



March 7, 2024

TO: LOCSO Board of Directors

FROM: Ron Munds, General Manager

SUBJECT: Agenda Item 6A– 3/7/2024 Board Meeting
Presentation of a Standard of Cover Assessment Report regarding Fire and Emergency Services in Los Osos

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STAFF RECOMMENDATION:

Receive and file the report and provide direction to staff.

DISCUSSION:

Background

In early 2023, staff began moving forward with developing a strategic plan for emergency services for the community. It became apparent that outside help was needed to evaluate the current level of service, response times, areas of improvement in the delivery of services, the effectiveness of inter-jurisdictional response agreements and ability to deliver services into the future. With the help of Chief Provence and the Emergency Services Advisory Committee (ESAC), staff developed a scope of work for consultant services for a Standard of Cover (SOC) study.

The Board approved the release of the Request for Proposals (RFP) for consultant services at the July 2023 Board meeting and approved a contract with Citygate Associates LLC (Citygate) in September 2023. The work plan for the study included the following elements, using Commission on Fire Accreditation International Standards of Coverage process, for the community risk assessment/Standards of Coverage:

- Extensive review of all background information regarding the demographics of Los Osos
- Review of Existing Deployment
- Community Outcome Expectations
- Community Risk Assessment
- Critical Task Study
- Distribution Study
- Concentration Study
- Reliability and Historical Response Effectiveness Study
- Overall Deployment Evaluation

Standard of Cover Assessment Report Summary

The report (Executive Summary attached) provides an in-depth assessment of the delivery of emergency services based on nationally recognized guidelines and best practices, federal and state mandates, and relevant local and regional operating procedures to the community. The report provides twenty-four (24) findings, six (6) recommendations (both attached) and suggestions for the “next steps” the District should take to improve emergency services to the community.

Attachment

Standard of Cover Study Executive Summary – Including Findings & Recommendations (complete study available on the District’s website; <https://www.lososocsd.org/los-osos-csd-standard-of-coverage-final-report-for-emergency-services>)

EXECUTIVE SUMMARY

The Los Osos, California Community Services District (District) retained Citygate Associates, LLC (Citygate) to conduct a modified Standards of Coverage (SOC) Assessment based on nationally recognized guidelines and best practices, federal and state mandates, and relevant local and regional operating procedures. This assessment is intended to evaluate the District's current fire service staffing and response performance and recommend appropriate staffing and deployment of firefighting and emergency medical service resources to best protect the values at risk within the District service area from fire and non-fire hazards. The study is also intended to provide recommendations for potential future improvement of services and incorporate relevant data analysis and benchmarking to recommended best practice standards and District-established performance goals.

This report is presented in multiple parts, including this Executive Summary; study introduction and background information; the detailed SOC assessment supported by response statistics; all findings and recommendations; next steps; and the full community risk assessment (**Appendix A**). Overall, there are **24** findings and **6** actionable recommendations.

POLICY CHOICES FRAMEWORK

There are no mandatory federal or state regulations directing the level of fire service staffing, response times, or outcomes. If services are provided, however, local, state, and federal regulations must be followed to ensure the safety of the public and the personnel providing the services.

The level of service provided, and any resultant cost, is a local policy choice. Thus, there is often a constructive tension between the desired level of fire service and the level that can be funded, and many communities may not have the level of fire services they desire.

OVERALL ASSESSMENT SUMMARY

The District serves a suburban/rural population with a mixed land-use pattern typical of other communities of similar size and demographics along the central California coast. The District provides fire services with a staff of eight full-time personnel and up to 25 reserve firefighters (nine active at the time of this report) from a single fire station located in the south-central section of the District staffing one engine and one paramedic squad. The District contracts with the California Department of Forestry and Fire Protection (CAL FIRE) San Luis Obispo Unit to provide fire response staffing and administration services with the District retaining ownership of the physical assets. Citygate finds the station location to be adequate to provide first-unit travel times sufficiently quick to facilitate positive outcomes in the more densely populated areas of the District's service area, and the District's physical response units appropriately configured to protect the values at risk from most hazards likely to impact the service area.

