implemented in 2003. This report has allowed the FPB to compare activities throughout the year with previous years. Prior to the start of each fiscal year, numbers are projected for each activity based upon statistics from previous years and goals of the department. By having this report, the amount of work being done by the bureau can be tracked and identified; however, it does not provide a true analysis of risk reduction.

The FPB will continue to meet or exceed the goals identified in the Fiscal Year Performance Measures Report. Because the amount of work done is not a complete analysis of risk reduction, the bureau will look for additional ways to better analyze risk reduction, and work effectiveness in the community.

Criterion 5D – Fire Investigation Program

The fire chief is responsible to determine the origin and cause of unwanted fires as directed by Hawaii Revised Statutes 132. As a result, company officers are tasked with determining the origin and cause of fires they respond to. When a company officer cannot determine a cause, or the fire meets predetermined call-out requirements, a fire investigator from the fire prevention bureau (FPB) is called to assist the incident commander at a fire scene in determining a cause. A fire investigator is on call 24 hours a day, 365 days a year.

The agency operates an adequate, effective and efficient program directed toward origin and cause investigation and determination for fires, explosions, and other emergency situations that endanger life or property. Hawaii Revised Statutes, 132, requires that the fire chief of each county be responsible to determine the origin and cause of all fires. As a result, the department has a fire investigation program to determine the origin and cause of fires.

The department follows the National Fire Protection Association (NFPA) 921: *Guide for Fire and Explosion Investigations* standard as stated within its fire investigation policy. Within this standard, the scientific method is recognized as being imperative when conducting fire investigations.

Fire investigators within the FPB are well aware of NFPA 921 and the importance of the scientific method as stated within the fire investigation policy manual and attending fire investigation classes. The topic of scientific method has come up in local judicial proceedings regarding fire investigations. It has been recognized as an acceptable process when conducting fire investigations.

Each company officer in the field is responsible to determine the origin and cause of fires that they respond to. Company officers are promoted to the rank of captain through a competitive testing process that includes an International Fire Service Training Association (IFSTA) Essentials of Firefighting, 6th edition chapter referencing fire investigations. Company officers have a minimum requirement of eight years of fire service experience before being eligible for promotion. Company officers and FPB personnel are not required to be certified fire investigators. In addition, the FPB has three trained fire investigators that have attended training classes and take turns being on call to assist company officers in the investigation of fires that result in injury or death, determined to be arson, are of a high dollar value, remain undetermined, or are of notoriety. Annual fire investigation training for FPB personnel has included the National Fire Academy (NFA), the International Association of Arson Investigators (IAAI) annual conference, or the Public Agency Training Council classes regarding fire investigations. On occasion, an NFA instructor in the off-campus program teaches a fire investigation course for company officers.

Some fire investigation training has been provided to all members of the department when going through recruit school. New members receive training on the importance of conducting an investigation and preserving evidence at a fire scene. FPB fire investigators receive more in-depth fire investigation training at conferences and seminars.

It is recommended the department enhance its existing training program by creating a continuing education component for fire investigation.

The department's standard operating guidelines for fire investigations are included in MFD's rules and regulations, Paragraph 331.01-331.09. There are detailed internal policies and procedures in the FPB, with the last revision in 2001. MFD's SOG 201.15 addresses fire investigator call-out. All of the department's SOGs were updated in March 2016.

The department fire investigators share information amongst one another as incidents and circumstances arise. These discussions occur during training and review of procedures and equipment. There is no provision for an appropriate appraisal with these undocumented discussions.

It is recommended the department develop a formal process to determine the effectiveness of the fire investigation program against defined program goals and objectives.

Criterion 5E – Technical Rescue

The Maui Fire Department provides a wide range of technical rescue programs to its residents including, but not limited to: vehicle entrapment, urban search and rescue, high angle, ocean rescue, dive, trench rescue, and confined space. Technical rescue trained personnel staff one company with a minimum of four personnel. All first-due companies have a minimum of awareness level training.

The agency operates an adequate, effective, and efficient program directed toward rescuing trapped or endangered persons from any life-endangering cause, e.g., structural collapse, vehicle accidents, swift water or submersion, confined space, cave-in, trench collapse, fire, etc. The department describes what is expected of its members during technical rescue incidents through the use of standard operating guidelines (SOGs). The department's SOGs are appropriate for the level of service they provide and were updated in August 2016.

The department appraises the effectiveness of its technical rescue program through monthly reporting, annual reports, officer meetings, post-incident analysis, and full scale training exercises. The effectiveness is further evaluated during an annual review by the operations chief, battalion chiefs, and training captain.

The department's response and deployment standards are based upon the urban, suburban, and rural population densities, and the technical rescue demands of the community. Fourteen fire stations provide county wide coverage; department staffing is based on station location, incident type, and frequency. The targeted service level objectives in the standards of cover benchmark statements are based on industry standards and best practices, as identified earlier in this report in Category II – Assessment and Planning. The objectives have been approved and adopted by fire department management and presented to the mayor, fire and public safety commission, and county council. The department's benchmark service level objectives are as follows:

> For 90 percent of all technical rescue calls on Maui Island, the total response time for the arrival of the first-due company, staffed with a minimum of 4 personnel, shall be 15 minutes and 5 seconds for urban areas, 18 minutes for suburban areas, and 30 minutes and 38 seconds for rural areas. The first-due company shall be capable of establishing command; performing a scene size-up to determine if technical rescue is required; requesting additional resources; and providing initial care to victims. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.
>
> For 90 percent of all technical rescue calls on Maui Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 8 personnel, shall be 52 minutes for urban areas, 58 minutes and 30 seconds for suburban areas, and 1 hour and 4 minutes for rural areas. The ERF shall be capable of establishing command; performing a scene size-up; requesting additional resources; appointing a safety officer; establishing contact with victim(s); providing initial care; and providing the equipment, knowledge, and skills to rescue and extricate victim(s) to safety. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.
>
> For 90 percent of all technical rescue calls on Molokaʻi Island, the total response time for the arrival of the first-due company, staffed with a minimum of 2 personnel, shall be 24 minutes and 30 seconds for urban areas and 28 minutes and 30 seconds for rural areas. The first-due company shall be capable of establishing command; performing a scene size-up to determine if technical rescue is required; requesting additional resources; and providing initial care to victims. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all technical rescue calls on Molokaʻi Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 6 personnel, shall be 56 minutes for urban areas and 1 hour and 37 minutes for rural areas. The ERF shall be capable of establishing command; performing a scene size-up; requesting additional resources; appointing a safety officer; establishing contact with victim(s); providing initial care; and providing the equipment, knowledge, and skills to rescue and extricate victim(s) to safety. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all technical rescue calls on Lanaʻi Island, the total response time for the arrival of the first-due company, staffed with a minimum of 4 personnel, shall be 36 minutes for urban areas and 48 minutes for rural areas. The first-due company shall be capable of establishing command; performing a scene size-up to determine if technical rescue is required; requesting additional resources; and providing initial care to victims. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all technical rescue calls on Lanaʻi Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 8 personnel, shall be 55 minutes and 50 seconds for urban areas and 1 hour and 35 minutes for rural areas. The ERF shall be capable of establishing command; performing a scene size-up; requesting additional resources; appointing a safety officer; establishing contact with victim(s); providing initial care; and providing the equipment, knowledge, and skills to rescue and extricate victim(s) to safety. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all technical rescue calls in Hana District, the total response time for the arrival of the first-due company, staffed with a minimum of 4 personnel, shall be 14 minutes and 44 seconds for suburban areas and 42 minutes for rural areas. The first-due company shall be capable of establishing command; performing a scene size-up to determine if technical rescue is required; requesting additional resources; and providing initial care to victims. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all technical rescue calls in Hana District, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 8 personnel, shall be 1 hour and 20 minutes for suburban areas and 1 hour and 30 minutes for rural areas. The ERF shall be capable of establishing command; performing a scene size-up; requesting additional resources; appointing a safety officer; establishing contact with victim(s); providing initial care; and providing the equipment, knowledge, and skills to rescue and extricate victim(s) to safety. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

The department's baseline statements reflect actual performance during 2013 to 2015. The department does not rely on the use of automatic aid or mutual aid from neighboring fire departments. The department's actual baseline service level performance is as follows:

For 90 percent of all technical rescue calls on Maui Island, the total response time for the arrival of the first-due company, staffed with a minimum of 4 personnel, is 15 minutes and 35

seconds for urban areas; 18 minutes and 17 seconds for suburban areas; and 30 minutes and 58 seconds for rural areas. The first-due company is capable of establishing command; performing a scene size-up to determine if technical rescue is required; requesting additional resources; and providing initial care to victims. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all technical rescue calls on Maui Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 8 personnel, is 52 minutes and 28 seconds for urban areas; 11 hours, 38 minutes, and 20 seconds for suburban areas; and 1 hour, 4 minutes, and 39 seconds for rural areas. The ERF is capable of establishing command; performing a scene size-up; requesting additional resources; appointing a safety officer; establishing contact with victim(s); providing initial care; and providing the equipment, knowledge, and skills to rescue and extricate victim(s) to safety. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

Maui Island Technical Rescues 90th Percentile Times									
		2013-2015		2015		2014		2013	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**6:11**	**657**	**6:36**	**215**	**6:11**	**190**	**6:59**	**252**
	Urban	6:11	436	5:36	138	6:11	133	7:31	165
	Suburban	5:05	44	7:18	10	4:04	13	4:54	21
	Rural	7:05	174	8:30	65	6:05	44	7:02	65
Turnout Time 1st Unit on Scene	**Overall**	**4:33**	**657**	**4:41**	**215**	**4:16**	**190**	**4:34**	**252**
	Urban	4:14	436	4:31	138	4:05	133	4:17	165
	Suburban	4:33	44	6:15	10	7:04	13	4:12	21
	Rural	5:40	174	6:41	65	5:22	44	6:12	65
Distribution Travel Time 1st Unit on Scene	**Overall**	**14:40**	**657**	**15:29**	**215**	**14:19**	**190**	**13:54**	**252**
	Urban	8:37	436	9:13	138	7:47	133	9:11	165
	Suburban	11:19	44	11:59	10	10:14	13	12:15	21
	Rural	24:56	174	27:08	65	26:08	44	21:27	65
Concentration Travel Time Effective Response Force (ERF)	**Overall**	**48:07**	**143**	**46:29**	**45**	**1:05:54**	**41**	**49:54**	**57**
	Urban	46:20	37	46:22	13	5:38:09	10	5:54:06	14
	Suburban	1:41:00	9	14:45	1	1:41:00	5	56:46	3
	Rural	47:52	95	46:29	30	1:05:54	26	49:54	39
Distribution Total Response Time 1st Unit on Scene	**Overall**	**22:16**	**657**	**23:05**	**215**	**19:13**	**190**	**23:58**	**252**
	Urban	15:35	436	15:32	138	13:36	133	20:53	165
	Suburban	18:17	44	19:15	10	15:51	13	16:50	21
	Rural	30:58	174	33:24	65	31:38	44	29:28	65
Concentration Total Response Time Effective Response Force (ERF)	**Overall**	**1:06:16**	**143**	**57:49**	**45**	**1:30:47**	**41**	**1:06:16**	**57**
	Urban	52:28	37	55:38	13	5:36:58	10	5:59:57	14
	Suburban	11:38:20	9	26:25	1	11:38:20	5	1:05:37	3
	Rural	1:04:39	95	57:49	30	1:14:15	26	1:07:11	39

