# Appendix R Evacuation Plan

# Wildfire Evacuation Plan

# Harmon Ranch Project

#### **FEBRUARY 2024**

Prepared for:

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- B1-B4 Family Disaster Plan and Personal Survival Guide

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# Acronyms and Abbreviations

Acronym/Abbreviation	Definition
CAL FIRE	California Department of Forestry and Fire Protection
CALTRANS	California Department of Transportation
CERT	Community Emergency Response Team
СНР	California Highway Patrol
City	City of San Diego
County	County of San Diego
DAS	Department of Animal Services
EAS	Emergency Alert System
EOP	Emergency Operations Plan
FEMA	Federal Emergency Management Agency
НОА	Homeowner's Association
IC	Incident Command
IFTSA	International Fire Service Training Association
NIMS	National Incident Command System
NWFCG	National Wildland Fire Coordinating Groups
OA	Operational Area
OES	Office of Emergency Services
Project	Harmon Ranch Project
SANDAG	San Diego Association of Governments
PFD	Poway Fire Department
SDCFA	San Diego County Fire Authority
SDSD	San Diego Sheriff's Department
SEMS	State Emergency Management System
TRA	Temporary Refuge Area
VoIP	Voice over Internet Protocol
WUI	Wildland-Urban Interface

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# Quick Reference - Wildfire Preparedness

The Quick Reference Guide provides helpful tips and educational resources, so residents are prepared in the event of a wildland fire evacuation.

Figure 1 illustrates the emergency evacuation routes potentially available to Harmon Ranch Project and surrounding communities. Figure 2 displays the Harmon Ranch Project's vicinity location and Figure 3 is the Project's site plan.

Residents and visitors should know available routes, stay informed, and follow directions provided by law enforcement or fire agencies, news media, and other credible sources. Do not rely on navigation apps that may inadvertently lead persons toward the approaching wildfire. The available and potential evacuation routes for the residents and guests of the Harmon Ranch community are detailed in Section 4 and illustrated in Figure 1.

# **Nearest Medical Facilities**

Hospitals:

Palomar Medical Center Poway

15615 Pomerado Rd, Poway, California 92064

Head west on Oak Knoll Road. Turn right on Pomerado Road. Turn right onto Hospital entrance road. Stay right and continue towards hospital.

**Urgent Care Facilities:** 

MD Today Urgent Care

10605 Scripps Poway Pkwy Suite C San Diego, California 92131 Perlman Clinic

11865 Carmel Mountain Road #1104 San Diego, California 92128



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DUDEK & <u>1,250</u> 2,500 Feet

Fire Evacuation Routes

Wildfire Evacuation Plan for the Harmon Ranch Project

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SOURCE: SAN GIS 2017



FIGURE 2 Project Site Vicinity and Aerial Map Wildfire Evacuation Plan for the Harmon Ranch Project INTENTIONALLY LEFT BLANK



SOURCE: Hunksaker 2023

ATTACHMENT 3 Site Plan Wildfire Evacuation Plan for the Harmon Ranch Project

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# Register to Receive Emergency Alerts

The City of Poway (City) utilizes Alert San Diego for its Community Emergency Notification System. Alert San Diego is a countywide standard system that is managed as a regional asset by the County of San Diego Office of Emergency Services. In the event of a wildfire within the City limits, the Incident Command (IC) or other City departments will contact the San Diego Sheriff's Department (SDSD). The SDSD has the ability to activate the Alert San Diego system and release an emergency notification (San Diego 2010) to affected populations, and only landlines are automatically registered. Therefore, residents of the Harmon Ranch Project are strongly advised to register their mobile phone numbers and email addresses with Reverse 9-1-1, Alert San Diego system (http://www.readysandiego.org/ AlertSanDiego/) in order to receive emergency evacuation instructions. The residents of Harmon Ranch are part of the greater San Diego media market and the media outlets will also be a good source of information, via television and radio, on overall emergency situations and how residents should respond. In addition, the San Diego Emergency Alert System (EAS) is county-wide and broadcasts emergency information via two radio stations: KOGO AM 600 and KLSD AM 1360. Television outlets include: Channel 24 – Cox Communications

- Channel 24 Time Warner Cable
- Channel 99 AT&T

Social media provides another outlet for news:

#### **City of Poway**

- Facebook: https://www.facebook.com/cityofpoway
- Twitter: https://twitter.com/cityofpoway
- **Poway City App:** https://poway.org/270/Service-Request

#### San Diego County Sheriff

• Twitter: https://twitter.com/sdsheriff

# Get Involved in Community Readiness

Residents of the Harmon Ranch Project are encouraged to join the Poway Community Emergency Response Team (CERT) (https://poway.org/436/Community-Emergency-Response-Team-CERT). The Harmon Ranch Homeowner's Association (HOA) will organize annual evacuation education for residents of the community, which should include engaging directly with organizations such as Poway Neighborhood Emergency Corps and Fire Safe Council (PNEC) and the Fire Safe Council of San Diego County, as well as maintaining a fire safe page on the community's website, as possible, including this Wildfire Evacuation Plan and links to important citizen preparedness information.

This Wildfire Evacuation Plan is prepared specifically for the Harmon Ranch Project and focuses on wildland fire evacuations, although many of the concepts and protocols will be applicable to other emergency situations.

Ultimately, this WEP should be used by residents for awareness of evacuation approaches during wildfires and other similar emergencies. It is important for the residents to understand the importance of being prepared, so if/when the time comes where evacuation is necessary, they will be able to calmly implement their personal evacuation plan. Some actions the community residents can do in advance include:

- Follow the "Ready, Set, Go!" model developed for wildfire evacuations.
- Create an escape plan from the residence, as well as an escape route once outside of the home.
- Know your available routes, stay informed and follow directions provided by credible sources.
- Do not rely on navigation apps that may inadvertently lead you toward an approaching fire.
- Create a car emergency kit, including cell phone charger, flashlight, jumper cables, water, and food.
- Gather important paperwork, including birth and marriage certificates, account documents, passports, Social Security cards, and any other important family photos or irreplaceable items and documents.
- As time allows, make sure to secure your home by locking all doors and windows, and unplugging electrical equipment, such as appliances and electronics.

