



CITY OF IRVINE

# EMERGENCY OPERATIONS PLAN

EOP SEPTEMBER 2022

CITY OF IRVINE

1 Civic Center Plaza, Irvine, CA 92606  
949-724-6000 • [cityofirvine.org](http://cityofirvine.org)



CITY COUNCIL RESOLUTION NO. 22-76

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF  
IRVINE, CALIFORNIA, APPROVING THE CITY OF IRVINE  
2022 EMERGENCY OPERATIONS PLAN

WHEREAS, the City of Irvine 2022 Emergency Operations Plan meets all the federal and state criteria, as described in the Federal Emergency Management Agency Comprehensive Preparedness Guide 101, the National Incident Management System (NIMS), and Standardized Emergency Management System (SEMS); and

WHEREAS, the City of Irvine 2022 Emergency Operations Plan describes how the City of Irvine ("City") will manage and respond to major emergency incidents, including implementation of an Incident Command System (ICS) consisting of executive leadership staff, establishing clear designations of distinct functions which must be conducted during a disaster, assigning distinct functions to specific City departments, and providing guidelines for performance of the functions of the Emergency Operations Center; and

WHEREAS, the City of Irvine 2022 Emergency Operations Plan references functional-specific annexes that address how the City will perform evacuations, care and sheltering operations, emergency alerts and notifications, and provides a framework for recovery operations; and

WHEREAS, the City of Irvine 2022 Emergency Operations Plan describes the strategies and programs implemented to better prepare the public for natural and human-caused disasters; and

WHEREAS, the City of Irvine 2022 Emergency Operations Plan describes the method for requesting mutual aid resources from the County of Orange, the State of California and the Federal Government when needed; and

WHEREAS, the City of Irvine 2022 Emergency Operations Plan was developed with input from all City departments and has been reviewed and approved by all City department heads.

NOW THEREFORE, the City Council of the City of Irvine DOES HEREBY RESOLVE as follows:

SECTION 1. The City Council of the City of Irvine does hereby approve and adopt the City of Irvine 2022 Emergency Operations Plan, a copy of which is on file in the Office of the City Clerk.

PASSED AND ADOPTED by the City Council of the City of Irvine at a regular meeting held on the 27<sup>th</sup> day of September 2022.

  
MAYOR OF THE CITY OF IRVINE

ATTEST:

  
CITY CLERK OF THE CITY OF IRVINE

STATE OF CALIFORNIA )  
COUNTY OF ORANGE ) SS  
CITY OF IRVINE )

I, CARL PETERSEN, City Clerk of the City of Irvine, HEREBY DO CERTIFY that the foregoing resolution was duly adopted at a regular meeting of the City Council of the City of Irvine, held on the 27<sup>th</sup> day of September 2022.

AYES:	5	COUNCILMEMBERS:	Agran, Carroll, Kim, Kuo, Khan
NOES:	0	COUNCILMEMBERS:	None
ABSENT:	0	COUNCILMEMBERS:	None
ABSTAIN:	0	COUNCILMEMBERS:	None

  
CITY CLERK OF THE CITY OF IRVINE





## Promulgation Letter

September 27, 2022

Officials, Employees, and Citizens of the City of Irvine:

The preservation of life, property, and the environment is an inherent responsibility of local, state, and federal government. The City of Irvine has prepared this 2022 Emergency Operations Plan (EOP) to ensure the most effective and economical allocation of resources for the maximum benefit to and protection of Irvine residents and visitors in times of emergency.

While no plan can prevent death and destruction, good plans carried out by knowledgeable, well-trained personnel will minimize losses. This EOP establishes an emergency organization, assigns tasks, and specifies policies and general procedures. The EOP also provides for multi-agency and multijurisdictional planning elements using the Standard Emergency Management System (SEMS) and the National Incident Management System (NIMS).

The objective of this EOP is to incorporate and coordinate all the facilities and personnel of the City into an efficient organization capable of responding to any emergency.

This EOP, an extension of the State of California Emergency Plan, will be reviewed and exercised periodically and revised as necessary to meet changing conditions.

The City Council gives its full support to this EOP and urges all officials, employees, and citizens, individually and collectively, to do their share in the total emergency effort of the City of Irvine.

Concurrence with this promulgation letter constitutes the adoption of the EOP by the City of Irvine. This EOP will become effective upon approval of the City Council.

Sincerely,

Farrah N. Khan  
Mayor

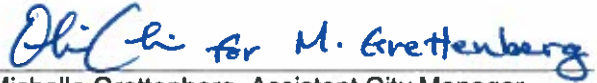
# EMERGENCY OPERATIONS PLAN APPROVAL & IMPLEMENTATION

## 1.1 PLAN CONCURRENCE

Having reviewed and approved of the City of Irvine Emergency Operations Plan, I hereto set my signature.



Oliver Chi, City Manager



Michelle Grettenberg, Assistant City Manager



Michael Kent, Director of Public Safety



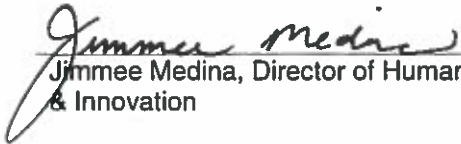
Melissa Haley, Deputy City Manager



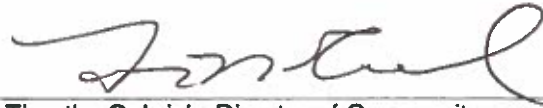
Jaimee Bourgeois, Director of Public Works and Transportation



Pamela Baird, Director of Community Services



Jimmee Medina, Director of Human Resources & Innovation



Timothy Gehrich, Director of Community Development



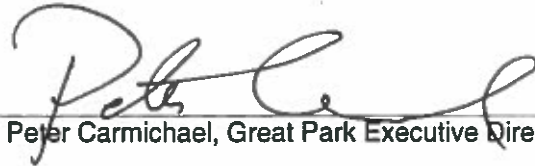
Carl Petersen, City Clerk



Mark Alvarado, Interim Director of Financial Management & Strategic Planning



Shahe Sherwood, Orange County Fire Authority Division 2 Fire Chief



Peter Carmichael, Great Park Executive Director



Robert Simmons, Emergency Management Administrator

# RECORD OF CHANGES

The Office of Emergency Management, in cooperation with all City departments with emergency response responsibilities, maintains the Emergency Operations Plan, which will be updated at least annually and on an on-going basis as new laws are passed and deficiencies are identified during exercises, training, and actual incidents.

Revision #	Issue Date	Summary of Revisions
Initial Issue	September 2022	New

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## CHAPTER 1 - INTRODUCTION

### 1.1 PURPOSE

The Emergency Operation Plan (Plan) Part One – Basic Plan, provides a resiliency framework for the City of Irvine (City) to prepare for, respond to, recover from, and mitigate against all hazards including natural, human-caused, and technological disasters, and national security emergencies. It includes an overview of operational concepts, identifies components of the City’s emergency management organization consistent with the Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS), and describes the overall responsibilities of federal, state, and county entities, and the City for protecting life and property and assuring the overall well-being of the population.

The Plan does not address day-to-day emergencies or established department procedures in place to respond to them. Instead, it concentrates on management, concepts, and response procedures inherent in large-scale disasters that threaten life, the environment, and property, and impact the well-being of a mass population in a community.

It also provides the basis for departments and agencies identified in the Plan to develop and maintain detailed, department/agency-specific checklists and standard operating procedures (Department SOP) detailing how their assigned responsibilities will be performed to support Plan implementation.

### 1.2 PLAN ORGANIZATION

The Plan will give the careful reader a thorough understanding of the emergency management organization and the process of preparing for, responding to, recovering from, and mitigating against disasters. Its use will differ according to each reader’s needs. All response personnel need to be familiar with the Plan, although only a few need to understand the entire document. Most will focus on those parts of it specific to their needs, roles, and responsibilities.

#### Plan Objective

1. Define the structure of City’s emergency management organization
2. Define the role & function of the Emergency Operations Center (EOC)
3. Define the coordinated response between City departments & with local, state, and federal agencies

#### Plan Audience

1. City executive leadership
2. City employees
3. Federal, state, & county governments
4. Special districts serving City residents
5. Private & volunteer organizations involved in emergency management
6. Community members

**1.2.1 The Plan:** Consisting of fundamental information governing response and recovery operations in the City, it should be read and understood by EOC staff and response and recovery stakeholders well in advance of an emergency. It consists of six chapters:

**Chapter One - Introduction** provides a brief overview of the Plan's purpose and authorities. City personnel should know how to use the Plan and its links to other response plans.

**Chapter Two - Community Profile and Hazard Analysis** introduces staff to Irvine's community profile and details how its characteristics might impact response and recovery strategies. It also describes potential hazards staff should be alert to in an emergency and actions they can take to mitigate them and/or their consequences.

**Chapter Three – Preparedness** discusses various education and outreach strategies to assist the community in preparing for disasters. It also details the different trained disaster volunteer groups the City uses to support the community during response and recovery operations.

**Chapter Four - Response Structure Fundamentals** provides an overview of Standardized Emergency Management System (SEMS) and National Incident Management System (NIMS), both proven response systems which, in conjunction with existing mutual aid, alert and warning, and operational continuity response standards, form the foundation of the City's EOC operations model. EOC staff must be familiar with these fundamentals well in advance of an incident to perform their responsibilities successfully.

**Chapter Five – EOC Concept of Operations** embodies the significant elements of the Plan: response organization, roles and responsibilities, and EOC operational requirements, and serves as a guide and reference for all responding EOC staff.

**Chapter Six – Recovery Operations** describes how to handle recovery-related activities. Recovery organizations should be conversant with this chapter well in advance of an activation and should refer to it during an emergency.

Using the Plan, City staff and external representatives supporting the EOC will:

1. Understand department/organization roles and responsibilities
2. Conform to the established response structure
3. Know how to perform their roles effectively
4. Seamlessly coordinate response and recovery duties across agencies and jurisdictions

#### Service & System Assumptions

A disaster will damage and temporarily disrupt:

- Telephone and communication, including police, fire, and municipal radios
- Electricity
- Computers, including computer aided police and fire dispatch
- Transportation, including roads, bridges, and traffic signals
- Water/wastewater
- Natural gas

**1.2.2 EOC Position Checklists:** Corresponding to the five Incident Command System (ICS) functions - management, operations, planning, logistics, and finance and administration - the checklists cover position assignments, skills, resources, and roles, ensuring EOC staff can perform confidently during an emergency.

**1.2.3 Functional and Hazard Specific Annexes:** A critical component of the EOP, the functional and hazard-specific annexes that address both response capabilities (i.e. sheltering, evacuation, etc.) in detail as well as response operations for specific hazardous circumstances (i.e. power outage, etc.). These annexes are updated regularly to incorporate lessons learned in trainings, exercises, and real world activations.

Functional and Hazard-specific annexes include:

- EOP Annex I – EOC
- EOP Annex II – Safety Assessment Plan
- EOP Annex III – Infectious Disease
- EOP Annex IV – CERT
- EOP Annex V – Mass Care and Sheltering
- EOP Annex VI – Dam Failure
- EOP Annex VII – Point of Distribution
- EOP Annex VIII – Evacuation
- EOP Annex IX – Alert and Warning
- EOP Annex X – Power Outage
- EOP Annex XI – Donations Management
- EOP Annex XII - IDEC

#### Planning Assumptions

- The City is responsible for emergency response operations and may commit all available resources to save lives, minimize injury and damage to property, and preserve the environment.
- The City will use SEMS and NIMS in its emergency response operations.
- The director of emergency services (DES) will coordinate the City’s disaster response in conjunction with City of Irvine Municipal Code Division 9, Title 4.
- City resources may be made available to neighboring jurisdictions, local agencies, private businesses, and community members to cope with disasters affecting the area.
- The City will commit its own resources to disaster response and recovery operations and, when they are exhausted, will request mutual aid assistance.
- Appropriate City staff and other stakeholders will be trained on the Plan, assigned emergency roles and responsibilities, and participate in drills and exercises.

## 1.3 PLANNING

### Planning Process

The Plan, which meets all NIMS and SEMS requirements, is the product of a collaborative effort by all City departments, the California Office of Emergency Services (Cal OES), Orange County Operational Area, input from neighboring cities, the County of Orange, and other public agencies, and with technical guidance from the Federal Emergency Management Agency (FEMA) Comprehensive Preparedness Guide 101.

#### **1.4 DISCLOSURE EXEMPTIONS**

Those few portions of the Plan containing sensitive information about the City's emergency response deployment, mobilization, and tactical operations, or personal privacy information, or information with significant implications for local, state, or national security have been segregated in attachments exempt from public disclosure under the provisions of Ca. Gov. Code § 6250 et seq., California Public Records Act. The remainder of the Plan is available for public review.



## CHAPTER 2 - COMMUNITY PROFILE AND HAZARD ANALYSIS

### 2.1 BACKGROUND AND COMMUNITY PROFILE

#### Background

In 1864, Jose Andres Sepulveda sold 50,000 acres of his Rancho San Joaquin to the Flint brothers, Llewellyn Bixby, and James Irvine; two years later, they acquired an additional 47,000 acres from Sepulveda. In 1878, James Irvine bought out his partners.

After his death in 1886, James Irvine II inherited the land and incorporated it as The Irvine Company. When the Santa Fe Railroad extended its line through the land, the station there was named after Irvine. The town ultimately formed around it was originally named Myford after James' son and renamed Irvine in 1914.



After his father's death in 1947, Myford began opening small sections of the Irvine Ranch for development. In 1959, the University of California bought 1,000 acres, and later an additional 500 acres, for its campus. During World War II, the government purchased portions of the land and built two Marine Corps Air Stations: MCAS El Toro and MCAS Tustin.

The sections of the Irvine Ranch Myford opened in 1947 ultimately became the first phases of the villages of Turtle Rock, University Park, Westpark, El Camino Real, and Walnut, which were completed by 1970. On December 28, 1971, residents of the villages voted to incorporate the City.

#### Community Profile

Today, the City is the second most populous city in Orange County and 13<sup>th</sup> largest in California, and at 66 square miles has the largest geographic land mass. Approximately ten miles inland from the Pacific Ocean and 40 miles south of Los Angeles, most of the City is a broad, flat valley between Loma Ridge to the north and San Joaquin Hills to the south. In the extreme northern and southern areas are several hills, plateaus, and canyons.

Its 310,250 residents enjoy life in a family-friendly city nationally recognized as one of America's safest and most successful master-planned urban communities. Home to top-rated educational institutions and an enterprising business atmosphere, it practices sound environmental stewardship and respects diversity.

Known for its now numerous unique and attractive neighborhood villages, each of which incorporates area schools, religious institutions, and shopping areas, the City features more than 16,000 acres of parks, sports fields, and dedicated open space, including the Great Park. Recognized as one of the most modern metropolitan parks in the world, the 1,300 acre Great Park pays homage to its military history as the former site of Marine Corps Air Station El Toro. In addition to its signature attraction, the Great Park Balloon, the Great Park offers a variety of activities centered on community events, fitness, agriculture, arts, and sports, including the 194-acre Sports Complex.



# CITY OF IRVINE MISSION STATEMENT

*The Mission of the Employees of the City of Irvine is to create and maintain a community where people can live, work, and play in an environment that is safe, vibrant, and aesthetically pleasing. We are **one team**... that exists to serve our community in the continual pursuit of a City that offers exceptional quality of life. We have **one focus**... to differentiate ourselves by maintaining an intense focus on establishing Irvine as a learning organization that will serve as an incubative launching pad for people, ideas, programs, and careers. And, we are **One Irvine**... through embrace of a team-oriented approach by living our values every day.*

*The City of Irvine's five values reflect the interests and needs of the community, and the level of service they expect and deserve.*

*Our five values are:*

---

## HUMILITY

*We place the needs of the team over individual self-interest.*

## INNOVATION

*We do common everyday things in an uncommonly precise way, while remaining open to new ideas.*

## EMPATHY

*We recognize the things we say and do have an impact on those around us, we use our engaging words and actions to bring people together, and we avoid behaviors that rip people apart.*

## PASSION

*We know how fortunate and lucky we all are to work for the City of Irvine, And we bring a can-do attitude to our work.*

## INTEGRITY

*We do what we say we're going to do, and hold ourselves accountable for living our values each and every day.*

---

### OUR COMMITMENT

*To provide quality municipal services.*

### OUR BELIEF

*Cooperation and teamwork will help us achieve our mission.*

**2.2 STATISTICAL INFORMATION**  
**The City at a Glance**

Incorporation	December 28, 1971
Form of Government	Charter Law, Council/Manager
Incorporated Area	66 Square miles
Sphere of Influence	74 Square miles
Fire Protection & Emergency Medical Aid	Orange County Fire Authority (OCFA)
Water Supply & Treatment	Irvine Ranch Water District (IRWD)
School Districts	Irvine, Tustin, & Santa Ana Unified



**Parks, Sports, Open Space, and landscape areas**

Community Parks	20
Neighborhood Parks	40
Athletic Fields	141
Sports Fields	188 Acres
Off-Street Bicycle Trails	113.24 Miles
Open Space/ Green Belts	5,600 Acres
Streetscape	939 Acres
Trees	78,622



**Population**

The City’s population has grown steadily since its incorporation from 10,081 residents in 1971, to 310,250 in 2022.<sup>1</sup>

<sup>1</sup> California Department of Finance

### 2.3 GOVERNMENT STRUCTURE

The City Council is comprised of a Mayor and four City Council members. The latter each serves a four-year term; the Mayor serves a two-year term. The City has a two-term limit for elected officials.

### 2.4 HAZARD ANALYSIS AND THREAT SUMMARIES

Hazard events, whether large events spreading widespread devastation or smaller, localized events, can substantially impact affect the health and safety of the affected area,



damage or destroy public and private property, harm ecosystems, and disrupt key services. While no amount of preparation or planning can completely insulate the City from disasters, this Plan, in conjunction with the City’s 2020 Local Hazard Mitigation Plan (LHMP) provides a comprehensive assessment of potential threats and a coordinated strategy for reducing and responding to them. The following sections identifies resources and information to help City staff, local officials,

and the public understand and make informed decisions about local threats as well as increase coordination and collaboration between the City and other public agencies, local employers, service providers, and other key stakeholders.

Of the several hazards FEMA suggests communities should evaluate in a hazard mitigation plan, eleven broad hazard types and their respective sub-categories were identified as posing a threat to the City. As a first step, each hazard was assigned a score of 1 to 4.<sup>2</sup>

Probability	The likelihood the hazard will occur in the City
Location	The size of the area the hazard would affect
Maximum probable extent	The severity of direct damage from the hazard to the City
Secondary impacts	The severity of indirect damage from the hazard to the City

Next, a weighting value<sup>3</sup> was assigned to each hazard, with a higher weight assigned to criteria deemed more important.

Probability	2.0
Location	0.8
Maximum probable extent	0.7
Secondary impacts	0.5

After a total impact score was calculated for each hazard (the sum of the location, maximum probable extent and secondary impacts), it was multiplied by the overall probability to determine the final score for each hazard. A final score between 0 and 12 is a low threat hazard, one between 12.1 and 42 is a medium threat hazard, and a score above 42 is a high threat hazard. This final score determines how the hazards are

<sup>2</sup> See also LHMP p. 29

<sup>3</sup> Recommended by FEMA

prioritized. The table below shows the individual criterion scores, the final score, and the threat level for each hazard.

Hazard Type	Probability	Impact			Total Score	Hazard Planning Considerations
		Location	Primary Impact	Secondary Impacts		
Seismic	4	4	4	4	64.00	High
Wildfire	4	3	3	3	48.00	High
Drought	3	4	4	4	48.00	High
Diseases & Pests	4	4	2	2	44.80	High
Severe Weather	3	4	2	2	33.60	Medium
Aircraft	3	2	2	2	24.00	Medium
Human Caused	2	2	3	4	22.80	Medium
Geologic	2	2	3	3	20.80	Medium
Flood	2	3	2	2	19.20	Medium
Hazard Material Release	2	3	2	2	19.20	Medium
Dam Failure	2	2	3	2	18.80	Medium

### 2.4.1 Threat Assessment 1: Earthquakes<sup>4</sup>

#### General Situation

Earthquakes generate three different but related hazard types – fault rupture, ground shaking, and liquefaction. The City, in a seismically active area, is at risk from several earthquake faults. The major threats are from the Newport-Inglewood Fault, the San Andreas Fault, and the San Joaquin Hills Fault. A major earthquake on any of these would cause numerous casualties and substantial damage from collapsed bridges, damaged roads, fires, floods, and other threats to lives and property.

1. **Newport-Inglewood Fault** – Originating north of Inglewood, passing below Newport Bay and Balboa Island, and continuing south off the coast perhaps as far as San Diego, it is the active fault nearest the City and was the source of the magnitude 6.4 1933 Long Beach earthquake that caused 120 deaths and considerable property damage. Since then, several minor earthquakes and numerous aftershocks on the fault have been recorded. It can generate earthquakes up to magnitude 7.4.
2. **San Andreas Fault** – Extending from Cape Mendocino in Northern California to east of San Bernardino in Southern California, it lies about 40 miles from the City. The 7.9 magnitude 1906 quake and the resulting fires caused up to 3,000 deaths and destroyed over 80 percent of San Francisco. As devastating as that was, it is the southern section of the fault that is now of greatest concern to the scientific community. The Working Group on California Earthquake Probabilities (SCEC, 1995), estimates the probability of a comparable rupture between 1994 and 2024,

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<sup>4</sup> See also LHMP, page 68, Windshield Surveys, Shelter Annex, Alert & Warning Annex, and Evacuation Annex.

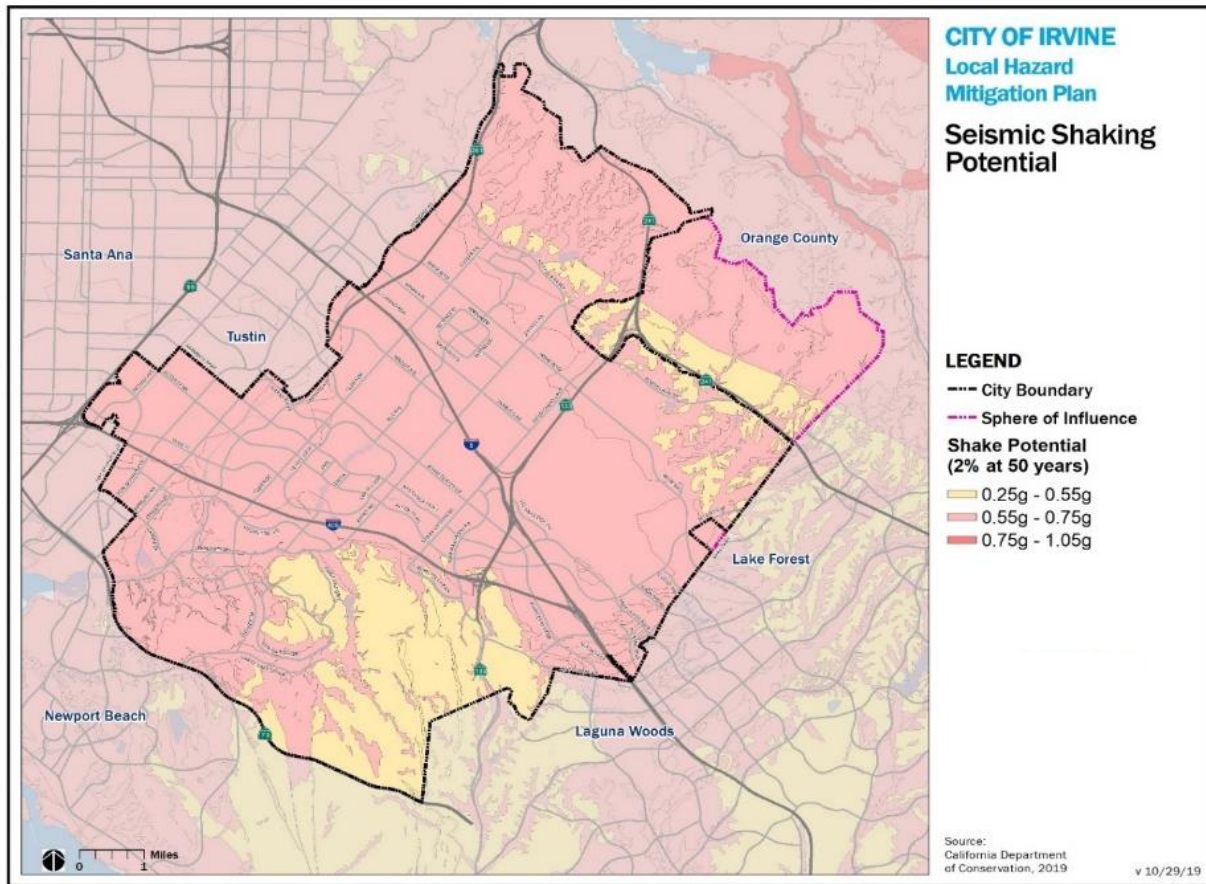


to be about 50 percent. The range of probable magnitudes on the San Andreas Fault is reported to be from 6.8 to 8.

- San Joaquin Hills Fault** – Originating near the southern end of the Newport-Inglewood Fault near Huntington Beach and the western margins of the San Joaquin Hills, this recently discovered southwest-dipping blind thrust fault could generate an earthquake as large as magnitude 7.3 if the entire fault line ruptured. Scientists have estimated a minimum average recurrence interval of between 1,650 and 3,100 years for moderate-sized earthquakes on the fault. (Grant and others, 1999).

Earthquakes along other faults traversing Los Angeles, Riverside, San Bernardino, and San Diego Counties could impact the City although the damage would likely be less severe.

**Map 1 - Seismic Shaking Potential**



Cascading earthquake effects may include:

*Fire – Probability High.* Broken gas lines, in combination with broken water mains and lines would cause a water shortage/loss of water pressure and seriously hamper the response.