For 90 percent of all technical rescue calls on Molokaʻi Island, the total response time for the arrival of the first-due company, staffed with a minimum of 2 personnel, is 24 minutes and 48 seconds for urban areas and 28 minutes and 35 seconds for rural areas. The first-due company is capable of establishing command; performing a scene size-up to determine if technical rescue is required; requesting additional resources; and providing initial care to victims. These

operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all technical rescue calls on Molokaʻi Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 6 personnel, is 56 minutes and 26 seconds for urban areas and 1 hour, 37 minutes, and 15 seconds for rural areas. The ERF is capable of establishing command; performing a scene size-up; requesting additional resources; appointing a safety officer; establishing contact with victim(s); providing initial care; and providing the equipment, knowledge, and skills to rescue and extricate victim(s) to safety. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

Molokaʻi Island Technical Rescues 90th Percentile Times									
		2013-2015		**2015**		**2014**		**2013**	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**8:35**	**15**	**3:30**	**6**	**8:16**	**5**	**8:55**	**4**
	Urban	8:55	1		0		0	8:55	1
	Rural	7:01	14	3:30	6	8:16	5	1:23	3
Turnout Time 1st Unit on Scene	**Overall**	**5:38**	**15**	**6:47**	**6**	**3:00**	**5**	**4:29**	**4**
	Urban	0:31	1		0		0	0:31	1
	Rural	5:38	14	6:47	6	3:00	5	4:29	3
Distribution Travel Time 1st Unit on Scene	**Overall**	**24:17**	**15**	**26:53**	**6**	**20:41**	**5**	**21:42**	**4**
	Urban	21:42	1		0		0	21:42	1
	Rural	23:47	14	26:53	6	20:41	5	10:00	3
Concentration Travel Time Effective Response Force (ERF)	**Overall**	**53:53**	**7**	**53:50**	**3**	**53:53**	**3**	**47:00**	**1**
	Urban	47:00	2		0	20:48	1	47:00	1
	Rural	53:53	5	53:50	3	53:53	2		0
Distribution Total Response Time 1st Unit on Scene	**Overall**	**28:35**	**15**	**31:23**	**6**	**25:48**	**5**	**28:48**	**4**
	Urban	24:48	1		0		0	24:48	1
	Rural	28:35	14	31:23	6	25:48	5	15:29	3
Concentration Total Response Time Effective Response Force (ERF)	**Overall**	**1:37:15**	**7**	**1:37:15**	**3**	**59:00**	**2**	**56:26**	**1**
	Urban	56:26	2		0	27:43	1	56:26	1
	Rural	1:37:15	5	1:37:15	3	59:00	2		0

For 90 percent of all technical rescue calls on Lanaʻi Island, the total response time for the arrival of the first-due company, staffed with a minimum of 4 personnel, is 57 minutes and 36 seconds for urban areas; and 3 hours, 42 minutes, and 53 seconds for rural areas. The first-due company is capable of establishing command; performing a scene size-up to determine if technical rescue is required; requesting additional resources; and providing initial care to victims. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all technical rescue calls on Lanaʻi Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 8 personnel, is 55 minutes and 59 seconds for urban areas; and 8 hours, 2 minutes, and 54 seconds for rural areas. The ERF is capable of establishing command; performing a scene size-up; requesting additional resources; appointing a safety officer; establishing contact with victim(s); providing initial care; and providing the equipment, knowledge, and skills to rescue and extricate victim(s) to safety. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

Lana‘i Island Technical Rescues 90th Percentile Times									
		2013-2015		**2015**		**2014**		**2013**	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**12:14**	**10**	**3:28**	**2**	**8:05**	**4**	**16:23**	**4**
	Urban	16:23	6		0	5:00	2	16:23	4
	Rural	8:05	4	3:28	2	8:05	2		0
Turnout Time 1st Unit on Scene	**Overall**	**27:31**	**10**	**37:11**	**2**	**17:52**	**4**	**6:51**	**4**
	Urban	9:27	6		0	9:27	2	6:51	4
	Rural	37:11	4	37:11	2	17:52	2		0
Distribution Travel Time 1st Unit on Scene	**Overall**	**50:11**	**10**	**2:14**	**2**	**8:39**	**4**	**38:09**	**4**
	Urban	38:09	6		0	7:14	2	38:09	4
	Rural	3:02:14	4	3:02:14	2	8:39	2		0
Concentration Travel Time Effective Response Force (ERF)	**Overall**	**7:53:51**	**5**	**7:53:51**	**2**	**34:13**	**3**		**0**
	Urban	41:00	2	41:00	1	34:13	1		0
	Rural	7:53:51	3	7:53:51	1	26:22	2		0
Distribution Total Response Time 1st Unit on Scene	**Overall**	**20:14**	**10**	**3:42:53**	**2**	**28:14**	**4**	**57:36**	**4**
	Urban	57:36	6		0	17:18	2	57:36	4
	Rural	3:42:53	4	3:42:53	2	28:14	2		0
Concentration Total Response Time Effective Response Force (ERF)	**Overall**	**8:02:54**	**5**	**8:02:54**	**2**	**43:17**	**3**		**0**
	Urban	55:59	2	55:59	1	43:17	1		0
	Rural	8:02:54	3	8:02:54	1	37:53	2		0

For 90 percent of all technical rescue calls in Hana District, the total response time for the arrival of the first-due company, staffed with a minimum of 4 personnel, is 13 minutes and 25 seconds for suburban areas and 42 minutes and 56 seconds for rural areas. The first-due company is capable of establishing command; performing a scene size-up to determine if technical rescue is required; requesting additional resources; and providing initial care to victims. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all technical rescue calls in Hana District, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 8 personnel, there were no response times available for suburban areas and 1 hour, 34 minutes, and 1 second for rural areas. The ERF is capable of establishing command; performing a scene size-up;

requesting additional resources; appointing a safety officer; establishing contact with victim(s); providing initial care; and providing the equipment, knowledge, and skills to rescue and extricate victim(s) to safety. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

Hana District Technical Rescues 90th Percentile Times									
		2013-2015		**2015**		**2014**		**2013**	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**8:08**	**10**	**3:01**	**1**	**11:49**	**5**	**4:28**	**4**
	Urban		0		0		0		0
	Suburban	3:46	1		0		0	3:46	1
	Rural	11:49	9	3:01	1	11:49	5	4:28	3
Turnout Time 1st Unit on Scene	**Overall**	**5:54**	**10**	**2:13**	**1**	**6:19**	**5**	**4:15**	**4**
	Urban		0		0		0		0
	Suburban	4:15	1		0		0	4:15	1
	Rural	6:19	9	2:13	1	6:19	5	3:47	3
Distribution Travel Time 1st Unit on Scene	**Overall**	**24:52**	**10**	**7:07**	**1**	**27:14**	**5**	**22:30**	**4**
	Urban		0		0		0		0
	Suburban	5:24	1		0		0	5:24	1
	Rural	27:14	9	7:07	1	27:14	5	22:30	3
Concentration Travel Time Effective Response Force (ERF)	**Overall**	**1:26:06**	**10**	**41:41**	**1**	**1:34:29**	**7**	**1:00:17**	**2**
	Urban		0		0		0		0
	Suburban		0		0		0		0
	Rural	1:26:06	10	41:41	1	1:34:29	7	1:00:17	2
Distribution Total Response Time 1st Unit on Scene	**Overall**	**35:30**	**10**	**12:21**	**1**	**42:56**	**5**	**28:04**	**4**
	Urban		0		0		0		0
	Suburban	13:25	1		0		0	13:25	1
	Rural	42:56	9	12:21	1	42:56	5	28:04	3
Concentration Total Response Time Effective Response Force (ERF)	**Overall**	**1:34:01**	**10**	**46:55**	**1**	**1:42:16**	**7**	**1:05:51**	**2**
	Urban		0		0		0		0
	Suburban		0		0		0		0
	Rural	1:34:01	10	46:55	1	1:42:16	7	1:05:51	2

It was verified and validated by the peer assessment team that the Maui Fire Department did not have sufficient technical rescue incidents, which required a first-due response or an effective response force to be assembled in some areas for 2013-2015, to provide reliable data.

The team was not able to review 2016 response time data, since it was being evaluated and compiled by the person hired to assist with data management.

Criterion 5F – Hazardous Materials (Hazmat)

The Maui Fire Department has developed a program to handle hazardous materials emergencies. All first-due companies are trained to the operations level, and one well-equipped, dedicated hazardous materials response unit provides support at the technician level. The department's hazardous materials operations capabilities are the only resource for hazardous materials emergency incidents within the county and the three islands that the county occupies.

The department equips all front-line engines, ladders, and rescues with a small equipment cache to handle incidents at the operations level. Larger hazardous materials responses on the main island are handled by the full-time staffed hazardous materials unit in support of the initial engine company response; if needed on the other islands, personnel and equipment will be transported by helicopter with a small cache of equipment. The hazardous materials response unit is specifically-designed for hazardous materials operations and response. The unit provides command and control level areas, limited pumping capacity, as well as a limited water supply, and fire extinguishment equipment. The unit also transports a small cache of rescue materials and equipment to support those functions as well.

Each hazardous materials technician is responsible for assuring the maintenance of that certification level which is facilitated through the training bureau. The technicians also are the primary resource for training the remainder of the departments response personnel in hazardous materials operations level capabilities.

One criterion statement and one core competency were not met: criterion statement 5F and core competency 5F.7. Additional detail related to the team's findings is located below in its observations about the ability of the department to meet the criterion statement and core competency expectations.

The agency operates an adequate, effective, and efficient hazardous materials program directed toward protecting the community from the hazards associated with fires and uncontrolled releases of hazardous and toxic materials. However, the department could not produce documentation supporting that an annual appraisal of the hazardous materials program is being performed to determine the effectiveness of the program.

The hazardous materials response program has numerous comprehensive standard operating guidelines to guide the hazardous materials response efforts. The department completed a comprehensive review of all standard operating guidelines related to the program in March 2016.