FIRE SERVICE DEPLOYMENT SUMMARY

Fire service deployment, simply summarized, is about the *speed* and *weight* of response. *Speed* refers to initial response resources—typically engines, squads, or ambulances—strategically deployed across a jurisdiction within a specified time interval to mitigate routine-to-moderate emergencies to achieve desired outcomes. *Weight* refers to multiple-unit responses for more serious emergencies such as building fires, multiple-patient medical emergencies, vehicle collisions with extrication required, or technical rescue incidents where enough firefighters must be assembled within a time interval to safely control the emergency and prevent it from escalating into an even more serious event.

Adequate incident response is not defined by the number of physical apparatus responding to a particular emergency, rather it is defined as the appropriate number of firefighters with the right training and equipment to safely mitigate the emergency. Within the fire service deployment process, positive outcomes are the goal. From that, staffing and travel time can be calculated to determine appropriate fire station spacing (distribution and concentration). Serious medical emergencies and building fires have the most severe time constraints.

Typical desired outcomes in *urban/suburban* density communities include preventing death and permanent impairment from medical emergencies where possible and confining building fires to the room or compartment of origin. To achieve this, the initial (first-due) unit should arrive within 7:00 to 8:00 minutes before brain death becomes irreversible or an incipient building fire expands beyond the room or compartment of origin, and the full multiple-unit Effective Response Force (ERF) should arrive within 11:00 to 12:00 minutes with enough personnel to safely perform all the critical tasks necessary to mitigate the emergency and prevent it from becoming even more serious. In *rural* density communities, desired outcomes typically include preventing death from a medical emergency where possible and confining building fires to the building of origin, which means that the first-due unit should arrive within 10:00 minutes and the full ERF should arrive within about 20:00 minutes.

Even where state or local fire codes require fire sprinklers in residential dwellings, it will be many more decades before enough homes within the District service area are remodeled or replaced with automatic fire sprinklers. If desired outcomes include confining fire damage to only part of the inside of an affected building or minimizing permanent impairment or death resulting from a medical emergency, then the District will need first-due unit response performance consistent with Citygate's recommended 7:30–8:30 minutes of a 9-1-1 dispatch notification. More serious incidents requiring assistance from other local fire agencies to resolve are infrequent; however, response times for those resources are significantly longer than required to facilitate positive outcomes in most instances.

STAFFING SUMMARY

Over the four-year study period from July 1, 2019, through June 30, 2023, the District's staffing model provided a minimum of four response personnel on duty daily, including three full-time CAL FIRE personnel and one reserve firefighter. With recent changes to minimum training and certification requirements in addition to attrition, the reserve firefighter cadre has dwindled from an authorized maximum of 25 to nine active at the time of this study. With no residency or service requirements and a self-scheduling process, very few reserve firefighters are signing up for shifts resulting in only three response personnel on duty most days. Citygate finds this staffing model *insufficient* to ensure both response units are staffed with at least two personnel each and, when only three personnel are available, both units respond as a single unit leaving (1) no immediate response capacity for a concurrent incident, which occur 13 percent of the time, and (2) insufficient staffing to initiate a rescue requiring respiratory protective equipment in conformance with federal OSHA regulations.

SERVICE DEMAND SUMMARY

Over the most recent four fiscal years, overall service demand increased nearly 17 percent, with EMS calls representing 74 percent of total demand. Residents over the age of 65 increased from 19.4 percent of the population in 2000 to nearly 28 percent in 2023, suggesting an aging service area population likely to drive up future service demand, particularly for emergency medical services.

The District experienced two or more simultaneous calls for service 13.2 percent of the time over the four-year study period, with total simultaneous incidents increasing approximately 29 percent over the same period. Citygate's analysis also found individual response unit utilization to be well below maximum, indicating capacity for additional non-concurrent service demand is available.

RESPONSE PERFORMANCE SUMMARY

Response performance consists of the following distinct components:

- ◆ **Call processing/dispatch** – time interval from receipt of 9-1-1 call until completion of the dispatch notification
- ◆ **Crew turnout** – time interval from completion of the dispatch notification until the start of vehicle movement to the emergency incident
- ◆ **First-unit travel** – time interval from the start of apparatus travel until arrival at the emergency incident
- ◆ **First-unit call to arrival** – time interval from receipt of the 9-1-1 call until the first response apparatus arrives at the emergency incident

As the following table shows, call processing/dispatch and crew turnout performance appear to meet recommended best practice goals; however, the call processing component does not include the time for the Sheriff’s Department PSAP dispatch center to transfer the initial 9-1-1 call to the San Luis Obispo CAL FIRE Unit ECC. This additional call processing step will most likely be resolved when the two dispatch centers are consolidated into a new joint facility in the near future.

