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CONTROLLER

October 20, 2022

Honorable Eric Garcetti, Mayor
Honorable Michael Feuer, City Attorney
Honorable Members of the Los Angeles City Council

Re: A Better Plan to Get L.A. Ready for Emergencies

When disaster strikes, residents and businesses rely on their local government to serve as the first line of defense against catastrophic damage to life and livelihood. In recent decades, the City has faced numerous unexpected crises—from the devastating '94 Northridge earthquake to the recent COVID-19 pandemic—that have necessitated immediate, wide-ranging emergency response operations. According to the Federal Emergency Management Agency, **Los Angeles is located in the most at-risk region for disasters in the United States**. As the impacts of climate change become more pronounced and new threats such as cybersecurity attacks emerge, it is clear that a robust emergency preparedness program is required.

While several entities play an important role in responding to disasters, the Emergency Management Department (EMD) is the primary department responsible for coordinating the City of Los Angeles' emergency planning and response. Its programs are the subject of my latest report.

EMD is tasked with a range of duties to ensure that L.A. is prepared for potential catastrophe. Although EMD has developed a comprehensive set of emergency plans, the department has fallen well short of effectively addressing ongoing and emerging risks. The toll of COVID-19 strained EMD resources and staffing, causing several existing preparedness programs to lag behind, likely impacting the City's readiness for future emergencies. New strategies are needed to close planning gaps and ensure that all City departments have the essential resources to mitigate economic impact and preserve life and property in the event of an emergency.

Falling behind

EMD maintains a citywide Emergency Operations Plan, as well as 40 supplemental plans that are specific to various hazards and operations functions. However, some of the most pressing concerns

facing the City remain unaddressed. There are currently no dedicated plans covering cyberattacks, climate change, drought or high-rise building fires. In addition, EMD has been unable to provide departments with technical reviews of their “Department Emergency Plans” and “Continuity of Operations Plans.” While departments are submitting these plans yearly, the quality varies significantly and assistance from EMD has been unavailable for departments who need it.

During an emergency, departments coordinate with EMD’s Emergency Operations Center to obtain resources and supplies, but neither EMD nor the General Services Department perform regular supply or equipment needs assessments to ensure departments have the resources they need to respond effectively to a major disaster. The isolated approach to assessing emergency supply inventories limits planning and increases the risk that the City will have to rely on rapid procurement or assistance from outside agencies in the event of a large-scale emergency.

Better strategy needed

Without a strategy to improve the City’s plans and protocols that mitigate the impact of disasters, the safety and security of Angelenos will remain at risk. My report recommends the following actions to more effectively prepare for unexpected events:

- Develop new plans to prepare the City for cyberattacks, climate change, drought, high-rise building fires and other high-risk incidents.
- Establish a new agreement with L.A. County outlining coordination roles, mutual aid protocols and a joint City/County emergency management organization.
- Develop a roster of designated, qualified employees likely to fulfill Emergency Operation Center duties during an emergency.
- Expand hazard-specific training opportunities and exercises for City employees.
- Establish a formal policy on after-action reports and implementation of program improvement recommendations.
- Conduct a disaster response asset gap analysis to identify resource needs for major crises.
- Determine whether new mutual aid agreements are needed to ensure the City can secure support from outside agencies.

What we do to prepare for an emergency is often just as important as the response itself. By implementing these recommendations, Los Angeles will ensure it is adequately prepared to protect residents and businesses no matter what challenges lie ahead.

Respectfully submitted,



RON GALPERIN
L.A. Controller

A Better Plan to Get L.A. Ready for Emergencies



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LA CONTROLLER

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EXECUTIVE SUMMARY

When a disaster occurs, communities and businesses rely on their local government to act swiftly to preserve life and property and lessen the disaster's impact to the greatest extent possible. Disaster response is particularly important for the City of Los Angeles (City). The Federal Emergency Management Agency (FEMA) rated Los Angeles County as the most at-risk region in the United States for disasters, based on an analysis of natural hazard threats and community risk factors.

Safely navigating a city through an emergency requires careful planning, a robust training program, and constant analysis of risk factors and corresponding mitigation efforts. The Emergency Management Department (EMD) is the lead department for citywide emergency planning and response coordination. The department has a broad range of responsibilities, including development of citywide plans, administering training, managing the City's emergency public communications systems, and maintaining the readiness of the City's disaster response operations hub (known as the Emergency Operations Center or EOC).

This report examines the City's emergency preparedness program and its readiness for future emergencies. EMD's COVID-19 response workload and staffing shortages have expectedly strained the department's emergency preparedness programs in recent years. As the public health emergency subsides, it is critical that the City take proactive steps to confront existing and emerging risks.

What We Found

EMD has developed emergency response plans for natural and manmade hazards, as well as functional plans covering logistics, business, and continuity of operations. This includes the citywide Emergency Operations Plan, and 40 supplemental support annexes and appendices detailing specific plans and protocols. **But many of the department's preparedness programs have fallen behind, likely impacting the City's readiness for future emergencies.**

- Although EMD has planned extensively for multiple disaster scenarios, planning gaps exist for several urgent, emerging risks facing the City. EMD does not have plans covering cyberattacks or special event incidents. The department also lacks dedicated plans for climate change, drought, and high-rise building fires, but other existing emergency plans at least partially address the risks associated with those three hazards.

- EMD has been largely unable to provide technical assistance to departments when they develop their annual Department Emergency Plans and Continuity of Operations Plans. Department Emergency Plans describe a department's disaster response operations and protocols, while Continuity of Operations Plans describe protocols for ensuring the continuity of department services and systems. Smaller departments and departments without emergency management expertise tend to require more assistance.
- EMD has very little information about the credentials, skills, and qualifications of employees designated by departments to staff EOC roles. Without additional information and planning, EMD lacks full assurance that EOC responders can effectively fulfill their emergency management duties.
- EMD has cut back on both training and exercises since the start of the pandemic, limiting its ability to prepare employees and departments for disasters in a hands-on setting. The department is currently in the process of overhauling its training and exercise program to focus more on specific high-risk hazards.
- EMD has not been tracking the implementation of program improvement recommendations that are developed based on lessons learned from real-world EOC activations and exercises. Even when the department was monitoring recommendations, implementation proved difficult. From 2013 through 2019, EMD tracked 359 recommendations, of which only about half were implemented.
- Neither EMD nor the City's logistics and procurement department, the General Services Department (GSD), perform a regular supply or equipment needs assessment to ensure the City has the resources it needs to respond to catastrophic incidents, such as a chemical, biological, radiological, or nuclear attack.

What We Recommend

The City must take proactive steps to consider the range of disasters and operational risks it is facing, and implement new plans, protocols, and capabilities that allow all departments to quickly and effectively serve Angelenos during an emergency. Specifically, EMD and its partners should take the following steps.

- Develop new plans or update existing plans to prepare the City for new and emerging risks, including cyberattacks, special event incidents, climate change, drought, high-rise building fires, and any other high-risk incident or function not yet fully addressed by existing plans.

- Develop a roster of designated, qualified responders likely to fulfill EOC duties during an activation. Roster information could include credential status, position classification, relevant skills, and relevant training.
- Expand hazard-specific training opportunities and exercise events for City employees.
- Establish a formal policy addressing the development of after-action reports, and the implementation and monitoring of program improvement recommendations.
- Conduct a disaster response asset gap analysis to identify resource needs for major, non-seasonal hazards likely to impact the region.
- Determine whether any new mutual aid agreements are needed to ensure the City can secure support from outside agencies when its own resources are insufficient for a disaster response operation.
- Develop a new agreement with the County of Los Angeles establishing coordination roles, mutual aid protocols, and a joint City and County emergency management organization to support interagency coordination, planning, and process improvement on an ongoing basis.
- Develop an engagement plan targeting industries and businesses with critical community resilience roles, and establish partnership strategies addressing the private sector's role in supporting the disaster response and recovery efforts.

Protecting Los Angeles residents and businesses during an emergency is one of the City's most important responsibilities. By implementing the solutions proposed in this report, the City can accelerate its emergency preparedness efforts and improve its readiness for future emergencies.

BACKGROUND

Disaster planning, response, and recovery are among the most important responsibilities of government. **The Los Angeles region is particularly vulnerable to disaster threats.** The Federal Emergency Management Agency (FEMA) National Risk Assessment, which analyzes natural hazard threats and community risk factors, **rated Los Angeles County as the most at-risk region in the United States with a risk index score of 100—the national average was 11.**

Several historical natural and manmade disasters highlight the need for the City of Los Angeles (City) to remain vigilant and prepared.