Core competency 5F.7[14] was not met. The hazardous materials captains review after-action reports and host anecdotal sessions with team members on a periodic basis to determine the effectiveness of

[14] 5F.7 An appraisal is conducted, at least annually, to determine the effectiveness of the hazardous materials program.

the hazardous materials program. Additionally, a program captain meets with the training division to evaluate training needs for the near future. The training needs determinations are generally derived from operational observations and reports from other operational programs as to additional needs for training in hazardous materials operations. The process is an informal effort and specific measurement perspectives are not defined. Hazardous materials representatives readily indicate that a more formal process for program assessment would be a significant aid in determining the effectiveness of all aspects of the program delivery, training, and long range development process considerations.

It is recommended the department develop a formal and measurable assessment process to determine the effectiveness of the hazardous materials program. The process should be supported by operating guidelines that substantiate the process methodology and completion requirements.

First-due companies carry adequate supplies and materials consistent with operations level capabilities and other minor hazardous materials events. The hazardous materials unit is designed to carry a comprehensive inventory of additional equipment, supplies, and materials consistent with larger more technically demanding events. Within the county, the department has established a warehousing facility and a large cache of additional equipment, supplies, and materials which are available for incident utilization or resupply of the response units. It was identified within the overall risk assessment process all hazardous materials risks may not be fully considered. As an example, for one risk present on all three islands, petroleum transport vehicle rollover and spill incidents, control equipment and supplies maybe somewhat lacking in quantity and capability. Considerations should be given to the probability and impacts of these types of incidents and appropriate levels of equipment and supplies inventoried on response units or in storage to handle these situations.

It is recommended the department expand its risk analysis process to assist in the evaluation of equipment needs and determination processes.

Due to the limited hazardous materials risk review within the standards of cover document (SOC) and the lack of deployment objectives noted within the SOC for multiple risks levels that were observed in the response area, it was not possible for the team to adequately verify or validate that the department meets the deployment demands and resulting objectives for those risks. Additionally, the critical task analysis for risks was limited to a single tasking report which was again not related to specific risk levels and demands.

The department’s current hazardous materials responses are based upon the locations the department observed threats relative to populated areas and densities of the islands. The more populated areas are on the main island of Maui which is covered by the dedicated continuously staffed hazardous materials response unit. The other hazardous materials response demands exist on the two other island masses of Moloka‘i and Lana‘i, along with Hana on the island of Maui, are have operations level response capabilities provided by staffed engine companies with operations capabilities.

The targeted service level objectives in the standards of cover benchmark statements do not appear to be based on industry standards and best practices nor the standards defined on the Self-assessment Manual, pages 70 – 71.

The department’s benchmark service level objectives are as follows:

Maui Island Performance Measures

For 90 percent of all hazardous materials calls on Maui Island, the total response time for the arrival of the first-due company, staffed with a minimum of 4 personnel, shall be 13 minutes and 50 seconds for urban areas; 16 minutes and 55 seconds for suburban areas; and 23 minutes and 22 seconds for rural areas. The first-due company shall be capable of establishing command; performing a scene size-up to determine the presence of a potential hazardous material; determining the need for additional resources; establishing initial hot, warm, and cold zones; taking initial defensive actions; and performing line-of-sight rescues. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all hazardous materials calls on Maui Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 8 personnel, shall be 36 minutes and 30 seconds for urban areas; 53 minutes and 30 seconds for suburban areas; and 2 hours and 10 minutes for rural areas. The ERF shall be capable of establishing command; performing a scene size-up; appointing a safety officer; determining the need for additional resources; establishing hot, warm, and cold zones; and providing the equipment, knowledge, and skills to rescue victims and mitigate a hazardous materials incident. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

It should be noted that these baseline performance objective and time measurements are based on the single critical tasking report and do not reflect a risk analysis report and levels of risks that appear to exist within the populated areas of Maui island.

Molokaʻi Island Performance Measures

For 90 percent of all hazardous materials calls on Molokaʻi Island, the total response time for the arrival of the first-due company, staffed with a minimum of 2 personnel, shall be 24 minutes and 30 seconds for urban areas and 28 minutes and 30 seconds for rural areas. The first-due company shall be capable of establishing command; performing a scene size-up to determine the presence of a potential hazardous material; determining the need for additional resources; establishing initial hot, warm, and cold zones; taking initial defensive actions; and performing line-of-sight rescues. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

Note derived from the SOC document: Concentration performance measures are not given for hazardous materials calls on Molokaʻi Island because the first arriving company is considered to be the entire effective response force (ERF). Technician level resources can be brought in by boat if necessary, but will take at least 2 hours to arrive. For Molokaʻi Island, there are no areas designated as suburban, so times are only given for urban and rural.

Lanaʻi Island Performance Measures

For 90 percent of all hazardous materials calls on Lanaʻi Island, the total response time for the arrival of the first-due company, staffed with a minimum of 4 personnel, shall be36 minutes for urban areas and 48 minutes for rural areas. The first-due company shall be capable of

establishing command; performing a scene size-up to determine the presence of a potential hazardous material; determining the need for additional resources; establishing initial hot, warm, and cold zones; taking initial defensive actions; and performing line-of-sight rescues. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

Note from the SOC: Concentration performance measures are not given for hazardous materials calls on Lanaʻi Island because the first arriving company is considered to be the entire effective response force (ERF). Technician level resources can be brought in by boat if necessary, but will take at least 2 hours to arrive.

Hana District Performance Measures

For 90 percent of all hazardous materials calls in Hana District, the total response time for the arrival of the first-due company, staffed with a minimum of 4 personnel, shall be 13 minutes and 20 seconds for suburban areas and 42 minutes for rural areas. The first-due company shall be capable of establishing command; performing a scene size-up to determine the presence of a potential hazardous material; determining the need for additional resources; establishing initial hot, warm, and cold zones; taking initial defensive actions; and performing line-of-sight rescues. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

Note from the SOC: Concentration performance measures are not given for hazardous materials calls in Hana District because the first arriving company is considered to be the entire effective response force (ERF). If technician level response is required Hazmat 10 is approximately 2 hours away by road.

The department's current baseline statements reflect actual performance during 2013 to 2015. Due to the geographic remoteness of the Maui island, and Molokaʻi or Lanaʻi islands, along with Hana district, from other response resources, the department does not rely on the use of automatic aid to establish its effective response force complement of personnel.

The department's actual baseline service level performance is as follows:

Maui Island Performance Measures

For 90 percent of all hazardous materials calls on Maui Island, the total response time for the arrival of the first-due company, staffed with a minimum of 4 personnel, is: 14 minutes and 10 seconds for urban areas; 17 minutes and 18 seconds for suburban areas; and 23 minutes and 42 seconds for rural areas. The first-due company is capable of establishing command; performing a scene size-up to determine the presence of a potential hazardous material; determining the need for additional resources; establishing initial hot, warm, and cold zones; taking initial defensive actions; and performing line-of-sight rescues. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all hazardous materials calls on Maui Island, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 8 personnel, is: 37 minutes and 2 seconds for urban areas; 54 minutes and 8 seconds for suburban areas; and 2

hours, 15 minutes, and 56 seconds for rural areas. The ERF is capable of establishing command; performing a scene size-up; appointing a safety officer; determining the need for additional resources; establishing hot, warm, and cold zones; and providing the equipment, knowledge, and skills to rescue victims and mitigate a hazardous materials incident. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

It was verified and validated by the peer assessment team that the Maui Fire Department did not have sufficient hazardous materials incidents which required a first-due response or an effective response force to be assembled on the islands of Lana‘i and Moloka‘i, or in the Hana district of the Maui island for 2013-2015, to provide reliable data. There are therefore no baseline service level performance statements provided for the first-due unit or the effective response force in this report. Data charts for those islands and district are provided however.

Maui Island Hazardous Materials Calls 90th Percentile Times									
		2013-2015		**2015**		**2014**		**2013**	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**4:34**	**113**	**4:34**	**41**	**5:15**	**36**	**5:06**	**36**
	Urban	4:39	85	4:13	30	5:29	29	5:06	26
	Suburban	3:56	8	3:56	4	0:42	2	3:56	2
	Rural	9:57	20	15:21	7	3:09	5	17:48	8
Turnout Time 1st Unit on Scene	**Overall**	**4:27**	**113**	**4:27**	**41**	**4:33**	**36**	**4:24**	**36**
	Urban	4:33	85	4:27	30	4:31	29	5:09	26
	Suburban	2:55	8	2:44	4	2:43	2	2:55	2
	Rural	4:11	20	20:40	7	4:35	5	3:47	8
Distribution Travel Time 1st Unit on Scene	**Overall**	**10:15**	**113**	**11:50**	**41**	**10:05**	**36**	**9:39**	**36**
	Urban	8:04	85	7:33	30	8:45	29	7:49	26
	Suburban	13:40	8	13:40	4	5:36	2	13:30	2
	Rural	12:30	20	12:40	7	11:41	5	16:33	8
Concentration Travel Time Effective Response Force (ERF)	**Overall**	**29:44**	**45**	**1:19:03**	**14**	**36:03**	**17**	**24:39**	**14**
	Urban	29:44	31	28:26	8	36:03	14	29:34	9
	Suburban	19:44	5	16:12	3	14:03	1	19:44	1
	Rural	2:09:40	9	2:09:40	3	13:39	2	19:05	4
Distribution Total Response Time 1st Unit on Scene	**Overall**	**15:52**	**113**	**17:12**	**41**	**15:38**	**36**	**16:20**	**36**
	Urban	14:10	85	13:24	30	15:42	29	14:10	26
	Suburban	17:18	8	17:18	4	8:42	2	17:14	2
	Rural	23:42	20	26:23	7	14:22	5	26:15	8
Concentration Total Response Time Effective Response Force (ERF)	**Overall**	**48:03**	**45**	**1:35:02**	**14**	**52:00**	**17**	**35:48**	**14**
	Urban	37:02	31	46:39	8	45:54	14	35:49	9
	Suburban	54:08	5	54:08	3	49:27	1	29:32	1
	Rural	2:15:56	3	2:15:56	3	21:15	2	28:54	4

Moloka‘i Island Hazardous Materials Calls 90th Percentile Times			
		2014	
		Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**1:15**	**1**
	Urban		0
	Suburban		0
	Rural	1:15	1
Turnout Time 1st Unit on Scene	**Overall**	**0:01**	**1**
	Urban		0
	Suburban		0
	Rural	0:01	1
Distribution **Travel Time** 1st Unit on Scene	**Overall**	**7:46**	**1**
	Urban		0
	Suburban		0
	Rural	7:46	1
Distribution **Total Response Time** 1st Unit on Scene	**Overall**	**9:02**	**1**
	Urban		0
	Suburban		0
	Rural	9:02	1