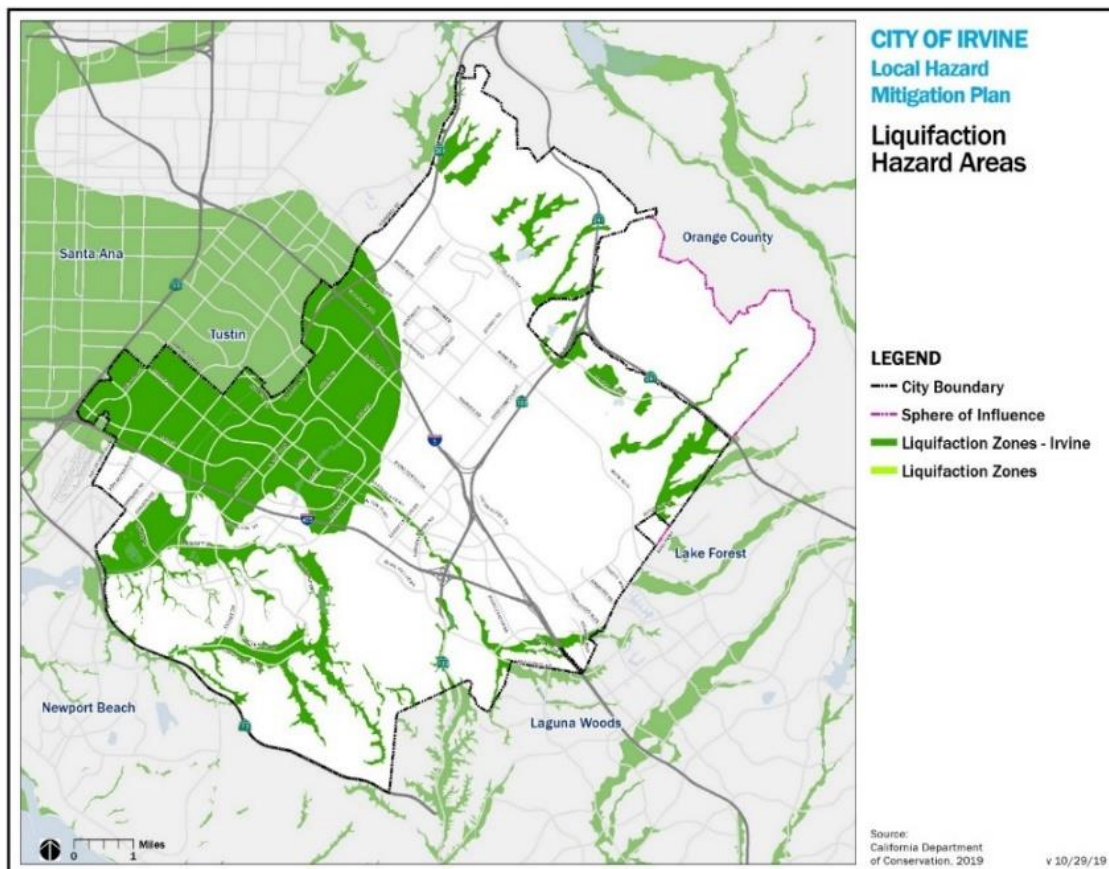
*Hazardous Materials Spills – Probability High.* Orange County, one of the largest industrial and manufacturing areas in the state, has several thousand firms that handle hazardous materials. Major highways traversing the City serve as hazardous materials transportation corridors including Interstate 5, one of the busiest highway corridors in the country.

*Dam Failure – Probability Low.* Although Orange County could experience flooding caused by an earthquake-induced failure of Prado Dam, the probability is low as the dam is rarely full.

### Specific Situation

A major earthquake on the San Andreas or Newport-Inglewood Fault would cause serious damage in Southern California, Orange County, and the City. Soil liquefaction, a secondary effect of earthquake shaking, which causes soil to lose strength and stiffness and behave like a liquid, is also possible and its results - drastic, irregular building settlement and structural damage - would exacerbate the original damage.

### Map 2 - Liquefaction Hazard Areas



*Long-Term Homeless:* Persons whose residences are no longer habitable may require long-term mass care sheltering if they cannot find a replacement dwelling or stay with relatives or friends. It is not known what percentage of the approximately 97,500 dwelling

units in Irvine would be damaged in an earthquake; however, the damage to the City's almost 900 mobile homes, which are particularly vulnerable, could create a serious homeless caseload challenge.

*Bed Loss in Hospitals:* The City's three hospitals: Kaiser Permanente, Hoag Hospital Irvine, and Hoag Orthopedic Institute, could lose some or all of their hospital beds if an earthquake damaged one or more facility. Several acute care hospitals countywide are expected to sustain structural damage reducing their available beds and necessitate field hospitals. In a worst case scenario, some seriously injured patients may have to be transferred to out-of-county facilities.

*Freeways and Roads:* Interstates 5 and 405 traverse the City and could close due to road damage, collapsed overpasses, accidents, etc., making ingress and egress difficult to impossible and potentially isolating one or more areas of the City. If the damage is not severe, freeways could reopen in 72 hours.

*Telephone Systems:* Telephone communications will be adversely affected by system overloads from post-earthquake calls both in and outside the area. Many landline telephones will be off their hooks, equipment will be damaged, power will be out and some auxiliary power sources may fail. City telephone systems are also likely to have system failures, and the recovery effort may be delayed due to a lack of accessibility.

*Radio Systems:* At least early in the recovery phase, radio systems will be overloaded.

*Commercial Broadcasters:* Many radio and TV facilities are expected to be out of operation in the Los Angeles and Orange County areas for 24 hours due to in-house power supply and/or transmission supply problems.

*Water Supply and Waste Disposal:* The Colorado, California, and Los Angeles aqueducts that supply water to the region are expected to sustain damage causing temporary interruptions in outside water supplies. Damaged water transmission lines, local storage reservoirs, pumping plants, and local distribution systems, will affect water pressure and availability.

Sewage collection systems will sustain widespread damage, particularly in low-lying areas. The county's sewage treatment facilities in Fountain Valley and Huntington Beach may be damaged and may experience electric power losses causing a raw sewage discharge.

*Electric Power and Gas:* Damage to power plants and their ancillary facilities in affected areas is expected to reduce generating capacity by 50 percent. The potential impact of this in local output may be lessened if power from other sources outside the affected area is available. The immediate concern will be repairs required to restore power to areas of greatest need.

Damage to natural gas facilities will primarily be isolated breaks in major transmission lines and numerous breaks in mains and individual service connections in the distribution systems. Sporadic fires should be expected at some ruptures, in both the transmission and distribution systems.

#### **2.4.2 Threat Assessment 2: Wildfires<sup>5</sup>**

##### General Situation

OCFA, which staffs eleven fire stations in the City<sup>6</sup>, is responsible for responding to the two fire hazards facing the City - wildland and structure - and constantly monitors the fire hazard, investigating and alleviating hazardous situations.

##### Specific Situation

###### *Wildland Fires/Urban Interface*

An ongoing challenge for Southern California is the increasing number of houses built on the wildland/urban interface, which has pushed existing fire protection systems beyond their original or current capabilities and significantly increased the threat to life and property. Every year the population continues to expand farther into the hills, mountains, and forested areas. Property owners in the interface, many of whom have done little or nothing to manage or offset fire hazards on their property, should be encouraged to do so by:

- Reducing the Hazard: create defensible space by removing by maintaining and removing trees, shrubs, and ground cover outside a 100 foot set-back from homes and structures, and
- Reducing the Fuel: lessen or eliminate combustible fuel around homes and on roofs, gutters, and other structures that may ignite with ember casting

###### *Wildfires in and Near the City*

In 1993, the Laguna Beach firestorms burned 400 acres of explosive hillside brush and chaparral in Irvine. Although no structures were destroyed, 4,000 people were evacuated to local shelters overnight. In 1997, the Baker Canyon fire just east of the City, burned 6,317 acres of vegetation. Strong Santa Ana winds prompted a decision to evacuate the City's Northwood community. The following year, the Blackstar/Santiago Canyon fire required precautionary activation of the Orange County EOC as smoke threatened the wildland/urban interface. The Santiago fire, which forced Irvine residents to evacuate their homes, started on October 21, 2007, and was fully contained on November 9. In total, 28,400 acres were burned, and 15 residential structures and nine outbuildings were destroyed. The most significant wildfire in the City's history, however, was the Silverado Fire.

###### *Silverado Fire*

Early in the morning of October 26, 2020, sustained winds of 45 mph with gusts to 75 mph, prompted the National Weather Service to issue a Red Flag Warning. At 6:52 a.m., a vegetation fire erupted off Santiago Canyon Road and Limestone Ridge. Fanned by the

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<sup>5</sup> See also LHMP, page 83, EOP, Alert and Warning Annex, Shelter Annex, Evacuation Annex

<sup>6</sup> <https://ocfa.org/AboutUs/FireStations.aspx>



winds, it spread rapidly, moving south of the 241 Toll Road and into the City. An immediate, mandatory evacuation order was issued for all communities north of Irvine Boulevard between Jamboree Road and Bake Parkway. The fire's continued rapid spread required two additional evacuations for communities south of Irvine Boulevard, resulting in a total of over 100,000 evacuees.



*Image by Tim Knight, Media Specialist, Irvine Police Department*

At 8 a.m. the EOC was activated and staffed and the City's Evacuation Plan was implemented. Actions included:

- IPD issued Wireless Emergency Alerts and AlertOC messages in both text and voice formats that included links to the City's real-time, interactive evacuation map
- IPD and City PIO staff issued joint messages on various platforms including the City website and various social media platforms
- IPD personnel went door-to-door notifying residents of the need to evacuate and staffed traffic control points
- Public Works and Transportation (PWT) staff deployed to evacuation zones to provide road closures and clear debris from rights of way
- ITRAC manually managed signal timing to facilitate the heavy volume of vehicles exiting affected communities
- Community Services staff opened community centers to operate as care and reception sites to support evacuees
- TRIPS coordinated transportation for DAFN residents and those who did not have access to transportation
- GIS managed the City's real-time, interactive evacuation map used for the duration of the incident to keep residents up-to-date about evacuations, care and reception centers, road closures, and repopulation
- IPD Dispatch handled an overwhelming call volume and related critical incident information and calls for assistance to the EOC

By the afternoon of the 26<sup>th</sup>, the Interim City Manager had signed and sent Cal OES a local Proclamation of Emergency and OCFA had requested and received approval for a



*Image by Tim Knight, Media Specialist, Irvine Police Department*

Fire Management Assistant Grant from FEMA, making the City eligible for federal reimbursement of specified costs. As evening set in, Care and Shelter Branch personnel, working closely with the American Red Cross (ARC), coordinated overnight lodging for residents who could not make other arrangements and IPD personnel ensured the security of evacuated homes overnight.

In the two days following, as the threat level decreased, the focus shifted from response to repopulation, damage assessment, and recovery. PIO



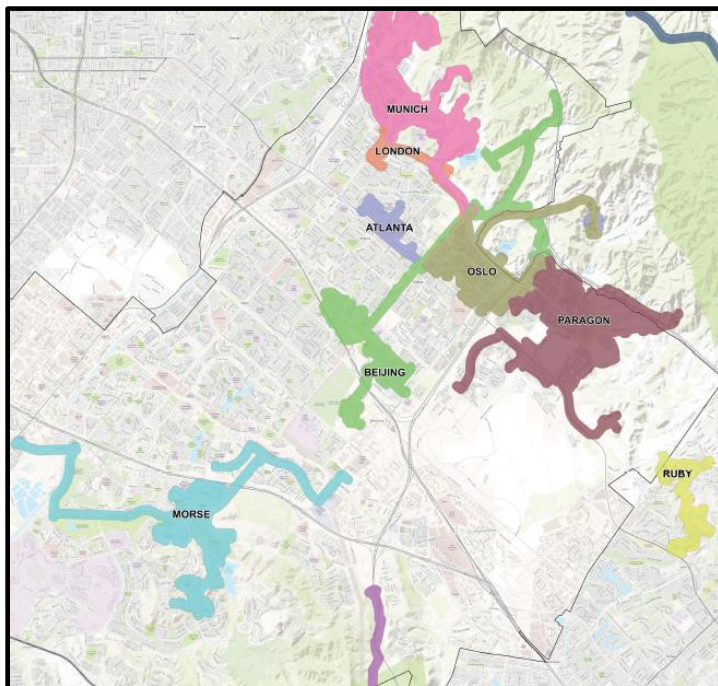
teams continued responding to inquiries from the public wanting to return to their homes, and IPD and OCFA continued to work closely with Cal Fire to re-open communities no longer at risk. On the 27<sup>th</sup>, many neighborhoods were successfully repopulated; others were not opened to residents until late in the afternoon on the 28<sup>th</sup>. Until repopulation was complete, Care and Shelter Branch personnel continued to support displaced residents. PIO staff continued to respond to a variety of inquiries about smoke and air quality.

The Silverado Fire response spanned five 12-hour operational periods from October 26 to October 28 and resulted in the largest evacuation and care and shelter operation the City has ever managed. The swift, safe evacuation ensured there was in no loss of life or injuries to the public or their pets. The extraordinary efforts of OCFA and its mutual aid system whose rapid mobilization, in conjunction with vegetation management efforts and resilient home construction features, mitigated the fire's destruction and contributed significantly to avoiding the loss of permanent structures.



*Image by Tim Knight, Media Specialist,  
Irvine Police Department*

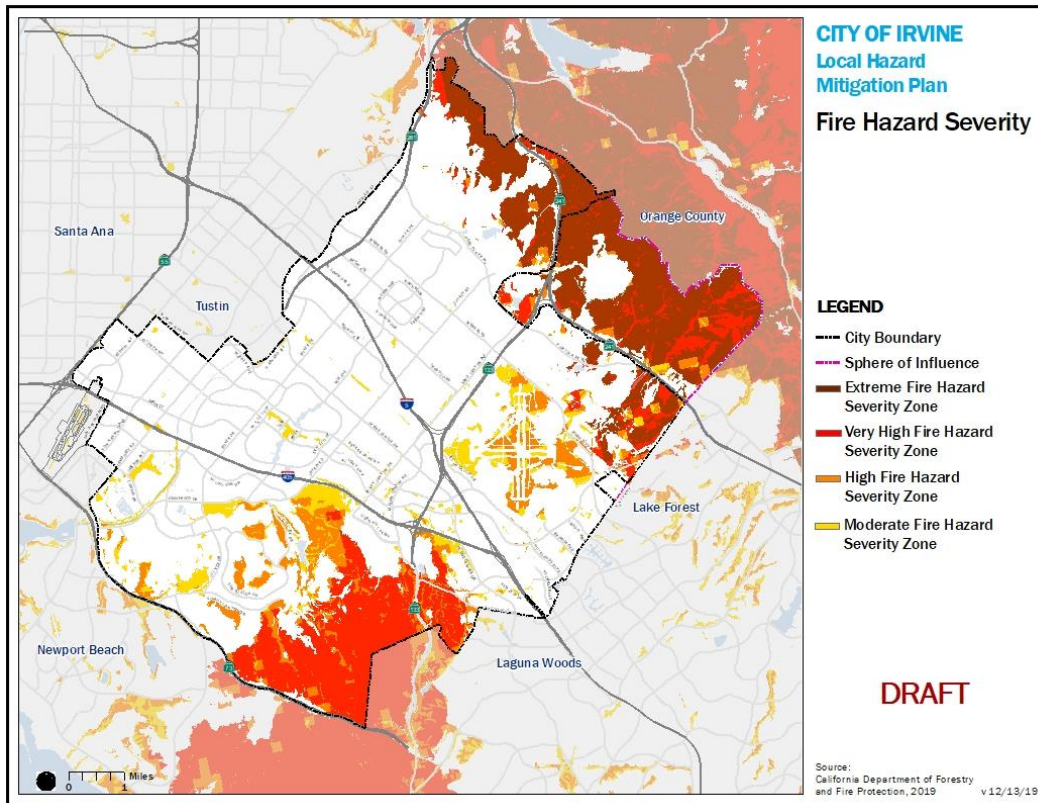
### Map 3 - Public Safety Power Shutoff Areas



Among other wildfire-specific hazards, a significant threat to the City and to many cities in California are Public Safety Power Shutoffs (PSPS), temporary power shutoffs during high risk wildfire conditions, to prevent the electric system acting as an ignition source. California's three major utility companies (SCE, San Diego Gas & Electric, and PG&E) have adopted PSPS. The City has multiple high fire risk circuits potentially subject to SCE PSPS and prepares for them in close coordination with SCE.

The City should anticipate that as long-term climate change brings hotter temperatures and less rainfall, vast expanses of dried out vegetation will predispose an already vulnerable California, and by extension Orange County, to more devastating wildfires in the coming decades.

**Map 4 - Fire Hazard Severity**



**2.4.3 Threat Assessment 3: Droughts<sup>7</sup>**

General Situation

Unlike other hazards, weather-caused droughts develop over a long period and may persist for years. The City, like the rest of California, has experienced many droughts throughout its history, each event distinct with varying lengths, severity, and frequency. Because most droughts are contingent on weather that differs from season to season and year to year, they cannot be predicted. Droughts resulting from infrastructure failure are also impossible to predict as the circumstances causing a failure are unique. California experienced three lengthy, severe droughts, one from 1928 to 1934, another from 1987 to 1992, and a third, the most severe in recent history, from 2012 to 2017.

California’s water resources include almost 1,300 reservoirs that capture and store winter rain, snowpack – which acts as a natural reservoir, storing almost 65% of the state’s water supply, and atmospheric rivers which supply 20 to 50 percent of our annual rain<sup>8</sup>.

Specific Situation<sup>9</sup>

By 2012 almost 50 percent of the state was in a severe drought exacerbated by extreme heat – especially in Southern California – statewide, and numerous wildfires. 2013 rainfall

<sup>7</sup> See also LHMP page 45

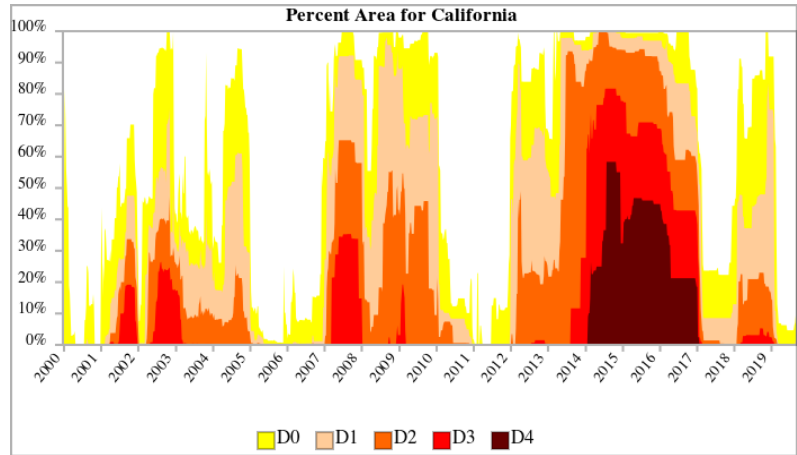
<sup>8</sup> <https://noaa.maps.arcgis.com/apps/Cascade/index.html?appid=0307d687789c4d1cbec397d0abc2fffc>

<sup>9</sup> <https://ca.water.usgs.gov/california-drought/california-drought-comparisons.html>

and accumulated precipitation was the lowest on record, water levels in most of the state’s reservoirs were at less than 50 percent capacity and the snowpack had all but disappeared.<sup>10</sup>

Then Governor Jerry Brown declared a drought state of emergency on January 17, 2014, following well-documented, broad-based impacts statewide. Although the emergency declaration was lifted in all but four counties in April 2017, when a wet winter ended drought conditions, water conservation efforts continued<sup>11</sup> and a number of prohibited water uses remained in place.

Drought will continue to plague the state and any drought of a significance to reduce Southern California’s water supply will impact the City.



**Map 5 - Drought History (2000-2019)**

#### 2.4.4 Threat Assessment 4: Diseases and Pests<sup>12</sup>

##### General Situation

Because diseases (epidemic, pandemic, and vector-borne) and agricultural pests are discussed in-depth in the LHMP, only pandemics and the geographical spread of disease are addressed here.

A pandemic – a novel, deadly virus spread worldwide by person-to-person contact - differs from seasonal flu epidemics (flu) that occur annually, and represent what is possibly the greatest potential threat to public health. Pandemics can last from 18 months to several years with at least two peak activity waves and include not merely flu but any viral disease, e.g., smallpox, tuberculosis. Unlike flu, for which vaccines are routinely developed and widely distributed, effective vaccines are often not available for several

##### Influenza Pandemic Phases

- Phase 1** No animal virus reported in people
- Phase 2** Animal virus infects people; potential pandemic threat
- Phase 3** Animal or human-animal virus causes sporadic cases in small groups; only limited human-to-human transmission
- Phase 4** Human-to-human (H2H) transmission sustains community-level outbreaks
- Phase 5** H2H transmission in at least two countries in the same region; strong signal pandemic is imminent
- Phase 6 Pandemic phase** same criteria as in Phase 5 and in at least one country outside the region
- Post-peak** Transmission levels drop below peak levels; multiple waves may occur and transmission return to previous levels or higher
- Post-pandemic** Transmission levels return to normal levels for seasonal flu outbreaks

<sup>10</sup> <https://noaa.maps.arcgis.com/apps/Cascade/index.html?appid=0307d687789c4d1cbe397d0abc2fffc>

<sup>11</sup> <https://www.calwater.com/conservation/drought/>

<sup>12</sup> See also LHMP page 38, Alert and Warning Annex, and Shelter Annex



months following an outbreak and are sometimes not available at all or in sufficient quantities to stem the spread. The only way to address a pandemic is to slow its transmission by practicing social distancing, improved, consistent hygiene and respiratory etiquette, and quarantine.

#### Specific Situation

As experienced during the 2020 COVID-19 pandemic, the City will be unable to maintain noncritical services at normal levels for the duration, the local health care system will be overwhelmed, medical supplies, vaccines, and antiviral drugs will be in short supply with the latter two distributed to pre-established priority groups. Despite a statewide order to quarantine, residents will be vocal in their opposition and may refuse to comply.

To mitigate the impact on essential services and slow the spread, the City will transition to telecommuting for the duration and adopt other strategies – social distancing, face masks, school and business closures, increased cleaning and disinfecting public facilities, transport vehicles, and office spaces – as appropriate and required.

### **2.4.5 Threat Assessment 5: Severe Weather<sup>13</sup>**

#### General Situation

While most often severe weather – high heat, strong storms, and Santa Ana winds – is only a nuisance, it can in extreme conditions be dangerous, causing dehydration, heat exhaustion, heat stroke, and even death; heavy rains can cause flooding, and Santa Ana winds can damage homes, public buildings, utilities, and infrastructure.

#### Specific Situation

Impacts to the City and its residents are severe weather specific. Power outages, trees down, and infrastructure damage being most frequent. Depending on the severity of the event, the EOC may activate to coordinate the response and support response personnel.

### **2.4.6 Threat Assessment 6: Airplane Crash<sup>14</sup>**

#### General Situation

Southern California has one of the nation's most overcrowded airspaces. An aircraft hitting the ground creates the potential for multiple explosions and intense fires which will hamper search and rescue operations. Few, if any, aircraft passengers will survive. In heavily populated residential areas there will be extensive property damage and, depending on the time of day, considerable loss of life at and around the point of impact.

Although the National Transportation Safety Board (NTSB) and Orange County Coroner's Office have short-term jurisdiction over the crash area until their investigations are complete, police presence and barricades will be required to secure the area and control onlookers and media personnel.

It is impossible to totally prepare, either physically or psychologically, for the aftermath of a major airplane crash but at a minimum, emergency medical care, food, and temporary

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<sup>13</sup> See also LHMP page 77

<sup>14</sup> See also LHMP page 31

shelter will be priorities and, because families may be separated depending on the time of day and day of the week, a locator system will be set up at a convenient location. Survivors and area residents may also have mental health needs as a result of the crash and a coordinated mental health response team will identify and address them.

When NTSB and Orange County Coroner’s Office investigations are complete, the area will be released for clean-up: removing large debris, clearing roadways, demolishing unsafe structures, and towing destroyed vehicles.

Damage assessment and disaster relief efforts associated with major crashes will require support from other local governments, private organizations and, in some instances, the state and federal governments.

Specific Situation

The airspace over the City’s residential, commercial, and industrial areas is highly trafficked. Although the City has no airports within its boundaries, numerous regional and international airports, including John Wayne Airport, Fullerton and Long Beach Municipal Airports, and Ontario and Los Angeles International Airports, surround it and it is within 18 miles of the Joint Forces Training Base Los Alamitos.

According to the NTSB, John Wayne Airport (SNA), the airport nearest the City, has experienced 62 accidents and six incidents over the past 36 years. Most recently, on February 3, 2019, the pilot of a small plane lost control of the aircraft and crashed into a housing tract in Yorba Linda, destroying two homes and killing four people on the ground.<sup>15</sup> On August 5, 2018, a small plane that had apparently run out of fuel, crashed into a strip mall parking lot in Santa Ana near SNA. There were no injuries or deaths on the ground but four parked vehicles were destroyed<sup>16</sup>. On June 30, 2017, a small plane crashed on the 405 Freeway in Costa Mesa shortly after takeoff. Fortunately there were no injuries or deaths on the ground but the freeway was closed for several hours.<sup>17</sup>

Aircraft Accidents/Incidents in Irvine	
<b>9/14/2009</b>	No fatalities; substantial aircraft damage
<b>8/10/2002</b>	No fatalities; substantial aircraft damage
<b>11/30/1996</b>	Three fatalities; aircraft destroyed
<b>9/19/1995</b>	One fatality; aircraft destroyed
<b>5/9/1990</b>	No fatalities; substantial aircraft damage
<b>2/26/1986</b>	One fatality; aircraft destroyed
<b>5/27/1984</b>	No fatalities; substantial aircraft damage
<b>4/27/1983</b>	No fatalities; substantial aircraft damage
<b>2/10/1983</b>	No fatalities; substantial aircraft damage

In addition to these recent accidents/ incidents, the City has experienced nine accidents/incidents since 1983.

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<sup>15</sup> LHMP, p. 33

<sup>16</sup> Ibid.

<sup>17</sup> Ibid.



## **2.4.7 Threat Assessment 7: Human-Caused**

### General Situation

#### 2.4.7.1 General Situation – Civil Disturbance<sup>18</sup>

Protests, riots, shootings, armed standoffs, and other acts of violence and disorder disturbances are typically triggered by an event or series of events including political grievances and social discord. What begins as a peaceful gathering can rapidly escalate into a violent, destructive incident that damages buildings and personal property and injures or kills participants and responders.

A civil disturbance can arise anywhere but is most likely to occur at government buildings, jails, police stations, major businesses, university campuses, and places of public assembly.

