

**Can the Emergency Operations Center
Survive a Catastrophic Event?**

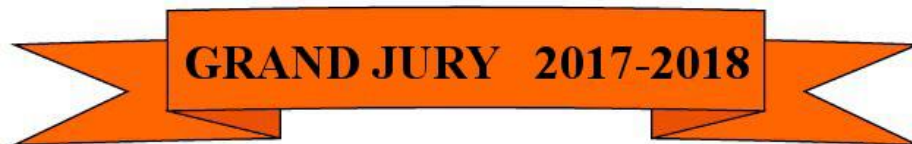


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SUMMARY

The Orange County Emergency Operations Center (EOC) is the heart of the county's response activity during a major disaster. While it stands ready for action at any time, there are issues which could render the facility unusable if a disaster occurs.

Located at the top of Loma Ridge near the City of Orange, the facility is accessed by a 1.3-mile narrow and winding road with only three turnouts, making it difficult for vehicles to pass in opposite directions. The road is dangerous, with a number of blind curves and signs of degradation and slippage. Surrounding both the roadway and the facility are dry, overgrown weeds which could easily catch fire. Inside the building, office equipment and supplies have not been consistently and properly secured to withstand an earthquake.

As a result of its investigation, the Grand Jury recommends the following:

- The County of Orange and the Orange County Sheriff's Department should work collaboratively to address the condition and width of the road to the EOC facility, ensuring that multiple emergency responders can safely travel both to and from the facility to perform their duties when an emergency is declared.
- The Sheriff's Department should immediately take action to ensure that all equipment is properly secured and placed in a manner to prevent injury.

REASON FOR THE STUDY

During multiple tours of the EOC facility, the Grand Jury noted issues that present major concerns should there be a large-scale disaster such as a brush fire or earthquake. With the current condition of the access road, it is not clear that the road can safely accommodate the volume of traffic that occurs when the EOC is activated. The Grand Jury also reviewed several Grand Jury reports from past years (1998-1999, 1999-2000 and 2014-2015) which focused on the condition of the road to the facility, and discovered that several important recommendations

have not been implemented. Therefore, the Grand Jury initiated a new investigation focusing on access to the facility and internal safety measures.

METHOD OF STUDY

During the investigation, the Grand Jury conducted the following:

- review of previous Grand Jury reports, findings, and recommendations
- interviews with personnel from the Orange County Sheriff's Department
- interviews with personnel from Orange County Parks and Recreation
- interviews with personnel from Orange County Fire Authority
- interviews with personnel of private weed abatement companies
- review of information and reports concerning emergency operations in California and other states
- tours of the EOC during routine days and during activation
- review of aerial photos of the EOC area

BACKGROUND AND FACTS

The Emergency Operations Center Facility

The EOC is the hub for coordinating activity and communication when an event of major proportion occurs, such as an earthquake, fire, tsunami, flood, major chemical spill, mass shooting, or civil disturbance. During activation, one hundred and fifty or more emergency responders may need to assume their positions at the EOC within an hour. (See List of Emergency Responders - Appendix 1.) Emergency responders coordinate all activities and resources required to address the needs of the public, including evacuations, shelters,

transportation, food and clothing, and recovery. However, they do not directly control field assets such as fire personnel and equipment, ambulances, police officers, buses, or evacuation sites – all of which are under the purview of the respective County and city agencies, special districts, and private organizations.

When a local emergency occurs, city and County management contact EOC staff on the twenty-four hour emergency access line to request assistance. The EOC can be activated at one of three levels, depending on the scope of the emergency:

- Level 1 for lower-level, two-city events, or events, which affect a city and the County
- Level 2 for more serious issues requiring the assistance of numerous support agencies and some evacuations
- Level 3 for a large-scale event requiring immediate response from support agencies to assist with evacuations, medical aid, and damage mitigation

Activation of the EOC requires that emergency responders assume a twelve-hour on, twelve-hour off schedule. To reach their positions, most emergency responders will arrive at the EOC by vehicle, and are expected to arrive within one hour of being called.

In order to ensure centralized and effective coordination of all response and recovery activity, the EOC is set up in the following manner:

The Command Center (Policy Group) includes upper level County Department, Orange County Fire Authority, and Orange County Transportation Authority managers who are responsible for making strategic policy decisions.