- The 1963 Baldwin Hills Reservoir Failure was a catastrophic structural failure caused by previously undetected erosion beneath the dam. Rushing water carrying pieces of concrete and other debris damaged nearby neighborhoods. The event resulted in the deaths of five people.
- The Civil Unrest of 1992, which began following the acquittal of four police officers that were filmed using excessive force against Rodney King, lasted for four days. The events resulted in an estimated 60 deaths, and more than 1,000 buildings were destroyed by fires.
- The 1994 Northridge Earthquake caused serious damage in Los Angeles and in surrounding areas. The magnitude 6.7 earthquake damaged homes and businesses, caused freeways to collapse, and caused power system failures throughout the region. The earthquake caused 57 fatalities.

An effective emergency response framework is needed to protect the safety of Angelenos during a natural disaster or other sudden emergency. Beyond public safety, it is essential that the City take steps to prevent property damage and minimize economic impact to the greatest extent possible.

The purpose of this review is to evaluate the City's emergency preparedness program and identify additional steps the City should take to ensure it has the plans, staffing, and resources in place to protect Angelenos during a disaster. The efficiency and effectiveness of the City's emergency operations center was not a primary focus of this review.

While we considered issues related to the City's COVID-19 pandemic response, it was also not the focus of this review. The City retained an outside consulting firm to complete a formal review of the City's COVID-19 response. The consultant completed a report in June 2022. Their findings and recommendations were developed independently of this review.

Emergency Management Roles and Responsibilities

There are several entities that play an important role in the City's emergency planning and response efforts, but the **Emergency Management Department (EMD) is the City's lead department for emergency planning and coordination**. EMD does not act as a first responder, but instead facilitates interdepartmental coordination and communication across all City departments during an emergency. Specific responsibilities of EMD include, but are not limited to:

- developing and updating citywide risk assessments and emergency preparedness plans;
- developing and administering disaster preparedness training and exercises;
- managing outreach and training for members of the public and business communities;
- managing the City's emergency alert system and its use of federal alert systems;
- coordinating with other City departments and the City's personnel managers to support administration of the Disaster Service Worker Program, which temporarily redeploys City workers away from their normal duties to assist with emergency response operations; and
- liaising with federal, state, and local partners to support intergovernmental planning and response activities.

EMD is also responsible for maintaining the operational readiness of the City's Emergency Operations Center (EOC), which can be activated at any time by the Mayor, Council President, or designated department heads. The EOC is the City's central hub for emergency operations, communications, and response, and is equipped to facilitate the City's response to a wide variety of hazards and incidents, such as fires, floods, earthquakes, and terrorism.

City of Los Angeles Emergency Operations Center



Source: EMD

The EOC was designed and organized for compliance with federal and state incident management standards. The EOC has the capacity for approximately 200 people, but the number of people staffing the center varies based on activation and incident type.

Emergency Operations Organization and Emergency Operations Board

It is important to note that EMD is not solely responsible for the City's emergency planning and response activities. During both emergency and non-emergency periods, representatives from all departments convene to form a centralized decision making and coordination agency known as the Emergency Operations Organization (EOO). The EOO, which was created by City ordinance, provides for a formal chain of command and information sharing structure to promote efficiency across departments. The organization coordinates its activities through the EOC during an emergency.

The governance body responsible for overseeing the EOO's planning, response, and recovery functions and enforcing emergency management policy is the Emergency Operations Board (EOB). The board approves citywide policies, plans, and major initiatives related to emergency management, and provides strategic-level guidance to EMD. The permanent chair of the EOB is the Chief of Police. Other members include the General Manager (or other chief executive) from the departments listed below.

Fire	Information Technology Agency
Los Angeles World Airports	Personnel
Building and Safety	Recreation and Parks
City Administrative Officer	Transportation
Emergency Management	Water and Power
General Services	Board of Public Works
Harbor (Port of LA)	Chief Legislative Analyst

First Responders and Operational Departments

Effective disaster response requires a rapid, citywide response, which includes both first responders from the Police Department and Fire Department, as well as departments that normally manage public works, neighborhood services, and business operations.

During emergency and non-emergency periods, all City departments have their own unique emergency planning and response roles, and are responsible for being ready to fulfill their emergency response responsibilities. For example, the Recreation and Parks Department is the City's designated mass shelter and care manager, and will convert its facilities to care for residents after a disaster. The Bureau of Engineering provides access to vital records such as infrastructure plans and performs infrastructure damage assessments. The Animal Services Department helps law enforcement officers and firefighters with the evacuation of animals.

Certain City departments have their own emergency planning units, and their own operations centers, known as Department Operations Centers (DOC). Departments that maintain dedicated emergency management teams and DOCs include the Police Department, Fire Department, Recreation and Parks, Transportation, and Los Angeles World Airports. These units coordinate with and support the central EOC during an activation, in addition to facilitating department-level response activities and communication.

EMD Organization and Budget

EMD is a relatively small department. The department is organized into five divisions, each responsible for a different element of the department's emergency management mission. Those divisions include:

- Administration and Finance;
- Planning and Resilience;
- Operations and Training;
- Community Preparedness and Engagement; and
- Innovation and Development.

In Fiscal Year (FY) 2021-22, total EMD funding was \$6,076,554, and the department was authorized for 30 employees. Total funding for FY 2022-23 is \$7,305,737, and the department is authorized for 29 employees. The FY 2022-23 increase is primarily the result of additional funding for indirect expenses.

The City's investment in emergency preparedness is slightly below that of peer jurisdictions, with some exceptions. New York City and San Francisco have much larger disaster preparedness budgets, but those jurisdictions are consolidated city-county governments, meaning the entities provide both county and city services. In Los Angeles, the City of Los Angeles and the County of Los Angeles are separate entities.

The chart below shows the City of Los Angeles emergency preparedness budget and how it compares to select peer cities. These are the figures reported in the adopted FY2021-22 budgets of each city.

Peer City Emergency Preparedness Programs Budget Comparison (FY2021-22)						
	Los Angeles	New York	San Diego	San Francisco	Sacramento	Long Beach
Type	City	City-County	City	City-County	City	City
Population	3,898,747	8,804,190	1,386,932	873,965	524,943	466,742
Square Miles	468.67	302.64	325.19	46.87	97.92	50.29
Funding	\$6,067,554	\$54,221,886	\$3,409,414	\$6,633,952	\$575,612	\$1,054,081
Per Capita	\$1.56	\$6.16	\$2.46	\$7.59	\$1.10	\$2.26

The majority of EMD's workforce are Emergency Management Coordinators, but Project Coordinators, Management Analysts, and employees in other classifications also support the department's programs. **Like many City departments, EMD has struggled to remain adequately staffed due to budget, hiring, and retention challenges. As of September 2022, EMD had five vacancies, which was an improvement compared to the 10 vacancies it had at the beginning of the year.**

EMD's support for the City's COVID-19 response has also strained the department's operational capacity. The EOC has been activated since March 2020. EOC staffing requirements, coupled with COVID-19 workload increases, have contributed to employee burnout concerns. EMD reports that these capacity constraints have forced the department to scale back or delay some of its emergency preparedness activities compared to pre-COVID-19 levels. **EMD resource constraints are a factor for many of the issues identified in this report.**

Emergency Management Laws, Regulations, and Standards

There are several laws, regulations, and guidelines that provide the framework for the City's emergency management apparatus, and the organization and operations of EMD. These laws and standards dictate the types of plans, and disaster response systems that the City should have in place, and how federal, state, and local agencies should assist one another. The table below provides a high-level summary of this framework.

