City of Coalinga
FIRE DEPARTMENT

Community Risk Assessment & Standards of Cover

Overview and Recommendations

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Prepared for CFD in accordance with the guidelines of the Commission on Fire Accreditation, International, Standards of Cover - 6th edition and industry standards of best practice

- Description of Community Served
- Services Provided
- Community Expectations and Performance Goals
- Community Risk Assessment
- Critical Tasking and Alarm Assignments
- Historic System Performance
- Overall Evaluation, Conclusions, and Recommendations

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The Report

- A thorough review and assessment of community risk, emergency response capability, apparatus, and facilities
- An analysis of the level of service currently provided to the community
- Identification of issues impeding performance
- Recommendations for service delivery improvement
- This document is **NOT:**
  - A mandate requiring system changes or the expenditure of money on new fire department resources

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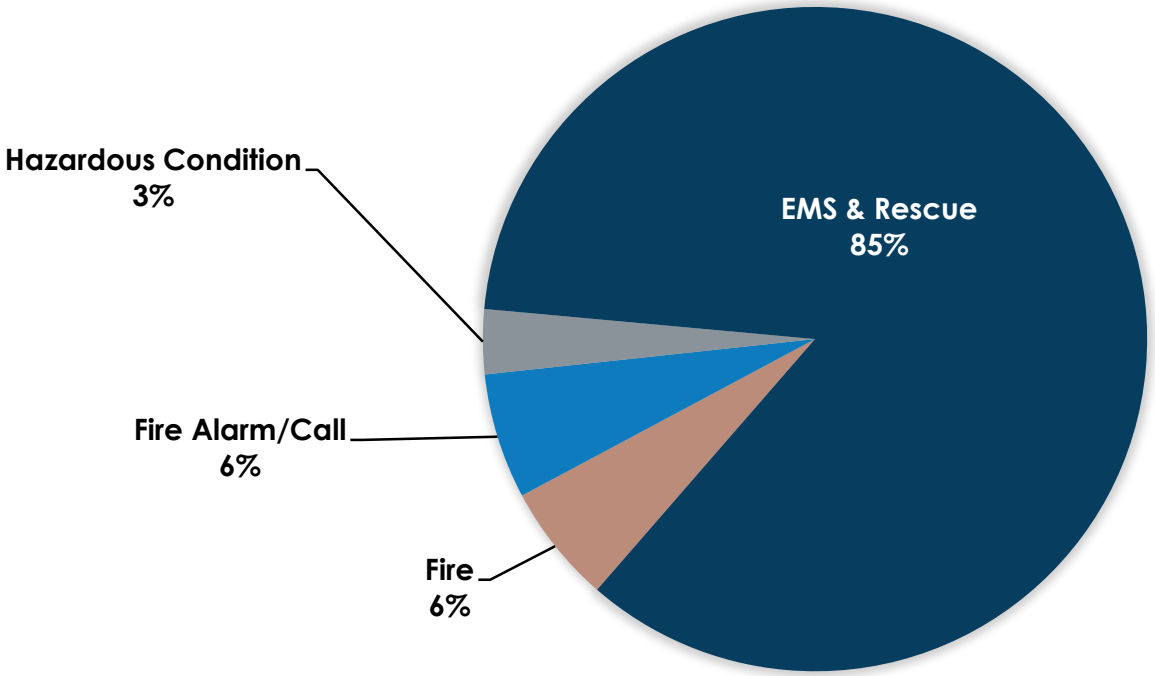
Historic Response Workload

Figure 63: CFD Responses by Incident Type (2020)



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System Performance

- **People + Tools + Time = Effectiveness**
  - People – Trained emergency responders
  - Tools – Apparatus, equipment
  - Time – Duration between event start and intervention
  - Effectiveness – Degree to which harm caused by the event is limited

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Phases of an Emergency Event

1. Detection
2. Contact with emergency dispatch center
3. Dispatch incident processing
4. Response crew notification
5. Turnout time
6. Travel time
7. Set-up time
8. Incident control time