Lana‘i Island Hazardous Materials Calls 90th Percentile Times									
		2013-2015		**2015**		**2014**		**2013**	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**2:30**	**5**	**2:30**	**1**	**1:50**	**3**	**2:14**	**1**
	Urban	2:30	5	2:30	1	1:50	3	2:14	1
Turnout Time 1st Unit on Scene	**Overall**	**4:08**	**5**	**0:55**	**1**	**4:08**	**3**	**3:07**	**1**
	Urban	4:08	5	0:55	1	4:08	3	3:07	1
Distribution Travel Time 1st Unit on Scene	**Overall**	**5:35**	**5**	**5:35**	**1**	**3:32**	**3**	**4:14**	**1**
	Urban	5:35	5	5:35	1	3:32	3	4:14	1
Distribution Total Response Time 1st Unit on Scene	**Overall**	**9:35**	**5**	**9:00**	**1**	**6:30**	**3**	**9:35**	**1**
	Urban	9:35	5	9:00	1	6:30	3	9:35	1

Hana District Hazardous Materials Calls 90th Percentile Times									
		2013-2015		**2015**		**2014**		**2013**	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**20:46**	**7**	**2:47**	**2**	**0:35**	**3**	**1:20:46**	**2**
	Suburban	0:00	1		0	0:00	1		0
	Rural	1:20:46	6	2:47	2	0:35	2	1:20:46	2
Turnout Time 1st Unit on Scene	**Overall**	**7:39**	**7**	**7:39**	**2**	**2:00**	**3**	**3:20**	**2**
	Suburban	2:00	1		0	2:00	1		0
	Rural	7:39	6	7:39	2	0:01	2	3:20	2
Distribution Travel Time 1st Unit on Scene	**Overall**	**12:48**	**7**	**10:16**	**2**	**12:48**	**3**	**6:39**	**2**
	Suburban	2:01	1		0	2:01	1		0
	Rural	12:48	6	10:16	2	12:48	2	6:39	2
Distribution Total Response Time 1st Unit on Scene	**Overall**	**30:45**	**7**	**20:42**	**2**	**13:24**	**3**	**1:30:45**	**2**
	Suburban	0:01	1		0	0:01	1		0
	Rural	1:30:45	6	20:42	2	13:24	2	1:30:45	2

Criterion 5G – Emergency Medical Services (EMS)

The Maui Fire Department (MFD) responds to emergency medical services (EMS) situations to provide first responder emergency medical response and to support American Medical Response (AMR), a third-party advanced life support and transport agency. The department deploys one staffed apparatus with a minimum of two personnel to medical events. Department staff is capable of providing first responder emergency medical response support with automatic external defibrillation (AED) until the third-party service arrives. In those cases where the third-party provider arrives first, the department provides the personnel from AMR with support.

MFD uses the National Registry of Emergency Medical Technicians (NREMT) to certify members at the emergency medical responder (EMR) level. Personnel hired before June 2006 are trained to the EMR level, however are not certified NREMTs.

The agency operates an EMS program that provides the community with a designated level of out-of-hospital emergency medical care. The department has developed standard operating guidelines (SOGs) in collaboration with AMR so that responding personnel from both agencies can effectively, efficiently, and safely work together to provide the optimum level of service. The department and AMR follow the protocols established by the medical director.

Patient care records (PCRs) are created by ambulance personnel who respond to the incident with department personnel. A fire report number is generated for all EMS responses when a fire company is dispatched and is captured and completed in the FireRMS system. The company officer completes

a FireRMS report with minimal patient information obtained at the scene. Although similar in some respects, it is not the same as a PCR used by the State of Hawaii. The department often uses a standard Med Stat notebook to record patient information manually on scene. When the Med Stat notebook is used, a carbon copy of the form is provided to the AMR medics as part of the transfer of care. Requests for records must be submitted through the office of the fire chief, which will then approve release of information.

The department has a Health Insurance Portability and Accountability Act (HIPAA) compliance program in place. All personnel have received proper training to this act beginning with new employees and annual refresher training for all members. Members of the department are responsible for maintaining privacy and confidentiality of an individual's personal information in accordance to local, state, and federal protocols. The department has not experienced any violations of the HIPAA regulation since the policies were implemented.

The MFD Fire Training Bureau (FTB) meets with all program directors annually to evaluate the specific training program for that division. Information gathered from the EMS program appraisal combined with input from the medical officer and other stakeholders is used to develop annual training plans for emergency medical responders (EMR). Training plans include information specific to the County of Maui (COM) EMS system along with standard EMR and cardiopulmonary resuscitation (CPR) refresher materials. Through this process, the overall EMS program is evaluated and any issues or innovations in EMS response have been appropriately addressed.

The department's response and deployment standards are based on the urban, suburban, and rural population densities, and the medical support demands of the community. Fourteen fire stations provide county-wide coverage; department staffing is based upon station location, incident type, and frequency. The targeted service level objectives in the standards of cover benchmark statements are based on industry standards and best practices, as identified earlier in this report in Category II – Assessment and Planning. The objectives have been approved and adopted by fire department management and presented to the mayor, fire and public safety commission, and county council. The department's benchmark service level objectives are as follows:

> For 90 percent of all EMS calls on Maui Island, the total response time for the arrival of the first-due company, staffed with a minimum of four personnel, shall be 12 minutes and 56 seconds for urban areas; 15 minutes and 20 seconds for suburban areas; and 23 minutes for rural areas. The first-due company shall be capable of performing a scene size-up; establishing command; conducting a patient assessment; initiating appropriate treatment; and assisting ambulance personnel with packaging the patient for transport. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.
>
> For 90 percent of all EMS calls on Molokaʻi Island, the total response time for the arrival of the first-due company, staffed with a minimum of 2 personnel, shall be 9 minutes and 30 seconds for urban areas and 23 minutes for rural areas. The first-due company shall be capable of performing a scene size-up; establishing command; conducting a patient assessment; initiating appropriate treatment; and assisting ambulance personnel with packaging the patient for transport. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all EMS calls on Lanaʻi Island, the total response time for the arrival of the first-due company, staffed with a minimum of 4 personnel, shall be 19 minutes for urban areas and 48 minutes and 43 seconds for rural areas. The first-due company shall be capable of performing a scene size-up; establishing command; conducting a patient assessment; initiating appropriate treatment; and assisting ambulance personnel with packaging the patient for transport. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

For 90 percent of all EMS calls in Hana District, the total response time for the arrival of the first-due company, staffed with a minimum of 4 personnel, shall be 12 minutes for suburban areas and 41 minutes for rural areas. The first-due company shall be capable of performing a scene size-up; establishing command; conducting a patient assessment; initiating appropriate treatment; and assisting ambulance personnel with packaging the patient for transport. These operations shall be done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

The department relies upon AMR, a third-party provider, to complete the effective response force (ERF) component of its EMS program. The initial arriving fire department company shall have the capabilities of providing first responder medical aid including AED, until the third-party provider arrives on scene. If the third-party provider unit arrives on scene first, its personnel shall initiate care and the staff from the initial fire department company shall provide support as needed.

The department's baseline statements reflect actual performance during 2013 to 2015. The department does not rely on the use of automatic or mutual aid from neighboring fire departments. The department's actual baseline service level performance is as follows:

For 90 percent of all EMS calls on Maui Island, the total response time for the arrival of the first company, staffed with a minimum of 4 personnel, is 13 minutes and 14 seconds for urban areas; 15 minutes and 35 seconds for suburban areas; and 23 minutes and 25 seconds for rural areas. The first-due company is capable of performing a scene size-up; establishing command; conducting a patient assessment; initiating appropriate treatment; and assisting ambulance personnel with packaging the patient for transport. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

Maui Island EMS Calls 90th Percentile Times									
		2013-2015		**2015**		**2014**		**2013**	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**4:19**	**12079**	**4:23**	**4101**	**4:24**	**4140**	**4:07**	**3838**
	Urban	4:20	9034	4:22	3111	4:33	3084	4:12	2839
	Suburban	3:52	1631	4:11	559	3:50	534	3:35	538
	Rural	4:27	1411	4:57	429	4:18	521	4:15	461
Turnout Time 1st Unit on Scene	**Overall**	**3:51**	**12079**	**3:53**	**4101**	**3:49**	**4140**	**3:53**	**3838**
	Urban	3:50	9034	3:51	3111	3:47	3084	3:54	2839
	Suburban	3:48	1631	3:49	559	3:46	534	3:46	538
	Rural	4:05	1411	4:11	429	4:11	521	3:55	461
Distribution Travel Time 1st Unit on Scene	**Overall**	**9:23**	**12079**	**9:17**	**4101**	**9:23**	**4140**	**9:25**	**3838**
	Urban	7:38	9034	7:24	3111	7:23	3084	8:06	2839
	Suburban	10:09	1631	10:55	559	9:50	534	9:49	538
	Rural	17:39	1411	17:41	429	17:43	521	16:43	461
Distribution Total Response Time 1st Unit on Scene	**Overall**	**14:56**	**12079**	**15:10**	**4101**	**14:48**	**4140**	**14:50**	**3838**
	Urban	13:14	9034	13:09	3111	13:02	3084	13:25	2839
	Suburban	15:35	1631	16:12	559	15:01	534	14:45	538
	Rural	23:25	1411	23:54	429	24:05	521	21:46	461

For 90 percent of all EMS calls on Molokaʻi Island, the total response time for the arrival of the first company, staffed with a minimum of 2 personnel, is 9 minutes and 32 seconds for urban areas; and 23 minutes and 18 seconds for rural areas. The first-due company is capable of performing a scene size-up; establishing command; conducting a patient assessment; initiating appropriate treatment; and assisting ambulance personnel with packaging the patient for transport. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

Moloka‘i Island EMS Calls 90th Percentile Times									
		2013-2015		**2015**		**2014**		**2013**	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**4:30**	**916**	**4:49**	**324**	**4:23**	**304**	**4:25**	**288**
	Urban	4:03	330	3:57	115	4:01	107	4:17	108
	Rural	4:54	585	5:13	209	4:50	197	4:32	179
Turnout Time 1st Unit on Scene	**Overall**	**3:13**	**916**	**3:26**	**324**	**3:15**	**304**	**3:05**	**288**
	Urban	3:05	330	3:23	115	3:05	107	2:50	108
	Rural	3:21	585	3:28	209	3:25	197	3:09	179
Distribution Travel Time 1st Unit on Scene	**Overall**	**15:48**	**916**	**17:41**	**324**	**13:27**	**304**	**15:52**	**288**
	Urban	4:27	330	3:45	115	5:10	107	4:32	108
	Rural	17:52	585	20:39	209	15:38	197	17:32	179
Distribution Total Response Time 1st Unit on Scene	**Overall**	**20:52**	**916**	**22:52**	**324**	**19:50**	**304**	**20:32**	**288**
	Urban	9:32	330	9:34	115	9:23	107	10:07	108
	Rural	23:18	585	25:19	209	21:16	197	22:58	179