Source – Orange County Grand Jury



Can the Emergency Operations Center Survive a Catastrophic Event?



Source – Orange County Grand Jury

The Support Center staff provides the support functions for operating the EOC, such as situation analysis, documentation, the Public Information Hotline, and runners.

The Operations Center brings together managers and staff from various agencies and departments who are responsible for coordinating the emergency response and recovery efforts. Represented here are County, cities, special districts, the California Highway Patrol, Caltrans, California Office of Emergency Services and non-governmental agencies such as American Red Cross, Salvation Army, and the Water Emergency Response Organization of Orange County.

Four leadership positions are assigned to the Operations Center to oversee the coordination of all participating agencies: the Operations Center Chief, the Planning/Intelligence Chief, the Logistics Chief, and the Finance Chief.



Source – Orange County Grand Jury

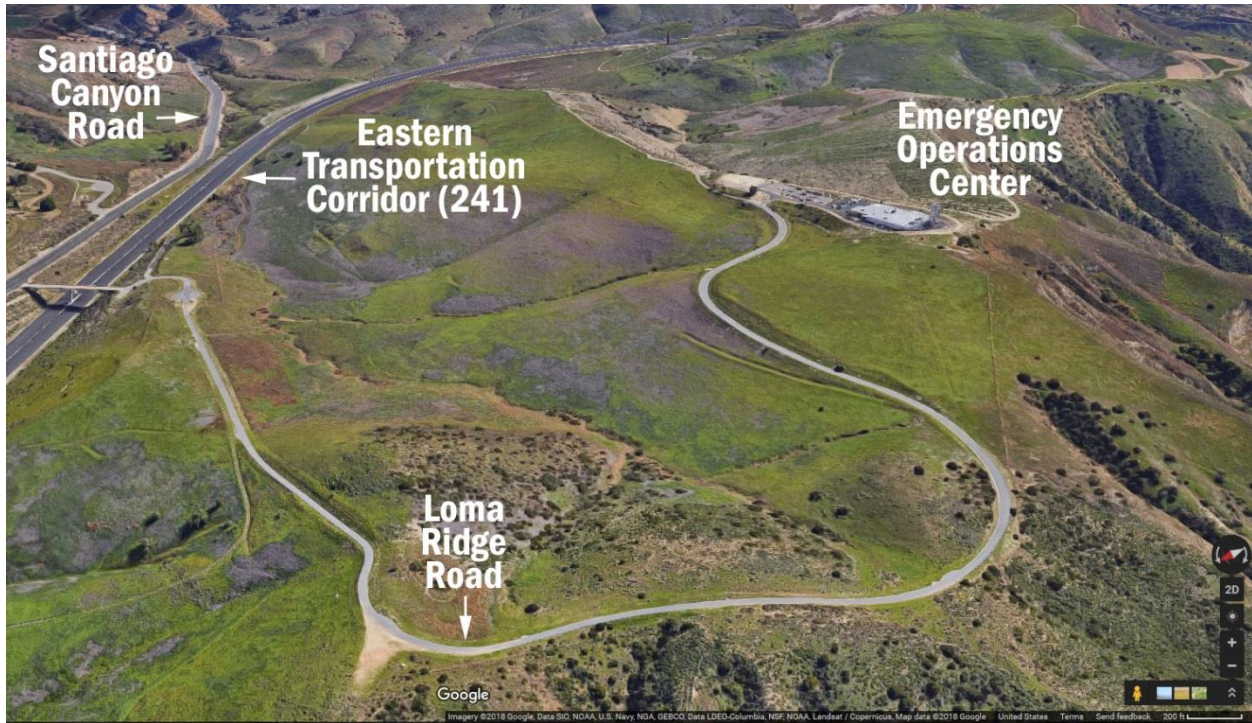
The Access Road

Following the 1.3-mile narrow and winding Loma Ridge Road (see Figure 4), the Grand Jury ascended the hill to the EOC facility, approximately 1,273 feet above sea level. The Grand Jury observed signs of road deterioration and earth slippage, and noted that the paved, narrow road, which ranges in width from 16.5 feet to 25 feet, provides little or no room for passing vehicles. Several blind curves impair visibility. As vehicles meet while traveling the road in opposite directions, the vehicle going downhill is required to stop to allow the vehicle coming up to pass. There are three turnouts along the road; however, these turnouts are situated next to very steep drop-offs with no barriers, making them inordinately dangerous. The turnouts average a maximum width of eleven feet from the edge of the paved road, and are approximately sixty feet long. They are located at points 1,025 feet, 2,025 feet, and 3,225 feet from the front gate. The Grand Jury was advised that in a disaster affecting the road the only alternative access to the EOC is by helicopter.