### Specific Situation

Following the 2020 killing of George Floyd in Minnesota, coupled with other incidents involving the police and members of the black community, protests and looting occurred throughout Southern California. The several protests in the City remained peaceful and IPD were aware of and on-site for those where escalation was deemed possible. Depending on the severity of future civil unrest IPD, along with other law enforcement mutual aid partners and, if necessary, OCFA, will respond and establish a unified command post. The EOC will activate if appropriate to support the unified command.

#### 2.4.7.2 General Situation – Cyber Threat<sup>19</sup>

Malicious attempts to disrupt or damage computer networks and systems targeting anyone with a computer worldwide, are never static. They continue to evolve becoming increasingly potent, frequent, and sophisticated. Initially a threat to individuals, the threat grew to include government agencies, businesses, educational institutions, healthcare providers, banks, and religious groups. Most recently, hackers are targeting computerized infrastructure – electrical grids, water treatment facilities, transportation systems, etc.<sup>20</sup> Our increasing reliance on “smart” cars, watches, phones, and other devices connected to the internet provides almost unlimited vulnerabilities for hackers to exploit.

Cyberterrorism is expected to be a strong threat in the coming decades and as our critical infrastructure becomes increasingly computer-based, it is more vulnerable to remote attack.<sup>21</sup>

### Specific Situation

The City has not experienced a direct cyber-attack. Other Southern California jurisdiction have not been as fortunate. The City of Seal Beach was the victim of a ransomware attack targeting its information technology service provider and encrypting its computers with malware affecting city email and voicemail on December 24, 2019.

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<sup>18</sup> See also LHMP page 61

<sup>19</sup> Ibid.

<sup>20</sup> <https://onlinedegrees.sandiego.edu/top-cyber-security-threats/>

<sup>21</sup> <https://www.lansingmi.gov/685/Terrorism>

Both the Cucamonga Valley Water District and the Orange County Sanitation District were victims of cyber-attacks. The former suffered a data breach on a server accepting one-time credit card payments from customers, the latter had a phishing data breach compromising records of over 1,000 employees through its deferred compensation plan.

In the event the City is the victim of a cyber-attack, IPD will work with Human Resources and Innovation staff and partner with appropriate outside agencies including the Orange County Intelligence Assessment Center. The EOC may not activate for this type of incident unless the cyber threat creates downstream; subsequent emergencies.

#### 2.4.7.3 General Situation – Infrastructure Failure<sup>22</sup>

Disruption of our infrastructure - the structures, utilities, and facilities supporting the City's mobility, power, water, sewer, and communication needs - can occur as a result of human error, deliberate action, poor maintenance, severe weather, flooding, earthquake, fire, or design flaws. A failure, whether lasting 12 or more hours or, in some cases for any period of time at all, can be considered significant. Any failure that increases demand on other infrastructure may trigger a domino failure seriously exacerbating the original failure.

An infrastructure failure is categorized as either an active or a passive threat. The former involves release of a harmful or potentially harmful substance such as an untreated sewage release. The latter occurs when the infrastructure cannot function as it should. While not inherently dangerous it may, under the right circumstances, increase risks to persons or property, e.g., a clogged storm drain can lead to flooding during a storm. In a worst case scenario, a failure may be both active and passive as where a broken overhead power line – an active threat of electrocution – may spark a wildfire – the passive threat of lost electrical service.

#### Specific Situation

Southern California Edison (SCE) supplies the City's electricity. The seven substations in the City power both the City and surrounding cities and connect to other regional power sources which enable the City to access auxiliary electricity sources should any of its immediate infrastructure fail. A larger regional failure of the power grid is likely to disrupt power transmission to the City until power can be restored.



*Image from OC Hawk.*

On August 2, 2019, an electrical fire at the SCE Cabrillo Substation near the corner of Jamboree and Michelson resulted in a power outage to approximately 28,000 Irvine and Newport Beach customers including parts of UCI, affected 50 City intersections that either went to flashing red mode or were completely de-energized, and shut down operations at John Wayne Airport. The EOC activated and opened a care and reception center for residents, a cooling center, sent mass

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<sup>22</sup> Ibid.

notifications, conducted welfare checks on critical care customers, and coordinated traffic management at intersections without power. Electricity was restored to all City customers by early morning August 4.

Future failures may occur as infrastructure ages and new hazards, including climate change, which could increase the frequency and/or intensity of extreme heat events in the City, stress mechanical and electrical systems.

Multiple agencies will respond to a major infrastructure failure and the City will establish a UC with the affected agencies. The EOC may activate to coordinate the response and support incident logistical needs, alerts and warnings, public messaging, and sheltering if needed.

#### 2.4.7.4 General Situation – Terrorism<sup>23</sup>

Terrorists, whether individuals or groups, use fear, physical injury, economic loss, psychological trauma, and erosion of faith in government to achieve a political goal. The tremendous diversity of causes and wide variety of potential targets means no place is beyond their reach. While terrorists most commonly use firearms and explosives to achieve their ends, some may use weapons of mass destruction. Although terrorist events are rare, their effects are widespread and deadly.

The September 11, 2001, attacks in New York City, Washington, D.C., and Pennsylvania stunned the world and changed the emergency management community dramatically. Domestic and international events continue to make news with increasing frequency. The Boston Marathon bombing in April 2013, resulted in 5 deaths and 280 injuries and the San Bernardino mass shooting in December 2015, caused 14 deaths and 22 serious injuries. The simultaneous suicide bombings and mass shootings at multiple locations in Paris in November 2015, severely challenged emergency responders.

#### WMD Classifications & Their Effects

1. **CHEMICAL:** Any toxic or chemical used to produce a chemical weapon, and equipment adapted for use as a weapon. Chemical weapons can cause widespread casualties incapacitating and/or killing vast segments of the population or be equally deadly over a small area depending on their deployment.
2. **BIOLOGICAL:** Most infectious biological agents – like smallpox and anthrax – are potential terrorist weapons and cause significant health and cleanup problems.
3. **RADIOLOGICAL:** Typically called a dirty bomb, it is a non-nuclear explosive device that when detonated, spreads radioactive materials. The radiation released depends on the materials used, including dynamite, nitroglycerin, and plastic explosives. The results include both large numbers of casualties and significant cleanup.
4. **NUCLEAR:** Explosions from a nuclear device cause widespread casualties and radioactive contamination for an extended period of time.
5. **EXPLOSIVE:** Conventional explosives made from standard explosive materials or from manufactured materials that when contained, cause an explosion, e.g., fertilizer and kerosene, have applications including suicide and car bombs and devices hidden in and around facilities.

<sup>23</sup> See also LHMP page 61, and IPD Plans

Because different motives prompted the attacks and a variety of methods were used to carry them out, the emergency management and response communities continue to study the lessons learned from each, use them in training exercises, and incorporate them in response plans and procedures.

#### Specific Situation

Orange County and the City, like the rest of the country, is potentially at risk for terrorism. Experience with recent attacks confirms that no physical target or population is immune. The potential targets – places where large numbers of people congregate: large shopping centers like Irvine Spectrum, UCI, hospitals, parks, government facilities, and business centers - and critical infrastructure: electric generating facilities, water treatment plants, railroads, highways and freeways - are limitless; consequently, a broad rather than a piecemeal approach should be taken. The City's response planning for other emergencies can serve as the basis for responding to specific terrorist incidents.

Multiple agencies will respond to a terrorist attack, the City will establish a UC with all affected agencies, and the EOC will activate to coordinate the response and support the incident.

#### 2.4.7.5 General Situation – Transportation Accident<sup>24</sup>

##### 2.4.7.5.1 General Situation—Train Accident

A number of hazardous situations are associated with trains some of which can cause derailment: human error (e.g., excessive speed, improper handling, and inadequate braking), track or equipment failure, and natural events including earthquakes. When a train derailed it is out of control - everything in its path is at risk and there is little or nothing passengers or individuals at the scene can do to avoid injury or death. In addition to the danger their size and weight pose, trains carrying hazardous materials present an even greater, potentially wider spread danger if derailed.

#### Specific Situation

Freight hauler Burlington Northern Santa Fe Railway (BNSF) cargo includes hazardous materials; the bulk of those transported through the City are flammable gas and hazardous flammable liquid. Information on hazardous material shipments, which is confidential and restricted for security reasons, is coordinated and approved by BNSF. Metrolink operates commuter trains in the six Southern California counties. The City Metrolink Station, located at 15215 Barranca Parkway near Ada Street, serves the Orange County Line (Oceanside to Los Angeles) and the Inland Empire-Orange County Line (Oceanside to San Bernardino). Metrolink periodically adjusts the frequency and scheduling of its trains. In 2014, approximately 1,400 passengers boarded at the City station each weekday and overall ridership was 41,000 commuters.

The Metrolink station on Barranca also serves Amtrak's Pacific Surfliner with daily service between San Luis Obispo and San Diego. Like Metrolink, Amtrak periodically adjusts the frequency and scheduling of its trains. In 2014, eleven trains stopped at the station daily

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<sup>24</sup> See also LHMP page 61

and in 2013, an average of 35,000 passengers per month used the station. Amtrak maintains its own police department.

#### 2.4.7.5.2 General Situation—Truck Accident

A major truck accident in a heavily populated industrial or residential area can cause considerable damage. When an accident involves a truck the truck frequently goes out of control and can overturn, strike a residence or commercial building, or careen back into traffic, each of which can have severe secondary effects: hazardous materials incident, fire, severe infrastructure damage or failure, and injury or loss of life.

##### Specific Situation

In addition to two major freeways, Interstate 405 and Interstate 5, and several major truck routes, arterial streets – Harvard, University, Jamboree, Culver, Jeffrey, Sand Canyon, Main, Alton, Irvine Center Drive, Trabuco, Irvine Boulevard, and Portola – have heavy traffic City and countywide. Depending on the location and severity of the accident, the response may involve multiple agencies in which case the City will establish a UC and the EOC may activate to coordinate the response and support the incident.

### **2.4.8 Threat Assessment 8: Geological<sup>25</sup>**

##### General Situation

When slopes become destabilized, typically after heavy rain – especially in recent burn areas – earthquake, or erosion, a landslide may occur. Subsidence occurs when the ground sinks – either suddenly as with a sinkhole or gradually over time. Any activity that creates empty underground spaces that can collapse as well as seismic activity can cause subsidence.

##### Specific Situation

The steeper portions of the Santa Ana foothills northeast of the City and the San Joaquin hills southwest of the City are both potential landslide areas. While some areas of the City are vulnerable to seismically induced landslides (see Figure 3-5), the risk is only moderately low to low.<sup>26</sup> As a master planned community, the City has taken extensive steps to mitigate landslide hazards throughout its development and has not, to date, experienced significant landslide events.

Subsidence is most likely to occur in low lying areas sitting over the Orange County Water District groundwater basin. Although other areas of the City could potentially suffer subsidence in the event of an earthquake M5.0 or greater, the City does not have a history of seismically induced subsidence.

In the event of either a landslide or subsidence event, IPD and OCFA will establish a UC and the EOC will activate to provide support.

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<sup>25</sup> See also LHMP page 54

<sup>26</sup> Department of Conservation 1976



## 2.4.9 Threat Assessment 9: Flood<sup>27</sup>

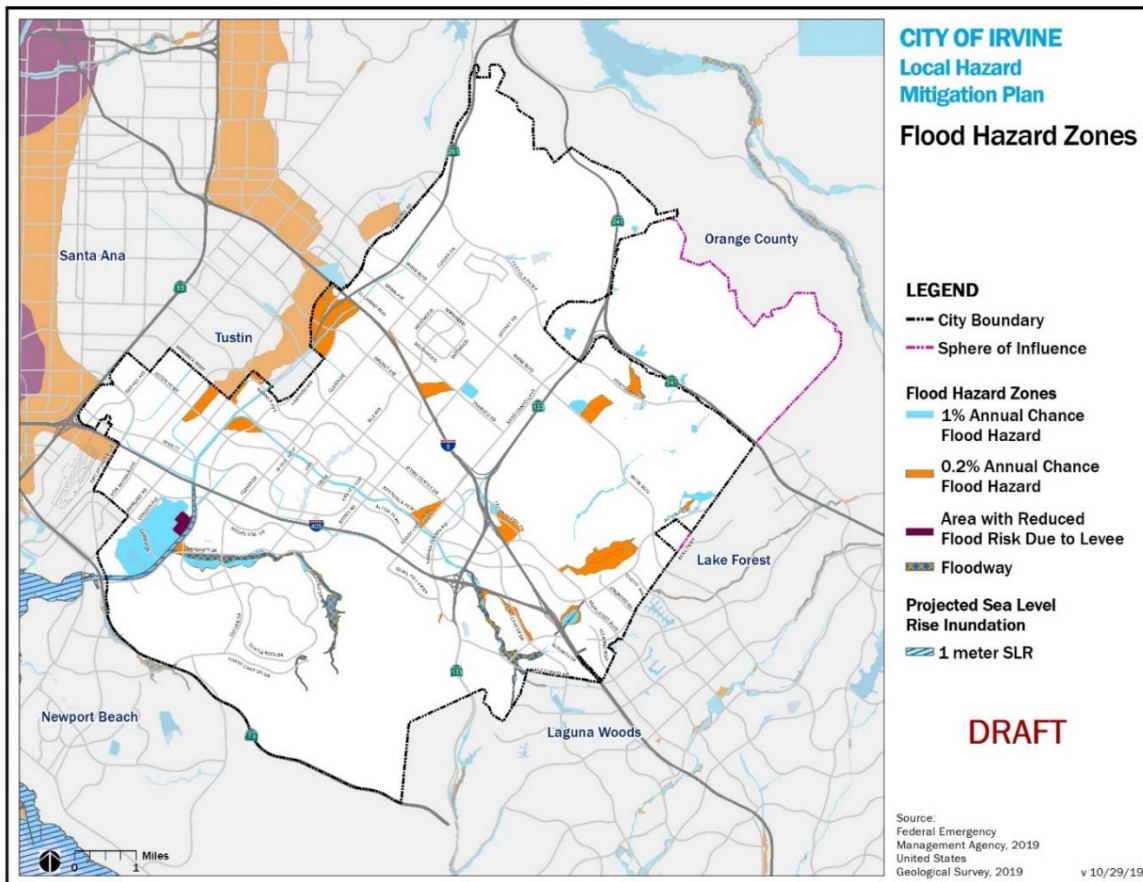
### General Situation

Floods threaten both communities and public safety. In addition to property damage, they can carry away vehicles and other large debris, and sweep away topsoil and vegetation leading to erosion and, potentially, landslide. Floodwaters may also impede or prevent victims from fleeing a flood or first responders attempting to reach persons needing help.

While floodplains, areas that experience frequent flooding, may affect areas outside their designated area, those locations most likely to experience flooding are low lying areas near bodies of water. Measured by their likelihood of occurrence, the three most common designations are the:

- *Special Flood Hazard Area* within a 100-year floodplain (1% chance of occurring in any given year)
- *Moderate Flood Hazard Area* outside the 100-year flood plain but within the 500-year floodplain (0.2% chance of occurring in any given year)
- *Minimum Flood Hazard Area* outside the 500-year flood plain

### Map 6 - FEMA Flood Zones



<sup>27</sup> See LHMP page 49

### Specific Situation

The 100- and 500-year floodplain areas in the City are not contiguous but are located in various pockets across it; most fall within its major drainage areas, including:

- San Diego Creek Channel
- Serrano Creek
- Borrego Canyon Wash
- Agua Chinon Wash
- Bee Canyon Wash/Round Canyon Wash
- Peters Canyon Wash Channel
- Sand Canyon Wash through Mason Regional Park

Assets – including 55 bridges and three City recreational support facilities - located in the 100- or 500-year flood zones can expect to be inundated when rainfall exceeds the storm drain capacity in the areas. Potential losses associated with these assets alone could exceed \$130 million. Electronic and mechanical equipment on the ground in these areas could also become waterlogged and nonfunctional. If underpasses beneath freeways and rail lines become flooded circulation Citywide could be impacted.

Additionally, as an inland community with coastally influenced drainage infrastructure, the City may also be subject to flooding from sea level rise, particularly in its northwestern corner along the San Diego Creek. To prevent this, the City has more than a dozen detention or retarding basins located on or adjacent to City drainages to reduce downstream erosion by storing water for a limited time.

In 2019, the City received the StormReady designation from the National Weather Service, recognizing the City's commitment to severe weather readiness – including floods - to help save lives, protect property, and enhance community resilience.

### **2.4.10 Threat Assessment 10: Hazardous Materials<sup>28</sup>**

#### General Situation

A hazardous material is any substance or combination of substances that, because of quantity, concentration, or characteristics, may cause or significantly contribute to death or serious injury, or poses a substantial hazard to humans and/or the environment. The production and use of hazardous materials is something over which local governments have little control.

Toxic chemicals in gaseous and liquid forms have injured emergency response personnel as well as passersby. Any toxic material that enters surface, ground, or reservoir water supplies, penetrates the skin, or is inhaled or ingested has serious health effects and may be fatal. Hazardous chemical releases are especially damaging when they occur in highly populated areas or along transportation routes used by both commuters and hazardous

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<sup>28</sup> See also LHMP page 101

materials haulers because, in addition to causing injury and death, they also require large-scale evacuations.

#### Specific Situation

California HSC Chapter 6.95, § 25502, and CCR Title 19, Public Safety, describe California's hazardous materials emergency planning and community right-to-know program. Counties are required to designate an agency to implement program provisions. In Orange County, Orange County Health Care Agency (OCHCA) manages the Hazardous Materials Disclosure, Business Emergency Plan, and California Accidental Release Prevention Programs. OCHCA maintains business plans for every business in the City handling a hazardous material in quantities equal to or greater than 500 pounds, 55 gallons, or 200 cubic feet of gas at Standard Temperature and Pressure, or federal extremely hazardous substances (California acutely hazardous materials) in excess of threshold planning quantities, at any one time. In addition, the following are reported regardless of the amount: explosives, highly toxic materials, commercial grade pesticide, and unsealed radioactive isotopes.

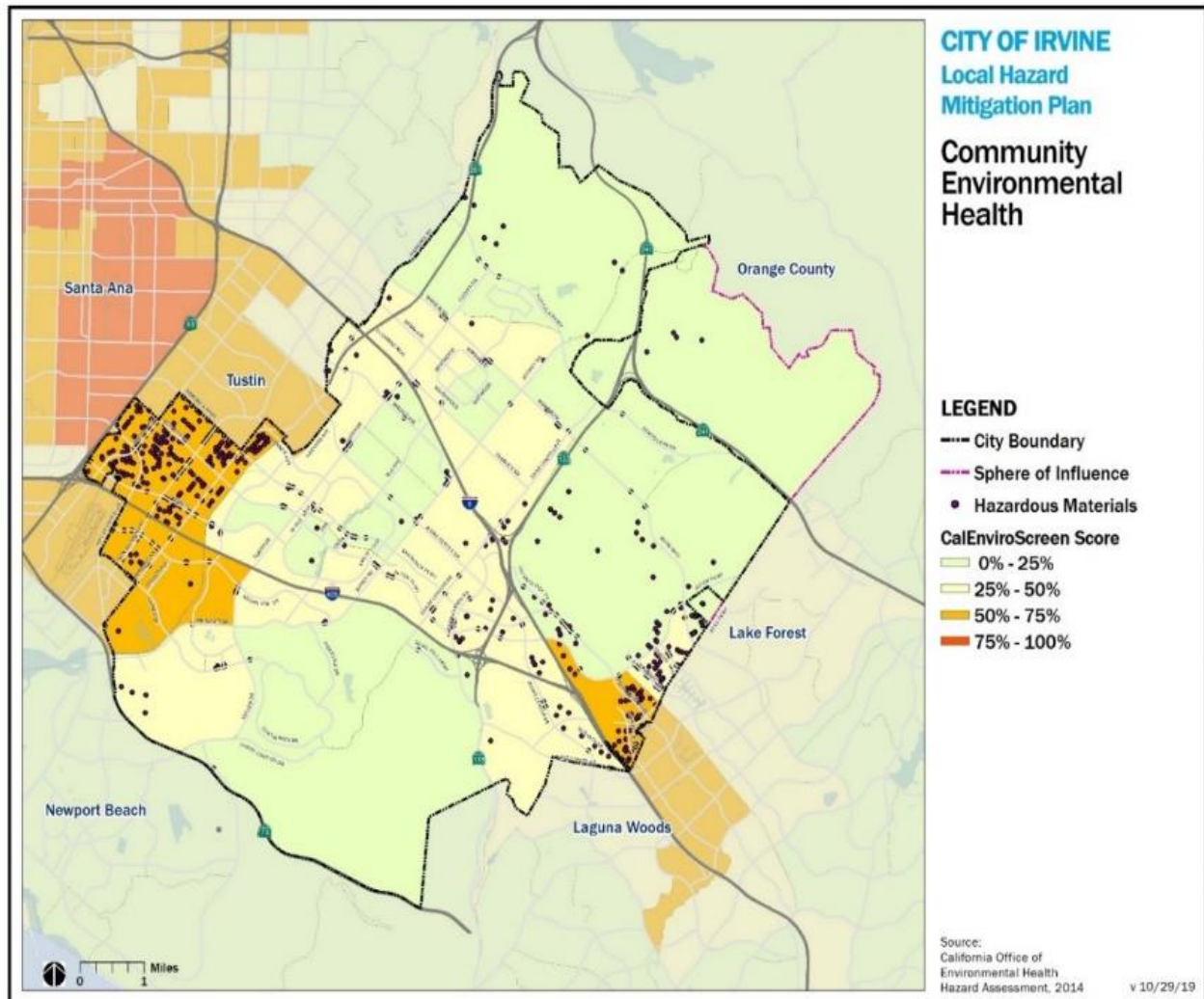
The gross inventory of hazardous materials by City businesses that have filed business plans/hazardous material disclosures consist of acids, solvents, petroleum products, anhydrous ammonia, and chlorine.

Two major freeways and a railroad, all major north-south transportation routes, traverse the City. CHP has designated I-405 an approved route for transporting hazardous materials. Due to the high traffic volume and the materials transported, there is a heightened risk of a transportation-related hazardous materials leak or spill in the City.

Illegal dumping of toxic materials and hazardous waste on public or private property is expected to increase proportionately to the rise in costs and restrictions at legal hazardous waste disposal sites.

In the event of a hazardous materials incident within City limits, OCFA will be the lead agency. IPD Dispatch will ask the Orange County Hazardous Materials Response Team to respond and the public safety and public works and transportation departments will support OCFA in containing and analyzing the situation and, if necessary, evacuating a threatened population.

**Map 7 - Community Environmental Health**



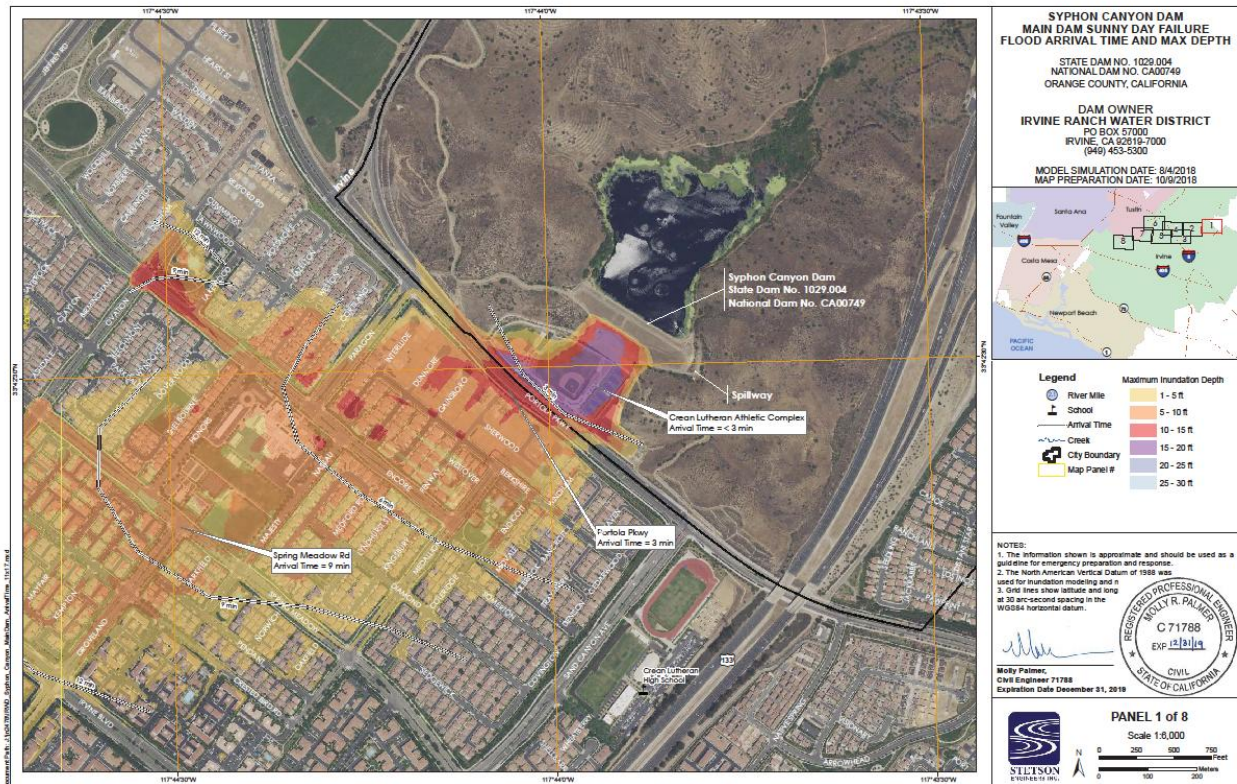
**2.4.11 Threat Assessment 11: Dam Failure<sup>29</sup>**

Dam failure results from seismic activity, landslide, or structural design flaw and may occur suddenly or gradually depending on its cause. In some cases, seismic activity and landslides produce a wave called a seiche that overtops the dam and causes flooding but does not cause the dam itself to fail. Harm from the resulting flooding may, depending on the amount of water released, the distance between the dam and structures, and the surrounding topography, include damaged property, displaced persons, and injuries and death.

<sup>29</sup> See also LHMP page 90



Map 8 - Syphon Canyon Dam Main Dam Sunny Day Failure



The hydrological condition most likely to precipitate dam failure is heavy rain that fills the dam, saturates the ground in the inundated area, and causes downstream channels to flow at full capacity.

**Specific Situation**

The extent to which persons and physical assets in the City are threatened in the event of dam breach depends, in part, on the capacity of the dam as well as on its location.