For 90 percent of all EMS calls on Lana‘i Island, the total response time for the arrival of the first company, staffed with a minimum of 4 personnel, is 19 minutes and 18 seconds for urban areas; and 50 minutes and 25 seconds for rural areas. The first-due company is capable of performing a scene size-up; establishing command; conducting a patient assessment; initiating appropriate treatment; and assisting ambulance personnel with packaging the patient for transport. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

Lanaʻi Island EMS Calls 90th Percentile Times									
		2013-2015		**2015**		**2014**		**2013**	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**3:31**	**360**	**3:17**	**108**	**3:41**	**120**	**3:57**	**132**
	Urban	3:30	352	3:17	105	3:41	117	3:44	130
	Rural	5:19	8	3:12	3	3:49	3	5:19	2
Turnout Time 1st Unit on Scene	**Overall**	**3:41**	**360**	**3:30**	**108**	**3:48**	**120**	**3:45**	**132**
	Urban	3:38	352	3:20	105	3:48	117	3:42	130
	Rural	6:09	8	6:09	3	5:53	3	5:55	2
Distribution Travel Time 1st Unit on Scene	**Overall**	**14:52**	**360**	**15:46**	**108**	**15:00**	**120**	**14:30**	**132**
	Urban	14:43	352	15:35	105	15:00	117	14:23	130
	Rural	40:43	8	39:52	3	40:43	3	14:44	2
Distribution Total Response Time 1st Unit on Scene	**Overall**	**19:30**	**360**	**20:05**	**108**	**19:42**	**120**	**19:03**	**132**
	Urban	19:18	352	19:35	105	19:42	117	18:56	130
	Rural	50:25	8	49:13	3	50:25	3	25:58	2

For 90 percent of all EMS calls in Hana District, the total response time for the arrival of the first company, staffed with a minimum of 4 personnel, is 12 minutes and 35 seconds for suburban areas and 41 minutes and 54 seconds for rural areas. The first-due company is capable of performing a scene size-up; establishing command; conducting a patient assessment; initiating appropriate treatment; and assisting ambulance personnel with packaging the patient for transport. These operations are done in accordance with department standard operating guidelines while providing for safety of responders and the general public.

Hana District EMS Calls 90th Percentile Times									
		2013-2015		2015		2014		2013	
		Times	#Calls	Times	#Calls	Times	#Calls	Times	#Calls
Call Processing Time Pick-up to Dispatch	**Overall**	**5:15**	**244**	**5:00**	**112**	**5:26**	**65**	**6:41**	**67**
	Suburban	4:30	79	5:46	43	6:09	19	3:47	17
	Rural	5:48	165	4:59	69	5:26	46	7:44	50
Turnout Time 1st Unit on Scene	**Overall**	**4:48**	**244**	**4:44**	**112**	**4:37**	**65**	**5:04**	**67**
	Suburban	4:02	79	3:52	43	4:00	19	5:37	17
	Rural	5:01	165	5:37	69	4:54	46	5:01	50
Distribution Travel Time 1st Unit on Scene	**Overall**	**29:58**	**244**	**31:07**	**112**	**23:46**	**65**	**38:39**	**67**
	Suburban	5:38	79	5:26	43	5:48	19	7:59	17
	Rural	36:10	165	36:53	69	28:03	46	40:10	50
Distribution Total Response Time 1st Unit on Scene	**Overall**	**36:05**	**244**	**39:08**	**112**	**30:05**	**65**	**41:06**	**67**
	Suburban	12:35	79	13:35	43	10:59	19	14:08	17
	Rural	41:54	165	43:34	69	36:08	46	43:05	50

The department relies upon AMR, a third-party provider, to complete the ERF component of its EMS program. The initial arriving fire department company has the capabilities of providing first responder medical aid including AED, until the third-party provider arrives on scene. If the third-party provider unit arrives on scene first, its personnel initiate care and the staff from the initial fire department company provide support as needed.

The team was not able to review 2016 response time data, since it was being evaluated and compiled by the person hired to assist with data management.

Criterion 5H – Domestic Preparedness Planning and Response

The Maui County Emergency Management Office is responsible for the development of the multi-jurisdictional emergency operations plan (EOP) used by the Maui Fire Department. The EOP serves as an all-hazards plan for the three main islands within the county.

Through its involvement with the county, the agency operates an all-hazards preparedness program that includes a coordinated multi-agency response plan, designed to protect the community from terrorist threats or attacks, major disasters, and other large-scale emergencies occurring at or in the immediate area.

The county emergency operations plan provides for a large number of emergency situations and the necessary functions required to manage the response and recovery phases of those incidents. The plan

provides an appropriate multi-agency organizational structure and prescribes the predetermined functions and duties with connection to participating agencies. The purpose of this planning document is to provide guidance and specific procedures for responding to the identified hazardous conditions and disasters.

The plan is reviewed annually and updated as necessary. The county conducts regular multi-discipline exercises on an annual basis. All participants train and operate under the National Incident Management System (NIMS). Incident leadership roles are defined by the responsibilities to manage the emergency phases as necessary.

The county has overall responsibility for the review and maintenance of the guidelines prescribed within and related to the emergency operations plan. The department participates actively in the county's guideline review process and maintenance or updating of the standard operating guidelines assuring department needs and adaptations are recognized and addressed.

There is a well-equipped emergency operations center (EOC) that has been activated a minimum of two times in the last four years during large-scale emergencies. To facilitate interoperability with the other eight participants, the EOC operates under NIMS during these activations. The center features the capability to cross patch 28 radio frequencies utilized by field units from the eight potential responding agencies. A communication specialist is at the EOC during major events to provide alternate methods for communications among agencies, if necessary.

The department currently has considered some vulnerability issues within some facilities and locations. In many locations, the accessibility to many areas of some facilities have exposures which are yet to be considered. The department has not completed a formal vulnerability review of all facilities or locations.

It is recommended the department establish a formal vulnerability assessment process that establishes priorities for defining fire station exposure potential, create a plan to limit the extent of vulnerability, and achieve a more secure environment at those locations.

Criterion 5K – Ocean Rescue

The Maui Fire Department as of July 2016 absorbed the ocean rescue program from the Parks Department of Maui County. The program had existed under the parks department for many years and through a referendum by the public was transferred to the fire department.

The ocean rescue program provides lifeguard and small water craft rescue capabilities. The program staffs 12 towers on beaches in several locations around the main island of Maui. There are 63 total persons within the program at this time. The program has a limited number of small water craft, motor vehicles, and appropriate supplies and equipment.

Due to the recent transfer of the program, the department has not effectively been able to analyze the program components, analyze appropriate risks or threats, and create an effective coverage objective policy. Though the department attempted to respond to the core competencies and performance indicators appropriate to the program, they were unable to collect the information to make complete responses. Though the department was able to transfer procedures for operation of the program from the parks department in many cases, the department has not had adequate time to make complete and comprehensive reviews of the procedures. Initial efforts have been made to consider the effectiveness

of the program; however, many obstacles exist that limit the breadth that such an analysis might provide. In addition, capturing of data for such items as response time, availability, and reliability considerations, has not been evaluated for quality or consistency, or in some cases how that data would be captured, analyzed, and utilized effectively.

Category VI — Physical Resources

The Maui Fire Department maintains 14 fire stations (10 on Maui, 3 on Molokaʻi, and 1 on Lanaʻi) as well as four support facilities with 40 response and support apparatus which are distributed across the city/county. that do not meet the current service level objectives. The department has identified in their standards of cover the need to relocate stations, add response apparatus, and the potential need for a new station to address the future growth expected for the county.

Development and use of physical resources is consistent with the agency's established plans. A systematic and planned approach to the future development of facilities is in place.

All appropriate parties, including the governing body, administration and staff are involved in the development of the major plans and proposals. The department has also engaged the public nearby to planned station construction projects to solicit feedback and support.

Fixed facility resources are designed, maintained, managed, and adequate to meet the agency's goals and objectives. The department's physical facilities are minimally adequate and distributed in accordance with stated service level objectives and standards of cover. The department's baseline performance data does not clearly demonstrate that it is able to adequately meet its service level objectives for response time. The peer team has addressed this issue through strategic recommendations presented in Category II, to conduct a fire station location study to determine the number and location of stations to provide the appropriate distribution of resources to bring travel times for the effective response force (ERF) in line with industry best practice.

The peer assessment team noted the department does not have a plan to ensure facilities meet applicable codes and regulations. The peer team observed the majority of the department's facilities are poorly maintained and do not follow codes and regulations. There have been two major facility upgrades in the past ten years which demonstrate current practice for new facilities follow and comply with codes and regulations.

It is recommended the department develop and implement a facilities inspection program to ensure all facilities meet applicable codes and regulations.

While touring fire stations it was evident that several stations had repairs needing to be made or ones that had been started and not completed, one of which had been in the works for over three months.

It is recommended the department develop a plan to inspect fire stations and make needed repairs as deemed appropriate for routine maintenance issues to reduce potential problems with significant costs in the future.

Apparatus resources are designed and purchased to be adequate to meet the agency's goals and objectives. The department attempts to pay close attention to maintaining the appropriate distribution and concentration of apparatus to ensure a continuous capability to meet its standards of cover objectives. However, the department's baseline travel time performance data demonstrates that the

current strategic deployment of apparatus does not allow it to meet its existing goals for the delivery of emergency response services. Apparatus locations do not fully account for some areas with a lack of water supply; the department is researching adding tanker coverage to provide for an enhanced water supply capability. There is a lack of aerial support in some areas where commercial properties have the highest counts.

It is recommended the department assess and plan its apparatus locations to align with the community risk assessment in the SOC.

The inspection, testing, preventive maintenance, replacement schedule, and emergency repair of all apparatus is well established and meets the emergency apparatus service and reliability needs. The department has established its own internal apparatus maintenance program with high priority focus being placed on safety. The department utilizes the 'Maintenance Connect' program to assist with the tracking of all equipment. The vehicle maintenance division is well managed with sufficient work areas and a manual records management system and a lead mechanic capable of tracking every vehicle in the fleet. There is an effective and direct communication to and from the lead mechanic to the deputy chief to insure the program is efficient. Service work based upon preventive maintenance schedules is communicated effectively between the operations division and the maintenance division. There is a well-stocked parts supply area that ensures minimum down-time due to delays in obtaining the necessary parts. All manufacturers' recommendations are being followed and all legal requirements are being met.

The shared expectations of both the operations and maintenance divisions are well established with the standard operating guidelines. They will be reviewed on an annual basis to ensure continuity of operations and a consistent approach to keeping the fleet well maintained.

The maintenance facility has had sufficient space until the recent inclusion of the ocean rescue apparatus and equipment. With the inclusion of this program, the facility is being overtaxed and at times having to do maintenance outside.