Sample emergency preparedness resources available to the Harmon Ranch residents are provided in Appendix A (Resident "Ready, Set, Go!" Wildland Fire Action Plan) and Appendices B-1 through B-4 (Family Disaster Checklists and Communications Plans), and residents are encouraged to become familiar with the concepts detailed at the following websites:

- 1. "Ready, Set, Gol" Personal Action plan: www.readyforwildfire.org
- 2. San Diego County Personal Disaster Plan: https://www.readysandiego.org/content/oesready/en-us/ make-a-plan.html
- 3. Red Cross Emergency Planning: http://www.redcross.org/get-help/how-to-prepare-for-emergencies/ make-a-plan
- 4. Hazardous Materials Emergency Preparedness: https://www.ready.gov/hazardous-materials-incidents
- 5. Building a disaster kit: http://www.redcross.org/get-help/prepare-for-emergencies/be-red-cross-ready/get-a-kit
- 6. Making a Plan Checklist: https://www.ready.gov/make-a-plan
- 7. Family Communication Plan: https://www.fema.gov/media-library-data/

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# Evacuation Plan Purpose and Limitations

Wildfire and other emergencies are often dynamic events and the need for evacuations are typically determined by on-scene first responders or by a collaboration between first responders and designated emergency response teams, including Office of Emergency Services and the IC established for larger emergency events. As such, and consistent with all emergency evacuation plans, this Wildfire Evacuation Plan is to be considered a tool that supports existing pre-plans and provides for residents who are familiar with the evacuation protocol but is subservient to emergency event-specific directives provided by agencies managing the event.



# 1 Introduction

This Wildfire Evacuation Plan (WEP) was prepared based on guidance from the City's Emergency Operations Plan (City of Poway 2021) and the County of San Diego Emergency Operations Plan (EOP) including Annex Q- Evacuation (County of San Diego 2022). The format and content of this report is consistent with the recommendations of the Evacuation Annex. A complete copy of the EOP can be downloaded here:

https://www.sandiegocounty.gov/content/sdc/oes/emergency\_management/oes\_jl\_oparea.html.

Evacuation is a process by which people are moved from a place where there is immediate or anticipated danger, to a place of safety, and offered appropriate temporary shelter facilities. When the threat to safety is gone, evacuees are able to return to their normal activities, or to make suitable alternative arrangements. The overarching goal of evacuation planning in the San Diego County Operational Area (OA) is to maximize the preservation of life while reducing the number of people that must evacuate and the distance they must travel to seek safe refuge (County of San Diego 2018).

This Wildfire Evacuation Plan will outline strategies, procedures, recommendations, and organizational structures that can be used to implement a coordinated evacuation effort in the case of a wildfire emergency effecting the Harmon Ranch Project. It is noted, that the on-set of a wildfire or other emergency is generally unplanned and often, residents and visitors will be faced with decisions that need to be made quickly and determined by on-scene first responders or by a collaboration between first responders and designated emergency response teams. Therefore, this Wildfire Evacuation Plan is to be considered a tool that supports existing pre-plans and provides for residents who are familiar with the evacuation protocol but is subservient to emergency event-specific directives provided by agencies managing the event.

# 1.1 Project Description

The Project is approximately 11.5 acres and includes a total of 63 new single-family homes and associated site improvements and retention of the existing historic home (Figure 3, Project Site Plan). The Project proposes approximately 5.7 acres designated for residential development, a 0.25-acre historic home site, 3.2 acres of open space areas, 1.9 acres for private streets, and 0.5 acres of public right-of-way (Oak Knoll Road). The Project would include 63 single-family detached homes plus the 1 existing historic home on site for a total of 64 lots within the Specific Plan boundary. The proposed density is 8.8 dwelling units/acre, which is just over the existing RS-7 designation density. The Project is located in the southern portion of the City, along Oak Knoll Road, south of Poway Road and west of Carriage Road.

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# 1.2 Applicable Regulations, Standards and Planning Tools

## 1.2.1 Federal

### 1.2.1.1 Disaster Mitigation Act

The Disaster Mitigation Act of 2000 requires that a state mitigation plan, as a condition of disaster assistance, add incentives for increased coordination and integration of mitigation activities at the state level through the establishment of requirements for two different levels of state plans: "Standard" and "Enhanced." States that develop an approved Enhanced State Plan can increase the amount of funding available through the Hazard Mitigation Grant Program. The Disaster Mitigation Act also established a new requirement for local mitigation plans.

#### 1.2.1.2 National Incident Management System (NIMS)

The NIMS guides all levels of government, nongovernmental organizations and the private sector to work together to prevent, protect against, mitigate, respond to and recover from incidents. NIMS provides community members with a shared vocabulary, systems and processes to successfully deliver the capabilities described in the National Preparedness System. The National Preparedness System is a Presidential Policy Directive establishing a common goal to create a secure and resilient nation associated with prevention, protection, mitigation, response and recovery to address the greatest risks to the nation. One core area is fire management and suppression.

NIMS defines operational systems that guide how personnel work together during incidents.

## 1.2.1.3 Pet Evacuation and Transportation Standards Act

The Pets Evacuation and Transportation Standards Act of 2006 amends the Stafford Act, and requires evacuation plans to take into account the needs of individuals with household pets and service animals, prior to, during, and following a major disaster or emergency.

## 1.2.2 State

#### 1.2.2.1 Fire Hazard Severity Zones

To assist each fire agency in addressing its responsibility area, California Department of Forestry and Fire (CAL FIRE) uses a severity classification system to identify areas or zones of severity for fire hazards within the state. CAL FIRE is required to map these fire hazard severity zones (FHSZs) for State Responsibility Areas (SRAs) and identify Very High Fire Hazard Severity Zones (VHFHSZ) for Local Responsibility Areas (LRAs). The Project is not located within a FHSZ within an SRA or a VHFHSZ within an LRA.