Table 1—Response Performance Summary (RY 19/20–RY 22/23)

Response Component	Best Practice		90 th Percentile Performance	Performance vs. Best Practice
	Time	Source		
Call Processing / Dispatch	1:00	NFPA	1:04	+0:04
	1:30	Citygate		- 0:26
Crew Turnout	1:00-1:20	NFPA	2:06	+0:26 to 1:06
	2:00	Citygate		+0:06
First-Unit Travel	4:00	NFPA Citygate	6:04	-2:04
First-Unit Call to Arrival	6:00	NFPA	8:23	-2:23
	7:30	Citygate		-0:53
ERF Travel	8:00	NFPA Citygate	15:46	-7:46
ERF Call to Arrival	10:20	NFPA	18:44	-8:24
	11:30	Citygate		-7:14

First-unit travel performance is 2:00 minutes slower than the Citygate and NFPA-recommended 4:00-minute best practice goal to facilitate positive outcomes in urban/suburban density communities. Overall first-unit call-to-arrival performance, however, is just less than 1:00 minute slower than Citygate’s 7:30-minute recommended best practice goal to facilitate positive outcomes in urban/suburban density communities, suggesting that most emergent calls are nearer the core of the service area than the outer, more-rural sections.

At nearly 19:00 minutes, response performance to more serious/complex incidents requiring outside mutual aid resources is *significantly slower* than Citygate’s recommended 11:30-minute best practice goal to facilitate positive outcomes in urban/suburban density communities, and thus should not be expected to result in positive outcomes in most cases. This is unavoidable in light of the longer travel distance for mutual aid resources. Over the four-year study period, there were only two incidents where an entire Effective Response Force of two engines, the squad, and a chief officer arrived at the incident, and small data sets such as this are typically quite volatile depending on the incident locations and responding mutual aid resources. While the occurrence of these more serious incidents is infrequent, it is important consider the rate of simultaneous incidents, as well

as the federal OSHA regulation requiring at least four trained personnel to initiate a rescue requiring respiratory protective equipment.

Considering response performance, Citygate recommends the District adopt first-unit response performance goals to drive future deployment planning and response performance monitoring, to include a 1:00-minute call processing/dispatch, 2:00-minute crew turnout, and 5:00-minute travel goal, for a total first-unit response time goal of 8:00 minutes 90 percent of the time. Due to the relative infrequency of more serious incidents requiring mutual aid and the extended distance and associated time for those resources to travel into the District service area, Citygate does not recommend adopting a specific ERF response goal, but rather recommends the District seek to update its automatic and mutual aid agreements to ensure a timely response of the most proximal resources as needed for these less frequent events.

KEY CHALLENGE

From this assessment, Citygate finds the District's key challenge is maintaining adequate daily staffing to provide a reasonable *speed and weight of response* to facilitate positive outcomes and ensure sufficient staffing for at least one concurrent emergency incident. Given current and projected future service demand, aging demographics, simultaneous incident activity, and increasing calls for service outside the District to Montana de Oro State Park, Citygate considers four response personnel, with at least two being paramedics, as the *minimum* daily on-duty staffing level needed to provide this level of service over the near term.

Citygate finds the key challenge to maintaining this minimum daily staffing level is the small cadre of active reserve firefighters with no residency or service requirement and a self-scheduling process for shift coverage. Citygate recommends the District seek to identify opportunities to improve reserve firefighter participation and shift staffing and/or fund additional overtime for full-time personnel to maintain that minimum staffing level. If unable to substantially improve reserve firefighter participation and shift staffing, the District should consider funding an additional full-time position on each shift, with reserve firefighters continuing to augment full-time staffing as available.