These conditions pose significant danger to the staff working at the EOC on a daily basis. During a disaster, when many more vehicles are using the road to and from the facility, safety issues are magnified.

The 2014-2015 Grand Jury Report concluded that widening the road would be beneficial, but that the road is adequate for fire vehicle access. The 2017-2018 Grand Jury considered the large number of other vehicles accessing the EOC during an emergency and believes this creates a need for immediate road improvements to ensure safety.

Figure 1 Loma Ridge Road - access to the Emergency Operations Center



Source: Adapted from Google Maps

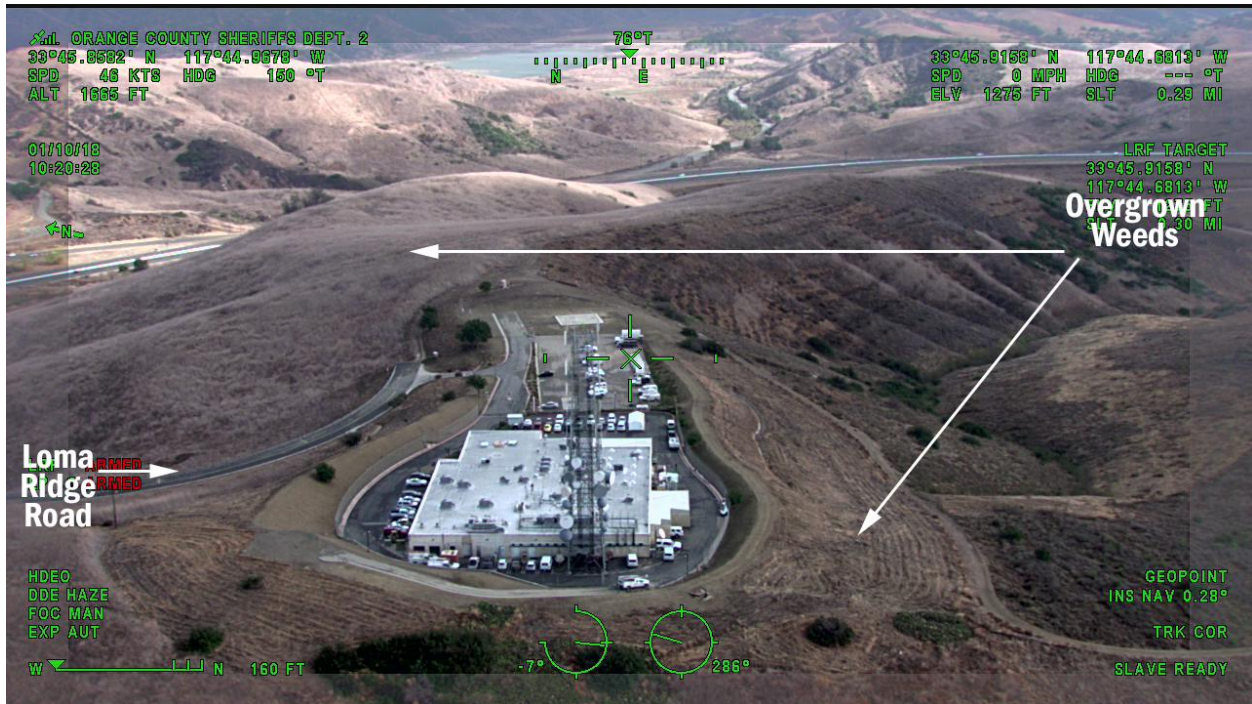
Weed Overgrowth

As illustrated in Figures 2 and 3, the Grand Jury noted an abundance of overgrown weeds at the edge of the road and on the shoulders, obstructing many of the areas where vehicles must maneuver when trying to pass each other. Not only does this overgrowth affect the ability to drive along the road, it presents a serious fire hazard. The EOC and its surrounding area are located in an area of high fire danger. (See Appendix 2)

According to the guidelines on the County Public Works website, grass, noxious weeds, trash, rubbish, and other flammable material should be removed from vacant lots and areas surrounding buildings.