## 1.2.2.2 California Wildland-Urban Interface Code

On September 20, 2005, the California Building Standards Commission approved the Office of the State Fire Marshal's emergency regulations amending the California Building Code (CBC) (California Code of Regulations [CCR] Title 24, Part 2). Section 701A of the CBC includes regulations addressing materials and construction methods for exterior wildfire exposure and applies to new buildings located in State Responsibility Areas or Very



High Fire Hazard Severity Zones in Local Response Areas. The Project is not designated as a FHSZ within an SRA or a VHFHSZ within an LRA.

### 1.2.2.3 California Fire Code

The 2022 California Fire Code (CCR Title 24, Part 9) establishes regulations to safeguard against the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety for and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout California. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas. The City has adopted the California Fire Code with amendments as Chapter 15, Article 24 of the City's Municipal Code.

#### 1.2.2.4 California Emergency Services Act

The California Emergency Services Act (California Government Code §8550, et seq., provides for the creation of an Office of Emergency Services, assign and coordinate functions and duties to be performed during an emergency, facilitate mutual aid, and assign resources (including manpower and facilities) throughout the state for dealing with any emergency that may occur.

## 1.2.2.5 California Office of Emergency Services

The California Office of Emergency Services (OES) is responsible for the coordination of overall state agency response to disasters. Assuring the state's readiness to respond to, recover from all hazards and assisting local governments in their emergency preparedness, response, recovery and mitigation.

## 1.2.2.5.1 Standardized Emergency Management System (SEMS)

SEMS is the cornerstone of California's emergency response system and the fundamental structure for the response phase of emergency management. The system unifies all elements of California's emergency management community into a single integrated system and standardizes key elements. SEMS incorporates:

- Incident Command System (ICS) A field-level emergency response system based on management by objectives
- Multi/ Inter-agency coordination Affected agencies working together to coordinate allocations of resources and emergency response activities
- Mutual Aid A system for obtaining additional emergency resources from non-affected jurisdictions.
- Operational Area Concept County and its sub-divisions to coordinate damage information, resource requests and emergency response.



## 1.2.2.6 Project Consistency with Best Practices/Guidance Documents

The California Office of the Attorney General issued (October 2022) guidance (Guidance) outlining best practices for analyzing and mitigating wildfire impacts of development projects under the California Environmental Quality Act (CEQA)<sup>1</sup>. The Guidance is intended to help local governments' evaluation and approval considerations for development projects in fire-prone areas, and to help project design in a way that minimizes wildfire ignition and incorporates emergency access and evacuation measures. Importantly, the Guidance does not impose additional legal requirements on local governments, nor does it alter any applicable laws or regulations.

The Project site is not located in a FHSZ within an SRA or LRA and is not considered to meet the definition of a wildland urban interface (WUI) area.

#### Attorney General Provided Best Practices for Analyzing Project's Impacts on Wildfire Risks

#### **Baseline Conditions**

The Guidance states that an EIR's discussion of existing environmental (baseline) conditions should include information about open space areas and habitats within the project area that may be fire prone, a discussion of fire history and fuels on the project site and existing available water supplies for fire-fighting. The Project's EIR considers existing wildfire conditions.

#### Thresholds of Significance

The Guidance encourages local governments to develop and apply thresholds of significance to identify when an increase in wildfire risk is considered a "significant impact" under CEQA. Relevant factors to this determination include: (1) the project's impacts on ignition risk; (2) the likelihood of fire spread; and (3) the extent of exposure for existing and new residents, based on various fire scenarios. The Guidance notes that "wildfire ignitions are primarily human-caused in California." The City of Poway does not currently have thresholds of significance to identify wildfire risk.

#### Modeling

The Guidance encourages modeling fire scenarios to "quantify" increased wildfire risks resulting from a project adding more people to wildfire prone areas and assessing risks according to the threshold of significance, including fires that start in, near or far from the project site and "extreme weather conditions that exacerbate fire spread". The Guidance states that a conclusion that conversion of wildland vegetation into paved development "reduces or does not increase wildfire risk" is "contrary to existing evidence" and cannot be used to avoid analyzing and modeling wildfire risk. The Project is an infill Project and not within a designated FHSZ; therefore, fire modeling for the Project was not completed.

<sup>&</sup>lt;sup>1</sup> \*Wildfire guidance final (3).pdf (ca.gov)



#### Qualitative Assessment

The Guidance indicates that complying with CEQA includes an EIR qualitatively assessing relevant variables to quantify the project's impact on the risk of wildfire, specifically:

*Project Density* – Project density influences how likely a fire is to start or spread and how likely it is that occupants will be in danger. The Guidance states that "Fire spread and structure loss is more likely to occur in low- to intermediate-density developments." The Project is considered a higher density development, converting the developed area to ignition resistant landscapes with no inclusion of unmaintained vegetation within the converted footprint. The buildings are clustered and present one, defensible interface, unlike lower density development which incorporates fuels within and around buildings and multiple building interfaces.

Location in the Landscape – Where a project's structures are placed in the landscape relative to fire environment features (vegetation, topographical features, and wind alignments) it also influences wildfire risk. Terrain including wind corridors or steep slopes may increase risk while flatter terrain and natural fire breaks may reduce risk if the project is "strategically located" should be considered. The Project creates a flat pad on which the Project's structures and infrastructure are placed. Fuels in the Project area are not conducive of extreme fire intensity and terrain varies but does not include extreme steep slopes and has been comprehensively evaluated and confirmed that even under the extreme weather conditions that have been recorded in the area, the provided defensible space and ignition resistant structures are appropriately designed to minimize the potential for structure ignitions. The Project is located at a site that is appropriate for the type of activities that will occur there and is not considered vulnerable to wildfire.

*Water Supply and Infrastructure* – Water supply and infrastructure needed to address firefighting within the project site should be analyzed as part of evaluating wildfire risk impacts under CEQA. The analysis should consider the potential loss of water pressure or power during a fire. The Project will provide internal waterlines supplying sufficient fire flows and pressure to meet the demands, as required by code.