Four personnel on duty, however, *does not* provide a minimally sufficient *weight of response* to complete the critical tasks necessary to safely resolve even a moderately complex or more serious event such as a building fire, multiple patient EMS, vehicle collision with extrication required, or technical rescue. Given the extended travel distance for the mutual aid resources needed to achieve an acceptable weight of response (ERF), Citygate recommends the District strive to increase its minimum daily staffing over time, as fiscal resources allow, to at least six personnel on duty to provide enough staffing to complete at least the key critical tasks in sufficient time to facilitate desired outcomes. Ideally, this staffing model could be achieved with a combination of full-time and reserve personnel.

FINDINGS AND RECOMMENDATIONS

The following are all findings and recommendations from this assessment.

Findings

- Finding #1:** District response apparatus types and quantities are appropriate to protect against most hazards likely to impact the service area.
- Finding #2:** The District's minimum daily staffing of three response personnel (four as reserve firefighter personnel are available and self-scheduled), is minimally sufficient to resolve most routine calls for service; however, it is *insufficient* to deliver enough personnel to safely complete the critical tasks necessary to resolve the relatively infrequent occurrence of more serious/complex incidents.
- Finding #3:** Agreements with other local fire agencies for automatic/mutual aid response have not been reviewed or updated in many years.
- Finding #4:** The San Luis Obispo CAL FIRE Unit has established response performance standards for the District *partially* consistent with best practice recommendations as published by the Commission on Fire Accreditation International and the National Fire Protection Association to guide future fire crew staffing, apparatus types, and deployment methods.
- Finding #5:** The District's current deployment model is intended to provide a minimum of four response personnel on duty daily, including three full-time personnel and one reserve firefighter; however, with only 9 active reserve firefighters currently and no residency or minimum monthly or annual shift requirement, the District is significantly challenged to maintain four-person staffing on most days.
- Finding #6:** The District has a standard response plan that considers risk and establishes an appropriate initial response for each incident type; each type of call for service receives the combination of engines, specialty units, and command officers customarily needed to effectively control that type of incident based on experience.
- Finding #7:** The additional response resources needed to deliver an Effective Response force sufficient to resolve more complex or serious emergencies are too distant with insufficient staffing to expect positive outcomes in most instances.

- Finding #8:** Overall service demand increased 16.7 percent over the four-year study period for an average annual increase of 5.3 percent.
- Finding #9:** EMS service demand accounted for nearly 74 percent of total service demand over the four-year study period, with an average annual increase of 3.7 percent.
- Finding #10:** Two or more simultaneous calls for service occur 13.2 percent of the time with three or more occurring only 1.3 percent of the time.
- Finding #11:** Simultaneous incident activity increased approximately 29 percent over the four-year study period, peaking in RY 20/21.
- Finding #12:** The District provides more aid to other jurisdictions than it receives.
- Finding #13:** Call processing / dispatch performance appears to nearly meet a 1:00-minute best practice standard; however, this performance measurement does not include the Sheriff's Department PSAP dispatch center call answering / transfer time component to the San Luis Obispo CAL FIRE Unit ECC.
- Finding #14:** Crew turnout performance over the four-year study period was slightly slower than a Citygate-recommended 2:00-minute best practice goal; however, turnout performance has eroded about 20.5 percent over the most recent 24-month period.
- Finding #15:** First-unit travel performance over the four-year study period was slightly more than 6:00 minutes, or slightly more than 2:00 minutes (52 percent) slower than a Citygate-recommended 4:00-minute best practice goal to facilitate desired outcomes due to a very large service area; road network, design, and maintenance; traffic; traffic calming measures; and limited access to some neighborhoods.
- Finding #16:** At 8:23 minutes, first-unit call-to-arrival performance over the four-year study period was only 53 seconds (12 percent) slower than Citygate's 7:30-minute best practice goal to achieve desired outcomes; however, this does not include the Sheriff's Department PSAP dispatch center call answering and transfer time component.
- Finding #17:** At 18:44 minutes, ERF call-to-arrival performance over the four-year study period was 7:14 minutes (63 percent) slower than Citygate's 11:30-minute best practice goal to facilitate desired outcomes in urban/suburban communities.