Can the Emergency Operations Center Survive a Catastrophic Event?

Figure 2: Emergency Operations Center – Aerial View – showing areas where there are dried, overgrown weeds.



Source: Adapted from Orange County Sheriff's Department photo

In 2007, the Santiago Canyon Fire burned the entire brush area surrounding the EOC facility and along the road leading to the facility, putting the staff, equipment, and the building in danger.

Figure 3: Weed and Brush Overgrowth around the Emergency Operations Center



Source: Orange County Grand Jury

Alternative Access Road

The Sheriff's Department has identified a second potential exit route, which runs along the rim of the ridge. This is the Loma Ridge Jeep Trail (see Figure 4), a very narrow dirt path. Due to its unpaved condition, it is unsuitable for emergency or other vehicles traveling to or from the EOC.

Figure 4: Aerial View Loma Ridge Jeep Trail



Source: Adapted from Google Maps

Who Is In Charge?

In 1991, the Irvine Company gave the County six acres of land on top of Loma Ridge peak to build an Emergency Operations Center. The County was granted an easement for “improvement, construction, stabilization, operation, maintenance and use of a road together with supporting slopes and underground utilities necessary for operation of the Center (EOC), all to be constructed by the County at County’s sole cost and expense, for vehicular and pedestrian access to the Center.” A new 2010 agreement required that the County maintain all roads, identify and remediate erosion problems on the roads, and conduct weed abatement as necessary.

During its investigation, the Grand Jury learned that the County assigned the maintenance of the road and the land around the EOC to the Sheriff's Department. In past years, the Sheriff's Department employed a private contractor for this purpose. However, the contract has not been renewed for several years, and is not currently out for bid. Since 2013, the Sheriff has requested \$950,000 each year to address the deterioration of the road, but the Board of Supervisors has not provided that funding. The County's Public Works Department has the responsibility for maintenance of roads and trails in unincorporated areas, but has not been assigned that responsibility for Loma Ridge Road.

Inside the Facility

Throughout the EOC are offices and meeting rooms which contain computer equipment; office equipment; wall-mounted televisions and screens; and bookcases, cabinets and closets full of books, manuals, and office supplies. The Grand Jury observed that office equipment and storage cases have not been properly secured to work stations or to the walls. In the event of a major earthquake, equipment could be damaged or made inoperable, potentially impairing emergency operations. Unsecured equipment, books, manuals, and office supplies could become airborne, causing serious injury to EOC staff and emergency responders.

Figure 5: Office area at the Emergency Operations Center



Source: 2017-2018 Grand Jury

Conclusion

The EOC is a vital link between the County, emergency responders, and the public when a disaster occurs. Like any facility, however, it is vulnerable to natural disasters. Therefore, any hazardous situation which could affect the functionality of the EOC should be addressed completely and effectively.

FINDINGS

In accordance with *California Penal Code* Sections 933 and 933.05, the 2017-2018 Grand Jury requires (or, as noted, requests) responses from each agency affected by the findings presented in this section. The responses are to be submitted to the Presiding Judge of the Superior Court.

Based on its investigation titled “Can the Emergency Operations Center Survive a Catastrophic Event?” the 2017-2018 Orange County Grand Jury has arrived at five principal findings:

- F1.** The only access road to the Emergency Operations Center is narrow, with a number of dangerous winding turns, imperiling safe vehicle passage.
- F2.** The only alternative exit is an unpaved jeep trail that is narrower and more dangerous than the main access road and is unsuitable for vehicle passage.
- F3.** The failure to properly maintain the area around the Emergency Operations Center and eradicate the overgrowth of weeds impairs visibility and presents a major fire hazard.
- F4.** The Orange County Sheriff’s Department has been unable to fulfill the County’s responsibility to maintain the Emergency Operations Center’s access road, including weed abatement and road repairs.
- F5.** Office equipment, bookcases, and file cabinets are not properly secured and present a risk of injury and facility damage in a major earthquake.