#### Mitigating Wildfire Risk – Potential Measures

The Guidance specifies that Project-provided mitigation measures should be combined and tailored to the specifics of the project, the surrounding landscape, and nearby existing uses. The Guidance emphasizes that CEQA requires lead agencies to consider and adopt feasible mitigation measures to avoid or reduce wildfire risk. Potential mitigation measures recommended by the Guidance that may reduce a project's wildfire risk impacts to a less than significant level, include:

Increasing residential density and consolidated project design, relying on higher density infill developments "as much as possible". The Project is higher density infill development and extends existing and ongoing development in a populated area of Poway.

Avoiding and minimizing low-density development patterns or "leapfrog-type" developments with undeveloped wildland between developed areas. The Project is located in a highly developed area, and would be considered infill and is not the first development in the area.

Decreasing a project's "edge" or wildland interface area and creating buffer zones and defensible space measures within and adjacent to the project. The Project minimizes edge by creating a clustered design and does not expose residents to areas of hazardous vegetation.



Siting projects to maximize the role of low-flammability landscape features and limiting development along steep slopes and amidst rugged terrain. The Project occurs within an area that does not include significant topography or fuels.

Undergrounding power lines. The Project's power lines will be undergrounded, eliminating the potential for electrical transmission line-caused fires on the site.

Upgrading building materials and installation techniques beyond applicable building code requirements to increase a structure's resistance to heat, flames and embers (i.e. "fire hardening"), and requiring fire-hardened communication facilities (including internet) to the project site. The Project is not within a FHSZ and is considered infill development; therefore, additional fire protection features would not be required.

Requiring on-site water supply and/or storage to augment ordinary supplies that may be lost during a wildfire. The Project is consistent with this guideline with internal waterlines that will supply sufficient fire flows and pressure to meet the demands for required onsite fire hydrants and interior fire sprinkler systems for all structures.

Parking limitations to ensure access roads are not clogged with parked vehicles. The Project provides roadways that will meet current code requirements for road widths that would accommodate on street parking and allow for fire apparatus access.

Placement of development close to adequate emergency services, existing or planned ingress/egress, and designated evacuation routes. The Project is within an acceptable distance with fast response from nearby fire stations and close to surface streets and highway/freeway corridors.

#### **Evacuation**

In addition to evaluating the potential increased risk of ignition, the Guidance states that an EIR or MND for a project located in HFHSZ/ VHFHSZ must analyze the project's impact on evacuation and emergency access. This analysis is relative to the project's particular impacts and risks (e.g., higher density infill projects within developed areas would require less detailed analysis than a new low-density development within a high wildfire risk area and/or surrounded by open space).

#### **Evacuation Analysis**

The Guidance states that evacuation modeling and planning should be required for all projects located in HFHSZ/ VHFHSZ that present an increased risk of ignition and/or evacuation impacts. It further states that local jurisdictions should require evacuation modeling and planning to be developed prior to project approval in order to provide maximum flexibility in design modifications necessary to address wildfire risks and impacts. The Project is considered an infill development that will be adjacent to a conserved open space dominated by flashy type fuels that would produce a low-intensity wildfire. Further, the Project provides important road network improvements, including connection of existing dead-end road that will provide secondary fire access for the Project and the neighboring community. These improvements assist Project access as well as provide a public benefit for existing residents by providing an additional route that may be utilized, at the discretion of the fire department/law enforcement, for responder ingress and/or resident egress.



The Guidance further states that evacuation modeling and analysis must augment existing information when necessary to include adequate analysis of the following. The Project includes a Wildfire Evacuation Plan that analyzes the existing and Project population evacuations, road capacities, and evacuation timeframes.

- Evaluation of the capacity of roadways to accommodate project and community evacuation and simultaneous emergency access. This Wildfire Evacuation Plan evaluates the Project's roads as well as existing roads that would be utilized in an evacuation event. The road capacities are conservatively mathematically modeled to arrive at evacuation travel times for the Project as well as for the existing communities with and without the project. The evacuation analysis only considers evacuations using outbound lanes, therefore, the inbound lanes are available for incoming emergency first responders.
- Assessment of the timing for evacuation. This Wildfire Evacuation Plan provides an analysis of evacuation timing in Section 4 and is found to be acceptable for the types of wildfires that may occur in the Project's vicinity. Additionally, evacuation procedures now rely on advanced notification technology which enables phased or sequential evacuations where populations that are threatened are moved first and populations that may be threatened are moved in a phased approach. This method reduces traffic surges and congestion.
- Identification of alternative plans for evacuation. Alternative plans for evacuation would be feasible due to the construction features and the low risk of ignitions and corresponding low fire intensity anticipated and may include using alternate routes, only evacuating particular residents, or enacting a temporary shelter in place.
- Evaluation of the project's impacts on existing evacuation plans. There are no published evacuation plans
  for the Project area. The Project would utilize primary evacuation routes that would be available to other
  evacuees, and the potential additional time needed to evacuate is considered insignificant due to the
  variety of options available to emergency managers that can facilitate early evacuations.
- Consideration of the adequacy of emergency access, including the project's proximity to existing fire
  services and the capacity of existing services. PFD Station 1 is within 1.5 miles of all Project structures and
  can respond within 4 ½ minutes travel time. The Project provides access roads meeting code requirements
  for widths, dead end lengths, and secondary access. There would be acceptable access throughout the site
  and evacuations would not be expected to interfere with fire response.
- Traffic monitoring to quantify travel times under various likely scenarios. Traffic monitoring data was
  contemplated for traffic analysis but is not applicable in regards to evacuation planning for the Project, as
  previously discussed.