The seven dams/reservoirs identified at right – three within the City’s planning area; four outside City limits – could inundate areas of the City if they failed. All seven are in the Extremely High classification of the DSOD Downstream Hazard Potential Classification<sup>30</sup> meaning if they fail at maximum capacity the resulting damage and loss of life could be considerable. In 2018 the state passed AB-1270 Dams and reservoirs: inspections and reporting (WAT §6102.5)<sup>31</sup> requiring the Department of Water Resources to inspect all dams

- Dams with Inundation Potential**
- Rattlesnake Canyon Dam
  - Peters Canyon Dam
  - Santiago Creek Dam
  - Villa Park Dam
  - Syphon Canyon Reservoir
  - San Joaquin Reservoir
  - Sand Canyon Dam

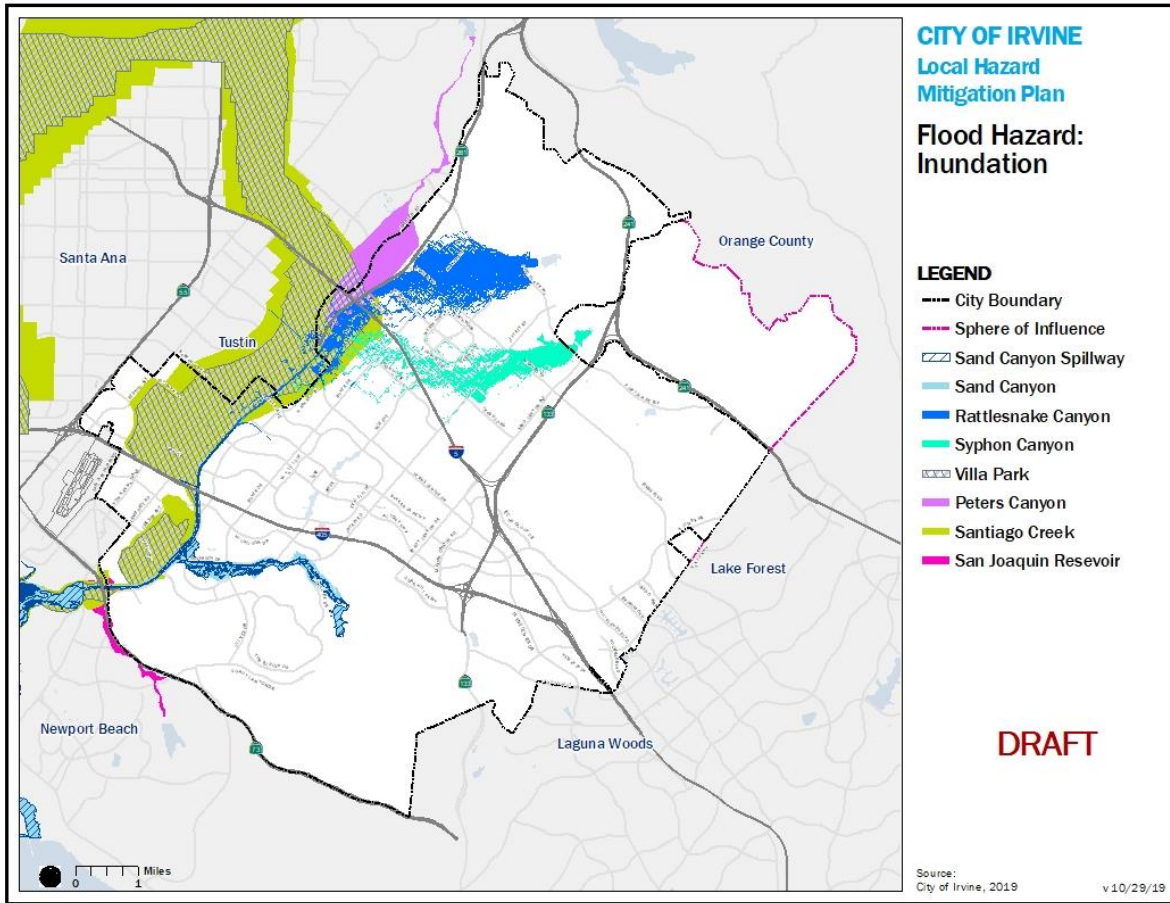
<sup>30</sup> See also LHMP page 36

<sup>31</sup> [https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\\_id=201720180AB1270](https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180AB1270)



and spillways and all operators to develop emergency action plans. The City played an active role in the latter.

### Map 9 - Dam Inundation Areas



Having performed well in past earthquakes, it is unlikely that Rattlesnake Canyon Dam, Sand Canyon Reservoir, or Syphon Canyon Reservoir would fail. Nonetheless, if Rattlesnake Canyon Dam or Villa Park Dam did fail, the resulting flood could affect 32 facilities in the City. The greatest potential loss – upwards of \$73 million, could occur if Santiago Dam fails. A Rattlesnake Dam failure would affect the most people; the Sand Canyon and Villa Park Dams would impact a higher percentage of persons with a disability – the former could potentially impact 42.1% of households with one member 65 or older.

In addition to residences and other City structures, floodwaters inundating downstream areas of the City would disrupt utilities – water, power, and heating – as well as communications or transportation infrastructure, particularly as most vulnerable facilities in the City are bridges. Street lighting and traffic signals may also be temporarily affected if the electronic systems controlling them are affected and any debris swept up by the flooding could block roads blocking traffic and impeding evacuations.

Response to a dam failure will depend in part on the controlling agency. For instance, Sand Canyon and Rattlesnake Reservoirs are owned by IRWD; Siphon Reservoir is owned by the Irvine Company. In addition, IPD and OCFA will establish a UC and the EOC will activate to support it.

## CHAPTER 3 - PREPAREDNESS

### 3.1 OFFICE OF EMERGENCY MANAGEMENT

The department of public safety's office of emergency management (OEM) coordinates the City's preparedness efforts for hazards that could impact the community including natural and human-caused disasters. The OEM works with all City departments having primary responsibility for specific response functions and ensures department-level plans and procedures are incorporated in the Plan and its Annexes. The OEM also maintains the EOC, trains emergency response staff and volunteers, and coordinates with OCOA, Cal OES, and FEMA.

#### 3.1.1 Planning

Emergency planning is the foundation on which training, exercises, and other emergency activities are built. It facilitates dialogue with internal and external stakeholders and fosters resource coordination, notification procedures, and policy-level decisions. It develops and maintains strong relationships with agency partners and key constituent groups essential to any response.

The City incorporates FEMA's all-hazards approach to emergency planning. Regardless of the type of threat or hazard, the same methodology and framework can be applied to a range of response and recovery operations; only the tactics and strategies required to meet the specific needs of each incident differ.

#### 3.1.2 Training

Training, a significant part of the City's overall Emergency Management Program, occurs annually in preparation for regularly scheduled drills and exercises. All City employees who may respond to the EOC, DOC, or in the field, must take appropriate SEMS, NIMS, and other specialized training to comply with state and federal law and make the City eligible for post-disaster assistance.

All new City employees are notified at orientation of the online FEMA courses they are required to complete. It is the responsibility of department supervisors to ensure their employees complete the courses and forward the certificates of completion to the OEM for retention.

All City employees must receive appropriate level NIMS training in keeping with their level of responsibility to ensure they understand emergency management concepts and principles. Many of the training classes are available online through the FEMA independent study program; however, some staff may be required to attend locally-hosted single or multi-day training. Following are the recommended training for various level staff:

### Entry Level



### First Line, Single Resource, Field Supervisors



### Middle Management: Strike Team Leaders, Division Supervisors, EOC Staff, etc.



### Command and General Staff; Area, Emergency and EOC Managers



#### 3.1.3 Exercises

The OEM regularly conducts emergency exercises in the EOC to test plans and provide staff hands-on opportunities to apply their training.

Hands-on exercises take three forms:

1. **Tabletop exercises** provide a convenient, low-cost way to evaluate procedures, organization, and responsibilities to confirm they effectively handle specific issues.
2. **Functional exercises** test and evaluate individual functions by simulating evacuation, communication, or public information events.
3. **Full-scale exercises** evaluate the operational competence of the entire emergency management system by simulating an actual emergency; they typically involve both field-level staff and all emergency management staff.

Annual Citywide, multiagency, or regional exercises ensure departments work together and with external organizations to complete emergency functions efficiently and cooperatively. The City may also participate in larger scale exercises coordinated by outside agencies including OCEMO, OCHCA, OCFA, or ARC.

In addition, DOC coordinators, in conjunction with the OEM, organize internal exercises for their staff as needed.

#### 3.1.4 Asset Management

The OEM oversees the Irvine Police Department Technical Reserve Officer program, responsible for coordinating the operation and maintenance of specialty fleet assigned to emergency management including the mobile command post vehicle, the mobile communications vehicle, and the mobile power trailer. The program is staffed by reservist

employees whose unique skill sets qualifies them to keep these large, expensive assets technologically up-to-date and in a constant state of operational readiness.

### 3.1.5 Public Education and Community Preparedness

A community educated about and prepared for an emergency is crucial to the success of public information and response efforts during and after an emergency. The Prepare Irvine presentation coordinated by the OEM and delivered by trained volunteers, all of whom are Community Emergency Response Team (CERT) graduates, emphasizes the importance of community emergency preparedness and gives attendees steps they can take to be prepared. The program is offered free to any community group and can be tailored to a specific group or audience by request. Members of the community may schedule a Prepare Irvine presentation by contacting the OEM or by completing and submitting the online form at [cityofirvine/prepare](http://cityofirvine/prepare).

### 3.1.6 Wildfire Readiness Campaign

Every summer, in preparation for the fall fire season, the City partners with OCFA to conduct extensive community wildfire readiness outreach using the *Ready, Set, Go!* campaign - posting banners in high fire risk areas, delivering presentations at town hall meetings, engaging citizens at community events with handout materials, and mailing informational brochures about emergency alerts, evacuation zones, personal preparedness, vegetation management, and home-hardening recommendations.



### 3.2 CERT

The City provides this community-based volunteer program and component of DHS, FEMA, and Citizen Corps, in conjunction with OCFA. The training, offered in both English and Mandarin, includes basic skills critical in disaster response - light search and rescue, fire suppression, medical operations, disaster psychology, and team organization – and provides a positive, realistic approach to dealing with emergency and disaster situations. It prepares citizens to help themselves, their families, and their neighbors in the event of a disaster. Emphasizing readiness, people helping people, rescuer safety, and doing the greatest good for the greatest number, the over 2,000 Irvine CERT graduates - including teens and City employees - can save lives and protect property in our community. More information on CERT can found [here](#).





### 3.3 IDEC

Irvine Disaster Emergency Communications (IDEC), organized in 1982 and operating under the authority of IPD, is a volunteer organization of over 50 licensed amateur radio operators skilled in disaster response functions and emergency communications. Using state-of-the-art radio equipment, IDEC members can immediately establish and maintain a lifeline communications network between IPD and City evacuation centers, schools, public buildings, medical facilities, local parks, and other locations when normal communication channels fail.



IDEC members undergo continual training to hone both their radio operator skills and to perform routine duties police and fire personnel might not be able to perform due to overriding obligations during a catastrophic event. In-depth information about IDEC is available [here](#).

### 3.4 WHOLE COMMUNITY APPROACH

To paraphrase former FEMA Administrator Craig Fugate, while government will always serve disaster survivors, a government-centric approach to managing emergencies can no longer meet all the challenges catastrophic incidents pose.<sup>32</sup> To address this, in 2011, FEMA and the CDC Foundation developed the Whole Community approach to emergency management. Now incorporated in the City's emergency planning, this approach emphasizes developing societal security and resilience by fully engaging the public and private sectors and the general public in its disaster planning to ensure all facets of our City's complex diversity are included.

This approach also takes into consideration the effects of on-going population shifts into vulnerable areas, the needs of residents with disability, access, and functional needs (DAFN), persons in institutional or care facilities, those with chronic conditions or with limited or no English, children, the elderly, and the transportationally

#### City's DAFN Commitment

City will, when necessary and feasible:

- Make reasonable modifications to policies, practices, and procedures to ensure programmatic and architectural access to DAFN persons
- Shelter DAFN persons with family, friends, and/or neighbors in the most integrated setting possible
- Accommodate evacuation requirements for DAFN persons
- Make timely requests to the Orange County Operational Area to provide resources to support DAFN populations during emergencies.

City will not:

- Prevent access to services or facilities based on disability
- Exclude or deny any benefits based on disability, access, or functional need

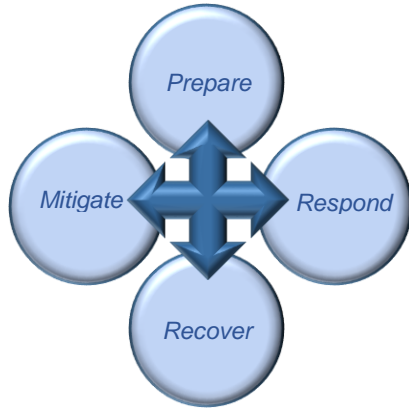
<sup>32</sup> FEMA Administrator Craig Fugate before the U.S. House Transportation and Infrastructure Committee, Subcommittee on Economic Development, Public Buildings, and Emergency Management at the Rayburn House Office Building, March 30, 2011.

disadvantaged who may require specialized response assistance before, during, and after an incident.

To insure our DAFN population receive appropriate preparedness, response, and recovery information and support, the City offers a variety of CERT programs (see 2.4 CERT, above), ensures emergency alerting methods and public information messages are available to the DAFN population, and complies with the Americans with Disabilities Act.

## CHAPTER 4 - RESPONSE STRUCTURE FUNDAMENTALS

### 4.1 EMERGENCY MANAGEMENT PHASES



Until 1979 when FEMA was implemented, disaster relief was piecemeal - single events or categories of events were dealt with as they arose - and poorly organized. Recognizing that disasters of whatever type share a number of common features, the five federal agencies united to form FEMA shifted the emphasis from specialized preparedness to an all-hazards approach summarized in four phases of emergency management: preparedness, response, recovery and prevention/mitigation. This shift has come to characterize the foundation of emergency management plans across all levels of government as well as in the public and private

sectors. Today, response to any emergency, from relatively minor incidents to large scale disasters is streamlined and the country's resiliency heightened.

The City has fully embraced the all-hazards approach. The emergency response phases, discussed in detail in the sections following, form the foundation of the Plan to ensure all City departments, partner agencies, stakeholders, and the public are prepared to promptly, confidently, and effectively respond to an emergency.

#### 4.1.1 Prevention-Mitigation Phase

##### Prevention

Prevention includes any activity, task, program, and system intended to avoid or stop an incident from occurring. It applies to both intentional and unintentional human-caused incidents which can be prevented by applying intelligence and other information to a wide range of activities.

##### Mitigation

The goal of disaster mitigation, both before and after a disaster, is to reduce or eliminate the overall risk of injury and loss of life, and alleviate damage to and destruction of property and structures.

#### Some Prevention Activities

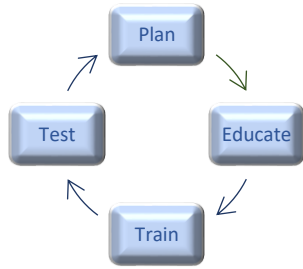
- Heightened inspections
- Improved surveillance and security
- Investigations to determine the nature and source of the threat
- Law enforcement operations aimed at:
  - Deterrence
  - Preemption
  - Interdiction
  - Disruption

#### Some Mitigation Tools

- Local ordinances and statutes including zoning ordinances, building codes, and enforcement
- Vegetation Management
- Structural upgrades
- Public information and community relations
- Land use planning

### 4.1.2 Preparedness Phase

Preparedness activities are those taken before an emergency to develop operational capabilities and effective responses. They include developing an emergency plan, training and exercises, public education and awareness, and testing communication systems. Departments and positions identified in the Plan as having either a primary or a support response and recovery role should prepare a Dept. SOP and position checklists, policies, notification rosters, and resource lists. Personnel should be familiar with their Dept. SOP and checklists through periodic activation and execution training.



Preparedness activities implement provisions of the California Emergency Services Act (ESA), the California Master Mutual Aid Agreement (CMMAA), and the State Emergency Plan, and fall into two basic areas: readiness and capability.

**Readiness Activities** – Shape the framework and basic knowledge needed to complete assignments and objectives.

**Capability Activities** – Acquiring equipment and resources necessary to respond effectively.

### 4.1.3 Response Phase

Emergency response includes increased readiness, initial response, and extended response activities.

#### **Increased Readiness**

When City staff is warned of or sees that an emergency situation is imminent or likely, they will initiate actions to increase readiness that include:

- Preparing a Council Advisory
- Briefing the City Manager and other key City staff
- Developing event action plans
- Reviewing the Plan and Dept. SOP
- Preparing public information
- Accelerating training for permanent and temporary employees and volunteers
- Inspecting critical facilities and equipment, and testing warning and communications systems

#### Some Readiness Activities

- Implement hazard mitigation measures
- Develop hazard analyses
- Develop and maintain emergency plans and procedures
- Conduct general and specialized training
- Develop mutual aid agreements
- Improve emergency public education and warning systems

#### Some Capability Activities

- Assess the City and its resources
- Compare and analyze anticipated resource requirements against available resources
- Identify local sources to meet anticipated resource shortfalls
- Install new radio systems with more channels and frequencies
- Purchase new response vehicles, personal protective equipment, etc.

- Recruiting additional staff and disaster service workers (DSW)
- Warning at-risk population members
- Conducting precautionary evacuations in potentially impacted areas
- Mobilizing personnel and pre-positioning resources and equipment
- Contacting county, state, and federal agencies that may be involved in field activities

Some events that may trigger increased readiness activities:

- A watch, warning, or advisory for:
  - Flood
  - Red flag
  - Tsunami
  - Reservoir or dam failure
- An expanding hazardous materials incident
- A rapidly-deteriorating international situation that could lead to an attack on the United States
- An indication of the potential for acts of violence or civil disturbance
- A change in the National Terrorism Advisory System

Initial Response

The City’s initial response activities occur primarily in the field and emphasize saving lives, stabilizing the incident, and protecting property.

Extended Response

Primarily conducted in the EOC, extended response operations involve coordinating and managing personnel and resources to mitigate the emergency and facilitate the transition to recovery operations.

In addition to continuing many initial response activities, extended response activities include:

- Preparing detailed damage assessments
- Coordinating mass care facilities
- Managing vital resources
- Supporting utility restorations
- Beginning advance planning
- Documenting expenditures

Sample Initial Response Activities

- Notify City departments and staff, EOC staff, stakeholders, and the OA
- Broadcast warnings, emergency public information, and instructions Citywide
- Establish an Incident Command Post (ICP) or Unified Command
- Activate DOC
- Conduct evacuations and/or rescue operations
- Care for displaced persons; treat the injured
- Conduct initial damage assessments and surveys
- Assess the need for mutual aid
- Restrict unnecessary access to affected areas
- Develop and implement incident action plans.



Depending on the severity of the emergency, a local emergency may be proclaimed – triggering activation of the City EOC and notification of the OA EOC and Cal OES – and the Cal OES director may ask the governor to proclaim a state of emergency authorizing state agencies to respond to local assistance requests to the extent possible.

When local resources are fully committed and additional resources are required, the City can request mutual aid through the OA. If the City’s request is for financial or military assistance, the request must be authorized by the appropriate local official. If required, Cal OES will coordinate establishing one or more disaster support areas where resources and supplies are received, stockpiled, allocated, and dispatched to operations in the affected area(s).

For large-scale regional incidents, Cal OES can activate the State Operations Center (SOC) in Sacramento. In addition to coordinating and supporting operations in affected areas, it may itself be supported by activating the state’s Region I EOC. The Cal OES director assists the governor direct and coordinate state agencies’ response activities and local governments’ response and recovery activities.

If the governor requests and receives a presidential declaration of emergency or major disaster under provisions of the Robert T. Stafford Disaster Relief and Emergency Assistance Act<sup>33</sup>, (Stafford Act), a state coordinating officer (SCO) will be appointed who, in conjunction with a federal coordinating officer (FCO), will coordinate state and federal efforts to support city and county operations.

#### **4.1.4 Recovery Phase**

##### **Short-term Recovery**

As activities transition from response to recovery, the affected population has reliable places to get food and water, has temporary or transitional shelter, and is beginning to resume a normal existence but is far from fully recovered. In this phase, health and safety needs other than rescue as well as damages are assessed, community needs are identified, and initial recovery resources are mobilized.

Depending on the type, size, and scope of the incident, short-term recovery operations typically last up to three months and overlap both the initial emergency response and intermediate-term recovery. The City’s key objective during short-term recovery is to restore the community and government to basic-level functioning, e.g., students attending classes in temporary accommodations, while preventing additional service interruptions.

##### **Intermediate-term Recovery**

During this phase, most essential services are restored, but life, although beginning to feel stable, is still far from its pre-disaster state. Ongoing activities are transitional – building or restoring infrastructure to replace tents, trailers and other temporary housing – and restoring social structures. Displaced residents may still be living in temporary

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<sup>33</sup> P.L. 100-707, November 23, 1988

housing but continue attempting to function normally, e.g., attending classes in school buildings, going to work, fulfilling life responsibilities, etc., and government services have resumed on a limited basis and in unconventional formats: at alternate sites, using web-based services, etc.

Intermediate recovery lasts from one to six or more months and typically overlaps both short and long-term recovery efforts.

### Long-term Recovery

Now comprehensive recovery efforts focus on completely restoring and revitalizing the impacted area with an emphasis on rebuilding damaged or destroyed social, economic, natural and built environments, and transitioning the community to self-sufficiency, sustainability, and resilience.

The transition from intermediate to long-term recovery is gradual and may last from a few months to many years. During this time, a significant number of long-term recovery initiatives align and overlap with future mitigation efforts, e.g., building repairs that include seismic retrofit upgrades to move the City into a future of institutional resilience.

Depending on the nature and impact of the disaster, recovery activities may include but are not limited to:

- Restoring utilities and infrastructure
- Applying for state and federal assistance programs
- Conducting hazard mitigation analyses
- Identifying residual hazards
- Determining and recovering response and recovery associated costs

## **4.2 NIMS AND SEMS OVERVIEW**

Government's response to an emergency requires both continuity of day-to-day governmental duties and emergency management operations carried out by departments and staff assigned specific emergency functions. SEMS and NIMS, based on the Incident Command System (ICS), provide response structures that enable the government response to coordinate efficiently with internal and external response partners and makes responding entities eligible for state and federal post-disaster assistance.

### **NIMS**

Communities nationwide are at risk for a variety of incidents. NIMS allows government, private sector, and NGO to collaboratively prevent, protect against, mitigate, respond to, and recover from them by providing a common vocabulary, systems, and processes. During domestic incidents,

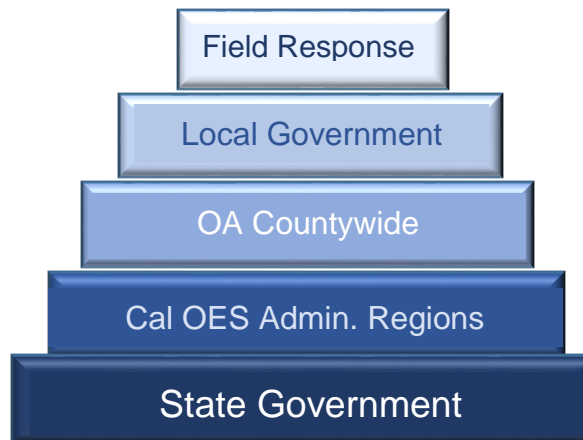
#### NIMS Key Components

1. Preparedness
2. Communication & information management
3. Resource management
4. Command & management
5. Continuing management & maintenance

agencies can share resources, strategize cooperatively, and interact to save lives, mitigate risk and protect property and the environment.

### SEMS

Required by Cal. Gov. Code § 8607(a) and adopted by the City, SEMS unites the emergency management community in one integrated system. It facilitates the exchange and use of information and coordination between all levels of government and among all responding agencies by standardizing key response elements. Local government can determine appropriate staffing needs to respond effectively to an emergency without compromising normal government services and operational continuity. Cal. Reg. Code Title 19, Chap. 1, Div. 2, establishes the standard response structure and basic protocols for emergency response and recovery.



### SEMS ACTIVATION LEVELS

## 4.3 SEMS ORGANIZATIONAL LEVELS

### 4.3.1 Field Response Level

Using ICS emergency command field functions, field emergency response personnel act at the direction of an appropriate authority to carry out tactical decisions and activities during an incident or threat.

### 4.3.2 Local Government Level

Local governments, including cities, counties, and special districts, manage and coordinate the overall emergency response and recovery activities in their jurisdiction and among their field responders. Local governments are required to use SEMS when their EOC or DOC are activated or when a local emergency is declared eligible for state reimbursement of response-related personnel costs. The SEMS local government emergency management organization and its relationship to the field response level may vary depending on geographical size, population, function, and complexity. Local

jurisdictions are responsible for the overall direction of their personnel and equipment provided through mutual aid (Cal. Gov. Code § 8618).

To comply with SEMS requirements, local governments must provide management, operations, planning/intelligence, logistics, and finance/administration emergency response functions. Additional information about organization and staffing responsibilities under SEMS affecting the City EOC are in Chapter 4.

### 4.3.3 Operational Area (OA) Level

Under SEMS, the OA is defined in the ESA as an intermediate level of the state's emergency services organization, which consists of a county and all the political subdivisions in the county. Political subdivisions include cities, a city and county, counties, special district or other local governmental agency, or public agency as authorized by law. The OA is responsible for:

- Coordinating priorities, information, and resources among local governments in the OA
- Coordinating resources, priorities, and information between regional and local government levels
- Using multiagency or interagency coordination to facilitate decisions for overall OA level emergency response activities

#### OA Activation is Required When

- A local government in the OA activates and asks the OA EOC to activate to support its response
- Two or more cities in the OA proclaim a local emergency
- The county and one or more cities proclaim a local emergency
- A city, city and county, or county requests a governor's proclamation of a state of emergency as defined in Cal. Gov. Code §8558(b)
- The governor proclaims a state of emergency for the county or for two or more cities in the OA
- The OA requests resources not normally used in day-to-day operations through existing mutual aid agreements outside its boundaries

SEMS regulations require each county's board of supervisors to establish a single OA encompassing all local governments in its geographic area. The County of Orange is the lead agency for the Orange County OA, which includes the City.

If the OCOA EOC is activated, a DES or an OA coordinator will, depending on the type of hazard, be appointed and will have overall responsibility for coordinating resources on behalf of OA members and supporting emergency operations in the county.