- Finding #18:** The fire station is adequately located to provide first-unit travel times to facilitate positive outcomes in the more densely populated areas of the District's service area.
- Finding #19:** The District's population is aging, with persons over 65 years of age increasing from 19.4 percent in 2000 to nearly 28 percent in 2023, which can likely be expected to drive up future service demand, particularly for emergency medical services.
- Finding #20:** The District's individual response unit hourly utilization is well below recommended maximum saturation levels indicating sufficient capacity for additional non-concurrent service demand.
- Finding #21:** Citygate considers four response personnel, with at least two being paramedics, as the *minimum* daily on duty staffing level needed to provide a reasonable *speed of response* to facilitate positive outcomes in the higher population density areas of the District and ensure sufficient staffing for at least one concurrent emergency incident.
- Finding #22:** The District's current daily staffing model of four personnel *does not* provide a minimally sufficient weight of response to complete the critical tasks necessary to safely resolve even a moderately complex or more serious event such as a building fire, multiple patient EMS, vehicle collision with extrication required, or technical rescue.
- Finding #23:** Positive outcomes for more complex/serious emergency events should not be expected in most instances given the insufficient on-duty staffing and long response time for mutual aid resources.
- Finding #24:** Calls for service at Montana de Oro State Park are increasingly impacting service availability within the District.

Recommendations

- Recommendation #1:** **Adopt Response Goal Policies:** The District should adopt response performance measures to aid deployment planning and to monitor response performance. The measures of time should be designed to deliver outcomes that will save EMS patients, when possible, upon arrival and keep small but serious fires from becoming more serious. With this in mind, Citygate recommends the following measures:

- 1.1 **First-Due Unit:** To treat pre-hospital medical emergencies and control small fires, the first-due unit should arrive within 8:00 minutes, 90 percent of the time, from the receipt of the 9-1-1 call at the CAL FIRE San Luis Obispo ECC to incidents within the District service area. This equates to 1:00-minute for call processing / dispatch, 2:00 minutes for crew turnout, and 5:00 minutes for travel.
- 1.2 **Multiple-Unit Effective Response Force for Serious Emergencies:** To confine building fires near the room or rooms of origin, keep vegetation fires under one acre in size, and treat multiple medical patients at a single incident, a multiple-unit ERF of at least **16** personnel, including at least one Chief Officer, should arrive as soon as possible in the District from the time of call receipt at the CAL FIRE San Luis Obispo ECC.
- 1.3 **Hazardous Materials Response:** To protect the District service area from hazards associated with uncontrolled release of hazardous and toxic materials, the fundamental mission of the District's response is to isolate the hazard, deny entry into the hazard zone, and minimize impacts on the community. This can be achieved with a first-due total response time of 8:00 minutes or less within the service area to provide initial hazard evaluation and mitigation actions. After the initial evaluation is completed, a determination can be made whether to request additional resources to mitigate the hazard.
- 1.4 **Technical Rescue:** To respond to technical rescue emergencies as efficiently and effectively as possible with enough trained personnel to facilitate a successful rescue, a first-due total response time of 8:00 minutes or less within the service area to evaluate the situation and initiate rescue actions. Additional resources should assemble as soon as possible to safely complete rescue/extrication and delivery of the victim to the appropriate emergency medical care facility.

Recommendation #2: Consider ensuring four personnel, including at least two paramedics, is the *minimum* daily staffing level over the near term.

Recommendation #3: Seek to identify opportunities to improve reserve firefighter participation and shift staffing, and/or fund additional overtime for full-time personnel to maintain four-person daily staffing.

Recommendation #4: If unable to substantially improve reserve firefighter participation and shift staffing, the District should consider funding an additional full-time position on each shift to ensure a minimum staffing level of four personnel daily.

Recommendation #5: The District should seek to increase its minimum daily staffing over time to at least six on-duty personnel daily to provide enough staffing to complete the key critical tasks at more complex/serious incidents in sufficient time to facilitate desired outcomes. Ideally, this staffing model could be achieved with a combination of full-time and reserve personnel.

Recommendation #6: Update/revise automatic/mutual aid agreements as needed to ensure timely response of the most proximal resources for more serious/complex incidents requiring additional resources.

NEXT STEPS

Near Term

- ◆ Review and absorb the content, findings, and recommendations of this report.
- ◆ Adopt response performance goals as recommended.
- ◆ Develop a plan to fund and maintain a minimum daily staffing level of four response personnel, to include at least two paramedics.

Longer Term

- ◆ Seek funding opportunities to increase daily response staffing to six personnel.
- ◆ Monitor response performance against adopted goals.