In consideration of the above, the AG Guidance encourages local jurisdictions to develop thresholds of significance for evacuation times based on community-wide standards. Any conclusion that an increase in evacuation times is a less than significant impact should be based on a threshold of significance that reflects community-wide goals and standards. Thresholds should also consider consistency with an adopted emergency operations or evacuation plan, a safety element updated to integrate wildfire and evacuation concerns or recommendations developed by CAL FIRE relating to safety of subdivisions. The potential to minimize on-road traffic when it is considered necessary and/or safer by temporarily providing refuge on-site in protected structures offers a contingency not available to all communities/developments and assists in providing flexibility and options for emergency managers.



## 1.2.3 Local

## 1.2.3.1 San Diego County Multi-Jurisdictional Hazard Mitigation Plan

The purpose of the County's Multi-Jurisdictional Hazard Mitigation Plan (County of San Diego 2017) is to identify the County's hazards, review and assess past disaster occurrences, estimate the probability of future occurrences, and set goals to mitigate potential risks to reduce or eliminate long-term risk to people and property from natural and human-made hazards. An important San Diego County Multi-Jurisdictional Hazard Mitigation Plan component is the Community Emergency Response Team (CERT), which educates community members about disaster preparedness and trains them in basic response skills, including fire safety.

## 1.2.3.2 San Diego County Emergency Operations Plan

The 2022 San Diego County Emergency Operations Plan (EOP) describes a comprehensive emergency management system that provides for a planned response to disaster situations associated with natural disasters, technological incidents, terrorism, and nuclear-related incidents. It delineates operational concepts relating to various emergency situations, identifies components of the Emergency Management Organization, and describes the overall responsibilities for protecting life and property and providing for the overall well-being of the population. The plan also identifies the sources of outside support that might be provided (through mutual aid and specific statutory authorities) by other jurisdictions, state and federal agencies, and the private sector.

### 1.2.3.3 Unified San Diego County Emergency Services Organization and County of San Diego Operational Area Emergency Operations Plan - Evacuation Annex

The Evacuation Annex is intended to be used as a template for the development of jurisdictional evacuation plans and will support or supplement the evacuation plans prepared and maintained by each local jurisdiction. The annex outlines strategies, procedures, recommendations and organizational structures that can be used to implement a coordinated evacuation effort in the San Diego County Operational Area (OA).

## 1.2.3.4 County of SD Resilience Review Report: Wildland Fires

Prepared by the s Chief Administrative Officer's Resilience Review Working Group, the Resilience Review Report: Wildland Fires provides recommendations for achieving community goals related to actively reducing risk of wildfire and improving efforts to respond and recover from wildfire events. The Working Group recommends 16 principal objectives divided among three focus areas: pre-fire, response, and recovery.

- 1. Pre-Wildfire: Focus on fire preparedness at the neighborhood-level. Specific community recommendations include:
  - Implementing a cohesive County pre-fire strategy
  - Enhancing pre-fire vegetation management
  - Improving pre-fire emergency planning
  - Strengthening fire safety measures in new construction
  - Reducing loss from wildfires in existing structures



- 2. Response: Improve fire suppression capabilities and on the ground safety measures including:
  - Increase County Fire's firefighting capabilities
  - Enhancement of accessible transportation services to include the evacuation of at-risk populations and large animals
  - Improved operational communications among response personnel
  - More rapid and efficient restoration of essential services and systems
  - Improved delivery of coordinated, timely, reliable, and actionable information to the whole community during a wildfire
- 3. Recovery: Enhance fire recovery effort including:
  - The ongoing development of a County Debris Removal Framework
  - Developing administrative tools and processes that improve the speed and efficiency in providing emergency interim housing options to victims of a wildfire
  - Improvements in health and social services capabilities
  - Increased County capacity to coordinate large-scale recovery operations

## 1.2.3.5 City's Emergency Operations Plan

The City's Emergency Operations Plan (EOP) aims to facilitate effective operations during emergency incidents and disasters and is accordance with the State of California's Standardized Emergency Management System (SEMS), the National Incident Management System (NIMS). The EOP sets up protocol for the control and coordination of on-scene emergency operations including the designation of an Incident Commander (IC), establish Incident Command Posts, conduct response operations according to departmental protocols and SEMS/NIMS principles, request assistance from other City departments for support as needed, and inform senior City officials as appropriate.

## 1.2.3.6 City of Poway Fire Code

The City has adopted the California Fire Code as Chapter 15, Article 24 of the City's Municipal Code including Appendix Chapter 4 and Appendices B, C, E, F, H, I and O, as published by the International Code Council, except those portions that are deleted, modified, or amended. Provisions of the California Fire Code are described under State Regulations, above.

#### 1.2.3.7 City of Poway Building Regulations

The City's Building Regulations (City Municipal Code Chapter 15, Article 4) are intended to regulate the construction of applicable facilities and encompasses (and formally adopts) associated elements of the CBC. Specifically, this includes regulating the "construction, alteration, replacement, repair, maintenance, moving, removal, demolition, occupancy, and use of any privately owned building or structure or any appurtenances connected or attached to such buildings or structures within this jurisdiction, except work located primarily in a public way, public utility towers and poles, mechanical equipment not specifically regulated in the Building Code, and hydraulic flood control structures."



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# 2 Background

This Harmon Ranch Wildfire Evacuation Plan was prepared based on the City's Emergency Operations Plan (City of Poway 2021), County of San Diego Emergency Operations Plan (EOP) including Annex Q- Evacuation (County of San Diego 2022).

To establish a framework for implementing well-coordinated evacuations, the County, like most California emergency operations agencies, has adopted evacuation procedures in accordance with the State of California's Standardized Emergency Management System (SEMS) and the National Incident Command System (NIMS). Large-scale evacuations are complex, multi-jurisdictional efforts that require coordination between many agencies and organizations. Emergency services and other public safety organizations play key roles in ensuring that an evacuation is effective, efficient, and safe.

Evacuation is a process by which people are moved from a place where there is immediate or anticipated danger, to a safer place, and offered temporary shelter facilities. When the threat passes, evacuees are able to return to their normal activities, or to make suitable alternative arrangements.