National Incident Management System (NIMS)	<i>NIMS is a standardized FEMA system that guides all levels of government, nongovernmental organizations and the private sector to work together to prevent, protect against, and respond to incidents. NIMS describes optimal operational systems and structures, and establishes recommended preparedness standards for resource management, command and coordination, and communications and information management.</i>
Standardized Emergency Management System (SEMS)	<i>SEMS is the State of California's standardized emergency response system. The system, which is consistent with NIMS, facilitates intergovernmental coordination across state and local agencies, as well as the management of costs related to mutual aid.</i>
Robert T. Stafford Disaster Relief and Emergency Services Act	<i>The Stafford Act is a federal law establishing programs and processes that allow the federal government to provide disaster assistance to states, local governments, tribal nations, individuals, and qualified nonprofit organizations.</i>

California Emergency Services Act	<i>The California Emergency Services Act is a state law that promotes the preparedness of state agencies. The law standardizes the state’s emergency response system, and establishes the Office of Emergency Services (Cal OES) within the Governor’s Office.</i>
Los Angeles Administrative Code Division 8, Chapter 3	<i>The Los Angeles Administrative Code centralizes the direction and control of City disaster planning and response by describing powers and authorities, and establishing the EOO and EOB.</i>
Mayoral Executive Directives (EDs)	<i>A series of EDs published in 2011 and 2012 establish citywide emergency management policies, as well as the specific responsibilities of EMD, other departments, and employees that work in the EOC. The directives include ED 15 (Emergency Management, 2011), ED 16 (Disaster Service Workers, 2011), ED 17 (Emergency Operations Center, 2011), ED 18 (National Incident Management System, 2011), ED 19 (Mayor’s Emergency Response Council, 2011), and ED 23 (Individuals with Disabilities and Functional Needs, 2012).</i>

Federal and state emergency preparedness standards consistently emphasize the need for jurisdictions to develop policies and plans that reflect local conditions, hazards, and population needs. While those standards provide guidelines for planning, coordination, and response, they tend to be less prescriptive than local policies and plans. According to EMD, Los Angeles City officials plan to update Executive Directives for emergency management based on lessons learned from past emergencies, and to better reflect changes in City emergency operations since the directives were established, but the timeline for these revisions is not yet finalized.

I. PREPARING FOR EXISTING AND EMERGING RISKS

Development of emergency plans and assessments that ensure the City has the ability to respond to the unique hazards facing the Los Angeles area is extremely important. **EMD has developed a comprehensive set of citywide, hazard-specific, and functional emergency plans. The development of these plans helps to support the City’s overall emergency readiness.**

However, maintaining up-to-date plans is a challenge given the department’s competing priorities, and new planning efforts are needed to ensure the City is prepared for emerging risks like cybersecurity and climate change. In addition, EMD currently lacks the capacity to conduct technical reviews of individual department plans, which hinders its ability to evaluate the adequacy of departments’ emergency response and operations continuity plans.

Local Hazard Mitigation Plan

The federal government requires jurisdictions that receive federal disaster preparedness funds to develop a Local Hazard Mitigation Plan (LHMP). The City's most recent LHMP, which was developed and published by EMD in January 2018, examines and documents both natural and manmade hazards that pose a risk to the City. The plan specifically evaluates potential risks, major past hazard events, local geography and environmental conditions, and community demographics, among other factors.

The 2018 LHMP concluded that there are numerous hazards facing the City, each requiring unique planning and analysis. The chart below lists the natural and manmade hazards identified in the plan. Natural hazards are ranked based on the risks associated with the hazard, and an analysis of the potential for adverse impact on people, property, and the economy. Manmade hazards are not ranked.

Hazard Mitigation Plan Risk Areas		
Natural Hazards		
Rank	Hazard	Risk Category
1	Earthquake	High
2	Adverse weather	High
3	Landslide / debris Flow	High
4	Wildland / urban interface fire	High
5	Drought	Medium
6	Flood	Medium
7	Dam failure	Medium
8	Climate change / sea level rise	Low
9	Tsunami	Low
Manmade Hazards (Not Ranked)		
	Civil unrest	
	Critical infrastructure	
	Cyber-attack and space weather	
	Hazardous materials incident	
	High rise / high occupancy building fire	
	Public health hazards	
	Radiological incident	
	Special event incident	
	Terrorism and weapons of mass destruction	
	Transportation incident	

The results of the 2018 LHMP highlight the need for a methodical, risk-based emergency planning program. EMD plans to update the LHMP in 2023, consistent with federal requirements to update the plan every five years. According to EMD, the upcoming LHMP will have a greater emphasis on climate change and climate-induced hazards to ensure compliance with updated FEMA's revised LHMP guidance.

Citywide Emergency Operations Plan and Annexes

Consistent with FEMA guidelines and ED 15 (Emergency Management, 2011), EMD maintains a citywide Emergency Operations Plan (EOP). The most recent EOP was published in November 2018. The EOP establishes the overall response strategy and roles and responsibilities for the EOO, EOC, City departments, and the Los Angeles region's broader emergency management community. The EOP is approved by the EOB, City Council, and Mayor.

The ultimate goal of the EOP is to outline how the City will respond and the actions it will take in the aftermath of a disaster in order to save human life, meet the basic needs of the community, and protect property, critical infrastructure, and the environment. The EOP provides guidelines and protocols in several key areas, including, but not limited to:

- mobilization of emergency services that are to be provided by City departments;
- methods for carrying out emergency operations and the process for rendering or receiving mutual aid;
- a description of the system for providing public information;
- EOC activation and EOO division functions; and
- continuity planning guidelines to ensure uninterrupted government operations.

The EOP is considered the base plan describing fundamental systems and policies. Supplementing the plan is a series of supporting annexes. The role EOP annexes is described in the following section.

EOP Annexes

EOP annexes are issue-specific plans developed jointly by EMD and the City departments with responsibilities related to the annex issue area. These annexes contain planning information covering concepts of operations, roles and responsibilities, procedures facilitating rapid response, interdepartmental coordination protocols, intergovernmental coordination protocols, and preparedness activities which are to be implemented in advance of any potential incident.

Annexes are to be used by departments when developing their department-level Standard Operating Procedures, as it is ultimately the responsibility of each department to develop

operating procedures for their tactical response roles. **EMD has developed a total of 40 annexes and supplemental annex appendices.** There are two types of annexes – hazard specific and functional. Hazard specific annexes outline plans for specific types of incidents, whereas functional annexes outline operational or business management functions which would be applied to most disaster types.

The following chart contains examples of hazard specific and functional annexes developed by EMD and its partners. See Appendix A for a list of all EOP annexes.

Examples of EOP Annexes

Hazard Specific	Functional
• Adverse Weather • Brush Fire • Chemical, Biological, Radiological and Nuclear • Off Airport Major Aircraft Response • Pandemic	• Communications • Emergency Public Information • Evacuation • Local Assistance Center • Logistics • Mass Care and Sheltering

Current Planning Gaps

Overall, EMD has developed a comprehensive set of citywide plans and support annexes, resulting in a generally strong level of planning coverage across the broad spectrum of disaster risks facing the City. The EOP and its annexes address most of the hazards identified in the LHMP, including for several high-risk hazards such as earthquakes, adverse weather, and wildland/urban interface fires.

However, there are planning gaps that EMD needs to address to ensure the City is prepared for new and emerging risks. Existing plans do not address two hazards identified in the LHMP, despite the risks related to those hazards increasing in recent years.

Cyberattacks and Space Weather

Cyberattacks are malicious crimes which attempt to damage, disrupt, or gain unauthorized access to computer systems or communications networks. Cyberattack motivations and methods vary, and may be perpetrated by individuals, criminal organizations, or foreign governments. Space weather is variations in the space environment that can influence the performance of technology used on earth. The recent cyberattack impacting Los Angeles Unified School District systems highlights the ongoing cybersecurity risk.

Special Event Incidents *Special events are activities on public or private property that affect the ordinary use of public spaces or public rights-of-way, and will require extraordinary levels of City services. These can include festivals, sporting events, parades, conventions and summits. Special events are susceptible to terrorism, civil unrest, and transportation disruptions.*

There are three additional LHMP hazards where no annex or dedicated plan currently exists, but EMD reports the consequences associated with those hazards are at least partially addressed by existing plans or programs.

Climate Change and Sea Level Rise *Climate change is the long-term warming of the earth's climate, which is having an ongoing impact on natural ecosystems and weather. Climate change increases the likelihood and severity of weather-related disasters. The increase in global temperatures is melting ice sheets and glaciers, causing oceans and sea levels to rise. Annexes/annex appendices associated with this hazard include: Adverse Weather; Urban Flooding; Logistics Distribution; and Logistics Food and Potable Water.*

Drought *Drought is a decrease in natural water supplies, leading to water shortages that cause health, quality of life, and economic concerns. The National Oceanic and Atmospheric Administration has reported that 97.5% of California is experiencing severe drought. Annexes/annex appendices associated with this hazard include: Adverse Weather; Urban Flooding; Logistics Distribution; and Logistics Food and Potable Water.*

High-Rise / High Occupancy Building Fire *High-rise and high occupancy building fires are fires that exceed the aerial reach of fire department equipment, which is typically 75 feet or seven to eight stories. These fires are especially dangerous because it makes rescues and extinguishing the fires much more difficult. Annexes/annex appendices associated with this hazard include: Brushfire; Communication; Emergency Alert and Warning; Evacuation; Public Information; Local Assistance Center; Mass Care and Sheltering; and Recovery.*

In addition to the above hazards identified in the Hazard Mitigation Plan, the City must consider the needs of the unhoused population, which is one of the most vulnerable groups in the City. Unhoused people, particularly those experiencing conditions such as mental illness, substance abuse, and physical disabilities, may find it difficult to prepare for disasters, and cope with the resulting hardships. They are also less likely to have the ability to safely evacuate an

area. It is important that the City develop inclusive disaster plans that protect people experiencing homelessness, and work closely with other local jurisdictions and homeless services providers to ensure the needs of unhoused populations are met during emergencies.