### 4.3.4 Regional Level

Because of its size and geography, California has been divided into six mutual aid regions to provide for more effective application and coordination of mutual aid and other emergency related activities. The regional level manages and coordinates information and resources among OAs in the mutual aid region and between the OA and state. It also coordinates overall state agency support for emergency response activities in the region.

Cal OES has also established three administrative regions: coastal, inland, and southern, which allow it to maintain day-to-day contact with local emergency services organizations to improve coordination between state, county, and city jurisdictions. The City and Orange County are in the southern administrative region.

#### **4.3.5 State Level**

SEMS manages state resources in response to the emergency needs of the local and regional levels and coordinates mutual aid among the mutual aid regions and between the regional and state levels. The state level is also the coordination and communication link between the state and federal disaster response systems and to other states through the Emergency Management Assistance Compact.

### **4.4 FEDERAL RESPONSE STRUCTURE**

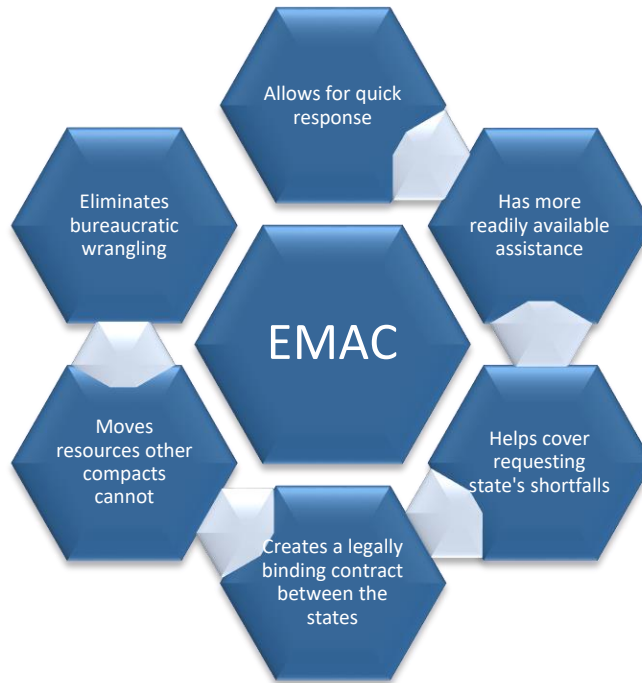
#### **4.4.1 Emergency Management Assistance Compact (EMAC)**

A congressionally ratified organization, EMAC provides form, structure, and procedures for delivering emergency state-to-state assistance. After the governor declares a state of emergency, California can request and receive reimbursable assistance through EMAC from other member states quickly and efficiently without fear of incurring liability. The secretary of Cal OES and the state's EMAC coordinator facilitate requests for assistance under EMAC.

#### **4.4.2 The Stafford Act**

The Stafford Act empowers the governor, when state and political subdivisions have exhausted their resources and can no longer support the local response, to request a presidential declaration of emergency or major disaster from the federal government. In addition to the declaration, the president can also, where appropriate, assign supplemental emergency preparedness and operating responsibilities to other federal agencies to support the local response by executive order. FEMA, a DHS component, coordinates the federal response.





Before the governor requests a presidential declaration of emergency or major disaster, Cal OES will request a joint FEMA/Cal OES preliminary damage assessment, estimate the types and extent of federal disaster assistance requested, and consult with FEMA's regional administrator.

The governor's written request for federal assistance must include the local emergency proclamation, the state emergency proclamation, a description of emergency-caused needs exceeding state and local capabilities, a description of committed state and local resources, preliminary estimates of supplemental federal assistance required, and certification of compliance with Stafford Act cost-sharing requirements.

When the presidential declaration is made, the governor, members of congress, and federal departments and agencies are notified directly. The governor and FEMA's regional administrator execute a FEMA-state agreement that outlines how federal aid under the Stafford Act will be made available, specifies areas in California that are eligible for assistance, details any division of costs among federal, state, and local governments, and designates the period officially acknowledged as the event's duration.

FEMA's director appoints an appropriate FEMA or other official as the FCO who formulates an initial appraisal, directs all federal disaster assistance programs, coordinates – with their consent - with private relief organizations, and establishes a temporary joint field office (JFO) in the affected area to coordinate the relief and recovery effort with the state.

In anticipation of or during an emergency that may require federal support beyond the local federal jurisdiction, FEMA will activate its regional response coordination centers in

Oakland and deploy a liaison to the state EOC or SOC. Depending on the magnitude of the emergency, FEMA and DHS may also activate the nationwide system for moving federal resources and, working with other federal agencies, begin deploying those resources to federal facilities in the affected area in anticipation of the governor's request for assistance.

#### **4.4.3 Emergency Support Functions (ESF)**

As described in the NRF, the federal government organizes the resources and capabilities of a number of federal agencies and of certain private sector and NGO under fifteen ESF which include:

##### ESF #1: Transportation Annex

Assists local, state, and federal government entities, voluntary organizations, NGO, and the private sector manage transportation systems and infrastructure during a domestic threat or in response to an actual or potential incident.

##### ESF #2: Communications Annex

Supports restoring communication infrastructure, coordinates communication support to response efforts, facilitates delivering information to emergency management decision makers, and helps to stabilize and reestablish systems and applications.

##### ESF #3: Public Works and Transportation and Engineering Annex

Coordinates federal resources to facilitate delivery of multiple core capabilities.

##### ESF #4: Firefighting Annex

Provides federal support to detect and suppress wildland, rural, and urban fires resulting from or occurring coincidentally with, an all-hazard incident requiring a coordinated national response.

##### ESF #5: Information and Planning Annex

Collects, analyzes, processes, and disseminates information about a potential or actual incident, and conducts crisis action planning to facilitate overall activities that assist the community.

##### ESF #6: Mass Care, Emergency Assistance, Housing, and Human Services Annex

Coordinates and provides life-sustaining resources, essential services, and statutory programs when disaster survivors' needs exceed local, state, and local government capabilities.

##### ESF #7: Logistics Management and Resource Support Annex

Integrates whole community logistics incident planning and support for timely, efficient delivery of supplies, equipment, services, and facilities, and expedites comprehensive logistics planning, technical assistance, training, education, exercise, incident response, and maintenance that leverage the abilities and resources of federal logistics partners, public and private stakeholders, and NGO to support both responders and disaster survivors.

ESF #8: Public Health and Medical Services Annex

Provides the mechanism for federal assistance to supplement local and state resources in response to a disaster or event that may cause a public health, medical, behavioral, or human services emergency, including those with international implications.

ESF #9: Search and Rescue (SAR) Annex

Deploys federal SAR resources to provide assistance to local and state authorities, including local SAR coordinators and mission coordinators when there is an actual or anticipated request for SAR aid.

ESF #10: Oil and Hazardous Materials Response Annex

Provides federal support in response to an actual or potential discharge of oil or hazardous materials.

ESF #11: Agriculture and Natural Resources Annex

Organizes federal support to protect the nation's agricultural, natural, and cultural resources during a national emergency. Provides nutrition assistance, responds to animal and agricultural health issues, provides technical expertise, coordinates and supports animal and agricultural emergency management, ensures the safety and defense of the nation's supply of meat, poultry, and processed egg products, and ensures the protection of natural and cultural resources and historic properties.

ESF #12: Energy Annex

Supports the DHS by assisting local and state government entities, NGO, and the private sector coordinate government resources, services, technical assistance, and engineering expertise during disasters and incidents requiring a coordinated federal response.

ESF #13: Public Safety and Security Annex

Provides federal public safety and security assistance to local and state organizations overwhelmed or expected to be overwhelmed by an actual or anticipated natural or manmade disaster or act of terrorism.

ESF #14: Long-term Community Recovery Annex

Provides a mechanism for coordinating federal support to state and local governments, NGO, and the private sector to assist the community recover from the long-term consequences of extraordinary disasters by identifying and facilitating the availability and use of recovery funding sources, and providing technical assistance like impact analyses for community recovery and recovery planning.

ESF #15: External Affairs Annex

Provides accurate, coordinated, timely, accessible information to affected audiences including governments, media, private sector, and the local population including children, DAFN individuals, and those with limited English proficiency.

#### **4.5 STATE RESPONSE STRUCTURE AND MUTUAL AID**

The CMMA, provided for in the ESA, is the foundation of California’s emergency planning and response. Adopted by the state, all 58 counties, and most incorporated cities, it provides a formal structure that allows each jurisdiction to retain control of its facilities, personnel, and resources while receiving or providing aid to state jurisdictions whose resources cannot cope with an incident.

##### **4.5.1 Mutual Aid System**

Operating within the CMMAA framework, the statewide mutual aid system moves resources to and from emergency response agencies, local governments, OAs, regions, and the state to provide resources to requesting agencies. It includes several discipline-specific mutual aid systems including fire and rescue, law enforcement, medical and mental health, public works and transportation, and emergency management. Adopting SEMS does not alter existing mutual aid systems which work with SEMS at local government, OA, regional, and state levels.

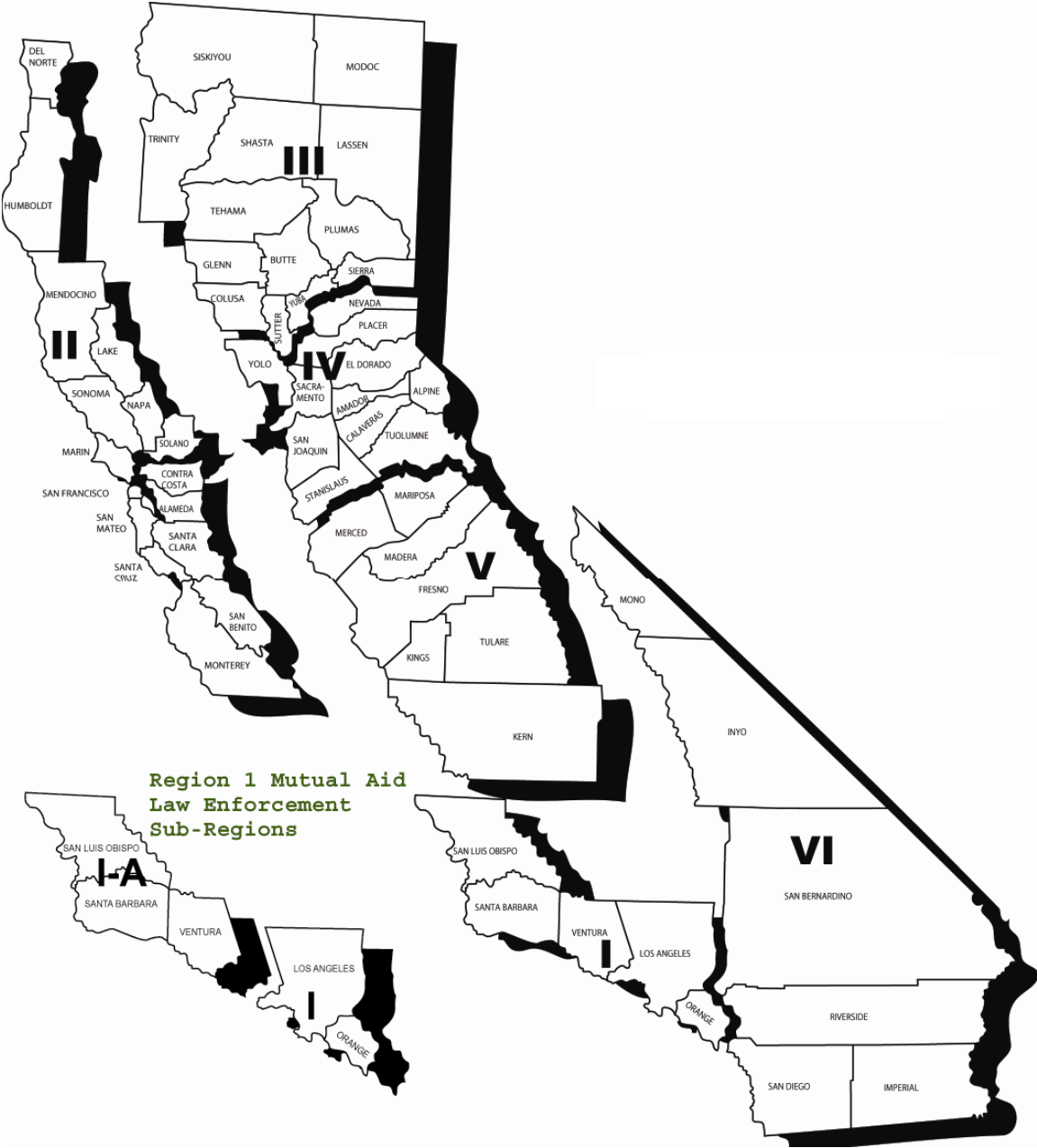
Interstate mutual aid is also available through direct state-to-state contacts, interstate agreements and compacts, or federal agencies.

##### **4.5.2 Mutual Aid Region**

Established by the governor under the ESA, California’s 58 counties are divided into six mutual aid regions. The City is in Region I, part of the Cal OES southern administrative region. Each county is an OA that coordinates between the county, cities, and special districts and the Cal OES region.

If an incident’s magnitude requires the Cal OES regional emergency operations centers (REOC) to activate, the Cal OES regional administrator becomes the regional EOC director and facilitates mutual aid among OA in the jurisdiction.

Map 10 - Mutual Aid Regions



**4.5.3 Mutual Aid Coordinators**

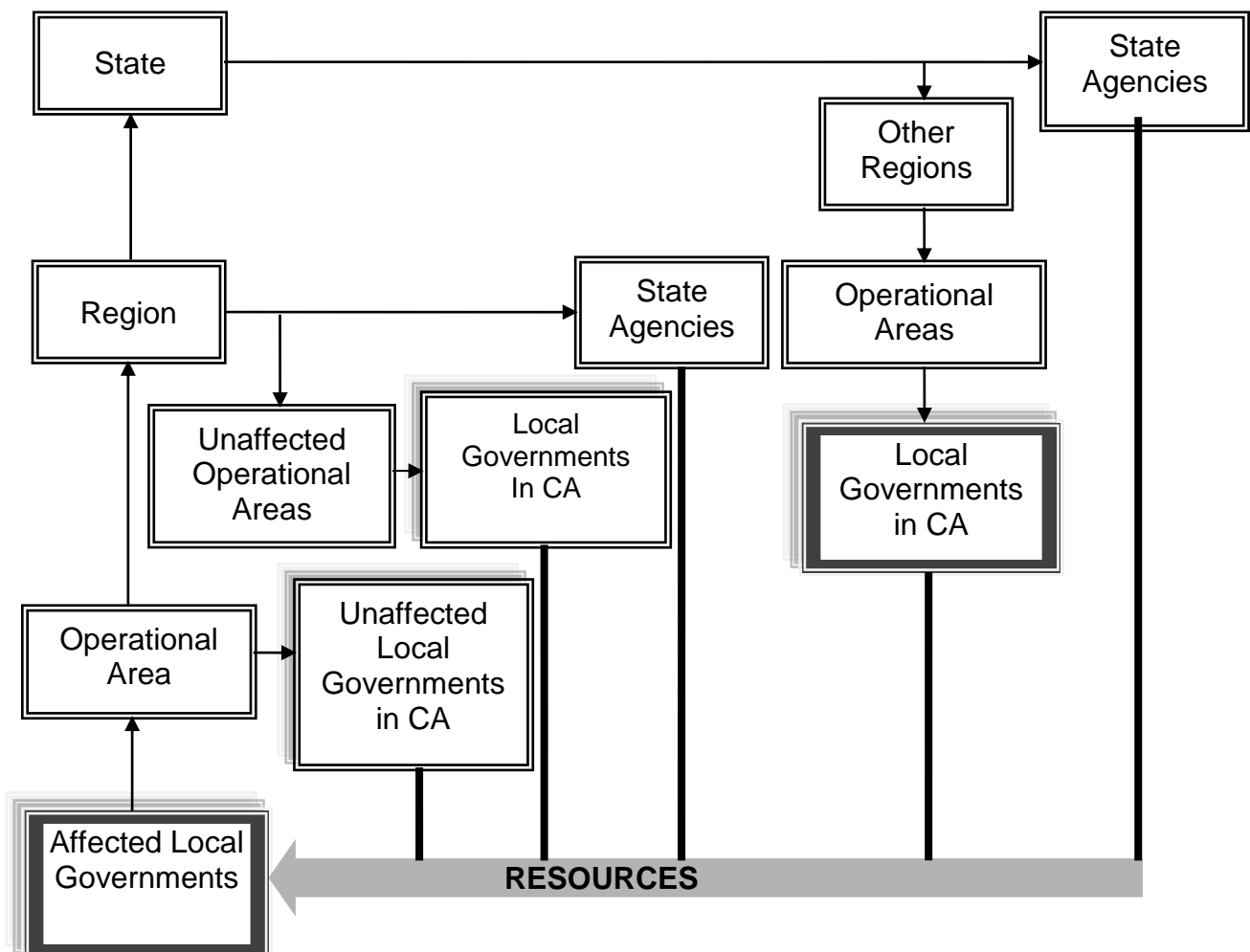
Working from an EOC, their usual work location, or another location depending on the circumstances, designated mutual aid coordinators at OA, regional, and state levels facilitate mutual aid requests in their jurisdictions that are not discipline-specific mutual aid requests and forward unfilled requests to the next level.

When EOCs are activated, all activated, discipline-specific mutual aid systems should coordinate and communicate with it.



- OA EOC activation: OA mutual aid system representatives should be at the OA EOC to assist coordinating and disseminating information and may operate in EOC sections, branches, groups, or units, or as an agency representative depending on the EOC organization and activation level.
- Cal OES REOC activation: Regional mutual aid coordinators should have representatives in the REOC unless it is mutually agreed that coordination can be handled by telephone. State agencies may be asked to send representatives to the REOC to assist Cal OES regional staff handle mutual aid requests for disciplines or functions without designated mutual aid coordinators.
- SOC activation: State agencies with mutual aid coordination responsibilities will be asked to send representatives to the SOC.

**Chart 1 - Mutual Aid System Concept: General Flow of Requests and Resources**



#### 4.5.4 Orange County Operational Area (OCA)

The OCA is comprised of county and local governments and special districts in the county. During a state of emergency or a state of war emergency, OAs are required to

coordinate resources, priorities, and information, and to coordinate and communicate with the state mutual aid system.

SEMS requires local governments requesting reimbursement of personnel-related response costs to use the OA during emergencies. Orange County cities become reimbursement-eligible by signing the OCOA Agreement, which obligates them to participate in SEMS and OCOA. The City signed the OCOA Agreement in December 1995.

#### **4.5.5 Non-Governmental Organizations (NGO), Volunteer, and Private Agency Participation**

NGO, volunteer, and private agencies may also participate in the mutual aid system. For example, the disaster medical mutual aid system relies heavily on NGO involvement for medical/health resources.

Volunteer agencies including ARC, Salvation Army, and others, are an essential element of the statewide emergency response to the needs of disaster victims. These agencies mobilize volunteers and other resources through their own systems. When those systems cannot meet all an agency's resource requests, the agency may request resources through the mutual aid system. Volunteer agencies with extensive involvement in emergency response should be represented in the EOC.

A number of private agencies have established mutual aid arrangements with other private agencies in their functional area. Electric and gas utilities have mutual aid agreements in their industry and procedures for coordinating with government EOCs. In some functional areas, services are provided by a mix of special district, municipal, and private agencies. These mutual aid arrangements may include both government and private agencies.

The City designates a liaison officer as the official link between its activated EOC and responding private agencies. When there is a need for extensive coordination and information exchange, private agencies should be represented in the EOC at the appropriate SEMS level.

## 4.6 LOCAL RESPONSE STRUCTURE

### 4.6.1 Peacetime Emergencies

The City's response to natural, human-caused, or technological incidents will be driven by the disaster type and magnitude. Involvement in a major peacetime emergency generally progresses from local to county, state, and federal levels. For planning purposes, the City follows the Cal OES/SEMS three level emergency response to peacetime emergencies based on the severity of the situation and availability of local resources. These levels are discussed in detail in Chapter 5.



### 4.6.2 National Emergencies

National emergencies range from minor inconveniences like food and fuel shortages to worst-case scenarios – chemical, biological, radiological or nuclear weapon attacks on the United States. Local control over safety policies impacting the community during some national emergencies – like the COVID-19 pandemic – differ from control over other emergencies and in those instances, the City will comply with state and federal orders while lessening their unintended impacts on the community where possible.

## 4.7 EMERGENCY PROCLAMATIONS

### 4.7.1 Local Emergency

When there is an actual or threatened disaster or an event posing extreme peril to the safety of persons and property in the City, either the Mayor and City Council, or the City Manager as specified by an ordinance adopted by the City Council, may proclaim a local emergency. If the city manager proclaims a local emergency, the City Council must ratify it in seven days and must review the need to extend it at least every 14 days until the local emergency is over and a resolution terminating the local emergency proclamation is issued.

Issuing a local emergency proclamation gives the City legal authority to:

- Ask the governor to proclaim a state of emergency if necessary
- Issue or suspend orders and regulations necessary to protect life and property including orders or regulations imposing a curfew in designated boundaries
- Provide mutual aid to any affected area according to local ordinances, resolutions, emergency plans, or agreements
- Ask state agencies and other jurisdictions to provide mutual aid

- Require the emergency services of any local official or employee
- Requisition necessary personnel and materials from any City department
- Acquire or, if necessary, commandeer vital supplies and equipment from area businesses
- Impose penalties for violating lawful orders
- Conduct emergency operations without incurring legal liability for performing or failing to perform. (See Chapter 7, Article 17 of the ESA for privileges and immunities.)

#### **4.7.2 State of Emergency**

When a disaster is imminent or has occurred, the governor may declare a state of emergency to supplement local resources necessary to prevent or alleviate damages, injuries, and suffering. The governor may exercise all constitutionally vested police powers; suspend state agency orders, rules or regulations; commandeer private property or personnel other than media personnel to carry out the responsibilities of the office; and may issue and enforce orders and regulations required to cope with the incident. Declaring a state of emergency also makes mutual aid available as needed according to approved emergency plans.

#### **State of War Emergency**

If the governor proclaims a state of war emergency or if a state of war emergency exists, all provisions associated with a state of emergency apply and all state agencies and political subdivisions must comply with the governor's lawful orders and regulations made or given in the limits of his or her authority as provided for in the ESA.

#### **4.7.3 Presidential Declaration of Emergency or Major Disaster**

The Stafford Act specifies two types of disaster declarations: emergency declarations and major disaster declarations. While both declarations authorize the president to provide supplemental federal disaster assistance, the magnitude of the events and the assistance available under each type differ.

#### **Emergency Disaster Declaration**

An emergency is any event the president determines requires federal assistance to supplement state and local efforts and resources to save lives, protect property, and public health and safety, or lessen or avert the threat of a catastrophe. The governor's request for an emergency disaster declaration must be made within 30 days of the event occurring, must be based on a finding that the response is beyond the state's ability to respond without supplemental federal emergency assistance, and must include a description of:

- Appropriate acts the governor has taken and confirmation that the state's emergency plan has been implemented
- State and local efforts and resources used to mitigate the emergency
- Any other federal agency efforts or resources used in the response, and
- The type and extent of federal assistance needed

### Major Disaster Declaration

A major disaster is any event, which in the president's opinion causes severe, extensive damage exceeding the available resources of states, local governments, and disaster relief organizations. In addition to confirming that the governor has taken appropriate action under state law and implemented the state's emergency plan, the governor's request for federal assistance must include:

- An estimate of the severity of the damages and the amount of losses and their impact on the public and private sectors
- A description of the type and amount of state and local resources which have been or will be allocated to mitigate disaster results
- An estimate of the type and amount of additional federal disaster assistance needed under the Stafford Act, and
- The governor's certification that state and local government obligations and expenditures to respond to the disaster will comply with all applicable Stafford Act cost sharing requirements

In both cases, the situation must be of such severity and magnitude that state and local government resources – including those of disaster relief organizations and insurance compensation - cannot effectively respond and federal assistance under the Stafford Act is necessary to supplement them.

### **4.8 ALERT AND WARNING**

Successfully saving lives and property depends on prompt, accurate public notifications to the at-risk population that include emergency information and warnings and may suggest actions to take to avoid or mitigate immediate danger. This can be accomplished via mass notification systems, television and radio, social media, traditional media, and in-person by first responders. In addition to alerting the public, these systems may also be the way local, state, and federal governments first become aware of emergency situations.

All City public notifications, messages, alerts, and updates will be made through its Public Information Office (PIO) to insure DAFN and non-English speaking populations in affected areas are reached. Public information staff will also work with media outlets to ensure closed captioning is included on all City messages and American Sign Language interpreting services are used during press conferences.

The City has direct access to the public outreach systems identified below for the duration of an emergency.

### AlertOC

In addition to sending emergency information countywide, AlertOC, Orange County's public mass notification system, can send automatic, city-specific emergency notifications to residents and member of the public who register with AlertOC. Registrants can tailor their alerts, opting to receive them as text or voice messages to cell phones, email, or TTY hearing impaired devices to ensure they receive user-friendly emergency notification at relevant locations.



Through the City's Memorandum of Understanding (MOU) with the Orange County Sheriff's Department (OCSD), AlertOC also serves as the City's primary internal notification system to City employees when an emergency arises and DSW are needed.



#### Wireless Emergency Alerts (WEA)

The Irvine Police Department may use WEA, one of FEMA's Integrated Public Alert and Warning System (IPAWS) internet-based alert and warning infrastructures, to send geolocated emergency messages to mobile devices.



Through the City's Memorandum of Agreement (MOA) with FEMA, the City may also use WEA when a hazard poses imminent threat to life and property. Limited to 360 characters, the messages identify who is sending the alert, what is happening, who is affected, and what action the recipient should take. They are rebroadcast until the emergency situation no longer threatens the area. Most cell phones can receive the free alerts that look like text messages without downloading an app or subscribing to a service. To ensure message transmission redundancy, the City maintains two distinct IPAWS-enabled software platforms.

If asked, OCSD can send a WEA on the City's behalf.

#### Emergency Alert System (EAS)

This robust alert and warning tool allows emergency information concerning a significant segment of Orange County's population to be simultaneously transmitted directly to all Orange County broadcasters – AM and FM radio frequencies and network and cable television stations – as well as to those required by law to monitor them. The OA has identified the following incidents as warranting an EAS emergency broadcast: earthquakes, serious fires, heavy rains and flooding, widespread power failures, severe industrial accidents, and hazardous material accidents.