Evacuation during a wildfire is not necessarily directed by the fire agency, except in specific areas where fire personnel may enact evacuations on-scene. San Diego County Sheriff's Department or Poway Fire Department have primary responsibility for emergency evacuations and may share responsibilities with others under the IC system for larger events. These agencies work closely within the Unified IC System, with the City's Emergency Operations Center (EOC) and County OES. To that end, the Poway Fire Department (PFD), San Diego County Sheriff's Department (SDSD), Public Works, Planning, Emergency Services Departments, and California Department of Transportation (Caltrans), amongst others, have worked as part of a Pre-Fire Mitigation Task Force to address wildland fire evacuation planning for the County of San Diego.

Every evacuation scenario will include some level of unique challenges, constraints, and fluid conditions that require interpretation, fast decision making, and alternatives. For example, one roadway incident that results in blockage of evacuating vehicles may require short-term or long-term changes to the evacuation process. Risk is considered high when evacuees are evacuating late, and fire encroachment is imminent. This hypothetical scenario highlights the importance of continuing to train responding agencies, model various scenarios, educate the public, provide contingency plans, and take a very conservative approach to evacuation decision timelines.

Equally as important, the evacuation procedures should be regularly updated with lessons learned from actual evacuation events, as they were following the 2003, 2007, and 2014 San Diego County fires. The authors of this Wildfire Evacuation Plan recommend that occasional updates are provided, especially following lessons learned from actual incidents, as new technologies become available that would aid in the evacuation process, and as changing landscapes and development patterns occur within and adjacent to the Project Area that may impact how evacuation is accomplished. At the time of this WEP's preparation, there is no encompassing emergency evacuation plan available for the San Diego region. This Wildfire Evacuation Plan is consistent with the County evacuation planning standards and can be integrated into a regional evacuation plan and other pre-plans when and if the area officials and stakeholders (CAL FIRE, SDFRD, OES, SDSD, SDCFA, and others) complete one.



As demonstrated during large and localized evacuations occurring throughout San Diego County over the last 15 years, an important component to successful evacuation is early assessment of the situation and early notification via managed evacuation declarations. The County utilizes early warning and informational programs to help meet these important factors. Among the methods available to citizens for emergency information are radio, television, social media/internet, neighborhood patrol car, aerial public address notifications, and Reverse 9-1-1 or Alert San Diego. The County instituted Alert San Diego, which is a regional notification system that sends telephone notifications to residents and businesses within San Diego County impacted by, or in danger of being impacted by, an emergency or disaster. Alert San Diego is used by emergency response personnel to notify at risk residents and businesses with information on the event and/or actions (such as evacuation, shelter-in-place, gas leak, missing person, etc.) they are advised to implement. The system utilizes the region's 9-1-1 database, provided by the local telephone company(ies), and thus is able to contact landline telephones whether listed or unlisted. It is TTY/TDD capable.

Please also consider that the major fire events that have occurred in San Diego County in the past 20 years (including the 2003 Cedar Fire and 2007 Witch Fire) have resulted in substantial change in the individual and united approaches between City, County and State agencies, as well as substantial investment in fire-fighting resources. For example, San Diego County Fire Agencies and related partners have developed a robust ability to rationally predict wildfire movement. This is accomplished through pre-fire planning and fire behavior modeling, working with UCSD's WIFIRE lab advanced wildfire behavior projection technology, and SDG&E's nationally renowned weather system network. In addition, more than 500 million dollars has been invested to enhance the County's fire prevention, detection, response, suppression and recovery capabilities since the 2003 Cedar Fire. These efforts have proven effective in managing and responding to wildfire events, such as was accomplished during the successfully managed 2017 Lilac Fire.

Because the system uses the 9-1-1 database, only landline numbers are in the system. If you have a Voice over IP (VoIP) or cellular telephone and would like to be notified over that device, or if you would like an email notification, you must register those telephone numbers and/or email address for use by the system to receive voice, text, and email messages.

# 3 San Diego County Evacuation Planning

This Wildfire Evacuation Plan incorporates concepts and protocols practiced throughout the City and San Diego County. The City's EOP follows basic protocols set forth in the County's Operation Area Emergency Operations Plan and the California Master Mutual Aid Agreement, which dictate who is responsible for an evacuation effort and how regional resources will be requested and coordinated. The following overview contains information from the San Diego County Evacuation Annex and is consistent with the City's EOP. A complete copy of the EOP can be downloaded here: https://www.sandiegocounty.gov/content/sdc/oes/emergency\_management/oes\_jl\_oparea.html.

First responders are responsible for determining initial protective actions before EOCs and emergency management personnel have an opportunity to convene and gain situational awareness. Initial protective actions are shared/communicated to local EOCs and necessary support agencies as soon as possible to ensure an effective, coordinated evacuation. Figure 4 summarizes the functional interactions of local government EOCs under the Incident Command System.

Figure 4. Incident Command System Local Government EOC Functional Interactions





During an evacuation effort, the SDSD will declare an evacuation and be assisted by other law enforcement and support agencies. Law enforcement agencies, highway/road/street departments, and public and private transportation providers will conduct evacuation operations. Procurement, regulation, and allocation of resources will be accomplished by those designated. Evacuation operations will be conducted by the following agencies:

- San Diego County Sheriff's Department
- Poway Fire Department
- American Red Cross
- San Diego Humane Society
- San Diego County Department of Animal Services
- City and County Department of Planning and Development Services
- City and County Department of Public Works
- County Department of Environmental Services
- Other City, County and state agencies, as needed

# 3.1 Evacuation Objectives

The overall objectives of emergency evacuation operations and notifications for the City of Poway are to:

- Expedite the movement of persons from hazardous areas;
- Institute access control measures to prevent unauthorized persons from entering vacated, or partially vacated areas;
- Coordinate evacuation to appropriate transportation points, which may include: temporary evacuation points (TEP), temporary safe refuge areas (TSRA), and/or shelters.
- Coordinate adequate means of transportation for individuals with disabilities and others with access and functional needs, which includes, but is not limited to, older adults, children, and individuals who are transportation disadvantaged.
- Coordinate the procurement, allocation, and use of necessary transportation and law enforcement resources by means of mutual aid or other agreements;
- Coordinate with affected law and enforcement agencies to control evacuation traffic and road closures.
- Account for the needs of individuals with household pets and service animals prior to, during, and following
  a major disaster or emergency;
- Provide initial notification, ongoing, and repopulation communications to the public through the Joint Information Center (JIC).
- Coordinate the safe repopulation of the evacuated persons.