The current gaps in hazard planning may impact the City's ability to effectively respond to certain emergencies, or reduce the City's overall efficiency during an incident. The City faces many challenges as it moves into the future, including climate change, a worsening homelessness crisis, and an increase in cyber threats against government institutions. The region is also set to host a series of high-profile events in upcoming years, including the Olympics and the World Cup. **EMD must continue to evaluate the risks associated with these hazards and events and either develop new annexes, or incorporate plans into existing annexes.**

EMD is planning to update the citywide EOP and annexes in 2023 with assistance from an emergency management consultant. The project will be funded by the Urban Area Security Initiative, which is a FEMA program that supports enhanced regional preparedness and capabilities in designated high-threat, high-density areas.

Plan Update Cycle

Until February 2022, EMD's policy was to review and update the citywide EOP and the EOP annexes every two years. However, EMD struggled to maintain this update cycle due to the number of annexes currently in place, and the staffing resources required to conduct the assessment. EMD has not updated the citywide EOP or most of the annexes since 2018. If the two-year planning cycle were still in place, all but one of the annexes (Chemical, Biological, Radiological and Nuclear Annex) would be past due for an update.

Maintaining current, effective plans is necessary, but the current update goals may not be realistic. The department should establish a new emergency plan update cycle. **This could include developing a risk-based update cycle, where annex update cycles would vary based on need or hazard severity.** For example, an annex related to technology, where risks and capabilities change rapidly, would be updated more frequently than an annex related to food distribution, an issue less susceptible to rapid change.

FEMA's Comprehensive Preparedness Guide, which serves as FEMA's best practices report for emergency plan development, recommends that emergency managers coordinate with executive-level managers and subject matter experts to develop a standardized plan maintenance, review, and update cycle, **but does not recommend a specific timeline.** EMD intends to establish a revised plan maintenance cycle next year as part of the Urban Area Security Initiative-funded emergency plan update initiative.

Department Emergency Plans and Continuity Plans

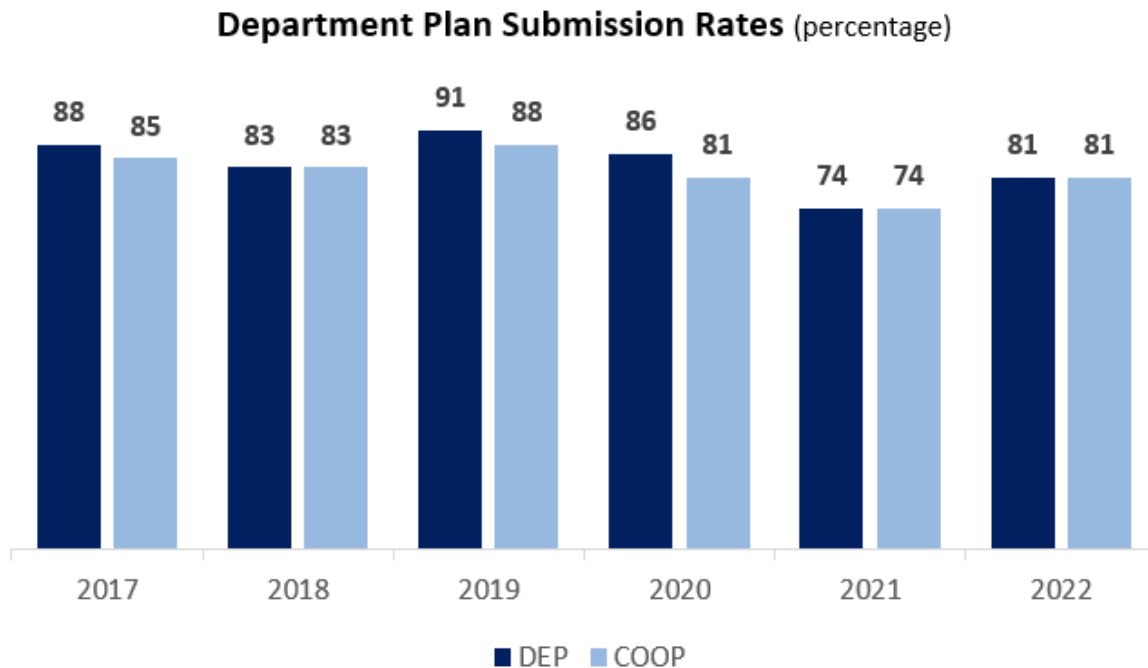
In addition to the citywide plans that EMD develops, City departments are responsible for developing and implementing two plans – a Departmental Emergency Plan (DEP) and a Continuity of Operations Plan (COOP). The formats of DEPs and COOPs are generally consistent across departments, and are developed based on templates provided by EMD. The plans are to be reviewed and updated annually, per ED 15 (Emergency Management, 2011) requirement. DEPs detail department response plans for executing essential mission critical operations during an emergency, and maintaining the safety of employees and the public. Information contained in DEPs includes, but is not limited to, the following:

- potential hazards that threaten department operations, facilities, and assets;
- employee, building, hazardous materials, and fire prevention plans;
- department emergency response roles and functions;
- support for citywide emergency response operations;
- EOC and DOC (if applicable) roles and support; and
- disaster recovery plans.

COOPs supplement DEPs, and serve as a guide for the restoration of essential functions within 24 hours of an emergency. COOPs tend to focus more on the preservation and continuity of internal services. Information contained in COOPs includes, but is not limited to, the following:

- identification of essential internal functions;
- identification of minimum essential personnel to sustain critical department functions;
- establishment of orders of succession and delegations of authority;
- identification and preservation of essential records and systems; and
- identification of backup facilities and supplies.

Over the past several years, departments have generally been able to comply with DEP and COOP submission requirements. However, EMD has not been able to accomplish full compliance by departments. Annual submission rates for the plans since 2017 have been between approximately 75% to 90%. The chart below shows the DEP and COOP submission rates across all City departments between 2017 and 2022.



According to EMD, the quality of DEP and COOP plans submitted by departments can vary. Departments that have their own emergency management units or Emergency Management Coordinators on staff benefit from having professional emergency management subject matter expertise within the department. However, smaller departments and departments with a more limited disaster response role are likely to assign DEP and COOP preparation to staff as a collateral administrative duty.

EMD's Planning and Resilience Division is responsible for management and review of City department emergency plans. As of March 2022, three of the division's four positions were vacant, excluding management. **EMD reported that the department has been unable to conduct technical reviews of department plans, and unable to provide an adequate level of technical assistance to departments that require it.** City officials outside of EMD also said that City departments, particularly those that are smaller, would benefit from additional planning support.

During the 2020 planning cycle, departments also submitted COVID-19 Department Reconstitution Plans. The reconstitution plans detail operational changes supporting the continued administration of essential services and employee safety protocols specific to the COVID-19 environment. Departments could submit reconstitution plan updates in 2021 and 2022. COVID-19 Department Reconstitution Plans added to the plan development and review workload for EMD and City departments.

Until EMD has sufficient capacity to conduct comprehensive DEP and COOP plan reviews, EMD should consider developing an interdepartmental working group, where staff responsible for planning across all departments have the opportunity to collaborate, share best practices, and provide cross departmental planning assistance. Collaborative efforts could boost the quality of department plans and departments' overall readiness, especially if emergency management specialists outside of EMD participate.

Recommendations

To improve the efficiency of emergency planning programs and expand planning coverage, EMD should:

1. Update existing EOP annexes or establish new annexes to include plans for cyberattacks and space weather, special event incidents, climate change and sea level rise, drought, high-rise / high occupancy building fires, unhoused populations, and any other risk area not yet fully addressed by existing plans.
2. Revise the EOP annex update cycle and consider a tiered cycle in which annex update schedules are based on the associated level of risk.
3. Develop an interdepartmental planning working group, or similar program, in which departments collaborate and provide peer-to-peer planning assistance.

II. PRIORITIZING TRAINING, EXERCISES, AND CONTINUOUS IMPROVEMENT

Emergency management training and exercises that test capabilities and preparations help to enhance employee knowledge of the City's disaster plans and strategies. Training and exercises also improve emergency managers' and responders' ability to make informed, smart decisions when managing disaster response operations. Employee training and EOC responder readiness is a shared responsibility between EMD and departments.