It is recommended the department assess and develop a plan of its maintenance and repair facility to ensure space appropriate based on the expansion of services.

Equipment resources are adequate and designed and maintained to meet the agency's goals and objectives. The maintenance division tests and inspects tools and small equipment for all stations and divisions in the department. Department personnel perform routine maintenance. Mechanics are certified for the work they perform. There is an adequate records management system for the program.

Safety equipment is adequate and designed to meet the agency goals and objectives. The department has a comprehensive safety program that appropriately identifies and distributes supplies of safety equipment for its employees. Personal protective equipment is provided as personal issue. Other safety equipment is provided for particular tasks on an as needed basis. Company officers are charged with the regular inspection of the safety equipment. It was observed that newer apparatus has hearing/communications devices in them and older apparatus has no hearing/communications devices in them.

It is recommended the department evaluate hearing protection on response apparatus and develop a plan to implement a complete hearing protection program for all apparatus.

Category VII — Human Resources

The Maui Fire Department (MFD) has a dedicated administrative assistant who is responsible for all human resource functions within the department. Policies have been created and acknowledged by employees that address violence in the workplace, sexual harassment, etc. In addition, workers' compensation claims, drug testing as required by the Department of Transportation (DOT), and physical exams are some practices that are in place.

One criterion statement and one core competency were not met: criterion statement 7F and core competency 7F.5. Additional detail related to the team's findings is located below in its observations about the ability of the department to meet the criterion statement and core competency expectations.

General human resources administration practices are in place and are consistent with local, state, and federal statutory and regulatory requirements. Under the direction of the assistant fire chief of support services and a business administrator, a human resource manager is designated within the human resource office. The title of this position is also known as the administrative assistant.

Systems are established to attract, select, retain, and promote qualified personnel in accordance with applicable local, state/, and federal statutory requirements. The department's processes and screening devices for recruitment and selection are designed to meet legal tests for civil service positions. These comply with all local, state, and federal requirements, including: equal opportunity and discrimination statutes per the Department of Personnel Services (DPS), Administrative Rules, Chapter 205, Filling Positions in the Civil Service; §11-203-6, Equal Employment Opportunity; Policies and Procedures, Policy No.200.100, Filling a Civil Service Position; and per the Office of the Mayor, Equal Employment Opportunity/Affirmative Action Policy Statement, dated 15 March 2012. DPS utilizes CPS HR Consulting to obtain valid fire service test banks. DPS and MFD administration validate the examination process is job-related and sourced from International Fire Service Training Association (IFSTA) Essentials current text. The County of Maui's DPS is responsible for position announcements, test administration, screening processes, candidate pool selection, and compliance with all Equal Employment Opportunity and Affirmative Action policies in accordance with local, state and federal requirements. The processes for hiring and promotion are job-related, approved by the County of Maui DPS and validated by the MFD Administration. The DPS ensures that the department is compliant with local, state, and federal application, employment processes, anti-discrimination, and affirmative action equal opportunity statutes. Periodic review of the examination process by the MFD and DPS is encouraged to ensure fair and equitable policies and procedures are maintained as the workforce expands to meet community needs.

Uniformed and administrative personnel are subject to supervised probationary periods upon hiring and promotion per the Hawaii Fire Fighters Association (HFFA), Local 1463, Collective Bargaining Agreement (CBA), Section 13, Probationary Periods; the DPS, Administrative Rules, Chapter 214, §11-214-2, Performance Evaluation; Policies and Procedures, Policy No.200.100, Section VIIB, Probationary Appointment, and Policy No.700.100, Performance Evaluation. The Hawaii Government Employees Association (HGEA) and the United Public Workers (UPW) unions also have probationary processes in place with the employer. Recruit training officers conduct regular individual recruit candidate skills test evaluations per the DPS Policies and Procedures, Policy No.700.100, Performance Evaluation, to ascertain competency during the Recruit Program. Performance Evaluation Reports are utilized during the course of the probationary process for new and promoted members.

Personnel policies and procedures are in place, documented, and guiding both administrative and personnel behavior. The department's rules and regulations, standard operating guidelines (SOGs), HFFA, Local 1463 collective bargaining agreement handbook, County of Maui Charter, and County of Maui Administrative Rules and Employee Handbook are accessible to all staff members. Personnel policies, procedures and rules are contained within these documents and guide both uniformed and non-uniformed members. Each member receives a copy of the MFD's rules and regulations and collective bargaining agreement handbook with a review included as part of the orientation process. Policies, procedures, and rules reviews are communicated via regularly scheduled supervisor and staff meetings and through the fire chief's office. There is a formal process for SOG development, final review, and employee distribution.

The County of Maui and the department enforce all local, state and federal laws that prohibit harassment, bias and unlawful discrimination of employees per the Administrative Rules, Chapter 203, §11-203-6, Equal employment opportunity; County of Maui Violence in the Workplace Action Plan and the County of Maui (COM) Policy Against Discrimination. The Office of the Mayor, thru the DPS, issues anti-discrimination and harassment policies and requires mandatory annual training for all county personnel. The Equal Employment Opportunity Officer (EEOO) conducts mandatory new hire and annual refresher training that includes reporting procedures and the disciplinary process. Employee behavior and professionalism on the job is also addressed in the MFD Rules and Regulations and enforced by the fire chief.

Human resources development and utilization is consistent with the agency's established mission, goals, and objectives. The County of Maui DPS is responsible for position classification based on the Administrative Rules of the DPS, Chapter 206, Subchapter 2, Position Classification. The department works with the DPS specialist to review, audit, and modify the class system annually, as needed, and when requested by the fire chief via the MFD's Administrative Services and a Request for Position Action. The department also utilizes the development of the MFD Annual Report and review of annual performance evaluations to enhance current processes by which jobs are audited and modified.

A system and practices for providing employee/member compensation are in place. Rates of pay and compensation are published, distributed, and made available to all members per the CBA between the COM and the labor unions (HFFA, HGEA, and UPW) and the COM Salary Commission in accordance with the Hawaii Revised Statutes, Chapter 89, Collective Bargaining in Public Employment. Pay and compensation for managerial employees, excluded from collective bargaining, are determined by the COM Salary Commission and the Office of the Mayor per the County of Maui Charter, Chapter 17, Salary Commission. The classification system utilizes the HFFA, Local 1463, CBA salary schedule for assignment of compensation.

Occupational health and safety and risk management programs are established and designed to protect the organization and personnel from unnecessary injuries or losses from accidents or liability. The department has an occupational health, safety, and risk management program in place that has proven effective. However, there is an identified need for the department to establish the role of incident safety officer in the critical task analysis of the community risk assessment/standards of cover for all program areas. The department then needs to ensure this position is filled during all emergency incidents and those filling the positions have the qualifications and certifications to support there actions.

The department provides occupational health and safety training during recruit school that includes a comprehensive safety overview of job hazards, rules and regulations, personal protective equipment, fire fighter safety skills, and situational awareness required at incidents and the workplace. The MFD Training, and Health and Safety Bureaus coordinate training and continued education on general safe work practices via quarterly drills, training orders, annual EMS refreshers, and the MFD Newsletter. Department SOG's are incorporated into periodic supervisor meetings and integrated into mandatory quarterly drills and training orders.

The department and County of Maui have established occupational safety and health programs that comply with legal requirements and provide instruction in general safe work practices beginning at the point of initial employment through each job assignment. The department has been dedicated to continued growth and improvement in providing occupational health and safety training, programs, procedures, instruction, and education by learning about new equipment and techniques.

Core competency 7F.5[15] was not met. MFD has three health and safety officers that are not tasked with responding to incidents for safety. On-scene captains assume the responsibility of incident safety officer. It is recommended the department establish the incident safety officer role within the critical task analysis and standards of cover for all hazardous incidents, including structure fires, hazard materials incidents, technical rescues, and ocean rescue incidents. The department should ensure that this position is filled during incidents and that the individuals are properly trained and certified.

The agency has a wellness/fitness program for recruit and incumbent personnel and provisions for non-compliance by employees/members are written and communicated. The department requires all eligible candidate recruits pass a comprehensive pre-employment physical and physical agility test prior to recruit school. Thereafter, annual Department of Transportation/Public Utilities Commission (PUC) mandated physical are required by the department per the MFD Rules and Regulations, Article 5, Job Requirements, Par.503.01-.03 and the HFFA Local 1463 Union CBA, Section 40.Physical Examinations. Members are declared fit for duty per completion of their annual physical and provision of the PUC medical examiners certificate of clearance. Rehabilitative medical evaluations are available through workers compensation via designated health providers approved by the County of Maui. The department also conducts annual multi and single company drills that evaluate members' physical fitness capacities to complete essential firefighting tasks by job assignment. All members complete a medical monitoring log derived from National Fire Protection Association (NFPA) 1584*: Standard on the Rehabilitation Process for Members During Emergency Operations and Training Exercises*, prior to and following each training evolution. MFD mandatory quarterly drills supervised by members' immediate supervisor also serve to evaluate physical fitness. Members who are not cleared by the medical examiner or medical monitoring at assigned drills are placed under supervision and guidance of an appointed physician. Light duty/modified special assignment may be indicated as determined by the attending physician's recommendation.

The department's ability to provide for initial, regular, and rehabilitative medical and physical fitness evaluations has been somewhat effective based on it being mandatory, funded, and approved by the county, administration, and union. Medical clearance and full duty status by medical examiner's certificate, completion of the workers' compensation process, and medical monitoring has worked

[15] 7F.5 An occupational health and safety training program is established and designed to instruct the workforce in general safe work practices, from point of initial employment through each job assignment and/or whenever new substances, new processes, procedures, or equipment are introduced. It provides specific instructions on operations and hazards specific to the agency.

out, but could be improved. Although a process has been in place to evaluate medical and physical fitness of members, the effectiveness of the process needs improvement. The department should acquire an occupational physician instead of a general practitioner tasked with evaluating annual physicals, workers' compensation processes, drill medical logs, and provide fit for duty determination in accordance with county and union approval. Allowing the COM to permit members to seek their private physician for approval to return to duty has proved to be very ineffective at times.

It is recommended the department acquire an occupational health physician to ensure effective evaluations of annual physicals, workers' compensation processes, drill medical logs, and provide fit for duty determination.

The department occupational wellness/fitness program can be found in MFD SOG's, Section 1, Member Health and Assistance Program, 101.03, Occupational Health and Wellness Program. It is the expectation that every member at all levels has a personal responsibility to maintain a working level of occupational fitness and readiness. MFD SOGs regarding member wellness/fitness stipulate that all uniformed personnel must receive medical clearance via mandatory annual medical examinations. Though participation in the exercise component is voluntary, "the department expects higher levels of performance, safety, and injury prevention through the implementation of this program." Participation is strongly encouraged at all levels and time on duty, equipment, and additional resources such as peer support and education are provided to promote members' physical fitness and emergency response readiness.