The city manager, chief of police, fire chief, incident commander, or emergency manager can submit a message request to OCSD who will send it out on the City's behalf using EAS.

#### Other Warning Systems

The City may also use vehicle sirens, loudspeakers, and in-person notification by police officers and other emergency response personnel. It also employs a broad public information strategy to ensure the public and media are updated during the incident.

### Social Media

Both IPD and PIO post emergency information on Public Safety and City social media pages including Twitter, Facebook, Instagram, and Nextdoor.

### City and Public Safety Websites

PIO posts emergency information on both City and Public Safety websites. The City also uses a disaster website, activated only in an emergency, to ensure the public can easily find and use critical information. This website is not impacted by significant spikes in website traffic.

### Radio Station AM 1640

City operated low power information channel AM 1640 broadcasts general City information 24 hours a day, seven days a week, and provides real time emergency information about evacuations, road closures, emergency services, and shelters during disasters.

For more information on alert and warning operations, see EOP Annex IX – Alert and Warning Plan.

## **4.9 EVACUATION**

A variety of hazards, some providing forewarning others occurring suddenly, could require part or all of the City to evacuate. IPD is legally authorized to issue an evacuation order when an incident threatens a City population and may rely on OCFA or other partner agencies for subject matter expertise and information before deciding whether to order an evacuation. Once the decision is made, IPD may partner with OCFA and others to support the evacuation.<sup>34</sup>

The City developed EOP Functional Annex VIII (Annex VIII) to examine evacuations – preparation for, response to, and recovery from - in depth. The product of a multi-disciplinary, collaborative effort of City staff and OCFA, it incorporates best practices from real world events.<sup>35</sup>

## **4.10 MASS CARE SERVICES**

The City, legally responsible for providing emergency care and shelter for those in its jurisdiction affected by a disaster,<sup>36</sup> has partnered with the ARC to provide coordinated disaster relief.

Although the ARC will assist in providing care and shelter, if a major disaster causes widespread damage, ARC resources may not be fully mobilized for several days. To

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<sup>34</sup> See also Cal OES “Legal Guidelines for Controlling Movement of People and Property during an Emergency, and Cal. P.C. § 409.5.

<sup>35</sup> See also EOP Annex VIII – Evacuation Plan.

<sup>36</sup> Cal. Health and Safety Code § 34070 – § 34072 and SEMS

insure its responsibilities are met in the interim, the City has also partnered with neighboring jurisdictions, the county, and school districts to assist in providing mass care and shelter.<sup>37</sup>

For detailed information on the City's response to mass care and sheltering needs, see EOP Functional Annex V – Mass Care and Sheltering.

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<sup>37</sup> See also EOP Annex V – Mass Care and Sheltering Plan

## CHAPTER 5 - EOC CONCEPT OF OPERATIONS

The City EOC is activated when an event requires a significant commitment of resources from two or more City departments for an extended period of time. It is staffed by individuals from City departments trained in emergency management to prepare for, respond to, and recover from a disaster. They collect and analyze data; make decisions to protect life and property; maintain continuity of essential City services; and distribute information and decisions to stakeholders, field personnel, and the public. EOC staff:

- Coordinate emergency operations between City departments; with county, state, and federal governments, utility companies, school districts, non-profit organizations, elected and governmental officials; the media; and public and private organizations
- Establish policies and decide whether to issue a local emergency proclamation
- Prioritize emergency response and resource allocation by setting an overall response and recovery strategy and supporting field command tactical operations
- Track disaster related costs for personnel, equipment, and material and damage to City locations, assets, and facilities
- Coordinate the City's short-, intermediate-, and long-term recovery needs

### 5.1 EOC ACTIVATION AND NOTIFICATION

Either the manager of emergency services or watch commander can activate the EOC based on disaster type, location, scope, anticipated duration, etc., and assign an activation level (See 4.2 EOC Activation Levels, below). Upon activation, the manager of emergency services or watch commander contacts EOC staff required for either a partial or a full activation and notifies:

1. OA or Control One
2. City Manager
3. Assistant City Manager
4. Department Directors
5. City Council

### 5.2 EOC ACTIVATION LEVELS

The three City EOC activation levels correspond to those used by the county, the OA, and the state.

#### 5.2.1 Level III – Monitoring and Assessment

A minor to moderate incident that can probably be resolved at the local level or with minimal mutual aid. A local emergency proclamation is not likely. The EOC, if activated, has minimal staff whose focus is on gathering information and ongoing situation assessment. Level III events can generally be resolved quickly and require very few resources.

### 5.2.2 Level II – Partial Activation

A moderate to severe emergency expected to exhaust City resources and require mutual aid. Several agencies are involved and limited evacuations may be ordered. In most cases, a local emergency may be proclaimed and the governor may proclaim a state of emergency. The EOC and one or more DOC will be activated and several emergency functions initiated. The EOC is staffed with a section chief for each of the five sections and additional positions are staffed as needed. High profile planned events, civil unrest, and disaster recovery operations may also be handled at this level.

### 5.2.3 Level I – Full Activation

A major disaster overwhelming City, county and state resources. Multiple agencies are involved and extensive evacuations are ordered. Both local emergency and state of emergency proclamations are likely as is a presidential emergency declaration or major disaster declaration, or both. The EOC is fully activated and staff shifts are typically 12 hours around the clock until the crisis is under control. Level I events may continue for several days or weeks and into the recovery phase.

Chart 2 - EOC Layout

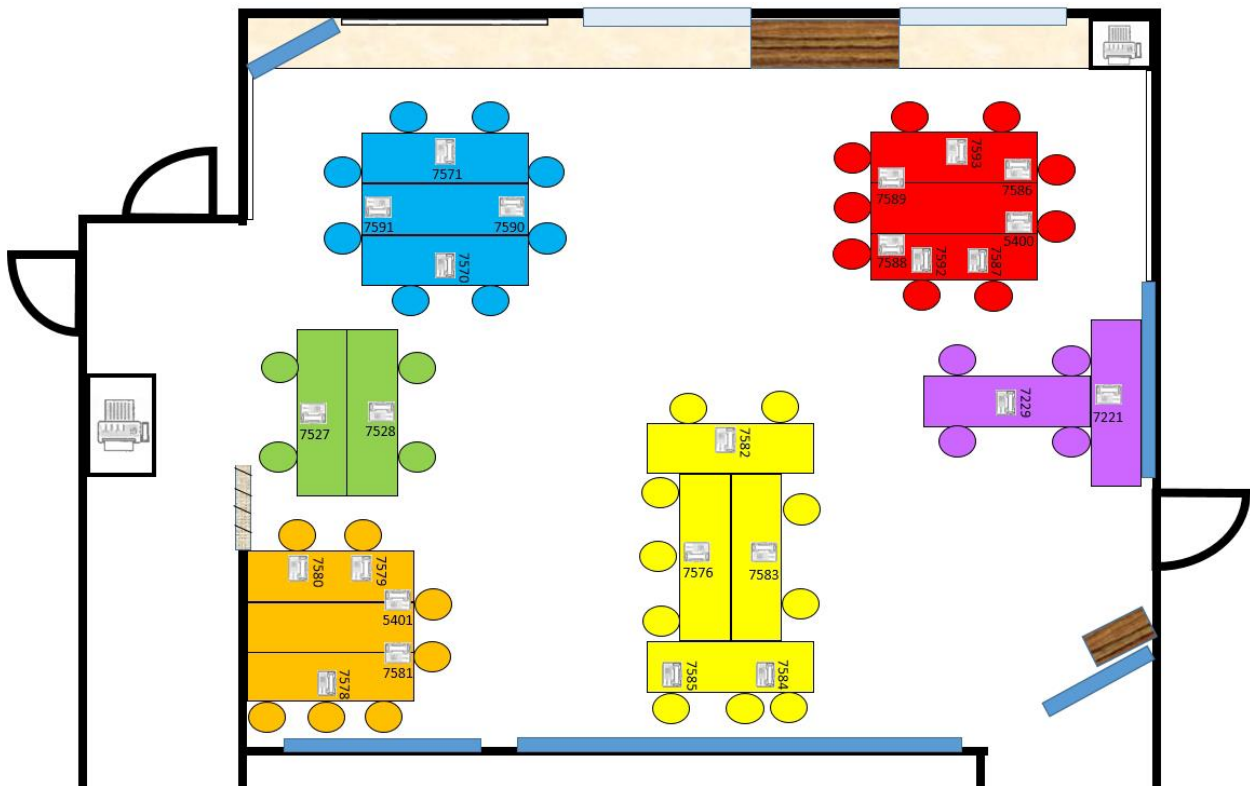
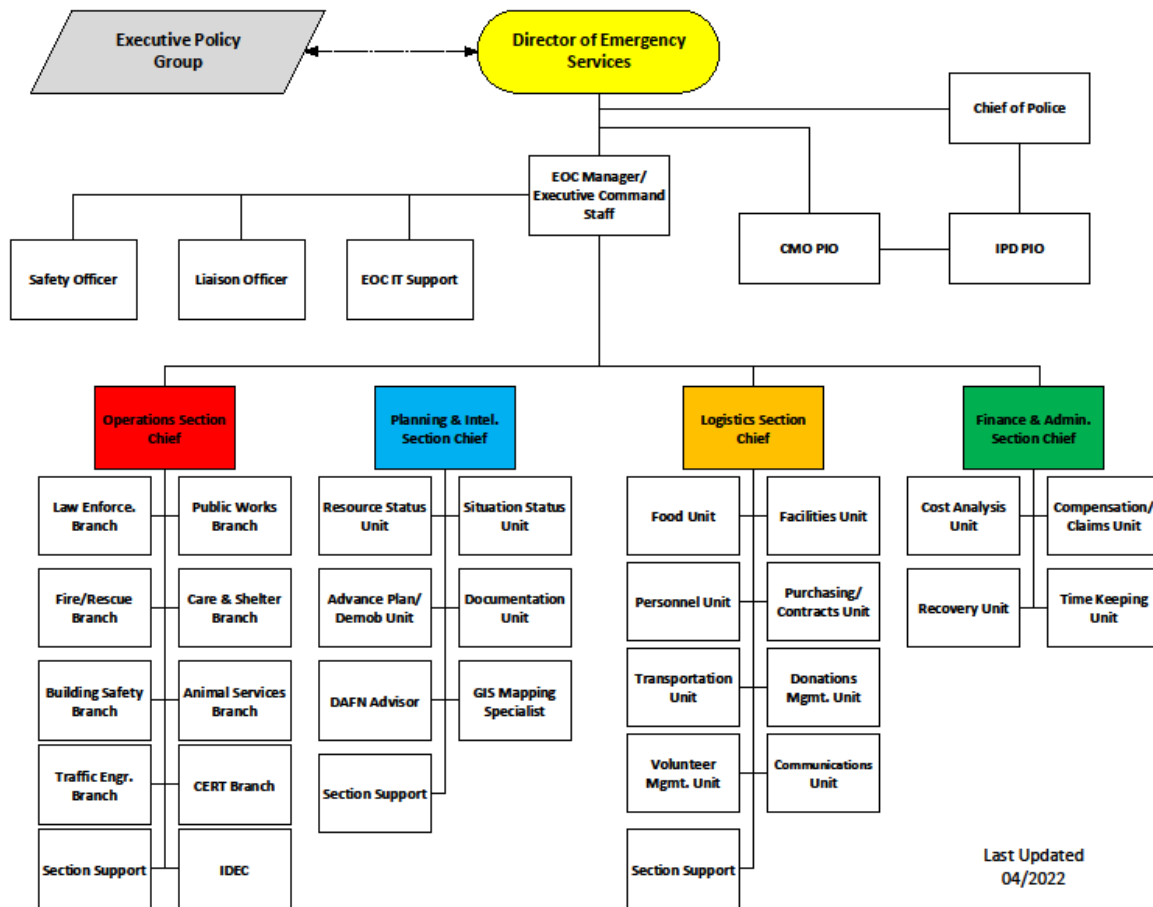




Chart 3 - EOC Organization



### 5.3 SHIFT CHANGE AND DEMOBILIZATION

EOC responder accountability is a priority from the initial activation through incident demobilization. All EOC responders must sign in and out at the beginning and end of EOC shifts. After signing in, every EOC responder receives a job orientation briefing from his or her supervisor as well as a debrief at shift's end.

Operational period shift changes always overlap to allow outgoing staff to brief incoming staff, ensuring work and operational continuity. When a responder's shift ends, it is the supervisor's responsibility to ensure the responder's needs are met and that he or she is able to travel home safely before being demobilized, especially if the responder has worked through the night or during a stressful operational period.

### 5.4 DES - LINE OF SUCCESSION

- DES City Manager
- 1<sup>st</sup> alternate Assistant City Manager
- 2<sup>nd</sup> alternate Deputy City Manager
- 3<sup>rd</sup> alternate Chief of Police
- 4<sup>th</sup> alternate Director of Community Services
- 5<sup>th</sup> alternate Director of Public Works and Transportation

**If none of the designees above are available, the Mayor and/or City Council will appoint a DES.**

## **5.5 DOC**

DOC provide a critical layer of support for field-based operations during a disaster. Although they are structured and operate the way an EOC does, their focus and scope are much narrower. Each DOC supports only those operations specific to its department. DOC receive resource requests and information from the ICP and public works and transportation field personnel. If the DOC cannot fill a resource request or if the information received needs to be handled at a higher level, DOC staff contacts EOC staff.

The City has four DOC:

- Police Department DOC – supports and coordinates law enforcement incidents primarily when a large-scale investigation is involved or the need to coordinate a multi-law enforcement response with numerous agencies
- Public Works and Transportation DOC – supports and coordinates public works and transportation field personnel and contractors
- Building and Safety DOC – supports and coordinates building and safety inspectors and other department personnel conducting field-based assessments and response duties
- Community Services DOC – supports and coordinates community care and shelter sites and related mass care operations

## **5.6 EMPLOYEE RESPONSE**

### **5.6.1 Employee Response**

All paid City employees are DSW and may be called to serve during an emergency.<sup>38</sup>

Many City employees have been identified and trained for emergency response in their DOC or the City's EOC. Some departments have also trained employees to fill specific disaster response duties. City employees not specially trained or required for continuity of operations may be relieved of their usual duties and asked to perform general DSW duties in the scope of their training and skills or may be reassigned to assist any agency or organization carry out its emergency response. Examples include:

- Working in a shelter or other location where mass care services are provided
- Supporting a local point of dispensing site
- Answering phones and relaying information
- Serving food to emergency staff or to vulnerable populations
- Working in a disaster recovery center (DRC)

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<sup>38</sup> Govt. Code Title 1, Div. 4, Ch. 8, § 3100-3101

### **5.6.2 Reporting to Work**

After assessing the welfare of their family and the safety of their surroundings, all employees are expected to be ready to report to their assigned disaster response roles when notified. To insure readiness, staff should make their families aware of this responsibility and should have personal and home disaster preparedness plans in place, ready to activate.

### **5.6.3 Employee Response (Normal Business Hours)**

If an emergency occurs during normal working hours, employees should immediately report to their supervisor. On-site employees may be required to remain at work beyond their normal working hours to support the City's response. Employees not on site should, as soon as they are able after ensuring the safety of their family, contact their designated supervisor or DOC to determine whether and when they will be needed and what their assignment will be.

### **5.6.4 Employee Response (After Hours)**

Employees are expected to contact their supervisor by phone, email, or as prescribed in department-specific protocols as soon as possible and be ready to report to work. Employees should also monitor their personal cell phones for instructions by voice, text, or both for reporting directives from the EOC. If phones or email are unavailable, employees should monitor social media (Facebook, Twitter, and Instagram) and listen to or stream local radio broadcasts, including Irvine's AM 1640, for updated disaster information and reporting instructions.

City employees identified by their department as essential staff may have specific response and reporting policies they should understand and adhere to.

During an emergency, shifts typically last 12 hours. The initial shift, scheduled by EOC staff, may start at any time after the onset of the incident. If an employee not called to work the first shift, may be called to report for any subsequent shift.

Following a major disaster, employees living outside the City may be asked by a law enforcement officer to show their City ID and confirm that they have been recalled to work. City identification may also be required for meals and lodging or to access designated City facilities or operations.

### **5.6.5 Employee Notification System**

IPD dispatch or the OEM can send voice and text messages to the cell phones of all City personnel or to the cell phones of City personnel by department to:

- Alert staff to an imminent threat requiring a protective active (i.e., shelter in place)
- Direct staff to report to the EOC or their DOC
- Provide standby instructions
- Test the system

## **5.7 PRIMARY, ALTERNATE, AND REMOTE EOC CAPABILITIES**

If EOC staff cannot access the City's primary EOC for any reason, three alternate EOC sites have been designated:

1. Civic Center Conference and Training Center
2. Operations Support Facility
3. City of Newport Beach EOC

The OEM ensures the operational readiness of the primary EOC and coordinates with City staff responsible for maintaining operational readiness of the alternate EOC sites. Through a signed Memorandum of Agreement (MOA), the City of Irvine may also use the Newport Beach EOC for a limited period of time if necessary. (See Authorities and References)

An alternate EOC, if activated, operates as the primary EOC does. The EOC logistics section will arrange to relocate any staff and as many supplies as possible from the primary to the alternate EOC, and the DES will transfer control from the primary to the alternate EOC. All EOC supervisors will advise their emergency field response personnel of the transfer.

### **5.7.1 Virtual EOC Support**

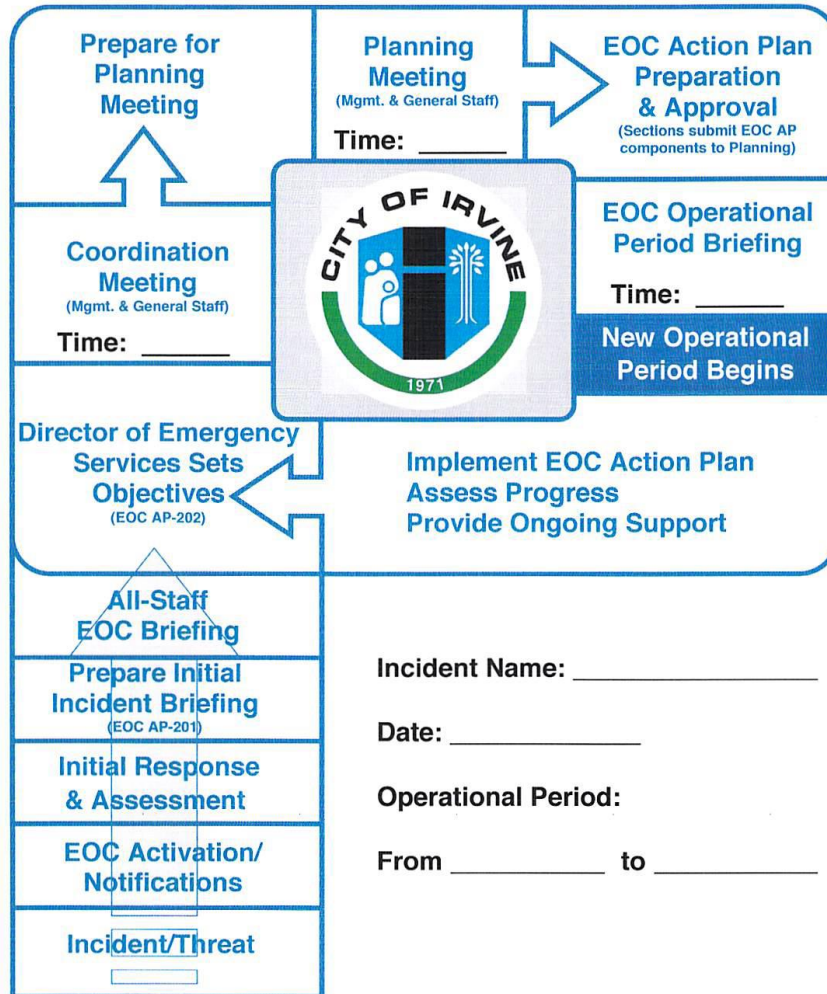
To accommodate EOC staff available to support an activation but unable to physically report to the EOC, a hybrid virtual/in-person response is possible. Using Microsoft Teams, EOC cameras and microphones, remote access to real time forms and documents on Microsoft OneDrive, a world-class EOC GIS application, and a number of other tools, EOC responders, wherever they are, can support one another, maintain situational awareness, and share critical information in real-time.

## **5.8 EOC ACTION PLANNING**

Planning begins when the EOC is activated. The Planning and Intelligence Section develops the EOC Action Plan (EOC AP) and facilitates EOC AP meetings. EOC management and general staff, and other EOC stakeholders and concerned agencies meet to identify and document emergency response and recovery priorities, objectives, strategies, and personnel assigned to each. The EOC AP provides an overview of the incident's impact on the community and supports field Incident Action Plans. While not complex, it offers enough detail to allow EOC staff to meet operational period objectives. When complete, the planning process should provide an accurate, realistic EOC AP for the next operational period including:

- Information describing the incident situation and resource status
- Predictions about the probable course of events
- Alternative strategies to meet critical EOC objectives

**EOC Planning Cycle**





### 5.9 EOC FUNCTION AND RESPONSIBLE DEPARTMENT MATRIX

	P = Primary Function		S = Support Function								
	Public Safety	Public Works and Transportation	Community Services	Community Development	Human Resources & Innovation	Financial Mgmt. & Strategic Planning	City Clerk	City Manager	Legal Services	OCFA	City Council
<b>MANAGEMENT</b>											
Policy/executive decision-making	P	S	S	S	S	S	S	P	P	S	P
Director of emergency services	S							P			
City attorney									P		
EOC manager	P										
Public information officer	P							P			
Safety officer	P			S	P						
Liaison officer	P							S			
EOC IT support	P				P						
<b>OPERATIONS</b>											
Section chief	P	P									
Law Enforcement Branch	P										
Fire/Rescue Branch										P	
Building Safety Branch				P							
Traffic Management Branch	S	P									
Public Works and Transportation Branch		P									
Care & Shelter Branch			P								
Animal Services Branch	P		P								
CERT Branch	P										
IDEC Branch	P										
<b>PLANNING &amp; INTEL</b>											
Section chief	P			P							
Resource Status Unit	P										
Advance Planning & Demobilization Unit				P							
DAFN advisor			P								
Situation Status Unit	P	P					S				
Documentation Unit				P			P				
GIS mapping specialist					P						
<b>LOGISTICS</b>											
Section chief	P	S	S								
Food Unit	P		S			P					
Personnel Unit	S		S		P						
Transportation Unit		S	P								
Facilities Unit	S	P									
Purchasing/Contracts Unit	S					P					
Communications Unit	P										
Donations Management Unit	S		P								
Volunteer Management Unit	S		P								
<b>FINANCE and ADMINISTRATION</b>											
Section chief						P					
Cost Analysis Unit						P					
Compensation/Claims Unit	S	S			P						

FINANCE and ADMINISTRATION (Cont'd.)										
Recovery Unit	S						P			
Time Keeping Unit					S		P			

### 5.10 EOC FUNCTIONS

During the response phase, most functions are carried out by staff at the field ICP and in the EOC or DOC. Some tasks may be handled by staff at their usual office work spaces; others may be handled remotely by staff able to support the response but unable to get to a designated location.

Following is a very brief overview of EOC position titles and responsibilities<sup>39</sup>. Each is activated as needed. For a comprehensive list of position tasks and responsibilities see Attachment A - EOC Position Checklists

SECTION	TITLE	RESPONSIBILITIES
<b>Management</b>		
	DES	Provides overall emergency management and policy direction; leads Policy Group
	Policy group	Oversees and participates in decision-making, issues emergency proclamations, resolutions and executive orders, identifies and defines overall objectives for Incident Action Plan.
	Legal services	Provides legal advice to DES and/or Policy Group, helps prepare legal documents including proclamations, resolutions and emergency ordinances
	Public information officer	Provides accurate, timely crisis and emergency information to the public
	Liaison officer	Coordinates with responding agency representatives from neighboring jurisdictions, special districts, NGO, and other community partners.
	Safety officer	Responsible for safety in the EOC; coordinates with Field Safety Officers on Special Hazards and responder needs
	EOC manager	Leads City's operational response in cooperation with elected officials and department heads
<b>Operations</b>		
	Section chief	Provides strategy and support coordination for EOC AP objectives to ensure a coordinated response by all section branches
	Law enforcement	Support all field law enforcement operations including traffic, access, and perimeter control, evacuations, and security for critical facilities Citywide.
	Fire & rescue	Primary liaison between the City and OCFA

<sup>39</sup> For a detailed description of position responsibilities, see Annex II – Functional Annexes

SECTION	TITLE	RESPONSIBILITIES
<b>Operations (cont'd.)</b>		
	Building & safety	Coordinates the rapid inspection and evaluation of City and community structures and facilities, assists law and fire in search and rescue operations and assists in estimating total dollar amount of damage to the City
	Public works & transportation	Provides heavy equipment and operators, inspects and repairs transportation infrastructure and roads and bridges.
	Care & shelter	Coordinates mass care and shelter needs and crisis counseling for affected community members
	Traffic management	Monitors traffic patterns and augments signal timing to enable effective traffic flow particularly during evacuations, power outages, or major roadway closures
	Animal services	Coordinates animal support needs including co-located pet and human shelters; ensures humane treatment of displaced animals
	CERT	Provides initial and ongoing support for CERT activations and field deployments; works directly with CERT coordinator at the ICP
	IDEC	Ensures adequate communications for incident responders
<b>Planning &amp; Intelligence</b>		
	Section chief	Facilitates planning meetings, develops the EOC AP, incorporates recovery needs in the planning process
	Situation status	Collects, organizes, verifies, evaluates, and displays incident status and situation information
	Resource status	Compiles, maintains, and displays resource status information for all resources processed through the EOC
	Advance planning/demobilization	Forecasts needs for upcoming operational periods; supports EOC demobilization and transition to recovery operations
	Documentation	Creates and maintains complete incident files for legal and archival purposes; supports Finance Section by ensuring cost recovery data is documented
	GIS/mapping	Provides mapping, data, and other visual resources to support EOC operations
<b>Logistics</b>		
	Section chief	Oversees resource procurement and coordination for the ICP and field personnel
	Purchasing & contracts	Procures supplies and equipment not provided through mutual aid; administers vendor contracts, leases, and fiscal agreements
	Personnel	Provides staffing resources as requested to support EOC and field operations
	Food	Procures, allocates, and distributes food for EOC and response personnel, develops meal plans working with restaurants and other meal service providers
	Transportation	Coordinates transportation resources response personnel transportation, and resource requests with external providers
	Communications	Maintains federal, state, OA, county, and City communication systems including amateur radio, and coordinates with countywide RACES operations

SECTION	TITLE	RESPONSIBILITIES
<b>Logistics (cont'd.)</b>		
	Facilities	Provides and maintains adequate facilities for incident support personnel
	Donations management	Provides centralized coordination and management of all donations to the City including supplies, materials, food, monetary gifts, and other support.
	Volunteer management	Coordinates all volunteer efforts and opportunities of unaffiliated volunteer groups and individuals offering to support the City response and recovery.
<b>Finance &amp; Administration</b>		
	Section chief	Oversees all incident-related financial and administrative processes, recommends financial solutions to policy group, executes agreed on policies and, in cooperation with Cal OES and FEMA, manages financial claims
	Cost analysis	Collects and forecasts incident-related costs, calculates burn rates, and provides cost-benefit summaries
	Compensation & claims	Oversees the process for responding to incident-related injuries and coordinates information regarding claims to the City with Risk Management
	Recovery	Coordinates cost recovery with disaster assistance agencies, ensures the OA and Cal OES receive damage estimate information promptly; develops initial recovery strategies
	Timekeeping	Collects, records, and maintains time data for all incident personnel

## 5.11 EOC EXTERNAL PARTNERS

### 5.11.1 Non-Governmental Organizations

NGO, community, and faith-based organizations are members of Orange County Collaborative Organizations Active in Disaster (COAD-OC). COAD-OC members, including both national organizations like ARC and Salvation Army as well as local groups like churches, health clinics, and food distribution services, bring unique disaster response services to the community including short and long-term housing, emergency and mobile feeding, managing donations, and coordinating resources of families to meet their individual household needs. COAD-OC may be activated for region-wide incidents or for single jurisdiction emergencies on request to OCOA EOC.