EMD's ongoing support for the City's COVID-19 response has hindered its ability to maintain a robust training program for City employees and EOC responders. To address this, EMD should work with departments to improve its tracking of employee training, emergency management certifications, employee skills, and departments' ability to provide qualified employees for prescribed EOC responsibilities. The department should also improve its processes for tracking program improvement recommendations developed following exercises and EOC activations.

Training and Exercises

ED 17 (Emergency Operations Center, 2011) and the Los Angeles Administrative Code designate EMD as the lead agency for coordinating and administering emergency preparedness training

for City employees. Although the directive and code do not specify training requirements other than EOC preparedness and operation, the department's goal is to provide training across multiple hazard types and operational scenarios.

According to EMD, the department is constrained in its ability to administer both training and emergency response exercises. EMD's Operations and Training Division is responsible for both EOC operations and training programs. The COVID-19 pandemic required the Operations and Training division to shift staffing resources away from training and exercise programs in order to support the prolonged activation of the EOC, as well as the needs of City departments throughout the pandemic. According to EMD, the department is still able to provide foundational emergency management training, and should be able to expand its offering as the pandemic subsides.

Briefings During a Disaster Response Exercise



Source: EMD

EMD records indicate that from January 2020 through May 2022, the department has administered seven different training courses for EOC responders and other City employees with emergency management responsibilities. EMD administered training on EOC management and the City's virtual emergency operations application on an annual basis. EMD offered training courses and seminars for the following:

- EOC management and operations;
- Veoci virtual emergency operations center software;
- Notify LA (emergency public notification system);
- EOC geographic information systems;
- post-earthquake assessments;
- health and human services functions; and
- tsunami response.

EMD has also been limited in its ability to administer disaster response exercises. Exercises offer jurisdictions an opportunity to test plans, procedures, and capabilities in a safe, controlled environment. Entities can learn valuable lessons about their strengths, weaknesses, and capacity and resource gaps. From 2016 through 2019, prior to the onset of the COVID-19 pandemic, EMD administered 11 exercises. Topics covered by exercise events during this period included EOC activation, cybersecurity, medical points of distribution, and brush fires, among others. **From January 2020 through May 2022 EMD administered four exercise events.** Those events included:

- Mass care full scale exercise;
- Complex coordinated terrorist attack functional exercise;
- Defense Support of Civil Authorities tabletop exercise; and
- Defense Support of Civil Authorities summit.

EMD is currently developing a new training and exercise program known as the Integrated Preparedness Plan (IPP). According to EMD, the new plan will allow the department and its partners to integrate preparedness and planning reviews with training and exercises to provide for a more comprehensive hazard preparation process. Under IPP, each year EMD will identify a high-risk hazard. For each selected hazard, EMD will:

- assess core response capabilities and information systems readiness;
- assess applicable policies, plans and procedures;
- assess staffing capabilities and needs;
- assess equipment requirements and needs; and
- identify or develop training opportunities to address skills requirements.

The IPP for 2022-2024 is currently under development. Under the draft plan, EMD has selected tsunamis as the hazard of focus for 2022. The department plans to finalize the IPP sometime in 2023. EMD will also continue to administer its core training courses for EOC responders.

Employee Credentialing

Employee credentialing is the certification of an employee's qualifications and training for disaster response roles. In the State of California, credentialing standards are tied to FEMA's National Qualification System, which describes the components of an employee qualification and certification system and defines processes for certifying the qualifications of incident management personnel.

The ultimate goal of a credentialing program is to ensure employees are qualified and prepared for their EOC or DOC responsibilities. Credentialing also facilitates the sharing of personnel resources across jurisdictions during an emergency because credentialed employees

will have baseline incident command qualifications and knowledge regardless of the location or disaster type. Credential types for EOC positions vary based on specialty and the level of responsibility for that position.

ED 17 (Emergency Operations Center, 2011) establishes City standards for EOC organization, operations, and staffing. With regard to credentialing, the directive requires EMD to develop a standardized, position specific training and credentialing program for positions within the EOC. The directive further requires City departments to provide trained and credentialed personnel to fulfill EOC duties during an EOC activation.

EMD Credentialing Standards

In January 2020, shortly before the start of the COVID-19 pandemic, EMD issued a citywide policy officially adopting the Cal OES California Specialized Training Institute (CSTI) EOC Credentialing Program as its credentialing standard. CSTI establishes credentialing qualification and training standards for the State of California, issues credentials, and delivers training in areas such as emergency management disaster mitigation, crisis communications, terrorism, and hazardous materials safety. City employees that meet training and experience requirements, and are sponsored by their department, are eligible for CSTI credentials.

EMD continues to offer its own EOC training that is consistent with the state's credentialing standards. Prior to 2020, EMD's in-house employee training program did not support state credentialing requirements. Though not an official policy, EMD's goal is for departments to maintain a bench of four credentialed employees for designated departmental positions in the EOC to ensure an adequate level of coverage during activations. This is because activations often require multiple shifts, and employees may not be able to report for EOC duties during a major disaster.

Tracking Employee Credentialing and Qualifications

Departments are responsible for maintaining a cadre of credentialed, qualified employees for EOC service. **EMD does not maintain a list or information for credentialed City employees, nor does it have a list of employees that departments have identified as EOC responders. As a result, the City lacks full assurance that EOC staff are qualified for their roles, or that departments are able to provide an adequate level of staffing coverage.**

Inadequate EOC position staffing can hinder the center's effectiveness during an emergency. For example, in one EOC after-action report developed after a 2017 wildfire, EMD determined that a department responsible for staffing the Geographic Information Systems Unit was unable to provide employees with the appropriate technical skills. Skills gaps resulted in slower than necessary geographic information systems analysis, which ultimately decreased the efficiency of the EOC Planning Section.

According to EMD officials, it is not feasible for many departments to have four credentialed employees for each EOC role, nor is it necessary for a person to be credentialed to successfully fulfill lower level EOC positions. However, it is important that EMD have sufficient information about department EOC responders to ensure operational readiness. EMD should work with departments to develop EOC responder rosters with information about employees' credentials and skills. EMD should also continue to work with departments to proactively identify department positions or classifications that are suitable for EOC roles, regardless of credentialing status.

After-Action Reporting

ED 17 (Emergency Operations Center, 2011) requires EMD to publish after-action reports (AARs) for EOC activations. AARs summarize significant incident events, lessons learned, and opportunities for improvement. The AARs include improvement plans, which detail specific recommendations for EMD and other City departments with EOC or emergency management duties.

When the City activates the EOC, the activation can fall under one of three activation categories, depending on the seriousness of the emergency. The complexity of each activation can vary widely.

- **Level 3** is the lowest activation level. All required EOC positions are staffed by EMD employees. Examples of incident types likely to fall under this category include weather events, smaller local events, and pre-planned special events.
- **Level 2** is for more serious, unplanned incidents. EOC positions are staffed by multiple City departments and outside agencies. Examples of incident types likely to fall under this category include moderate earthquakes, major fires and weather events, and incidents requiring a multi-departmental response.
- **Level 1** is for major disasters. EOC positions are staffed by multiple City departments and outside agencies. Examples of incident types likely to fall under this category include major earthquakes or similar mass casualty events requiring a response from multiple City departments and outside agencies.

EMD's development and publication of AARs has been somewhat inconsistent. **From January 2016 through May 2022, there have been a total of 43 EOC activations, but the department has developed 20 AARs.** Of the 20 AARs, several are completed or near completion but still in draft. The chart below summarizes the AAR status for EOC activations, by activation level. See Appendix B for a list of EOC activations from January 2016 through May 2022.

AAR Reporting for EOC Activations (Jan 2016 – May 2022)

Activation Level*	Activations	AARs Completed**	AARs In Progress	No AAR
1 (Highest)	1	0	1	0
2 (Middle)	13	6	1	6
3 (Lowest)	29	14	2	13
<i>Total</i>	<i>43</i>	<i>20</i>	<i>4</i>	<i>19</i>

* EMD changed the activation level designations in 2018. The highest level changed from Level 3 to Level 1. The lowest level changed from Level 1 to Level 3. Activation levels have been adjusted to the current rating system for purposes of this chart.

** Includes 6 reports considered complete by the department, but are marked draft or contain missing information.

According to EMD, AARs are not always necessary for EOC activations because some activations are routine, or have a monitoring mission rather than a response role. However, the department should clarify its policies for AAR development and publication, as there are outstanding reports across all three activation levels, with each level requiring differing levels of coordination and department involvement.