RECOMMENDATIONS

In accordance with *California Penal Code* Sections 933 and 933.05, the 2017-2018 Grand Jury requires (or, as noted, requests) responses from each agency affected by the recommendations presented in this section. The responses are to be submitted to the Presiding Judge of the Superior Court.

Based on its investigation titled “Can the Emergency Operations Center Survive a Catastrophic Event?” the 2017-2018 Orange County Grand Jury makes the following five recommendations:

R1. By September 1, 2018, the County should consider assigning responsibility for maintaining the land around the Emergency Operations Center, as well as the road to the facility, to the Orange County Public Works Department, which has staff with expertise in this field. **(F1, F3, F4)**

R2. By December 1, 2018, the County should have plans in place to repair and widen the current access road, enhance and add turnouts, or add a new access road to provide safe travel to and from the Emergency Operations Center. **(F1)**

R3. By December 1, 2018, the County of Orange should have a contract in place to ensure regular weed abatement around the Emergency Operations Center and along Loma Ridge Road. **(F3, F4)**

R4. By January 1, 2019, the County of Orange and the Sheriff’s Department should initiate a study regarding the ability to use the Loma Ridge Jeep Trail as an emergency exit route from the Emergency Operations Center. **(F2)**

R5. By September 1, 2018, the Orange County Sheriff’s Department should ensure that all office furniture and equipment is properly secured to prevent damage or personal injury in a major earthquake. **(F5)**

RESPONSES

The following excerpts from the California Penal Code provide the requirements for public agencies to respond to the findings and recommendations of this Grand Jury report:

§933(c)

“No later than 90 days after the grand jury submits a final report on the operations of any public agency subject to its reviewing authority, the governing body of the public agency shall comment to the presiding judge of the superior court on the findings and recommendations pertaining to matters under the control of the governing body and every elected county officer or agency head for which the grand jury has responsibility pursuant to Section 914.1 shall comment within 60 days to the presiding judge of the superior court, with an information copy sent to the board of supervisors, on the findings and recommendations pertaining to matters under the control of that county officer or agency head or any agency or agencies which that officer or agency head supervises or controls. In any city and county, the mayor shall also comment on the findings and recommendations. All of these comments and reports shall forthwith be submitted to the presiding judge of the superior court who impaneled the grand jury. A copy of all responses to grand jury reports shall be placed on file with the clerk of the public agency and the office of the county clerk, or the mayor when applicable, and shall remain on file in those offices. . . . ”

§933.05

“(a) For purposes of subdivision (b) of Section 933, as to each grand jury finding, the responding person or entity shall indicate one of the following:

(1) The respondent agrees with the finding.

(2) The respondent disagrees wholly or partially with the finding, in which case the response shall specify the portion of the finding that is disputed and shall include an explanation of the reasons therefor.

(b) For purposes of subdivision (b) of Section 933, as to each grand jury recommendation, the responding person or entity shall report one of the following actions:

(1) The recommendation has been implemented, with a summary regarding the implemented action.

(2) The recommendation has not yet been implemented, but will be implemented in the future, with a timeframe for implementation.

(3) The recommendation requires further analysis, with an explanation and the scope and parameters of an analysis or study, and a timeframe for the matter to be prepared for discussion

by the officer or head of the agency or department being investigated or reviewed, including the governing body of the public agency when applicable. This timeframe shall not exceed six months from the date of publication of the grand jury report.

(4) The recommendation will not be implemented because it is not warranted or is not reasonable, with an explanation therefor.

(c) However, if a finding or recommendation of the Grand Jury addresses budgetary or personnel matters of a county agency or department headed by an elected officer, both the agency or department head and the board of supervisors shall respond if requested by the grand jury, but the response of the board of supervisors shall address only those budgetary or personnel matters over which it has some decision-making authority. The response of the elected agency or department head shall address all aspects of the findings or recommendations affecting his or her agency or department.”