The SDSD is the lead agency for conducting evacuations of the unincorporated areas of San Diego County and jurisdictions, such as the City, which contract SDSD to provide law enforcement services. The lead agency for evacuating the Harmon Ranch Project area is SDSD. Unified Command assesses and evaluates the need for evacuations with cooperating agencies, and SDSD or local law enforcement orders and conducts evacuations according to established procedures, which are outlined in the County EOP Evacuation annex. Additionally, as part of the Unified Command, the SDSD or local law enforcement will identify available and appropriate evacuation



routes and coordinate evacuation traffic management with the California Department of Transportation (Caltrans), the California Highway Patrol (CHP), other supporting agencies, and jurisdictions.

The decision to evacuate an area is not made lightly and there is a significant impact to public safety and the economy. The following process describes how emergency evacuation decisions within the OA will be coordinated, allowing emergency managers and other supporting response organizations to make collaborative decisions.

## 3.2 Evacuation Coordination Process

- a. If the emergency only impacts the City, the decision to evacuate will be made at the local jurisdiction level. Regional coordination is required for any evacuation impacting multiple jurisdictions. Based on the information gathered, local jurisdictions will generally make the determination on whether to evacuate communities as the need arises, on a case-by-case basis.
- b. The decision to evacuate will depend entirely upon the nature, scope, and severity of the emergency; the number of people affected; and what actions are necessary to protect the public.
- c. Local jurisdictions may activate their EOC and conduct evacuations according to procedures outline in their EOP.
- d. All evacuations from, through, or into a local jurisdiction will be coordinated with that jurisdiction's public safety partners.
- e. The OA EOC may make recommendations on whether a jurisdiction should evacuate and may help coordinate the evacuation effort, if requested by the jurisdiction.
- f. The Evacuation Annex is automatically activated when an incident occurs requiring an evacuation effort that impacts two or more jurisdictions within the OA or when there is an evacuation in the unincorporated area necessitating response from the County.
- g. If the emergency impacts multiple jurisdictions within the OA:
  - i. All impacted jurisdictions may activate their EOCs
  - ii. The OA EOC may be activated, including the OA EOC JIC
  - iii. The OA EOC with begin obtaining situational awareness, understanding the severity of the incident
  - iv. Unified Command, which may consist of fire, law enforcement, public health, and other relevant support agencies, will communicate with the OA EOC as to what protective actions have been implemented. The OA EOC will coordinate with jurisdictional emergency management personnel and other public safety personnel.
  - v. The Director of Emergency Services or designee or the Policy Group if it is established will coordinate with City Managers and other leaders within the OA to identify strategic decisions that will:
    - Gain regional situational awareness
    - Determine response status
    - Review statis if initial protective actions
    - Consider additional protective actions
    - Evaluate public information needs
    - Determine next steps
    - Establish a schedule for internal and external updates



- vi. Evaluate health and welfare of affected residents The OA EOC JIC will coordinate emergency public information to the public in accordance with procedures established in Annex L Emergency Public Information of the OA EOP
- vii. The OA EOC may support the evacuation response according to the OA EOP and:
  - Coordinate transportation for those who need assistance through the activation of emergency transportation services agreements.
  - Coordinate support for individuals with disabilities and others with access and functional needs during the evacuation process, which may include, but is not limited to, the provision of assistance with wayfinding, supervision, and language interpretation.
  - Coordinate and communicate with non-governmental organizations including but not limited to the private sector, community-based organizations, and faith-based organizations to utilize services and resources available to support the response.
  - Coordinate the provision of accessible care and shelter services.

## 3.3 P.A.C.E. Evacuation Planning

P.A.C.E. evacuation planning is based on a military concept focused on mitigating risk by developing a strong primary evacuation plan along with three back up plans. If the Primary plan is compromised, the Alternate plan would be triggered. If the Alternate is considered not functional or not safe, the Contingency Plan is implemented. If that does not mitigate the risk, then the evacuation reverts to the Emergency plan. P.A.C.E. Planning is a simple and effective tool used to accomplish evacuations with flexibility and redundant contingencies.

Emergency plan. The PACE Evacuation Plan must be maintained, reviewed, and updated at least every 2 years. The plan provides the following:

- 1. Based on and includes a documented, facility-based and community-based risk assessment, utilizing hazard analysis approach.
- 2. Include strategies for addressing emergency events identified by the risk assessment.
- 3. Address participant population, including, but not limited to, the type of services the PACE organization has the ability to provide in an emergency; and continuity of operations, including delegations of authority.
- 4. Include a process for cooperation and collaboration with emergency preparedness officials' efforts to maintain an integrated response during a disaster or emergency situation.

**Primary:** This is the overall preferred plan of action to use based on the most likely and most damaging scenario resulting from hazard analysis.

Alternate: The Alternate plan should be as viable as your Primary plan. That isn't always the case, but that should be the goal whenever possible. Alternate plans are needed because unforeseen circumstances arise during emergency evacuations.

Developing the Alternate plan includes analyzing the most likely problems that could cause your primary plan to fail and then come up with a plan that fits with your situation that won't be affected by those problems. Whenever possible, come up with a few to several vulnerabilities in your primary plan and find an alternate that's just as good but covers all those bases.



**Contingency**: The contingency evacuation plan is the action that will be implemented if you cannot implement either the Primary or the Contingency action due to compromised safety. The contingency isn't always (or isn't usually) as preferred as the others, but is a viable option that doesn't rely on the same actions as the Primary and Alternate.