Improvement Plan Monitoring

ED 17 (Emergency Operations Center, 2011) also requires EOC AARs to include specific recommendations for improvement. In addition to Executive Directive requirements to develop AARs for EOC activations, EMD also develops AARs with recommendations following many exercises. AAR recommendations can apply to any City department, as well as some external government agencies. Continuously identifying and addressing programmatic weaknesses based on lessons learned from real world incidents and exercises helps the City improve its overall readiness.

EMD is responsible for coordinating and tracking improvement plan recommendation implementation. However, **EMD does not maintain a comprehensive recommendation tracking record, and currently does not have a formal process for regularly tracking the status of past recommendations. As a result, the department lacks assurance that identified weaknesses related to policies, plans, EOC operations, and employee readiness are addressed.**

EMD last conducted an ad-hoc recommendation implementation assessment that culminated in 2019, covering 359 recommendations from 2013 through 2019. The recommendation information was recorded in an Excel spreadsheet. While the recommendation database contained information about the implementation actions of departments and the status of recommendations, the completeness of the database, as well as the lack of standardized nomenclature regarding the status of each recommendation, makes analysis difficult. For example, the database contained 97 different recommendation status types.

Based on our review of the 359 recommendations and associated status information for each recommendation, we estimate that 185 (52%) of the recommendations had been implemented at the time of EMD's 2019 assessment. The table below summarizes our assessment of EMD's recommendation records. This assessment required several judgmental determinations due to limited, conflicting, or incomplete information in the tracker.

Status of EMD Recommendations as of 2019	
Implemented	185
Not Implemented / In Progress	103
Could Not Determine	46
No Longer Applicable	25
Total	359

The recommendation implementation rate of 52% observed during the 2019 assessment, as well as the lack of recommendation tracking since 2019, indicates that a large number of deficiencies are going unaddressed. According to EMD, the department was unable to monitor recommendation implementation after 2019, and many of the recommendations in the tracker are likely no longer applicable.

EMD should work with other departments to develop a new procedure for following up on improvement plan recommendations, and identify opportunities to automate the collection and management of recommendation data to reduce the likelihood of human error and facilitate analysis. According to EMD, it is in the early stages of assessing the feasibility of tracking recommendations within a module of the Veoci virtual emergency operations center application used by the department to facilitate EOC operations.

Recommendations

To ensure City staff and departments are prepared to support EOC and emergency response operations, EMD should:

4. Require City departments to develop and report to EMD on a regular basis a roster of designated, qualified responders likely to fulfill EOC duties during an activation. Roster information should include credential status, position classification, relevant skills, and relevant training.
5. To the greatest extent possible, expand hazard-specific training opportunities and exercise events for City employees.
6. Establish a formal policy addressing AAR development, publication, and dissemination.
7. Establish a formal policy addressing the implementation and monitoring of improvement plan recommendations.

III. MANAGING DISASTER RESPONSE ASSETS AND PARTNERSHIPS

Resource limitations and supply chain constraints experienced by most government entities during the COVID-19 pandemic highlight the importance of asset management, logistics, and procurement planning. Depending on the emergency, the City departments will need access to goods and services ranging from personal protective equipment like gloves and masks, to heavy equipment for search and rescue operations, to cones and signs for traffic control.

The City's General Services Department (GSD), working in coordination with EMD, serves as the lead department responsible for managing assets that are set aside for disasters, or can be repositioned to support disaster response operations. GSD manages facilities, equipment, maintenance and supply chain services for City departments, and acts as the City's lead purchasing agent. GSD and EMD have developed comprehensive logistics and procurement plans, and are working to expand emergency supply stockpiles. However, **GSD and EMD should work together during non-emergency periods to evaluate supply and equipment needs for major disasters like a catastrophic earthquake or biological attack.** Opportunities also exist to improve coordination with local partners to facilitate resource and information sharing.

Logistics and Procurement Planning

Purchasing and managing supplies and equipment that will be deployed following a disaster is a key element of a city's emergency response program. Managing disaster response assets can be challenging, particularly across a large organization like the City of Los Angeles. Jurisdictions must find an appropriate balance between maintaining a sufficient level of supplies and equipment on hand, and the ability to quickly and efficiently procure goods and services.

FEMA's NIMS standards recommend jurisdictions have several resource options, including stockpiles, contracts, mutual aid agreements with other government agencies, and the ability to redirect existing resources. **Consistent with FEMA planning guidelines, EMD, in coordination with GSD and other departments, has developed a comprehensive EOP annex for logistics that covers resource management and coordination during an emergency.**

The EOP Logistics Annex (2018) contains plans for communication, information systems management, contracting and procurement, asset management and control, staging and distribution, intergovernmental coordination, and special issues, such as the management of fuel, food, water, donations, and volunteers. Supplementing the annex are six appendices that

detail specific plans and protocols in these areas. Those appendices were published in 2018, and include:

- distribution management;
- donation management;
- facilities;
- food and potable water;
- fuel; and
- transportation.

In addition to citywide plans contained in the EOP and its supplemental plans, GSD's DEP, COOP, and the GSD Logistics Guide contain procedures for logistics and inventory management. During an emergency, departments coordinate with GSD via the EOC to determine whether a necessary resource is in stock. If the requested item is unavailable, GSD either orders the supply from the existing vendor pool or establishes a new contract.

Disaster Response Asset Information

During an emergency, departments coordinate via the EOC to determine whether resources are available through GSD or other departments. **However, information about available disaster response assets is spread out across multiple systems and departments.** Below is a high-level summary of key inventory data sources.

- **Consumable and disposable emergency supplies** (i.e. drinking water, personal protective equipment, sandbags, etc.) information is housed in the inventory module of the citywide Financial Management System.
- **Vehicle and heavy equipment** information is housed in the inventory module of the Financial Management System, or the citywide Fleet Vehicle Management System. Operating departments maintain additional information related to the use and status of vehicles and heavy equipment under their control.
- **Supplies and equipment that departments acquire for their own tactical response operations** are the responsibility of the acquiring department. Those departments maintain their own inventory control and data protocols.

The decentralized nature of the City's disaster response asset data highlights the importance of EOC coordination activities. **To support the rapid, efficient identification and analysis of resource information, FEMA recommends jurisdictions identify resources in accordance with NIMS resource typing standards.** NIMS resource typing definitions help to create a common language across government agencies for supplies, equipment, facilities, and response teams.

NIMS typing definitions are most helpful when a jurisdiction requests assistance from outside agencies, as it streamlines resource sharing.

The GSD inventory system is a module within the City's Financial Management System. This system does not support NIMS resource typing definitions, and neither GSD nor EMD currently maintain an inventory of NIMS typed resources. ED 18 (National Incident Management System, 2011) requires City departments to inventory assets in conformance with NIMS Resource Typing Definitions.

GSD Plans for a New Disaster Supply Stockpile

During the City's COVID-19 response, the City relied heavily on GSD procurement services to obtain necessary supplies and services. According to GSD, the department sought to leverage the City's purchasing power and existing supplier relationships to fulfill departments' requests as quickly as possible. Relying heavily on procurement services when responding to a disaster is not necessarily a bad strategy, and jurisdictions must develop procurement and inventory strategies that meet their specific needs. FEMA's NIMS standards note that resource stockpiling can create issues concerning shelf life and durability, but acquiring resources just in time also has potential pitfalls, as the timely procurement of resources cannot be guaranteed.

The City must ensure it has multiple options for securing resources during an emergency, which includes having sufficient supply and equipment levels on hand. This is particularly important for large scale disasters impacting multiple jurisdictions at the same time, which can strain supply chains, contribute to resource scarcity, and create a difficult procurement environment. For example, during the City's COVID-19 response, the City was unable to procure goods and services under its primary catastrophic incident response and recovery services contract.