Comments to the Presiding Judge of the Superior Court in compliance with Penal Code §933.05 are required from:

Responses Required:

Findings:

Orange County Board of Supervisors: F1, F2, F3, F4

Orange County Sheriff’s Department: F1, F2, F3, F4, F5

Recommendations:

Orange County Board of Supervisors: R1, R2, R3, R4

Orange County Sheriff’s Department: R1, R2, R3, R4, R5

REFERENCES

- *California Government Code*, Sections 51175-51189.
- County of Orange, “Orange County Operational Area Evacuation Annex Plan”, May 2015.
- Orange County Parks. “Irvine Ranch Open Space – Interim Operations Plan”. March 2010. Accessed: May 15, 2018.
http://cams.ocgov.com/Web_Publisher_Special/Agenda06_29_2010_files/images/O01410-000991E.PDF
- County of Orange, “Loma Ridge Irrevocable Offer of Dedication”, March 22, 1991.
- *Orange County [California] Code of Ordinances*, Title 3, Division 1.
- Orange County Sheriff’s Department, “Weed Abatement Contract”, May 2015.
- County of Orange. “Vegetation / Weed Abatement”. Accessed May 22, 2018.
<http://cms.ocgov.com/gov/pw/agricultural/abatement>.
- 1998-1999 Grand Jury Report, “Safety Concerns at the OC Operations Center”
- 1999-2000 Grand Jury Report, “Access Concerns at the Orange County Emergency Operations Center ”.
- 2014-2015 Grand Jury Report, “Can the Emergency Operations Center Loma Ridge survive a disaster?”
- Photos and Maps of Loma Ridge

Appendix 1

ORANGE COUNTY OPERATIONAL AREA MEMBERSHIP Effective May 2018

ORANGE COUNTY DEPARTMENTS

Assessor	
Auditor-Controller	Garden Grove
Child Support Services	Huntington Beach
Clerk-Recorder	Irvine
Community Resources	La Habra
Animal Care	La Palma
Public Libraries	Laguna Beach
County Counsel	Laguna Hills
County Executive Office	Laguna Niguel
Human Resources	Laguna Woods
District Attorney	Lake Forest
Health Care Agency	Los Alamitos
John Wayne Airport	Mission Viejo
Probation Department	Newport Beach
Public Defender	Orange
Public Works	Placentia
Registrar of Voters	Rancho Santa Margarita
Sheriff-Coroner	San Clemente
Communications	San Juan Capistrano
Social Services Agency	Santa Ana
Superior Court	Seal Beach
Treasurer-Tax Collector	Stanton
Waste and Recycling	Tustin
	Villa Park
	Westminster
	Yorba Linda

CITIES

Aliso Viejo
Anaheim
Brea
Buena Park
Dana Point
Fountain Valley
Costa Mesa
Cypress
Fullerton

SPECIAL DISTRICTS

Buena Park Library District
Capistrano Bay Community Services District
Costa Mesa Sanitary District
East Orange County Water District
El Toro Water District
Emerald Bay Community Services District
Garden Grove Sanitary District
Irvine Ranch Water District
Laguna Beach County Water District
Midway City Sanitary District
Moulton Niguel Water District
Municipal Water District of Orange County
Orange County Cemetery District
Orange County Fire Authority
Los Alamitos Unified School District
Lowell Join School District
Magnolia School District
Newport-Mesa Unified School District
Orange County Sanitation District
Orange County Transportation Authority
Orange County Vector Control
Orange County Water District
Placentia Library District
Rossmoor Community Service District
Santa Margarita Water District
Serrano Water District
Silverado-Modjeska Parks Recreation District
South Coast Water District
South Orange County Wastewater Authority
Sunset Beach Sanitary District
Surfside Colony Comm. Service Taxation Dist.
Surfside Colony Community Services
Three Arch Bay Community Service District
Trabuco Canyon Water District
Transportation Corridor Agency

Water Emergency Response Organization of
Orange County (WEROC)
Yorba Linda Water District

SCHOOL DISTRICTS

Anaheim City School District
Anaheim Union High School District
Brea-Olinda Unified School District
Buena Park School District
Capistrano Unified School District
Centralia School District
Cypress School District
Fountain Valley School District
Fullerton Joint Union High School District
Fullerton School District
Garden Grove Unified School District
Huntington Beach School District
Huntington Beach Union High School District
Irvine Unified School District
La Habra City School District
North Regional Occupational Program
Ocean View School District
Orange County Department of Education
Orange Unified School District
Placentia-Yorba Linda Unified School District
Saddleback Valley Unified School District
Santa Ana Unified School District
Savanna School District
Tustin Unified School District
Westminster School District