Phases of an Emergency Event

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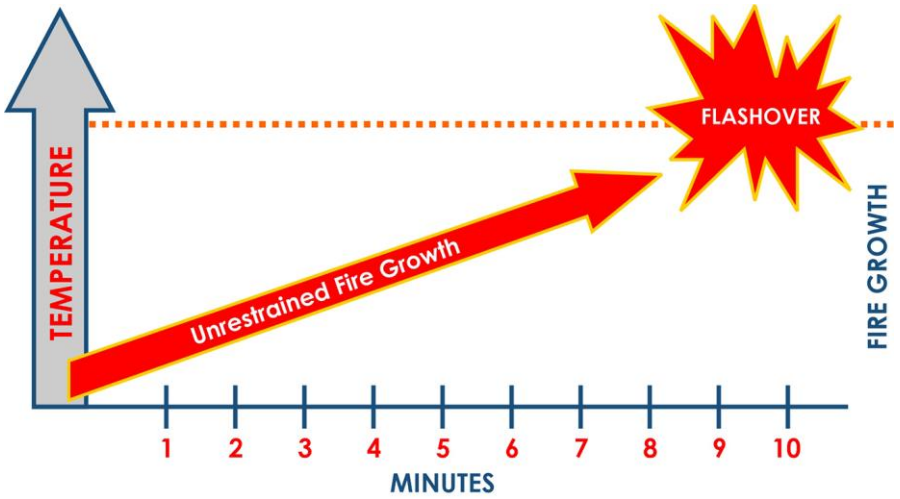
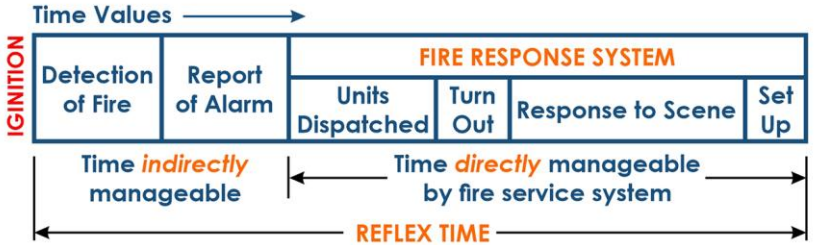
Influence of Time





Consequence of Fire Extension in Residential Structures 2011–2015			
	Rates per 1,000 Fires		
Extension	Civilian Deaths	Civilian Injuries	Average Dollar Loss Per Fire
Confined to room of origin or smaller	1.8	24.8	$4,200
Confined to floor of origin	15.8	81.4	$36,300
Confined to building of origin or larger	24.0	57.6	$67,600