Category VIII — Training and Competency

The Maui Fire Department (MFD) operates a well formulated training program and has a training facility. The facility contains space for provision of firefighting training, some areas for technical rescue, and hazardous materials training activities. The training staff consists of a captain, several instructors, and program leads for 17 program areas. Program leads are not specifically attached to the training bureau, however are specialists within that particular program/discipline area. Each program area's training is supported by several additional program specialists that are also key to the provision of the training program area.

A training and education program is established to support the agency's needs. Program areas and required training needs are identified, in part, upon national, state and department standards or requirements. New members are required to be certified and maintain the certification at the Firefighter II level. Within each program area, the lead person for that program has been identified and it is the responsibility of those program leads to assist the training bureau in identifying and establishing program area training needs, skill, and knowledge requirements necessary to meet emergency response conditions identified within the county.

Training and education programs are provided to support the agency's needs. The training program is well organized and has been updated to meet the needs of the department and its members. All new members meet the Firefighter Level II requirements of the National Fire Protection Association (NFPA) 1001: *Standard for Fire Fighter Professional Qualifications* prior to the end of initial recruit training. The 17 training program areas identified have been effective in the overall program development and presentation. For the most part, the training program areas are based upon NFPA standards and procedures that have been approved by the department.

The department utilizes written and skill-based check list approaches for individual performance measurement in many cases. During multi-company drill situations, the program presenter and the company officers are responsible for observing performance and providing feedback to the groups as they perform the drill. At the conclusion of the drill, overall performance is reviewed and reported to the participants. Lessons learned from the evaluations that pertain to the training program are used to update the program. In cases where certifications are part of the review training and evaluation process, Pro-Board testing procedures and documents are utilized.

Currently, the department has not identified performance-based measurement processes for all training program areas. Additionally, the consistency of performance evaluation is based on observations of a multitude of observers and their personal perspectives. Although the department appears to provide a comprehensive training effort, the measurement of performance is subject to variable performance measurement perspectives.

It is recommended the department develop performance-based measurement processes for all training program areas as related to multi-company drills and training processes.

The department's current records process is focused on training conditions where the individual is trained. In situations of multi-company drills, training records for all participants may not be recorded and where drills may involve several training program areas, the record entries for all program areas may not be captured in each participating member's training record.

It is recommended the department develop and implement a plan to ensure each individual's training record is updated to include all training areas attained during practical skill drills, including multi-company drills and all other trainings attended.

Training and education resources, printed and non-printed library materials, media equipment, facilities, and staff are available in sufficient quantity, relevancy, diversity, and are current. The department training facility is owned by the state and is on loan to the department. Resources include training grounds sufficient for firefighter, technical rescue, and some hazardous materials training. There is limited classroom capacity at the center; however, classrooms are available at the headquarters area and in some stations. Occasionally, the department utilizes the State National Guard Armory for additional classroom space. The training center is in need of significant repair, update, and expansion.

It is recommended the department develop a plan and begin implementation to update and expand the current training facility to improve facilitation of all training programs.

Nationally recognized training materials are being used. A committee comprised of training division staff and representatives of each training program area evaluate the existing training materials to make sure they reflect current practices and needs. The program area leads are responsible to evaluate and recommend new training materials, practices, and training equipment for their respective areas. The material is evaluated by the training captain prior to being added to the department's training resources.

Category IX — Essential Resources

Criterion 9A – Water Supply

The Maui Fire Department (MFD) utilizes several water providers to ensure the provision of a well-maintained, reliable, and adequate water system. The predominant water provider is the Maui County system. A solid working relationship exists between the department and the Maui water supplier. The smaller or privately owned systems are relied upon to provide adequate systems, however the capabilities of the systems vary from system to system. These water systems protect the larger populated areas of the county; however there are many rural areas that do not have water supply systems. Geographically, the majority of the county that is potentially inhabitable is not provided with water supply systems.

The water supply resources are reliable and capable of distributing adequate volumes of water and pressures to all areas of agency responsibility. All areas meet fire flow requirements for emergencies. The department establishes minimum fire flow requirements for all new and modified facilities and occupancies. Fire flow requirements are based on National Fire Protection Association (NFPA) 1: *Fire Code*. The department must approve alternate methods proposed by the developer where the fire flow requirements are not being met.

A large number of the built-up areas of the main island of Maui are served by adequate water systems. The areas protected by county systems meet current code or American Water Works Association (AWWA) recommendations or requirements.

The hydrant locations and alternate water sources are maintained on maps or hardcopy documents by station officers and personnel. The determination of the adequacy of the private or small water systems is the responsibility of the station officers.

Should the domestic water supply become inadequate or inoperable, or in areas without water supply systems, the department has tankers in several stations for support of firefighting operations. Some tankers are outfitted with drop tanks to aid in long-term firefighting operations or helicopter suppression operations. The department has not established a water shuttle type operation for water provision nor has the department tested the delivery capability of its tanker process.

It is recommended the department develop and implement a plan for a water shuttle delivery test to determine current water capability as measured by an appropriate methodology (e.g., gpm flow) and if adequacy for firefighting demand issues are discovered, develop an expanded method for the delivery of larger volumes of water for extended periods of time.

There are numerous water system providers and other private systems within the county. Many of these systems are small or have limited water sources, limiting capacity, or pressure capabilities. In those instances the department has the availability of tankers to supplement the systems. Currently some of the private or smaller systems are not inspected or tested regularly. Additionally, contact with the system operators is not a regular consideration for the fire department.

It is recommended the department expand contact opportunities with current water system owners/managers to stay informed about water availability for fighting fires.

It is recommended the department work to improve working relationships with the smaller water system owners/managers to assure proper testing and maintenance of water supply systems.

Criterion 9B – Communication Systems

The Maui Fire Department (MFD) dispatch services are provided by the Maui Police Department (MPD) 911 communications center. The department uses a shared radio system that is owned by Maui County. All on-duty operations personnel, response fire apparatuses, and fire stations are equipped with portable, mobile, or base radios to enable emergency communications with the 911 dispatch emergency call center.

Maui County's radio system was built to be resilient. Repeater sites have redundant control consoles and data uplinks to support emergency communications if something catastrophic occurs, battery backup and generators provide uninterrupted service during a power outage. Remote site systems are within hardened facilities to protect against storms and for security.

The department utilizes six talk groups for dispatch, command, and operational needs. Radios have the ability to communicate on Ocean Safety, MPD, Public Works, and County Civil defense talk groups. Regional and National Mutual aid 800MHz frequencies are programed into the portable Motorola radios to provide flexibility when working with outside agencies. The department has a cache of ten Motorola APX6000XE portable radios, two I.C.R.I. CAT Gateways, two Transportable Repeater Interoperable Communication package, one Daniels Repeater, and one VIPER I.C.R.I. to support large multi-agency incidents.

The public and the agency have an adequate, effective, and efficient emergency communications system. The system is reliable and able to meet the demands of major operations, including command and control within fire/rescue services during emergency operations, and meets the needs of other public safety agencies having the need for distribution of information.

The department uses an 800 MHZ P25 digital trunking Motorola radio system, a shared system owned by Maui County, to meet its communication needs. Radio repeaters are strategically located throughout Maui County to provide radio coverage for nearly all areas of Maui County. MFD members are able to communicate with each other from separate islands while utilizing portable, mobile, and fixed radio hardware.

The department-developed standard operating guidelines (SOGs) and "run cards" for the dispatching center are used to dispatch the MFD when fire services are needed. The existing SOGs from the MPD are from 2009 and include the two-battalion setup that was implemented in 2009. No new stations, staffing, or resources have been added since 2009. A letter sent to the police chief has confirmed this. MFD SOGs were updated department-wide in March 2016.

Criterion 9C – Administrative Support Services and Office Systems

Administrative personnel are in place to handle and manage administrative functions related to organizational planning and assessment, resource coordination, data analysis/research, records keeping, reporting, business communications, public interaction, and purchasing. The fire chief participates in organizational planning with the mayor's office, and the assistant chief of administrative support handles resource coordination regarding administrative functions. The fire services officer handles the records management system along with performing public information

officer (PIO) duties. Data analysis is handled by a variety of personnel, especially personnel related to the accreditation process. The fire chief's secretary and the fire prevention bureau (FPB) clerk handle business communications in a general setting and during the permitting process. Purchasing and finance duties are routed through the business administrator.

Administrative support services and general office systems are in place with adequate staff to efficiently and effectively conduct and manage the agency's administrative functions, such as organizational planning and assessment, resource coordination, data analysis/research, records keeping, reporting, business communications, public interaction, and purchasing.

Thirty-eight administrative personnel, in various bureaus and administrative positions, administer the support services required to carry out the functions and mission of the department. Functions include health and safety, training, human resources, finance, payroll, procurement, maintenance and repair, planning, and communications.

The department has been divided into various bureaus and offices to carry out the support functions that achieve the department's goals and objectives. Although position descriptions exist for the different titles in the support services functions, more personnel could be used to support the department in areas of payroll, administering the budget, facility maintenance, and clerical assistance for chief officers. One payroll clerk has been responsible to track and input the work details of over 300 employees. In addition, the payroll clerk tracks the leave balances of all employees. One business administrator is responsible to administer the budget and it becomes problematic when that person is out of the office. There are no building facility maintenance personnel to repair separate facility sites to include fire stations. Everything is contracted out for repair. Assistant chiefs do not have clerical support and spend much of their day conducting clerical tasks.

It is recommended the department work with human resources and finance department to pursue dedicated administrative support staff to assist chief fire officers in meeting administrative requirements while allowing them to focus more on core responsibilities.

Category X — External Systems Relationships

The department has several written memorandums of agreement (MOA) and memorandums of understanding (MOU) in place, including those with the United States Coast Guard and the State of Hawaii Aircraft Firefighting. The department also has several 'hand shake' agreements which need to be written, approved and signed, such as for leased land for several facilities.

The department's technical rescue team operates as an integral part of an urban search and rescue team, ocean rescue, dive, and trench rescue services as needed or required within other boundaries on the islands. The hazardous materials response team provides services within the county, and it is available to deploy upon request from the state or airport through agreements.

The county is geographically located in the center of the Hawaiian Islands in the Pacific Ocean. Accurate and up-to-date agreements with external systems such as the United States Coast Guard and the State of Hawaii are crucial to continuing to provide proper emergency services.

One criterion statement and one core competency were not met: criterion statement 10A and core competency 10A.1. Additional detail related to the team's findings is located below in its

observations about the ability of the department to meet the criterion statement and core competency expectations.

The department does not have a formal process in place for revising interagency agreements making it difficult to clearly define partnerships and to have clear direction for the provision of services. The lack of a formal process leaves policies and agreements in place which are expired or no longer support the agency's business model. It is recommended that the agency develop a formal process for revising policies and agreements.