### 5.11.2 Hospitals

The EOC will coordinate with two hospitals in the City during a disaster: Hoag Hospital and Kaiser Permanente<sup>40</sup>. Both are paramedic receiving hospitals that maintain disaster plans and train and exercise using the ICS just as City response personnel do.

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<sup>40</sup> Plans to expand the healthcare/hospital system in the City include UCI and City of Hope. The City will initiate close coordination with each when they open.

Additionally, these hospitals maintain and use countywide interoperable systems allowing them to coordinate with other area hospitals and OCHCA.

### **5.11.3 School Districts**

There are three public school districts in the City - Irvine Unified School District, Santa Ana Unified School District, and Tustin Unified School District - as well as a number of private institutions. Both public and private schools are required to have safe school and emergency plans in place to safeguard students, staff, and visitors; each school is authorized to make decisions regarding emergency protective measures for its students, typically at the recommendation of public safety officials.

The City works closely with both public and private schools in emergency planning. The OEM is a member of the Emergency Preparedness Interagency Collaborative, a schools-based group that meets quarterly to discuss emergency preparedness topics, share resources, and conduct training and exercises collaboratively.

When an emergency occurs during school business hours, IPD will notify and work with the impacted school district to keep it up-to-date about the situation and the messages going out to the community. Advance warning is critical to ensure the district can respond to parents and other stakeholders and confirm children living in an impacted area are not released from school until a plan is in place to reunite them with their parents.

### **5.11.4 Colleges and Universities**

The City is home to several colleges and universities including UCI, Concordia University, and Irvine Valley College. While the City works closely with all three to coordinate emergency management activities, each remains responsible for safety planning for its students, staff, and faculty. During a disaster, the City may ask them to act as locations for mass sheltering or commodity distribution and they may ask the City EOC to support their disaster response needs.

### **5.11.5 Utility Companies**

The City works with its utility partners including IRWD, SCE, and SoCal Gas Company to plan and exercise collaboratively. These exercises include pre-incident planning for SCE's PSPS program and IRWD's Dam Failure Response procedures.



## CHAPTER 6 - RECOVERY OPERATIONS

### 6.1 INTRODUCTION

When disaster management transitions from response to recovery, the City, in cooperation with its partners, works to return the community to normal or near-normal conditions. This involves restoring systems, services, and quality of life and helping the community define and adjust to its new normal. Recovery focuses on developing, coordinating, and executing service and site restoration plans for the community. Typically, this includes financial assistance to individuals and local government, debris cleanup, repairing and rebuilding roads, bridges, and key facilities, and providing sustained mass care for displaced persons and animals.



Because recovery efforts focus on issues and decisions that must be made after immediate needs are met, a recovery plan should be in place before a disaster. The City uses SEMS and NIMS in both its disaster response and its pre-disaster recovery planning to insure the transition from response to recovery is as seamless as possible.

The three phases of recovery – short-, intermediate-, and long-term - while not distinct, do have qualities unique to each. Both the City's community development and public works and transportation departments play a vital role in each phase.

### 6.2 SHORT-TERM RECOVERY

Short-term recovery addresses health and safety needs beyond rescue, assesses the scope of the damage, identifies community needs, restores basic infrastructure, and mobilizes initial recovery resources. These operations typically last up to three months, depending on the type, size, and scope of the incident and frequently overlap both the response and intermediate-term recovery phases.

### 6.3 INTERMEDIATE-TERM RECOVERY

During this phase, most essential services have been restored but life in the community is still far from its pre-disaster state.

#### Short-Term Recovery Priorities

**Focus:** Restore the community and government to basic-level functioning; prevent further service interruptions

- Repair critical infrastructure
- Restore utility services
- Provide medical and mental health services
- Re-establish government operations
- Restore public transportation
- Remove debris; begin clean-up operations
- Demolish hazardous structures
- Prioritize support to vulnerable populations, special districts, schools and hospitals

Typically lasting from one to six months or more, intermediate-term recovery efforts overlap both short- and long-term recovery efforts. Displaced community members may still be living in temporary housing but attempting to function normally - attending classes,

going to work, fulfilling life responsibilities, etc., and government services have resumed on a limited basis and in unconventional formats - at alternate sites, using web-based services, etc.

The City’s focus during intermediate-term recovery is on temporary actions providing a bridge to permanent solutions, and insuring behavioral health services are available as survivors experience stresses related to coping with ongoing disaster effects.

#### 6.4 LONG-TERM RECOVERY

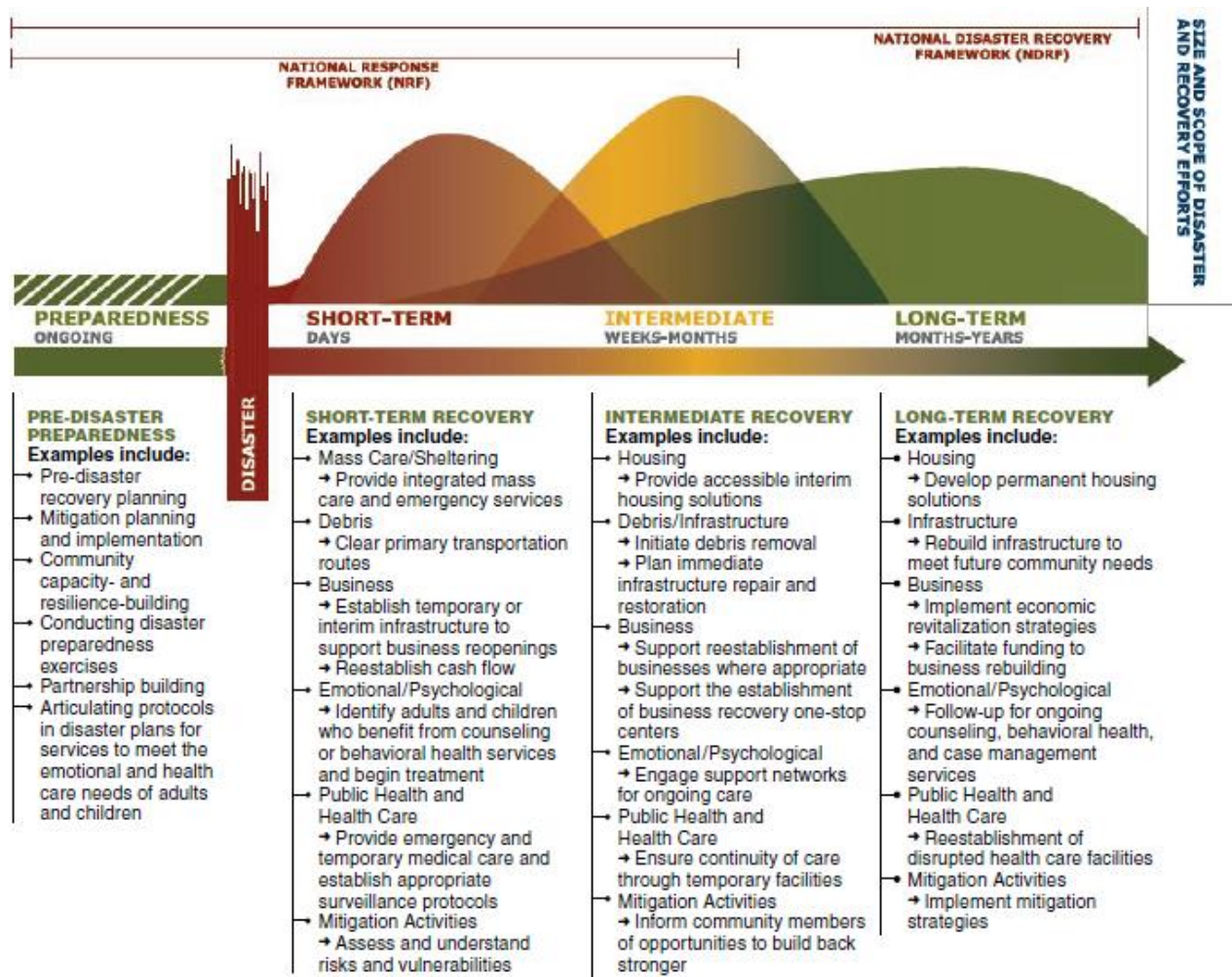
The shift from intermediate- to long-term recovery is gradual and may last from a few months to several years. Efforts are focused on completely restoring and revitalizing the impacted area: restoring the local economy to pre-disaster levels, rebuilding damaged or destroyed social, economic, natural and built environments, and transitioning the community to self-sufficiency, sustainability, and resilience.

A significant number of long-term recovery initiatives align with and overlap future mitigation efforts, e.g., repairing buildings with retrofitted upgrades for seismic activity, and restoring essential facilities to their pre-disaster state by retrofitting, repairing, or reconstructing them to their original or an even safer condition. To expedite long-term recovery, the City may need to amend its existing policies and procedures to streamline services and decrease future vulnerability. This might include zoning variances, building code revisions, plan reviews, seismic safety elements, and other land use planning techniques.

- | Long-Term Recovery Priorities   |
|---|
| <ul style="list-style-type: none"> <li>• Apply for state and federal assistance programs to recovery disaster response costs</li> <li>• Identify recovery programs for residents and businesses</li> <li>• Conduct hazard mitigation analyses</li> <li>• Identify remaining hazards including environmental hazards</li> <li>• Integrate mitigation strategies with recovery planning and operations</li> </ul> |

Depending on the nature and impact of the disaster, long-term recovery activities may also include coordinated delivery of long-term social and health services, improved land use planning, and permanently restored and hardened utilities and infrastructure.

Figure 1 - National Disaster Recovery Framework Continuum



## 6.5 RECOVERY OPERATIONS

The City’s recovery operations will begin in the EOC and staff will continue to use ICS and EOC AP procedures to assign roles, organize processes, and report and monitor progress.

As efforts transition from short- to intermediate- and long-term recovery, the need for a fully staffed EOC will decline. Additionally, since recovery operations may go on for years, it is not feasible to manage recovery operations in the City EOC, which should be available to support new emergency response operations. Instead, the DES, in consultation with the Policy Group, may decide to move recovery operations to another facility that will be designated as the recovery coordination center (RCC). This will be determined by the nature and scope of recovery needs. When that decision is made, a recovery operations manager (ROM) will be appointed to lead the City’s recovery effort and the RCC. The ROM may, in partnership with the Policy Group, amend existing policies and procedures or develop new ones to support the community during recovery.

Consideration should be given to locating the RCC at a facility already providing services to the public and available to support long-term recovery needs. The DRC, a one stop opportunity for community members can address temporary housing, demolition and building permits, federal grants, tax relief, ARC services, etc. Before renting or assigning the facility, the City should coordinate with Cal OES and FEMA.

As recovery objectives at the RCC become longer term, e.g., responding to the ongoing psychological needs of the community, rebuilding or retrofitting buildings, recovering costs, etc., operational periods will also become longer, transitioning from the standard 12 to 24 hour periods to periods lasting one to two weeks, and recovery responsibilities will transition from the RCC to the department level.

During short- and intermediate-term recovery, some City departments will play either a primary or a support role in the recovery. These roles may be identified in the Plan, or may be assigned as needed. Some City departments may also be asked to defer normal day-to-day operations and devote personnel and equipment to recovery, or they may be assigned to coordinate or assist in coordinating recovery operations between external agencies and community partners. All departments are expected to comply with reasonable requests for assistance and to cooperate in helping expedite the community's recovery.

SECTION	TITLE	RESPONSIBILITIES
<b>Policy Group</b>		
	City Council City Manager City Attorney City executive staff	<ul style="list-style-type: none"> <li>• Establishes City recovery policies and directives</li> <li>• Gives the ROM important information to support recovery priorities and their implementation</li> <li>• Assists the DES develop rules, regulations, proclamations, and orders</li> </ul>
<b>DES</b>		
	City Manager or designee	<ul style="list-style-type: none"> <li>• Coordinates recovery efforts</li> <li>• Ensures all agency actions comply with established priorities</li> <li>• Makes executive decisions based on City Council policies</li> <li>• Keeps City Council up to date on recovery operations</li> <li>• Develops and issues rules, regulations, proclamations, and orders</li> <li>• Establishes organization levels and staffing necessary to support operations and monitor effectiveness</li> <li>• Ensures multiagency or interagency coordination is completed effectively</li> </ul>
<b>Management</b>		
	Recovery operations manager	<ul style="list-style-type: none"> <li>• Supports all recovery operations</li> <li>• Briefs Policy Group on recovery operations</li> <li>• Helps identify recovery priorities</li> </ul>

- Acquires and allocates resources to priority recovery projects
- Ensures City is reimbursed for all eligible disaster related costs
- Ensures City is prepared to participate with FEMA, Cal OES, OA, and non-profit organizations to expedite disaster assistance to eligible parties
- Assists residents, and business owners to apply for Cal OES and FEMA assistance when available
- Ensures required and/or approved mitigation measures are implemented
- Exchanges information with other local, county, state, and federal recovery centers

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### Management

- Public Information Officer
- Writes and releases recovery-related information
  - Coordinates media relations with City Council and City officials
  - Issues all media releases
  - Ensures public in affected area(s) receive complete, accurate, timely, consistent information about recovery status, programs, and services
  - Coordinates and distributed recovery-related information to City departments to keep employees up to date
  - Maintains a relationship with media representatives and holds periodic press conferences
  - Establishes and directs or participates in the Joint Information Center as necessary

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### Management

- Liaison officer
- Acts as contact for agencies, external organizations, and community stakeholders
  - Provides recovery-related information to City departments
  - Coordinates with agency representatives assigned to the recovery coordination center

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### Operations

- Operations section chief
- Implements the recovery and reconstruction plan
  - Manages, coordinates, or assists organizations implement recovery efforts
  - Implements executive decisions concerning priorities and recovery plans
  - Participates in developing the recovery plan
  - Oversees preparation of department operation plans
  - Assesses the need for resources required for recovery efforts
  - Requests mutual aid and other resources



### Operations – Law Enforcement

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- Law enforcement branch chief
- Ensures damaged or temporary essential facilities are secure
  - Maintains civil order
  - Assumes responsibility for all law enforcement activities supporting recovery operations
  - Mobilizes and deploys resources for law enforcement, traffic control, and perimeter control operations
  - Gives ROM information to support recovery priorities and their implementation
  - Assists DES develop rules, regulations, proclamations, and orders

### Operations – Public Works and Transportation

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- Public Works and Transportation Director
- Removes debris
  - Coordinates clearing and restoring roadways
  - Coordinates restoring government facility functions
  - Closes and secures unsafe areas
  - Conducts damage assessment inspections and describes impact on public facilities
  - Coordinates infrastructure repairs
  - Demolishes hazardous structures
  - Assists in vector control
  - Rebuilds, repairs, and returns the City's electrical system to full operational capacity
  - Coordinates with vendors, providers, and contractors as necessary, e.g., SCE, SC Gas Company, AT&T, etc.
  - Monitors the status of utility systems during long-term recovery

### Operations - Care and Shelter

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- Community Services Director
- As needed:
    - Coordinates resources available to support long-term housing for residents
    - Facilitates assistance to residents with economic and psychosocial concerns
    - Arranges crisis counselors for the community
  - Collects victim assistance program information
  - Implements recovery and reconstruction plan objectives

### Planning

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- Planning section chief
- Maintains recovery resource status and availability information
  - Conducts recovery briefings and provides written reports to the DES, City Council, and other officials

### Planning (cont'd.)

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- Planning section chief
- Develops an official, comprehensive damage assessment
  - Provides after actions reports
  - Develops recovery situation report
  - Documents recovery operations

### Logistics

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- Logistics section chief
- Prioritizes and coordinates the use and distribution of recovery resources not handled by other City departments
  - Finds and allocates office space for City departments as needed
  - Provides recovery supplies, equipment, vehicles, and support personnel as needed
  - Assists Care and Shelter branch to address shelter and housing shortages

### Finance and Administration

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- Finance and administration section chief
- Facilitates FEMA and Cal OES claim processes
  - Initiates and maintains a disaster accounting system
  - Coordinates documenting costs with other sections and departments
  - Liaises with disaster assistance agencies and coordinates cost recovery as allowed by law
  - Submits reimbursement claims for response and recovery costs
  - Collects all required financial data for expected audits
  - Files required disaster assistance applications with state and federal agencies
  - Supervises California OES and/or FEMA audits
  - Prepares and maintains the incident budget
  - Manages insurance settlements

## 6.6 STATE GOVERNMENT RECOVERY ACTIONS

When the governor proclaims a state of emergency, Cal OES leads California's recovery operations and coordinates assistance from other state and federal agencies and the federal government to ensure effective service delivery. If other state agencies provide support to local governments under their authority or under other federal programs, these state agencies may direct operations from their respective DOC but will coordinate their activities with Cal OES.

## 6.7 FEDERAL GOVERNMENT RECOVERY ACTIONS

Following a presidential disaster declaration, FEMA coordinates the federal recovery operation and provides recovery support under the National Disaster Recovery

Framework. That immediately mobilizes resources and provides them to state and local governments on request.

- The president, by authority of the Stafford Act, appoints an FCO and may appoint a federal disaster recovery coordinator to manage federal operations and coordinate recovery programs.
- Cal OES and FEMA establish a JFO to manage and coordinate recovery operations as resources and conditions allow. In general, once the JFO is activated, all ESF supporting federal recovery efforts operate from there. Cal OES and other state agencies deploy staff to the JFO to ensure coordination with their federal counterparts.
- FEMA:
  - May establish DRC to centralize public outreach for federal agencies and its assistance programs and to supplement LAC operations. Cal OES, FEMA, and local jurisdiction(s) coordinate the LAC and DRC location(s) to best meet the needs of disaster affected communities.
  - Will, at the state's request, coordinate direct federal assistance to state and local governments through designated ESF.
  - Will, by authority of the Stafford Act, coordinate federal recovery programs, which may include:
    - Individual and Household Program: provides assistance and temporary housing for individuals and families
    - Public Assistance (PA) Program: provides supplemental financial assistance to local and state governments and certain private nonprofit organizations for extraordinary costs related to response, debris removal, and damage to buildings and infrastructure
    - Hazard Mitigation Grant Program: provides assistance to local and state governments to implement measures to reduce the risk of loss of life and property from future disasters
- Other federal agencies may provide non-Stafford Act recovery programs or programs authorized under disaster-specific legislation, including:
  - Small Business Administration (SBA): provides low-interest loans for repairs to damaged homes and businesses
  - Federal Highway Administration: provides funding to local and state governments to restore damaged roads, bridges, and other infrastructure that are part of the federal-aid routes system

## 6.8 PRIVATE SECTOR RECOVERY ACTIONS

In coordination with the OA and local governments, the private sector may be an additional resource for the City in providing materials, equipment, and services, particularly during short- and intermediate-term recovery when there is a regional need for limited resources.

Because these pre-disaster contracts do not guarantee the availability of any product or service during the disaster response and recovery phases, the City will continue to work through established contracts with day-to-day vendors for anticipated recovery needs.

### **6.9 NGO RECOVERY ACTIONS**

NGO community- and faith-based organizations including ARC, Salvation Army, churches, neighborhood health clinics, and food distribution agencies can support individuals and households displaced by a disaster and will work with government organizations to aid the transition from mass care and shelter to interim housing. They may also provide donation management, emergency food, clothing, shelter, animal care, and support for housing reconstruction either independently or in coordination with local, state, and federal efforts.

To realistically identify support ARC might provide the City in the event of a regional disaster, they considered a range of disaster-related scenarios that could benefit from their coordinated efforts. As a result, in 2014 the City and ARC signed a sheltering MOU. While the MOU doesn't guarantee ARC assistance in the event of a disaster, it does facilitate an efficient collaboration when both parties are able.

### **6.10 COST RECOVERY**

Following a qualifying incident, the City can recover a portion of its response and recovery costs from the federal government through the PA Program administered by FEMA, and from the state through the California Disaster Assistance Act (CDAA) administered by Cal OES. These programs facilitate recovering eligible costs, maximizing eligibility for and cost recovery, minimizing exposure to ineligible costs, defending against losses from benefit duplication, avoiding de-obligation of costs in purchasing and contract management and building in audit defenses. The City is eligible for reimbursement through both the CDAA and the PA Program.

When the president declares an emergency or major disaster, the federal government reimburses local and state jurisdictions up to 75 percent of total eligible costs through the PA Program. The state reimburses each local jurisdiction up to 75 percent of the remaining 25 percent, or 18.75 percent of its costs, through the CDAA after the governor proclaims a state of emergency. Each local jurisdiction is responsible for the remaining 6.25 percent of its costs.

### **6.11 PUBLIC ASSISTANCE AND CDAA**

Immediately following a regional incident, the City and other local jurisdictions in Orange County collect, track, and submit their preliminary damage assessments to the OA. The OA collectively analyzes the data, forecasts additional costs, and submits its analysis to Cal OES. Cal OES compiles damage estimates for all affected state counties to determine whether they have met the fiscal threshold requirements making them eligible for disaster-related assistance. Two thresholds determine the City's eligibility:

Orange County 2021	
Per capita	3,175,130
Per capita impact indicator	x \$3.89
Threshold	\$12,351,255

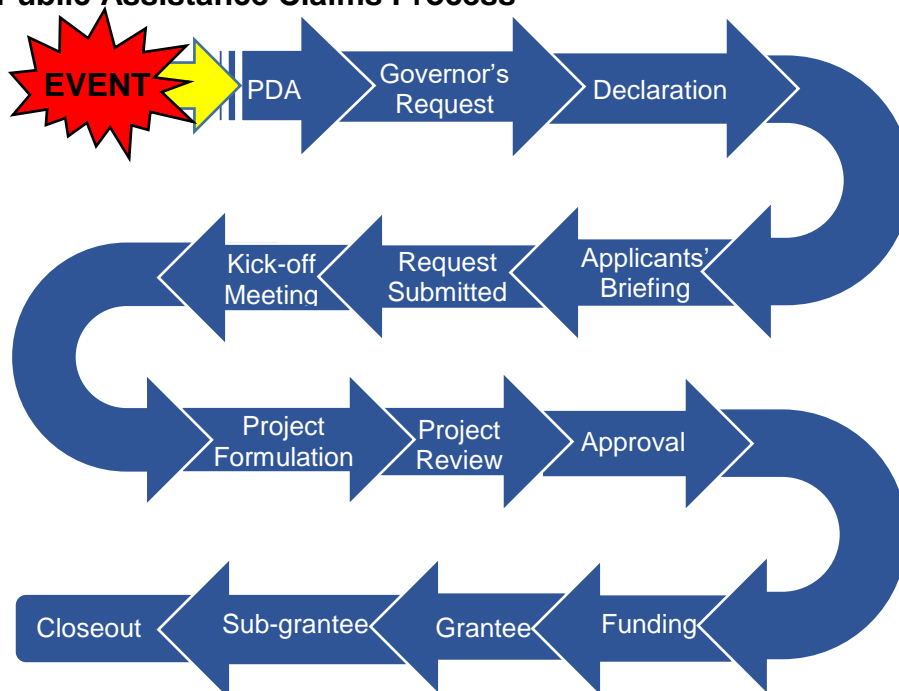
California 2019	
Per capita	39,656,838
Per capita impact indicator	x \$1.63
Threshold	\$64,640,645

If county and state thresholds are met, the governor will proclaim a state of emergency and request a presidential declaration of emergency or major disaster. The presidential declarations, while similar, differ slightly.

- **Emergency Declaration:** declared when the president determines federal assistance is necessary to supplement state and local efforts to save lives and protect property, public health, and safety
- **Major Disaster Declaration:** declared when a natural event, fire, flood, or explosion, causes damage beyond the combined capabilities of state and local governments, and disaster relief organizations

After a presidential declaration, FEMA identifies the area(s) eligible for federal assistance and the assistance available, typically this includes the PA program but may also include Individual Disaster Assistance and Hazard Mitigation (both attachments to the Plan). When PA is available, the City is a sub-recipient of the state - the recipient - and works directly with Cal OES and FEMA coordinators. When PA program funds are available to eligible jurisdictions, the jurisdictions also become eligible recipients of the CDAA and receive supplemental state funding for eligible disaster costs.