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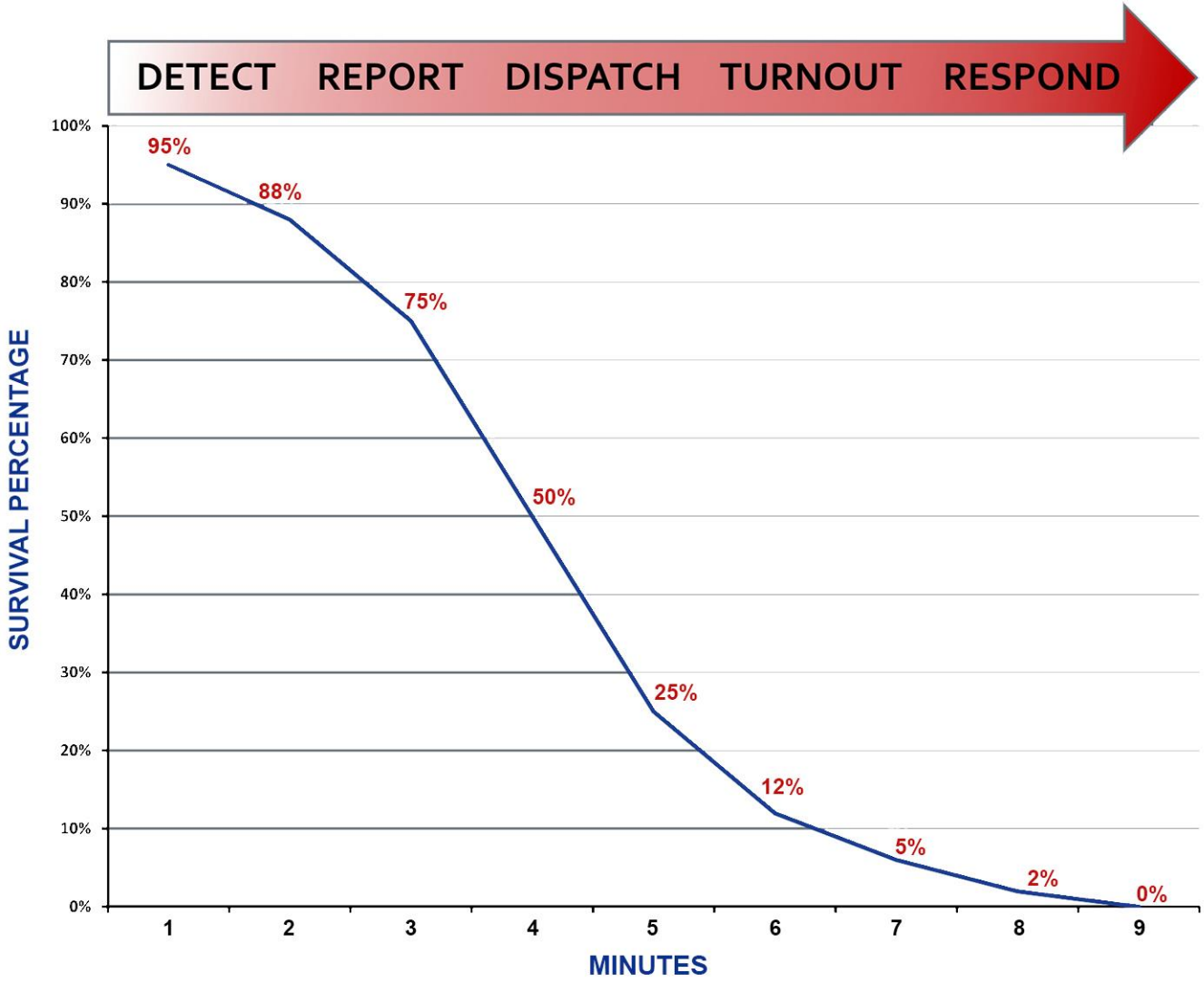
Influence of Time



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Response Performance Goals Used for Evaluation

Incident Interval	Performance Goal
Call processing time (time from acceptance at the dispatch center until notification of response units).	Within 60 seconds, 90% of the time.
Turnout time (time from notification of response personnel until the initiation of movement towards the incident).	Within 60 seconds, 90% of the time.
First unit travel time (time from initiation of response until the arrival of the first unit at the incident).	Within 3 minutes, 90% of the time.
First unit total response time (time from acceptance at the dispatch center until the arrival of the first unit at the incident).	Within 5 minutes, 90% of the time.
Full effective response force (time from notification of response units until all units have arrived)	Within 9 minutes, 90% of the time

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Response Performance Goals Used for Evaluation

In keeping with *NFPA Standards 1710* and *1221* and CFD's performance goals, all response time elements are reported at a given percentile. Percentile reporting is a methodology by which response times are sorted from least to greatest, and a "line" is drawn at a certain percentage of the calls to determine the percentile. The point at which the "line" crosses the 90th percentile, for example, is the percentile time performance. Thus, 90% of the times were at or less than the result. Only 10% were longer.