The agency's operations and planning efforts include relationships with external agencies and operational systems that affect or may influence the agency's mission, operations, or cost effectiveness. However, the lack of current formal agreements is problematic.

Core competency 10A.1[16] was not met. The department is dispatched by a combined communications system which is managed by the Maui County Police Department. This system has been in place for a number of years and there has never been an agreement between the department and the communications center, with an agreement there would be identified expectations for call processing and the accurate tracking of response apparatus during emergency situations. The lack of this agreement has led to response time tracking to be in need of improvements to meet the department's standards of cover (SOC).

It is recommended the department pursue a formal agreement with the dispatch center to include expectations for dispatching and tracking of units.

There is not a clear process in place for developing, implementing, and revising interagency policies and agreements. The chief authorizes agreements, but there is no accountability for developing or implementing new agreements where and when needed. Accountability and timelines are not clearly defined and a full summary of all agreements is needed.

It is recommended the department establish a process to review, assess, and update and/or create memorandums of understanding (MOUs) and/or memorandums of agreement (MOAs) as appropriate.

There is no conflict resolution process identified in the existing MOUs and MOAs. It is recommended that a conflict resolution process be added into all existing and future memorandums of understanding (MOUs) and memorandums of agreement (MOAs).

The fire service agency has well-developed and functioning external agency agreements. The system is synergistic and is taking advantage of all operational and cost effective benefits that may be derived from external agency agreements.

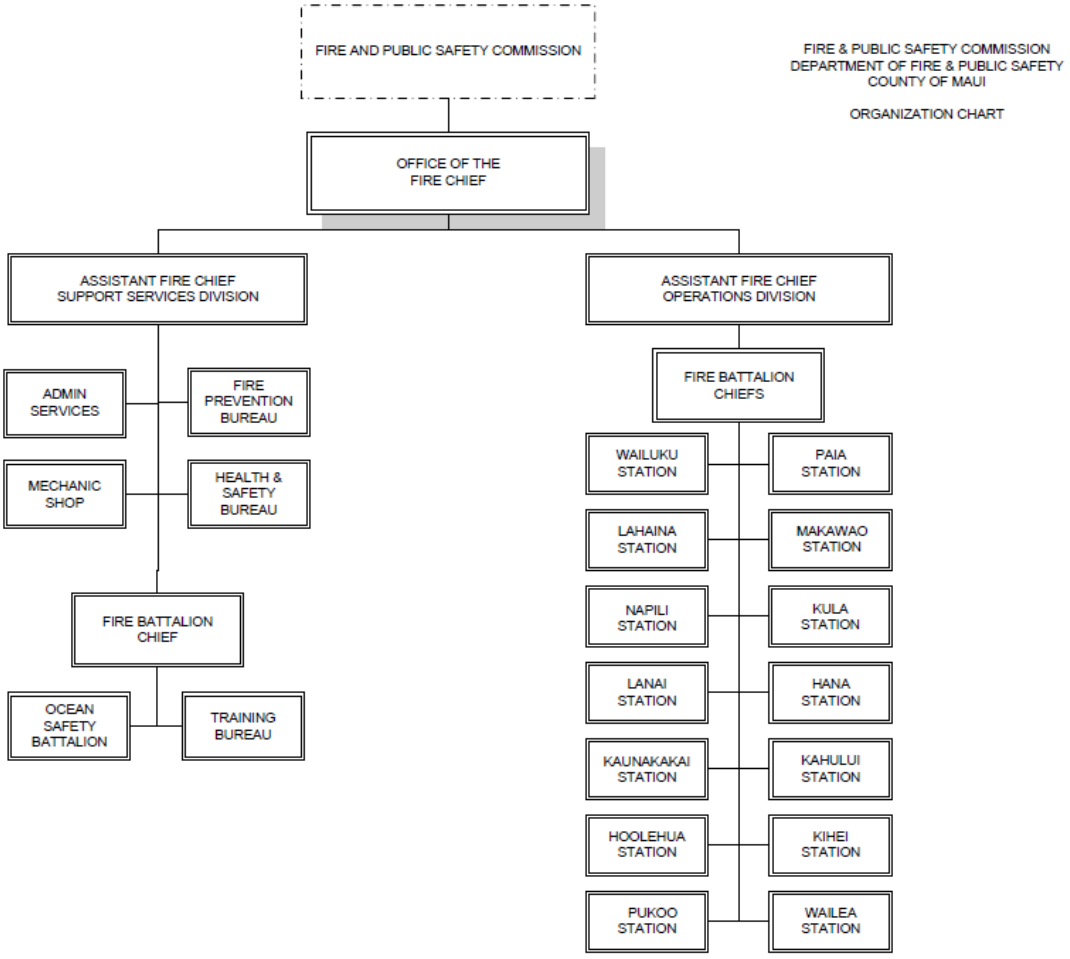
The department does not review all agreements on an annual basis to ensure they continue to identify the current expected practices by all parties during a simultaneous response to a common emergency. Many of the department's agreements are not correctly documented; however, much of the related business and operations continue under verbal mutual agreements. A proper annual review would

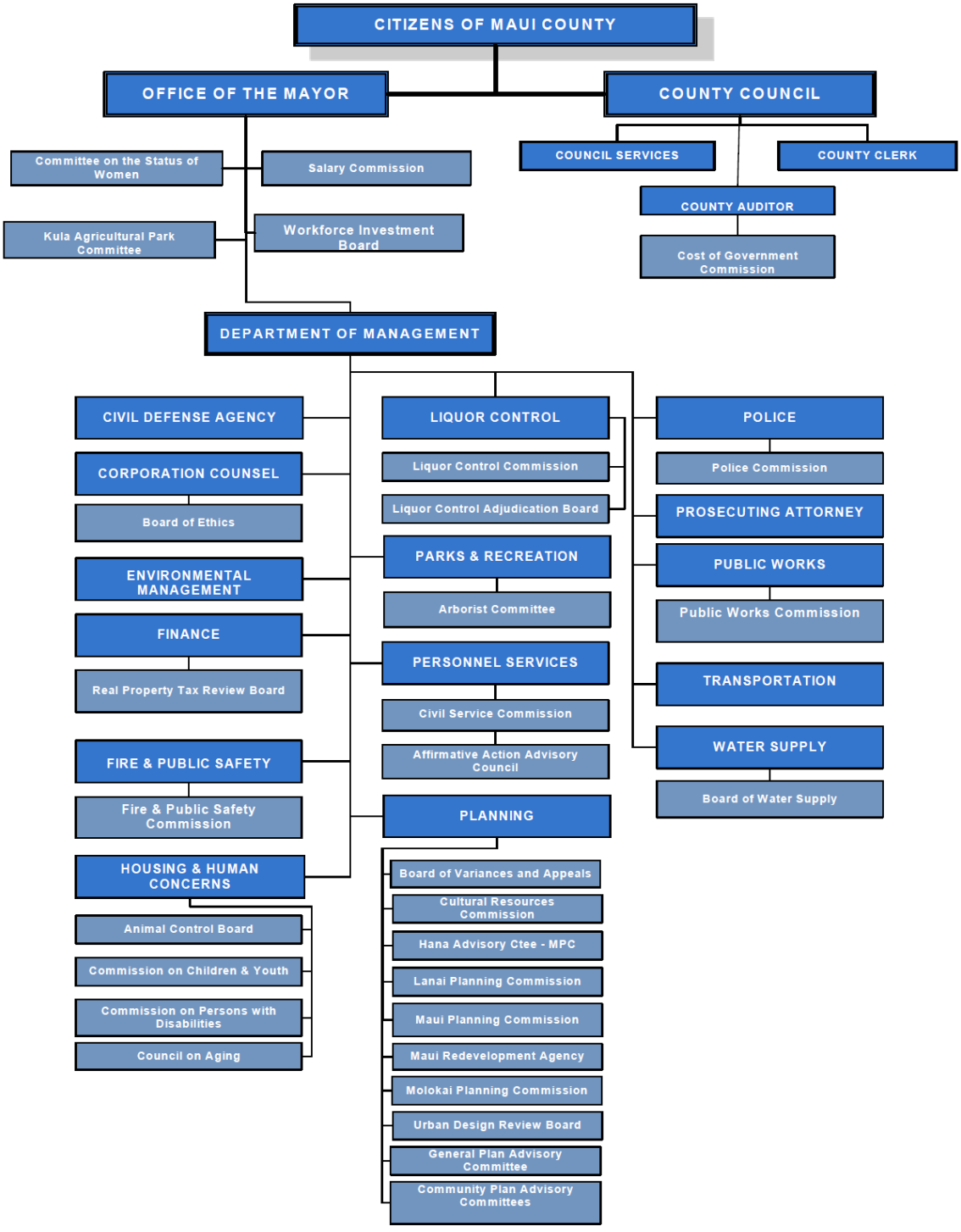
[16] 10A.1 The agency develops and maintains outside relationships that support its mission, operations, or cost effectiveness.

ensure that the agreements support the evolving operational and fiscal objectives of both the department and the concerned party. County policy requires all new agreements or amendments be reviewed and approved by its legal branch. These requirements have slowed the process for revising and updating new agreements with external agencies.

It is recommended the department develop a plan to ensure all agreements are reviewed on an annual basis and updated as needed.

ORGANIZATION CHART




CITIZENS OF MAUI COUNTY
OFFICE OF THE MAYOR
COUNTY COUNCIL
Committee on the Status of Women
Salary Commission
Kula Agricultural Park Committee
Workforce Investment Board
COUNCIL SERVICES
COUNTY CLERK
COUNTY AUDITOR
Cost of Government Commission
DEPARTMENT OF MANAGEMENT
CIVIL DEFENSE AGENCY
CORPORATION COUNSEL
Board of Ethics
ENVIRONMENTAL MANAGEMENT
FINANCE
Real Property Tax Review Board
FIRE & PUBLIC SAFETY
Fire & Public Safety Commission
HOUSING & HUMAN CONCERNS
Animal Control Board
Commission on Children & Youth
Commission on Persons with Disabilities
Council on Aging
LIQUOR CONTROL
Liquor Control Commission
Liquor Control Adjudication Board
PARKS & RECREATION
Arborist Committee
PERSONNEL SERVICES
Civil Service Commission
Affirmative Action Advisory Council
PLANNING
Board of Variances and Appeals
Cultural Resources Commission
Hana Advisory Ctee - MPC
Lanai Planning Commission
Maui Planning Commission
Maui Redevelopment Agency
Molokai Planning Commission
Urban Design Review Board
General Plan Advisory Committee
Community Plan Advisory Committees
POLICE
Police Commission
PROSECUTING ATTORNEY
PUBLIC WORKS
Public Works Commission
TRANSPORTATION
WATER SUPPLY
Board of Water Supply