The professional services contract, which went into effect in 2020 and was managed by the Mayor's Office of Public Safety, established an emergency management and logistics consulting firm as an on-call vendor for the City. The contract required the vendor to maintain the ability to mobilize operations within 24 hours of a City order, and provide the following goods and services:

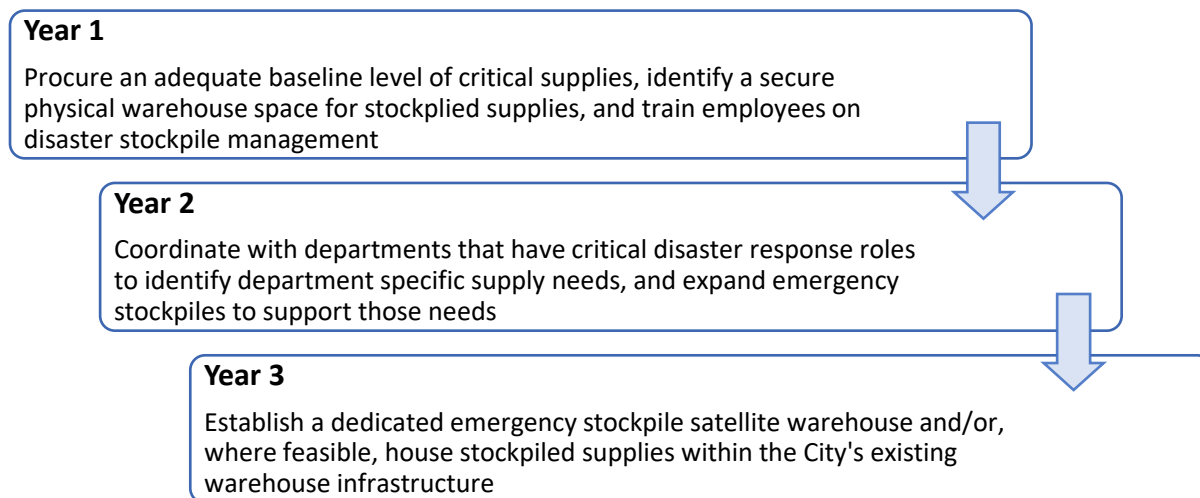
- food and water;
- medical supplies;
- electrical power;
- temporary shelters and portable public sanitation facilities;
- transportation;

- tactical security; and
- debris removal.

COVID-19 was a unique disaster simultaneously impacting the entire country, seriously stressing global and national supply chains. **The vendor was ultimately unable to deliver goods and services to the City under the contract, highlighting the inherent risks of relying too heavily on outside firms to provide timely goods and services.**

Based on lessons learned from the City's response to COVID-19 and other incidents, GSD is planning to establish a new, dedicated disaster supply stockpile. Under the three-year plan, GSD will work with departments to identify disaster supply needs and gradually build stockpiles. The chart below summarizes GSD's stockpile plan.

GSD's Emergency Stockpile Plan



GSD estimates the total cost to develop the stockpile will be \$7.7 million over three years. The City Council allocated \$72,000 in the FY2022-23 budget for GSD's first year phase. **Full implementation of the plan is subject to funding availability in the future.**

Resource Capability Planning

FEMA's NIMS Resource Management Guide recommends government agencies conduct a **periodic supply gap analysis that identifies resource needs and shortfalls.** Should an agency identify resource shortfalls, the organization can address those through a variety of initiatives, which can include the budget and procurement processes, mutual aid agreements, memoranda of understanding, contractual service agreements, or business partnerships.

According to GSD, it conducts regular cycle counts of supplies and equipment in its warehouses, which includes physical verifications of inventories. The department also conducts a seasonal inventory review of supplies needed for regularly occurring seasonal emergencies, such as brush fires, heavy rain, and extreme heat, as well as non-catastrophic incidents related to natural hazards, public safety, and public health. However, **GSD does not regularly assess supply and equipment needs for less frequent, large-scale emergencies, such as a catastrophic earthquake, or a chemical, biological, or radiological event.**

Furthermore, EMD is not regularly involved in supply and equipment needs assessments related to GSD inventories, limiting EMD's resource planning visibility, and increasing the risk that the City will be overly reliant on rapid procurement or assistance from outside agencies in the future. A more comprehensive, hazard-specific gap analysis initiative among GSD, EMD, and other emergency responders would improve the City's readiness moving forward.

Mutual Aid and Interagency Coordination

The City of Los Angeles falls within the County of Los Angeles Operational Area, which serves as the regional planning coordinator under federal and state incident management systems. The City is under County Disaster Management Area H, and is the sole jurisdiction in the area. Under this system, the County serves as the intermediate level of government that coordinates and communicates disaster response needs between the 88 cities within its boundaries. The system is established through a joint powers agreement among participating jurisdictions. The City and the County of Los Angeles can also seek assistance from the State of California and the federal government.

In addition to regional planning areas that facilitate the coordination of aid, formal mutual aid agreements are a valuable tool for jurisdictions by helping them plan for resource shortfalls. Mutual aid agreements are formal agreements that serve as a legal basis for two or more entities to share resources. Mutual aid agreements can include plans to share supplies and equipment, law enforcement resources, fire and rescue teams, or public works crews, among other assets. Mutual aid agreements are beneficial because they describe:

- procedures and controls for resource mobilization (e.g. request, dispatch, and response);
- reimbursement protocols;
- communications and data interoperability; and
- liability agreements.

EMD does not currently have any active intergovernmental mutual aid agreements outside of the existing County of Los Angeles Operational Area plan and authorities. However, the

department has active aid agreements with two non-governmental organizations – one with the American Red Cross and another with the Salvation Army. Under the aid agreements, the organizations provide:

- mass shelter and care for survivors of major disasters;
- supply logistics and operations support; and
- management support for donations.

As the City works to develop a new disaster supply stockpile and continues to evaluate the potential impact of local hazards, **EMD should work with departments to determine whether any mutual aid agreements are necessary to facilitate resource and response support from partner agencies.** Such agreements would be most helpful if the City identifies significant resource gaps during inventory assessments, planning and hazard assessment cycles, or exercises.

Coordination with the County of Los Angeles

According to EMD, its staff works with partners at the County of Los Angeles on an ongoing basis during both emergency and non-emergency periods. However, opportunities exist to formalize the planning and coordination activities between the City and the County.

An outdated 1994 agreement, known as the Emergency Management Agreement Between the County and the City of Los Angeles, serves as the official coordination guideline between the two entities. The interagency agreement calls for development of a joint procedural guide, shared access to emergency management information systems and communications systems, and dedicated EOC liaisons. Importantly, the agreement also established a formal committee called the Joint City/County of Emergency Management Organization (JCCLA).

In the past, the JCCLA, which consisted of officials from the County’s Office of Emergency Management, the City’s emergency managers, and other emergency responders from the County and City, would regularly meet to evaluate preparedness, response, and recovery planning efforts and develop recommendations to improve interoperability. According to EMD, the JCCLA has not convened for several years.

Community and Private Sector Engagement

The Los Angeles Administrative Code assigns EMD with the responsibility of educating the public about emergency preparedness. EMD’s primary public education program is Ready Your LA Neighborhood (RYLAN). RYLAN is a community planning program where neighborhoods and residential facility residents can work with EMD to develop a hyperlocal emergency plan.

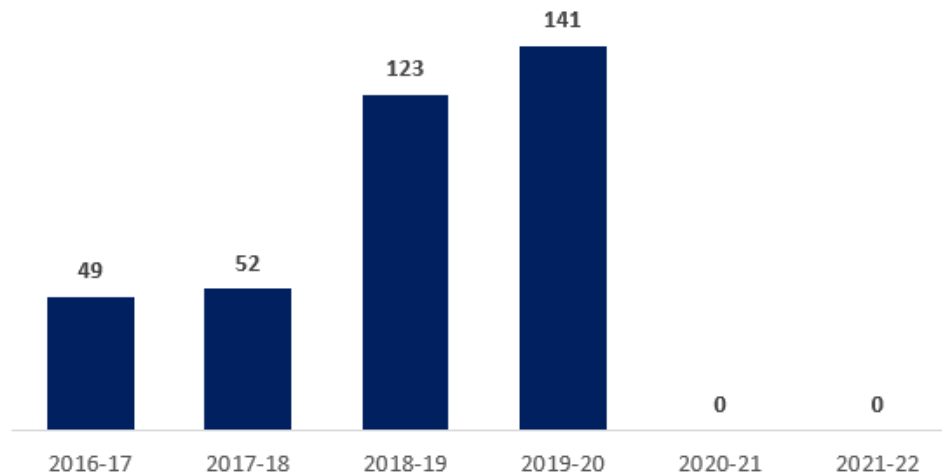
The RYLAN program encourages community members to learn about personal and neighborhood preparedness within a structured learning environment. When a neighborhood or a residential community sign-up for the RYLAN program, participants can engage with EMD via an interactive web-based tutorial and training video, or request an in-person presentation from an EMD Emergency Management Coordinator. As a group, participants use a template provided by EMD to develop a neighborhood plan which seeks to accomplish the following:

- designate neighborhood emergency coordinators and safe gathering sites;
- establish post-incident safety checklists (e.g. turning off natural gas connections, checking for downed power lines);
- identify useful equipment and residents with special skills (e.g. first-aid kits, personal protective equipment, fire extinguishers, power tools, radios, medical skills, construction skills);
- identify individuals that will need special assistance or have special medical needs; and
- establish basic communications plans so that during an emergency, neighbors can identify individuals that need help.