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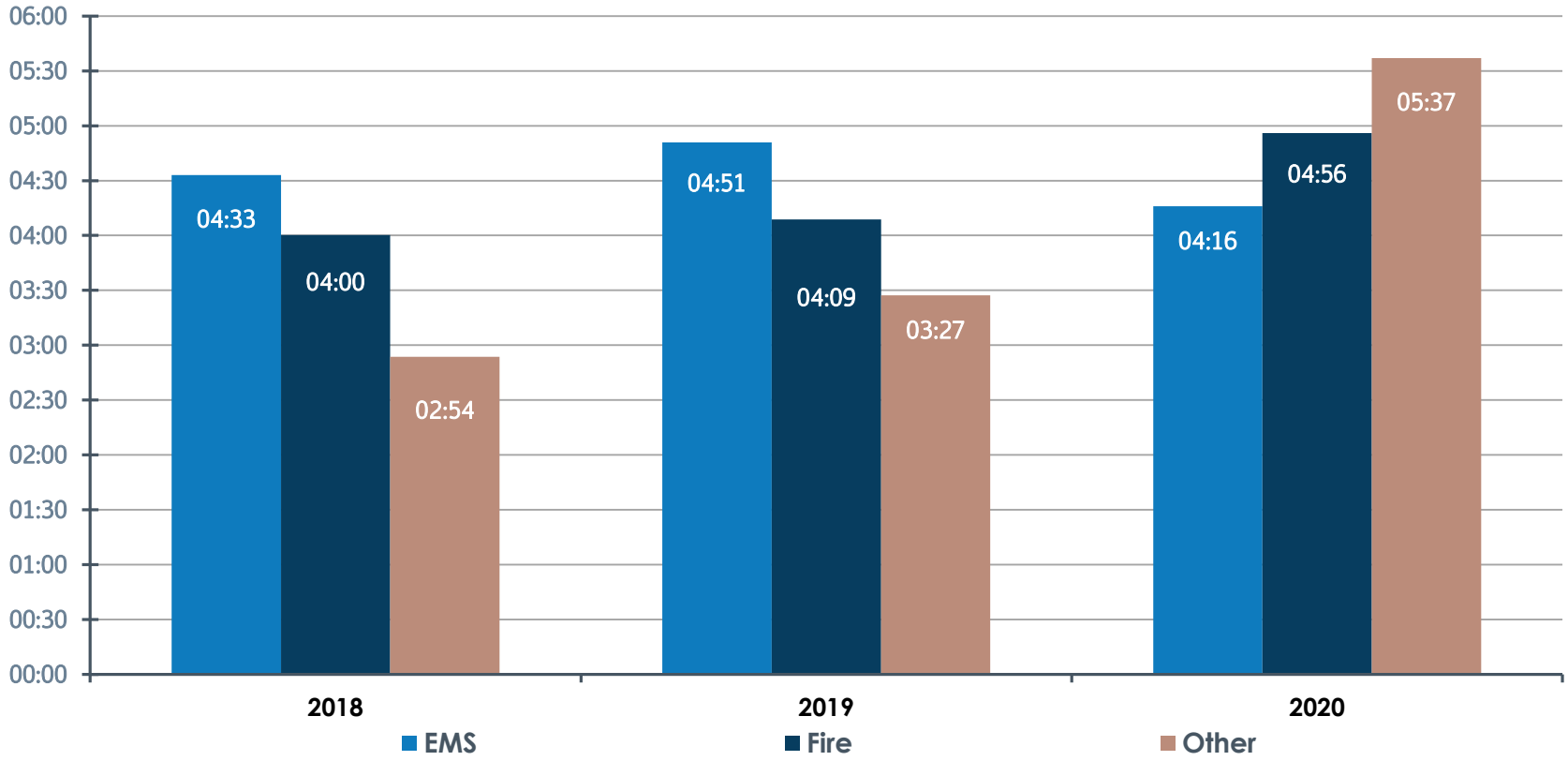
Response Performance: Call Processing

Figure 85: FCFPD Dispatch Time Performance (Call Processing)