COLLEGES

California State University Fullerton
Chapman University
Coast Community College District
North Orange County Community College Dist.
Rancho Santiago Community College District
Saddleback College
South Orange County Comm. College District
University of California-Irvine

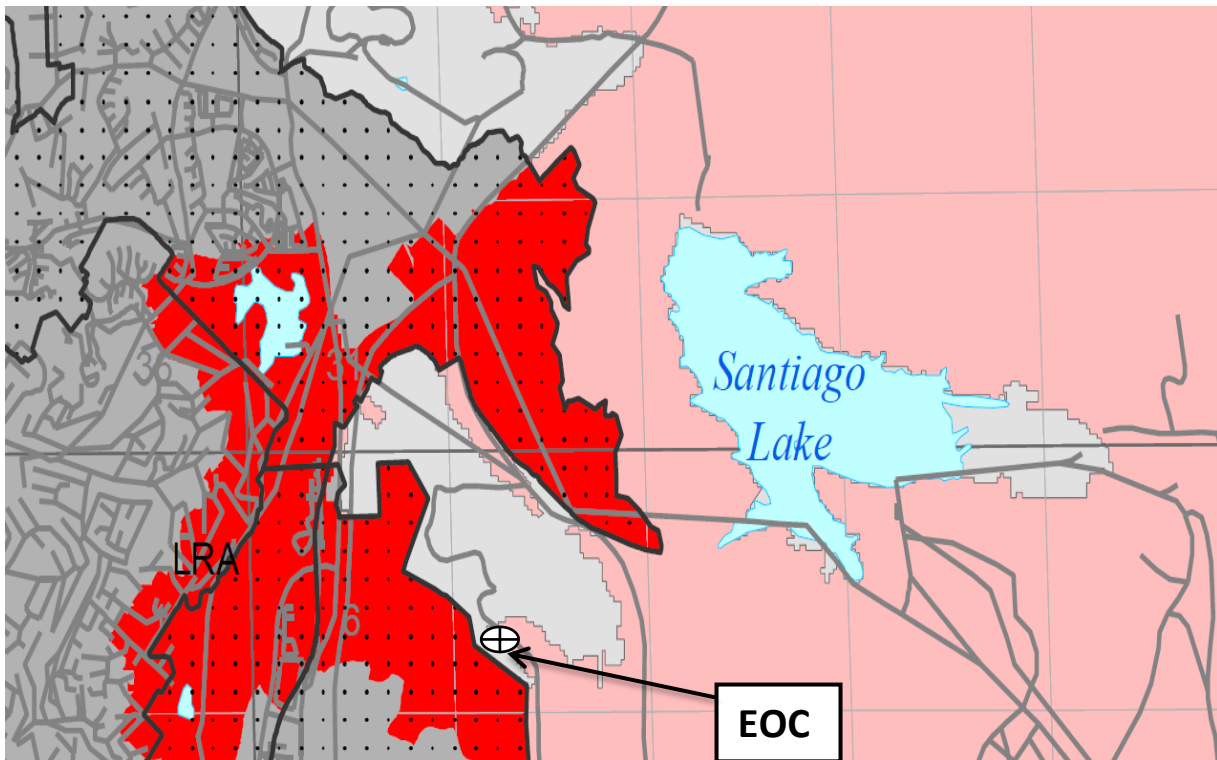
AFFILIATED MEMBERS

American Red Cross of Orange County
California Department of Transportation
Disneyland Resort
Hospital Association of Southern California
One OC
Operation OC
Orange County 2-1-1
Orange County Fair and Exposition Center
Radio Amateur Civil Emergency Service
Salvation Army
Seal Beach Naval Weapons Station

Appendix 2

CAL FIRE Map of Very High Fire Hazard Severity Zones LRA

LRA (Local Responsibility Area)



Note: Very High Fire Hazard Area are highlighted in RED

Source: Adapted from CAL FIRE