Community preparedness efforts by the City are important because many Angelenos fall into social or socio-economic groups that put them at a disadvantage during a disaster situation. Examples of factors that can put individuals at a disadvantage include living in poverty, not having a car, living in a nursing facility, not having health insurance, and speaking English as a second language, among others. The FEMA National Risk Assessment found that social groups in Los Angeles County have a relatively high level of susceptibility to the adverse impacts of natural hazards. **Los Angeles County's social vulnerability risk rating was higher than 77% of U.S. counties.**

According to EMD, the RYLAN program initially saw strong levels of community participation. However, staffing constraints and the inability to support in-person planning assistance due to COVID-19 have hindered the department's ability to reach additional communities. The chart below shows the number of RYLAN plans completed since FY2016-17. EMD worked with communities to complete a high of 141 RYLAN plans in FY2019-20, but the number of plans dropped to zero in FY2020-21 and FY2021-22. EMD said it should be able to conduct more outreach and RYLAN training when staffing improves. EMD plans to improve the RYLAN website and make self-service planning and training tools easier to use. The department should continue to target disadvantaged communities to enhance their disaster resilience.

Completed Community Plans by Fiscal Year



While the RYLAN program focuses on neighborhood and community-based planning, EMD does not currently have a similar private sector engagement program. FEMA recognizes the need for private sector partnerships in its Building Private-Public Partnerships guide, emphasizing that public and private sector organizations are often interdependent on each other for success for both normal business operations, and during an emergency.

Examples of industries that play key roles in supporting government and communities during a disaster period include transportation services, hospitals and medical services providers, utility companies, telecommunications service providers, and grocery and food services companies. FEMA recommends that jurisdictions identify private sector stakeholders that have a major impact on community resilience, and work with those partners to:

- define the purpose of the partnership and create formal membership agreements;
- assess the shared risks based on the local hazard landscape and other local conditions;
- increase the resiliency of government agencies and businesses by managing the impact of local hazards and establishing plans for mutual support following a disaster; and
- develop plans and response frameworks that allow public and private sector partners to quickly restore community lifelines.

EMD officials plan to expand private sector outreach and collaborate with private sector partners in the future. **The department should prioritize the establishment of new private sector partnerships moving forward, and create opportunities for the City's emergency managers to meet with the business community on a more regular basis.**

Recommendations

To improve resource planning and enhance interagency coordination, EMD, in conjunction with GSD and other departments as needed, should:

8. Assess the feasibility of developing a standalone emergency asset inventory that includes FEMA's NIMS Resource Typing Standards, or integrating the standards into existing inventories.
9. Conduct a periodic disaster asset gap analysis to identify resource needs for catastrophic, non-seasonal hazards likely to impact the region.

To improve the availability of critical supplies and equipment during emergencies, the City Council should:

10. Continue its support and funding for GSD's three-year disaster supply stockpile plan.

To ensure the City has adequate supplemental support during an emergency, EMD should:

11. Based on a review of asset inventories or the results of a resource gap analysis, determine whether any new mutual aid agreements are needed.
12. Update the Emergency Management Agreement Between the County and the City of Los Angeles to reflect current operations and coordination needs, and re-establish the Joint City/County of Los Angeles Emergency Management Organization.
13. Develop a private sector engagement plan which identifies industries and businesses with critical community resilience roles, and establishes partnership strategies addressing the private sector's role in supporting the disaster response and recovery efforts.

CONCLUSION

Ensuring that the City is ready and able to protect residents and businesses when facing a disaster is paramount. The City has taken many prudent planning steps, but new plans, training initiatives, and response strategies will be needed to address existing and emerging risks like climate change and cybersecurity. The City must also analyze its resource needs on an ongoing basis and secure the assets it needs to effectively respond, regardless of the size and scope of the incident. **We encourage EMD and its partners to implement the recommendations in this report to promote the readiness and resiliency of the City and its communities.**

RECOMMENDATION TABLE

Number	Recommendation
Responsible Entity: EMD	
1	Update existing EOP annexes or establish new annexes to include plans for cyberattacks and space weather, special event incidents, climate change and sea level rise, drought, high-rise / high occupancy building fires, unhoused populations, and any other risk area not yet fully addressed by existing plans.
2	Revise the EOP annex update cycle and consider a tiered cycle in which annex update schedules are based on the associated level of risk.
3	Develop an interdepartmental planning working group, or similar program, in which departments collaborate and provide peer-to-peer planning assistance.
4	Require City departments to develop and report to EMD on a regular basis a roster of designated, qualified responders likely to fulfill EOC duties during an activation. Roster information should include credential status, position classification, relevant skills, and relevant training.
5	To the greatest extent possible, expand hazard-specific training opportunities and exercise events for City employees.
6	Establish a formal policy addressing AAR development, publication, and dissemination.
7	Establish a formal policy addressing the implementation and monitoring of improvement plan recommendations.
11	Based on a review of asset inventories or the results of a resource gap analysis, determine whether any new mutual aid agreements are needed.
12	Update the Emergency Management Agreement Between the County and the City of Los Angeles to reflect current operations and coordination needs, and re-establish the Joint City/County of Los Angeles Emergency Management Organization.
13	Develop a private sector engagement plan which identifies industries and businesses with critical community resilience roles, and establishes partnership strategies addressing the private sector's role in supporting the disaster response and recovery efforts.
Responsible Entity: EMD, GSD	
8	Assess the feasibility of developing a standalone emergency asset inventory that includes FEMA's NIMS Resource Typing Standards, or integrating the standards into existing inventories.
9	Conduct a periodic disaster asset gap analysis to identify resource needs for catastrophic, non-seasonal hazards likely to impact the region.

<i>Responsible Entity: City Council</i>	
10	Continue its support and funding for GSD's three-year disaster supply stockpile plan.

Appendix A – List of EOP Annexes and Annex Appendices

Adverse Weather
Brush Fire
CBRN (Chemical, Biological, Radiological, and Nuclear)
CBRN Biological Appendix
CBRN Chemical Appendix
CBRN Nuclear Appendix
CBRN Radiological Appendix
Civil Disturbance
Communications
Critical Infrastructure
Dam / Reservoir Failure
Debris Flow
Debris Management
Early Warnings and Notifications
Earthquake
Emergency Public Information
Evacuation
Local Assistance Center
Logistics
Logistics Donation Management Appendix
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Logistics Food and Potable Water Appendix
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Mass Care and Sheltering
Mass Care and Sheltering Health and Medical Appendix
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Pandemic
Recovery
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Tsunami
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Appendix B – EOC Activations (January 2016 – May 2022)

Event	Year	Activation Dates
COVID-19	2020-2022	March 16 (2020)-Present
Super Bowl LVI	2022	February 5-15
LA Marathon	2022	March 20
Cathay Manor	2021	November 1-December 16
Chauvin Verdict	2021	April 20
Presidential Inauguration	2021	January 20
27th St. Incident	2021	July 1-16
LA Marathon	2021	November 7
Presidential Election	2020	November 3
Protest for Racial Equality	2020	May 30-June 5
LA Marathon	2020	March 8
Kobe Memorial	2020	February 23
Getty Fire	2019	October 28-November 1
Sepulveda Fire	2019	October 24
Palisades Fire	2019	October 21
Saddleridge Fire	2019	October 10-12
May Day	2019	May 1
Nipsey Hussle Memorial	2019	April 11
LA Marathon	2019	March 24
Winter Storm	2019	January 15
Woolsey Fire	2018	November 9-14
World Series Game 5	2018	October 28
Portola Fire	2018	June 12
May Day	2018	May 1
Valley Complex Incident	2018	March 20-22
LA Marathon	2018	March 18
POTUS Visit	2018	March 13
Winter Storm	2018	January 9
Creek Fire	2017	December 5-8
It Begins Nov 4th Protest	2017	November 4
World Series	2017	November 1
La Tuna Canyon Fire	2017	September 1
Valley Power Outage	2017	June 9
May Day	2017	May 1
LA Marathon	2017	March 19
Presidential Inauguration and Adverse Weather	2017	January 20-23
Nov 10 Election Protests	2016	November 10-11
Sand Fire	2016	June 23-24

Event	Year	Activation Dates
UCLA Active Shooter	2016	June 1
May Day	2016	May 1
Brussels Airport / Maelbeek Station Bombings	2016	March 22
LA Marathon	2016	February 14
El Nino Storm Watch 1	2016	January 4-7