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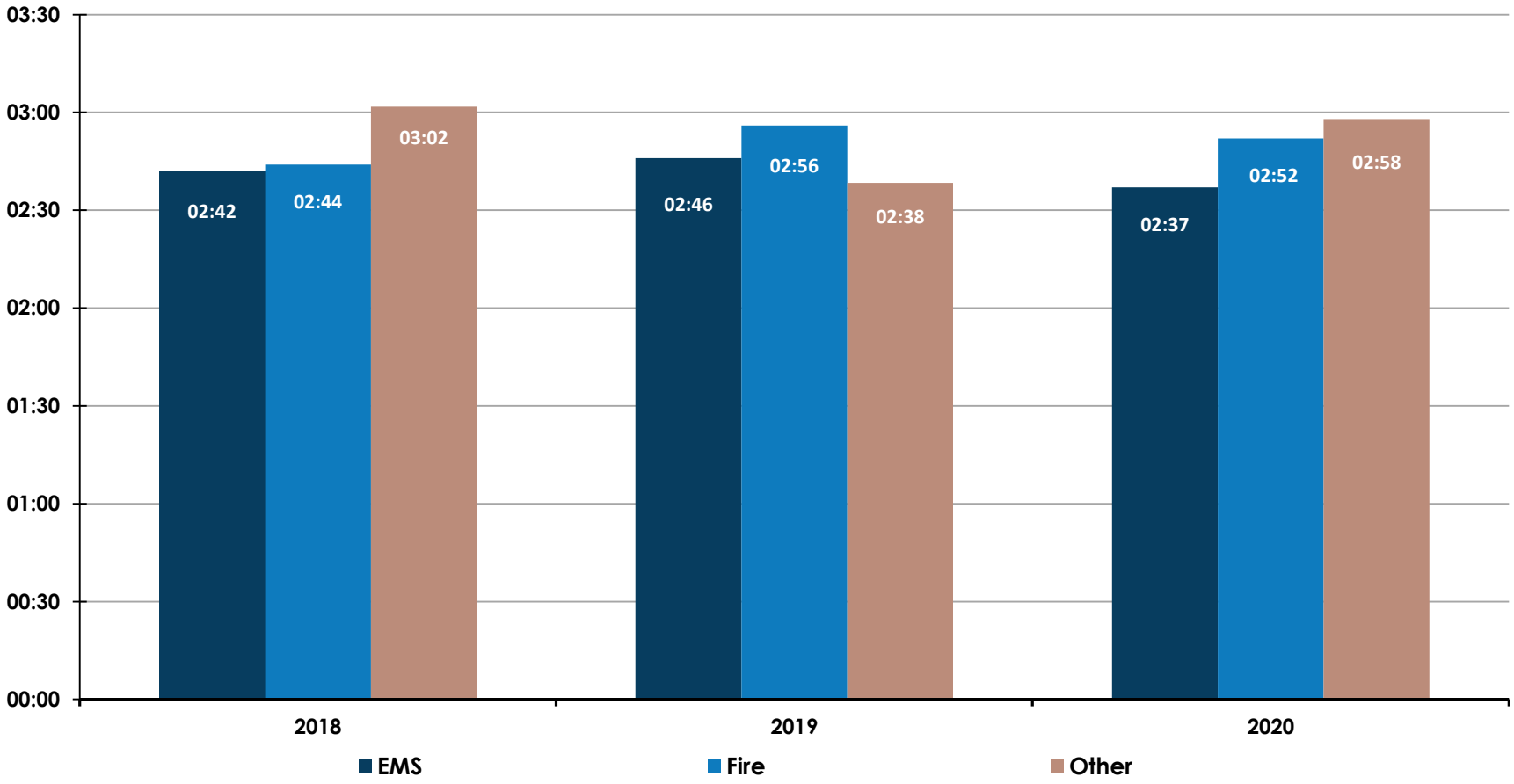
Response Performance: Turnout Time

Figure 87: Turnout Time Performance



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Response Performance: Travel Time

Figure 90: Predicted Travel Times to Study Area from CFD Station 1

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Response Performance: Effective Response Force

Effective Response Force (ERF) is the number of personnel and apparatus required to be present on the scene of an emergency incident to perform the critical tasks in such a manner to effectively mitigate the incident without unnecessary loss of life and/or property. The ERF is specific to each individual type of incident and is based on the critical tasks that must be performed.

Response Performance: Effective Response Force

The response time goal for the delivery of the full ERF to a building fire is within 9 minutes, 20 seconds, 90% of the time. CFD has defined the minimum full effective response force for low-rise building fires as three fire engines, one truck, one medic, and one Chief with a total of 16 firefighters. Higher-risk fires require additional apparatus and personnel.

EMS within the Huron Response Area

During Triton's review of CFD's performance, it was noted that CFD's EMS response area includes the community of Huron. Based on the analysis, Coalinga's ambulance units are rarely available to respond to requests for service in this area. As a result of CFDs' lack of availability, American Ambulance Service communications (EMS) dispatches other resources (instead of Coalinga).