**Figure 2 - Public Assistance Claims Process**





## 6.12 DAMAGE ASSESSMENT

1. **Overview:** Damage assessment is an ongoing process during the response and recovery phases. The City's ability to accurately assess the extent of damage it sustained and quantify associated costs immediately after a disaster will be limited. Accurately understanding loss and damage is a time-consuming process that occurs over the course of short-, intermediate-, and long-term recovery. The primary focus on damage assessment in the Plan is the PA Preliminary Damage Assessment (PDA), a time-sensitive process of reporting initial estimates to the state through the OA to substantiate the need for a presidential declaration and request federal assistance.
2. **Method:** The City's approach to conducting the PDA will require a concerted effort from a number of different internal and external partners to collect, evaluate, and report the information. These partners may include risk management, facilities maintenance, transportation, DOC, insurance companies, building inspectors, code enforcers, private contractors, windshield surveys, GIS imagery, and drone-enhanced photography and videotaping.
3. **Written Documentation:** Substantiating the impact damaged infrastructure and critical facilities will have on the City is an essential part of the PDA process. Narrative statements illustrating the consequences of the disaster help demonstrate that the disaster is beyond the City's resources and supplemental federal assistance is needed to recover.

The most effective documentation is a series of short, written impact statements citing numbers or statistics that lend context to the disaster. Impact statements should document both the direct and indirect consequences damaged and destroyed infrastructure and critical facilities will have on the City and answer the question: How will the unique resources of the federal government reduce the impact of the disaster or expedite recovery?

Some disasters create an extraordinary concentration of damage that might warrant federal assistance even if the statewide threshold is not met - impact statements can verify this.

4. **Visual Documentation:** In addition to written documentation, all PDA information must include photographs or other visuals. Visual documentation can significantly expedite both Cal OES and FEMA verification.

While it is not necessary to include photographs of all emergency protective measures, photographs should verify damage at sites requiring emergency construction, e.g., an emergency road or bridge. Incorporating photographs in diagrams or maps can also illustrate the location and extent of damage to expedite decision-making.

When possible, damage dimensions, materials, and size or capacity of the damaged facilities should be captured as this information is often critical to estimating and verifying the required restoration work and cost.

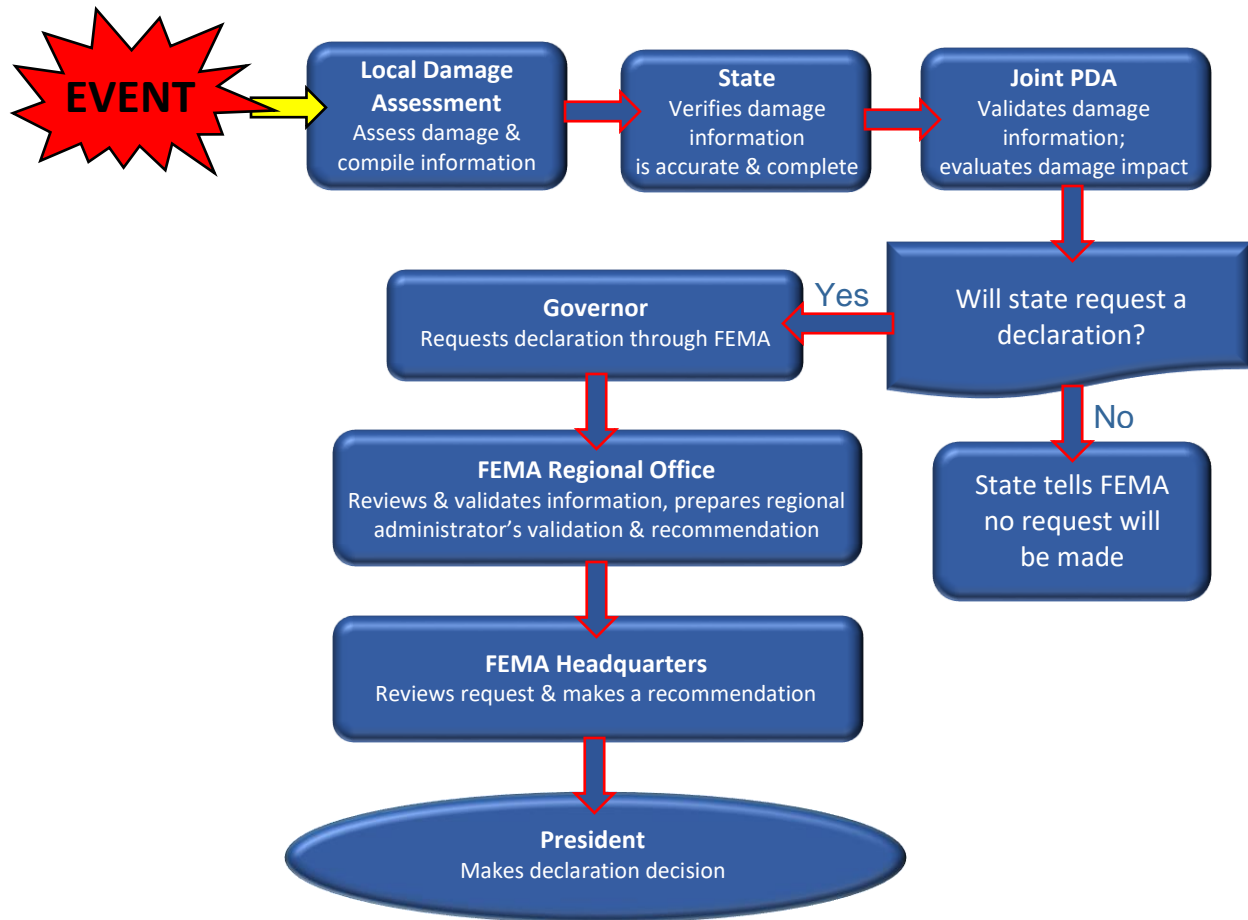
5. **Document Collection and Submission:** The EOC collects, organizes, and sends to FEMA, all PDA-related information. The local damage assessment coordinator (DAC) uploads all PDA information to WebEOC and serves jointly with the EOC coordinator as the primary point of contact for the OA, Cal OES, and FEMA during the PDA and cost recovery processes.

The DAC also ensures the OA receives a copy of the City's emergency proclamation and that all PDA information is entered on FEMA's PDA Form 90 – 80. The OA sends local jurisdictions PDA submittal deadlines, typically within seven to ten days after the disaster.

6. **Joint PDA Process:** The state, through Cal OES, confirms that PDA information submitted by the Orange County OA and its local jurisdictions is complete, accurate, and consistent with program criteria, ensuring impacted jurisdictions are eligible to participate in the joint state and federal government PDA (Joint PDA) process. Once validated, Cal OES submits a Joint PDA request. During the Joint PDA evaluation, local jurisdictions must provide:
  - a. Tours of damage sites for state and federal PDA teams
  - b. Information about threats to public health and safety, e.g., hazardous materials, dangerous roads, bridges, etc.
  - c. Information about affected populations and their recovery needs

The Joint PDA serves as the final arbiter of whether an official request for a federal declaration of emergency or major disaster will be made. (See figure 3 below.)

Figure 3 - Federal Declaration of Emergency/Major Disaster Process



### 6.13 REIMBURSEMENT AND ELIGIBLE COSTS

The PA program is designed to assist the City recover from, not return to, its pre-disaster state. FEMA has significant latitude in administering the program and while the Stafford Act outlines baseline standards, no two disasters will be treated equally. The rules and regulations governing the program not only change constantly, they are interpreted differently across all ten FEMA regions. Understanding the current process and PA documentation requirements for a specific disaster affecting the City will be key to successfully recovering costs.

Under the Stafford Act, awarded PA grants must amount to not less than 75 percent of eligible costs. While the president has discretion to increase coverage of eligible costs for a particular disaster, in most cases it remains at 75 percent. There are four basic components of PA program eligibility.

1. Applicant must be eligible
2. Applicant's facility must be eligible:
  - It is the legal responsibility of an eligible applicant
  - It is located in a designated disaster area

- It is not under the specific authority of another federal agency
  - It is in active use at the time of the disaster
  - It is damaged as the result of the declared disaster or emergency
3. Work must be eligible:
- It is the legal responsibility of an eligible applicant
  - It is in the designated disaster area, except for shelter and evacuation activities
  - It is required as a result of the declared event (see 5.14 Emergency Work)
4. Cost of the work must be eligible:
- It is reasonable and necessary to complete the eligible work
  - It is compliant with federal, state, and local procurement requirements
  - It is reduced by all applicable credits, e.g., anticipated insurance proceeds and salvage values

## **6.14 EMERGENCY WORK**

### **6.14.1 Category A: Debris Removal**

Remove trees and woody debris, certain structure wreckage, damaged or destroyed structure contents, vehicles, sand, mud, silt and gravel, and other disaster-related material deposited on public and, in very limited cases, private property.

### **6.14.2 Category B: Emergency Protective Measures**

Eliminate or reduce an immediate threat to life, public health or safety; eliminate or reduce an immediate and significant threat of damage to public or private property.

### **6.14.3 Category C: Roads and Bridges**

Repair roads, bridges, and associated features e.g., shoulders, ditches, culverts, lighting, and signs.

### **6.14.4 Category D: Water Control Facilities**

Repair drainage channels, pumping facilities, and some irrigation facilities; restricted eligibility for repairs to levees, dams, and flood control channels.

### **6.14.5 Category E: Buildings and Equipment**

Repair or replacing buildings including their contents and systems, heavy equipment, and vehicles.

### **6.14.6 Category F: Utilities**

Repair water treatment and delivery systems, power generation and distribution facilities, sewage collection and treatment facilities, and communications.

### **6.14.7 Category G: Parks, Recreational Facilities, and Other Facilities**

Repair and restore parks, playgrounds, pools, cemeteries, mass transit facilities, and beaches; any work or facility that cannot be adequately characterized in Categories A through F.

## 6.15 PROCUREMENT

To receive PA grants for eligible work during the cost recovery process, the City must comply with 2 C.F.R Part 200, Uniform Rules, particularly 2 C.F.R. § 200.317 to § 200.326, which set out various procurement standards for property and services.<sup>41</sup> Failure to comply has been the most common and most significant factor leading to grant de-obligation during future FEMA and Office of Inspector General audits. Although 2 C.F.R. is attached to the Plan and should be referenced throughout the recovery process, some of the more notable compliance-related issues in the regulation require that the City:

- Follow the more restrictive of either its own documented procurement procedures which reflect applicable state and federal laws or, where its procurement procedures are less restrictive than those in 2 C.F.R. 200, follow the federal regulation.
- Oversee all contract work to ensure it conforms to the terms of the written contract.
- Follow written standards for conduct covering both direct and apparent organizational or personal conflicts of interest and governing the actions of its employees engaged in selecting, awarding, and administering contracts.
- Conduct, when appropriate, an analysis of lease versus purchase alternatives and any other appropriate analyses to ascertain the most economical option.
- Determine when it is appropriate to combine procurements or projects for economic reasons.
- Follow value engineering clauses in construction project contracts of sufficient size to offer reasonable opportunities for cost reduction.
- Award contracts only to responsible contractors and subcontractors who have never been debarred or suspended from any federal project or programs and who are demonstrably able to successfully perform under the terms and conditions of the proposed requirements. Some criteria defining responsible contractor include contractor's:
  - Integrity
  - Compliance with public policy
  - Record of past performance
  - Resources - financial and technical – sufficient to deliver the product or service
- Maintain records detailing the procurement history, e.g., records detailing the rationale for the procurement method used, the contract selected, the contractor selected or rejected, and the contract price.
- Present and conduct all required procurement transactions in a manner providing full and open competition, i.e., all responsible sources interested in competing are permitted to do so.
- Procure goods and services by noncompetitive proposals only under specific conditions:

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<sup>41</sup> For large-scale disasters, the first 48 to 72 hours are typically considered exigent or emergency circumstances and are exempt from the rules in 2 C.F.R. §§ 200.317 to 200.326.



- When dealing with sole-source suppliers
- In exigent or emergency circumstances
- Where there is competition inadequacy
- Where single solicitation of proposals occurs
- Engage in joint procurement with other entities where appropriate.

### 6.16 COST RECOVERY BEST PRACTICES



#### Pre-Disaster Cost Recovery

- Train personnel
- Assemble cost recovery team
- Develop recovery and cost recovery plans
- Adopt standard forms
- Develop policies and procedures
- With Facilities Management develop debris management plan
- Organize/document damage assessment process
- Establish pre-existing contracts
- Use electronic document management system



#### Post-Disaster Cost Recovery

- Activate cost recovery team
- Help assess damage costs
- Monitor spending
- Calculate overtime burn rate
- Estimate revenue impacts/total damages to City property
- Track employee and mutual aid time
- Track volunteer time and donations
- Track shelter and other survivor services costs
- Ensure regular contracting and procurement processes comply with FEMA requirements
- Maintain recovery and cost recovery files for long-term
- Retrain personnel for next incident incorporating lessons learned

### 6.17 INDIVIDUAL ASSISTANCE

Individual assistance is money or other direct assistance to individuals, families, and businesses in an area where property has been damaged or destroyed and whose losses are not covered by insurance. It is meant to help with critical expenses that cannot be met in other ways; it is not intended to restore damaged property to its pre-disaster condition.

While some housing assistance funds are available through the Individuals and Households Program, most federal government disaster assistance is in the form of loans administered by the SBA (see 5.17.2 SBA Disaster Loans).

### **6.17.1 Individual Assistance Housing Program**

Temporary Housing (a place to live for a limited time) - money to rent a place to live or to move to a government-provided housing unit when rental properties are not available.

Home Repair - money to homeowners to repair disaster damage to their primary residence not covered by insurance to make the damaged home safe, sanitary, and functional.

Home Replacement - money to help homeowners replace their home destroyed in the disaster and not covered by insurance.

Needs Other than Housing - money for necessary expenses and serious needs caused by the disaster including disaster-related:

- Medical and dental costs
- Funeral and burial costs
- Clothing
- Household items (furnishings, appliances)
- Tools (specialized or protective clothing and equipment) required for citizens' jobs
- Necessary educational materials (computers, school books, supplies)
- Fuels for primary heat sources (oil, gas, firewood)
- Clean-up items (dry/wet vacuum, air purifier, dehumidifier)
- Repair of disaster damaged vehicles
- Moving and storage expenses (moving and storing property to avoid additional disaster damage while disaster-related repairs are made to the home)
- Other expenses FEMA designate necessary expenses, or serious needs

### **6.17.2 SBA Disaster Loans**

SBA provides three types of federally subsidized disaster loans to qualified homeowners and businesses to repair or replace homes, personal property, or businesses that sustained damages not covered by insurance.

- *Home disaster loans*: money for homeowners and renters to repair or replace disaster-related damages to home or personal property.
- *Business physical disaster loans*: money for business owners to repair or replace disaster-damaged property, including inventory and supplies.
- *Economic injury disaster loans*: money for small businesses and small agricultural cooperatives to help them through the disaster recovery period.

### **6.17.3 Other Disaster Assistance Programs**

#### Legal Services

After the president declares a major disaster and victims' basic needs have been met, FEMA may activate Disaster Legal Services which, through a contract with the Young Lawyers Division of the American Bar Association, provides immediate, temporary, free

legal assistance to low-income victims. Volunteer attorneys work primarily at a FEMA disaster application center and may also have their names and telephone numbers included on a list of volunteer attorneys made available to qualifying individual victims.

### Crisis Counseling

After a presidential disaster declaration, states are eligible to apply for Crisis Counseling Assistance and Training Program (CCP) assistance. Authorized under the Stafford Act and funded by FEMA, the CCP provides short-term assistance to individuals and communities recovering from the effects of devastating disasters through community-based outreach and psychoeducational services by behavioral health organizations under contract with the state's department of mental health.

#### Benefits of CCP Programs

- Improved coping skills
- Access to educational and resource materials
- Relationships with community resource organizations, faith-based groups, and local agencies
- Referrals to additional relief, mental health, or substance use treatment services

CCP offers two grant programs:

- Immediate Services Program – 60 days,
- Regular Services Program – 9 months.

Both programs offer culturally competent, respectful, sensitive, in-person crisis counseling services by mental health professionals and paraprofessionals in shelters, homes, and other non-clinical locations. CCP assistance is designed to supplement, not supplant, existing community services.

### Disaster Unemployment Assistance (DUA)

After the president declares a major disaster, FEMA, in coordination with the U.S. Department of Labor, makes unemployment assistance available through DUA to individuals whose employment or self-employment is lost or interrupted as a direct result of the disaster and who are not eligible for state unemployment benefits. A potential recipient must meet one of four threshold requirements. He or she:

- No longer has a job or a place to work, or
- Cannot reach the place of work, or
- Cannot work because the place of work is damaged, or
- Cannot work because of an injury as a result of the disaster

If a head of household dies as a result of the disaster and another individual becomes head of household and is seeking employment, that individual may also qualify for DUA benefits.

California residents who lose their jobs and cannot work because of the disaster may be eligible for either State Unemployment Insurance (SUI) or, if they do not qualify for SUI, federal DUA.

Residents who need help finding employment can find job search assistance, online job listings, workshops, wage and trend information, and other employment and training information on the Employment Development Department website as well as on the America's Job Center of California and CalJOBS websites.

Residents who are or become ill or injured as a result of the disaster and cannot work may be eligible for disability insurance benefits under the State Disability Insurance program.

*Non-Profit, Volunteer, and Charitable Organizations*

Volunteer and charitable organizations provide a wide variety of relief efforts to communities and individuals to mitigate the effects of a disaster. The two largest and most diverse are ARC and Salvation Army.

ARC is authorized under a congressional charter to provide mass food and shelter; resource warehousing and distribution; communication; and health and mental health services to address basic needs and enable individuals to resume normal daily activities. Local ARC chapters use trained, volunteer-staffed Disaster Action Teams to support their communities. To help as many people as possible, ARC also maintains a database of multilingual volunteers who provide translation and interpretation services when required.

Salvation Army focuses its relief efforts on providing seven core services tailored to the magnitude of the disaster and the specific needs of the affected communities:

1. *Training* - prepares individuals and communities for disasters and to become disaster volunteers
2. *Food service* - dispatches Salvation Army mobile feeding units stocked with meals, snacks, and drinks to on-site rescue workers and survivors
3. *Emotional and spiritual care* - deploys specially trained individuals to support rescue workers and disaster survivors
4. *Emergency communications* - mobilizes its Salvation Army Team Emergency Radio Network, a worldwide network of volunteer amateur radio operators and other communications specialists
5. *Disaster social services* - provides emergency assistance to help meet survivors' needs for food, clothing, shelter, and medical services
6. *Donation management* - collects, sorts, and distributes donated goods and encourages cash donations, which are efficiently received and distributed
7. *Recovery* - supports long-term disaster recovery operations by providing services tailored to the unique needs of the affected community

## **6.18 RECOVERY COORDINATION CENTER**

Since recovery operations may go on for years, it is not feasible to base recovery operations in the City EOC, which should be available to support new emergency response operations. Instead, the DES, in consultation with the Policy Group and

recovery operations coordinator, may move recovery operations to another facility designated as the recovery coordination center (RCC).

Consideration should be given to co-locating the RCC with a facility already providing services to the public and available to support long-term recovery needs. This one stop opportunity for community members may address temporary housing, demolition permits, building permits, federal grants, tax relief, ARC services, etc. Before renting or assigning the facility, the City should coordinate with Cal OES and FEMA.

#### **6.19 AFTER-ACTION REPORTING**

The City follows the best practice of conducting a thorough After Action Report (AAR) after any emergency requiring the EOC to activate. The OEM coordinates this using activity logs, distributing surveys, and facilitating after action conferences to identify the strengths and deficiencies of the response. When data and response personnel input is received, a draft AAR is compiled and distributed to all executive staff for review and input before finalizing the report.

The manager of emergency services completes, distributes, and sends the City's AAR to external agencies and partner organizations involved in the response. The AAR is integrated into future EOC exercises and influences the future priorities of the OEM.



## PLAN DEVELOPMENT AND MAINTENANCE

The development of an Emergency Operations Plan is a cooperative effort between all City of Irvine departments, the Orange County Fire Authority, and other external agencies that have an emergency response role. The planning process is designed to ensure a commitment to the tenets contained in the plan, consider the needs of the community, incorporate the various supporting agencies capabilities and limitations, and maximize resources. Each department and stakeholder is equally engaged in the development of this EOP. They are solicited for input, best practices, and lessons learned. Each input is carefully considered and, if appropriate, incorporated into the EOP in such a way as to integrate it with the EOP's overall purpose and structure. Draft versions of the EOP are distributed for review and comment by appropriate stakeholders. All comments are again considered, revisions made as necessary, and then the EOP is submitted to all department heads for concurrence. Once every department head concurs with the plan, it is then submitted to the City Council for approval and adoption by resolution.

The Irvine Police Department Office of Emergency Management has the lead staff responsibility for EOP development and planning with responsibilities for:

- Communicating information within the City of Irvine on EOP requirements and guidelines.
- Coordinating the EOP development among departments and agencies.
- Coordinating with the Orange County Fire Authority, other local governments, the operational area, and volunteer and private agencies on development of the EOP.
- Incorporating SEMS and NIMS into the City of Irvine's Emergency Operations Plan and procedures.
- Incorporating SEMS and NIMS into the City of Irvine's emergency ordinances, agreements, memorandum of understandings, etc.
- Identification of special districts that operate or provide services within the boundaries of the City of Irvine. The emergency role of these special districts shall be determined and provisions made for coordination during emergencies.
- Identification of local volunteer and private agencies that have an emergency response role. Contacts should be made to develop arrangements for coordination during emergencies.

The Plan is subject to revision based on City reorganization, new laws, experience with exercises, and actual disasters. It will undergo official review, approval and adoption every five years but will be updated regularly in between review cycles to ensure Plan elements remain valid and up-to-date. Each department is responsible for maintaining and tracking updates made to internal emergency protocols and policies which will not be referenced in the Emergency Operations Plan or retained by the Office of Emergency Management.

## EMERGENCY MANAGEMENT ACRONYMS

The following acronyms for entities, programs, and legislation are used throughout the Plan.

Abbreviation	Title	Abbreviation	Title
AAR	After Action Report	JWA	John Wayne Airport
ARC	American Red Cross	LAC	Local Assistance Center
Cal OES	CA Office of Emergency Services	MOA	Memorandum of Agreement
CALWAS	CA Warning System	MobileComm	Mobile Command Post
CCP	Crisis Counseling Assistance and Training Program	MOU	Memorandum of Understanding
CDAA	CA Disaster Assistance Act	NAWAS	National Warning System
CMMAA	CA Master Mutual Aid Agreement	NGO	Non-Governmental Organizations
COAD-OC	Collaborative Organizations Active In Disaster	NIMS	National Incident Management System
DAC	Damage Assessment Coordinator	NRF	National Response Framework
DAFN	Disability, Access, and Functional Needs	NTAS	National Terrorism Advisory System
Dept. SOP	Department Standard Operating Procedures	NWS	National Weather Service
DES	Director of Emergency Services	OA	Operational Area
DHS	Department of Homeland Security	OCEMO	OC Emergency Management Organization
DOC	Department Operations Centers	OCFA	OC Fire Authority
DRC	Disaster Recovery Centers	OCHA	OC Health Care Agency
DSW	Disaster Service Workers	OCOA	OC Operational Area
EAS	Emergency Alert System	OCSO	OC Sheriff's Department
EDIS	Emergency Digital Information System	OEM	Office of Emergency Mgmt.
EMAC	Emergency Mgmt. Assistance Compact	PA	Public Assistance
EOC	Emergency Operations Center	PDA	Preliminary Damage Assessment
EOC AP	EOC Action Plans	PIO	Public Information Office
ESA	CA Emergency Services Act	Plan	Emergency Operation Plan
ESF	Emergency Support Functions	RACES	Radio Amateur Civil Emergency Services
FCO	Federal Coordinating Officer	RCC	Recovery Coordination Center
FEMA	Fed. Emergency Mgmt. Agency	REOC	Regional EOC Director
ICP	Incident Command Post	ROM	Recovery Operations Manager
ICS	Incident Command System	SBA	Small Business Administration
IDEC	Irvine Disaster Emergency Communications	SCE	Southern California Edison
IPAWS	Integrated Public Alert and Warning System	SCO	State Coordinating Officer
JFO	Joint Field Office	SEMS	Standardized Emergency Management System
Joint PDA	Joint federal and state PDA	SOC	State Operations Center
		Stafford Act	Public Law 93-288
		SUI	State Unemployment Insurance

## AUTHORITIES AND REFERENCES

### CITY OF IRVINE AUTHORITIES

- Irvine Municipal Code, Title 4, Division 9 - Emergency Services
- Local Hazard Mitigation Plan, 2020
- Harbor Region Memorandum of Agreement (MOA) for Emergency Management Resources
- Irvine PD Policy 350 – Public Alerts
- Irvine PD Policy 351 - Emergency Telephone Notification

### COUNTY OF ORANGE AUTHORITIES

- Orange County Code, Title 3, Division 1 (Emergency Services)
- Orange County Operational Area Agreement
- Unified County of Orange and Orange County Operational Area Emergency Operations Plan
- Memorandum of Understanding with the County of Orange for use of Countywide Mass Notification System
- Orange County's Public Works Mutual Aid Plan, October 1990
- Orange County Fire Authority Joint Powers Agreement, 1999

### STATE OF CALIFORNIA AUTHORITIES

- California Standardized Emergency Management System Regulations (Chap. 1 Div. 2 19 CCR §§2400 - 2450 and Gov. Code §8607(a))
- California Emergency Services Act, 2015
- California State Emergency Plan, 2017
- California Master Mutual Aid Agreement
- California Emergency Management Mutual Aid Plan, November 2012
- Legal Guidelines for Controlling Movement of People and Property During an Emergency (1999)
- Standardized Emergency Management System (SEMS) Regulations (Chapter 1 of Division 2 of Title 19 of the California Code of Regulations 2400-2450 and Government Code Section 8607[a])
- [Govt. Code Title 1, Div. 4, Ch.8, 3100 - 3101](#) Disaster Service Workers
- Fire Service and Rescue Emergency Mutual Aid Plan (Cal OES), April 2019
- California Law Enforcement Mutual Aid Plan, June 2016

### Federal Authorities

- Homeland Security Presidential Directive 5, Management of Domestic Incidents
- Homeland Security Presidential Directive/HSPD 8 National Preparedness
- Post Katrina Emergency Management Reform Act of 2006, 6 U.S.C. §701 as amended
- National Incident Management System (NIMS) – Department of Homeland Security

- Department of Homeland Security, National Response Framework (NRF)
- Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 (P.L. 93-288, as amended)
- Federal Disaster Relief Act of 1974
- Memorandum of Agreement with the Federal Emergency Management Agency (FEMA) for use of the Integrated Public Alert and Warning System (IPAWS)