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EMS within the Huron Response Area

Figure 1: Ambulance Activity in Huron (2018–2020)

Agency	2018	2019	2020	Totals
American Ambulance–BLS			2	**2**
American Ambulance–Kings	521	566	555	**1,642**
American Ambulance–Metro	10	17	4	**31**
American Ambulance–Rural	1		1	**2**
Coalinga Fire Department	41	49	90	**180**
Totals:	**573**	**632**	**652**	**1,857**

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Recommendations

The following highlights some of the Recommendations contained in the Study

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Short-Term Recommendations

The short-term strategies listed in this report are a compilation of the recommendations aimed at improving the current conditions and levels of protection over the next one to two years.

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Develop a proactive wildland urban interface educational program.

CFD should develop proactive educational programs relating to wildland urban interface outreach and weed abatement. Small fires can occur and potentially damage properties if proper mitigation efforts are not implemented, even in areas of the City where the risk is low. Currently, this type of program is not available unless requested by the property owner.

Develop a comprehensive fire and life safety commercial inspection program.

Currently, the Fire Chief is responsible for fire and life safety inspection. An inspection program should be established to ensure all properties requiring annual inspections by the State of California are completed. A comprehensive record management system to collect information during the inspection should be utilized to track each occupancy, violation found, and staff activity.

Closely monitor the performance of the Dispatch Center(s).

CFD needs to develop a closer relationship with the Dispatch Centers so that FCFPD and American Ambulance Dispatch centers understand the importance of performance measuring and improvement.

Reduce the Turnout Time Interval

Department management should regularly prepare information that describes current turnout time performance by individual response crews (by shift and by unit). Performance expectations should be reinforced, and periodic monitoring conducted to determine if improvements are being made and sustained. Response personnel should avoid activities that extend turnout times. Response personnel must make serious efforts to improve their turnout time performance for the benefit of the community.

Consider placing an ambulance in Huron.

Expand the capacity of the EMS service by placing an ambulance in Huron. The conversion would improve service to the Huron area and enhance revenues.

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Evaluate the adoption of cost-recovery fees for certain services.

CFD should evaluate which services could be eligible for some level of cost recovery. After that, an analysis can be completed on the potential additional annual revenue. In the event fees are adopted, the Department should also consider developing a billing and collection process.

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Mid-Term Recommendations

The mid-term strategies are progressive enhancements of the current conditions. Many will likely require two to three years to accomplish.

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Consider adding career staff to stabilize scheduling and enhance crew safety and effectiveness.

Creating a deployment model is critical to the safe operation for the entire crew.

- Consider adding an additional firefighter per shift to stabilize scheduling and enhance crew safety.
- Converting EMS units to Non-Safety employees will increase the effective firefighting force.
- Place an ambulance in Huron. This increased revenue should provide the necessary funding to add the additional firefighter per shift.

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Develop a comprehensive pre-incident planning program.

CFD should implement a formalized and continuous pre-incident program for all personnel to assist in identifying potential hazards within the community, as recommended within NFPA 1620: Standard for Pre-Incident planning.

Acquire a new Ladder Truck.

Consideration should be given to replacing the existing Ladder Truck with a new unit and placing the current one in reserve.

Long-Term Recommendations

The short- and mid-term strategies discussed will move the organization forward substantially. A longer-term, high-level view of future needs is also important to provide a "big picture" view of how the organization may continue with future initiatives. Primarily, long-term strategies are centered around community growth and related workload and how both impact the future deployment of personnel.

Plan for facility remodel/expansion to maintain a high degree of safety, efficiency, long-term sustainability, and effectiveness.

CFD should plan for and direct funding for a Fire Department facility project with the following considerations:

- Remodel the station kitchen and dormitory area to accommodate gender segregation and additional full-time staffing.
- Addition of room(s) for a reserve firefighter sleeper program.
- Construct the facility to house the fire department vehicles inside to prolong the life cycle of the vehicles and equipment and to secure the equipment and supplies located on the vehicles.

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Develop a formalized planning process.

CFD should initiate a master plan, a 15 to 20-year plan that will help guide the efforts of the CFD and assist in identifying the framework under which subsequent actions and planning activities will be developed.

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Questions & Discussion

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