**Emergency**: This is the action that is implemented if all three of the previous actions fail. In some respects, it is a last resort that is the least preferred option, but is a viable and safe option, nonetheless. The goal is to utilize an Emergency plan that's independent from reliance on the types of actions in the first three options, is a flexible plan, has the highest probability of succeeding, and offers a reliable option with little potential for compromise.

An emergency plan may not be the most convenient or preferred plan and may include components that are uncomfortable to visitors, but it should be as foolproof as possible.

Primary:	Project will evacuate via the primary evacuation route(s) early after receiving evacuation notice utilizing the primary evacuation route(s) as directed by law enforcement/ emergency managers.
Alternate:	Project will follow evacuation instructions which may include an alternate plan to utilize secondary routes or to relocate to nearby urban areas based on congested traffic conditions. Notifications that this alternate plan is being implemented will be provided via the notification systems or on-site emergency personnel, media and social media.
Contingency:	Due to primary and alternate options being compromised or undesirable, the contingency plan of evacuating smaller, highest vulnerability populations will be implemented. For the Project, this includes moving potentially exposed or vulnerable populations in the northern portion of the Project site (nearest to preserved unmaintained off-site fuels) to nearby areas that may serve as Safe Refuge Areas during a wildland fire. Remaining populations will be instructed to remain in their homes. Depending on the nature of the emergency, the contingency option may not be available or safe.
Emergency:	When the wildfire or other emergency dictates that off-site evacuation is not advised by the primary or alternate evacuation routes, and conditions are such that open air exposure would be unhealthy or unsafe, the Harmon Ranch population will be directed to shelter in place in their homes. Sheltering in place is possible due to the construction materials (e.g., Class A roof, stucco walls) and irrigated landscape that creates a fire hardened development. Sheltering in place may also be the preferred option for other emergencies, e.g., active shooter, earthquake. Persons sheltering in place are advised to remain aware of the situation and move out of the building to a designated safe zone if directed to do so or otherwise necessitated.

#### Table 1. P.A.C.E Evacuation Plan for the Harmon Ranch Project

# 3.4 Evacuation Response Operations

An evacuation of any area requires significant coordination among numerous public, private, and community/non-governmental organizations. Wildfire evacuations will typically allow time for responders to conduct evacuation notification in advance of an immediate threat to life safety; giving residents time to gather belongings and make arrangements for evacuation. On the other hand, other threats, including wildfires igniting nearby, may occur with little or no notice and certain evacuation response operations will not be feasible (for example, establishing contra flow requires between 24 to 72 hours to be implemented; a no-notice event will not allow for contra flow to be established). Every attempt will be made to assist people with safe evacuation, and risk to first



responders is an additional important consideration. People are encouraged evacuate early and to help their neighbors, friends, and family to evacuate if doing so will not cause danger to themselves or others.

## 3.4.1 Evacuation Points and Shelters

When SDCD implements an evacuation order, they will coordinate with the Incident Commander and local EOC to decide on a location to use as a Temporary Evacuation Point (TEP). American Red Cross representatives located in the OA EOC and/or ICP, along with the OA EOC Care & Shelter Branch will coordinate the locations to be used as emergency shelters if necessary. The OA EOC staff may assist, as requested, in the coordination of an evacuation in an incorporated city. The SDSD Dispatch Center in conjunction with the OA EOC and JIC will utilize the Alert San Diego system, social media, radio, television, IPAWS, etc. to direct evacuees to the established TEP or shelter. Local jurisdictions all have access to the same alert and warning tools as the OA and should follow their internal protocols for sharing information with the public. Temporary evacuation points will serve as temporary safe zones for evacuees, but they generally do not provide any services, such as food, water, restrooms, etc. Emergency shelters, which includes meals, accessible shower facilities, dormitory management, health, and behavioral health services. Some temporary evacuation points may be suitable to be converted into an emergency shelter location, if necessary and available. Shelters and assembly areas that can provide at least short-term refuge and that would be designated by emergency managers during an evacuation, and would be determined based on the specific evacuation event.

Other refuge sites are available within urbanized areas surrounding the Project site. If there are residents unable to evacuate or in need of transportation assistance to get to a TEP or shelter, the SDSD may establish transportation points to collect and transport people without transportation resources to evacuation points. These transportation points should be large, well-known sites such as shopping centers, libraries, and schools. Transportation should be accessible to all populations, including people with disabilities and other access and functional needs.

## 3.4.2 Pet Evacuations

The Pets Evacuation and Transportation Standards Act of 2006 amends the Stafford Act and requires evacuation plans consider the needs of individuals with household pets and service animals, prior to, during, and following a major disaster or emergency.

The San Diego County Department of Animal Services (DAS) has plans in place to transport and shelter pets in a disaster under Annex O of the OA EOP, including the Animal Control Mutual Aid Agreement. Animal Control Officers, the San Diego Humane Society, and private animal care shelters will assist in the rescue, transport, and sheltering of small and large animals. In addition, potential volunteer resources and private groups are identified and tracked in WebEOC by the County. Only non-emergency resources and personnel, such as public and private animal services agencies, will be used to rescue and transport animals during an evacuation effort.

In most cases, DAS and the OA EOC will coordinate and attempt to co-locate animal shelters with people shelters.

## 3.4.3 Shelter-in-Place (County EOC Discussion)

As stated in the County EOC, sheltering-in-place is the practice of going or remaining indoors during or following an emergency event. This procedure is recommended if there is little time for the public to react to an incident and it is safer for the public to stay indoors for a short time rather than travel outdoors. Sheltering-in-place also has many
advantages because it can be implemented immediately, allowing people to remain in their familiar surroundings, and providing individuals with everyday necessities such as telephone, radio, television, food, and clothing. However, the amount of time people can stay sheltered-in-place is dependent upon availability of food, water, medical care, utilities, and access to accurate and reliable information.

The decision on whether to evacuate or shelter-in-place is carefully considered with the timing and nature of the incident (San Diego County 2022). Sheltering-in-place is the preferred method of protection for people that are not directly impacted or in the direct path of a hazard. This will reduce congestion and transportation demand on the major transportation routes for those that have been directed to evacuate by police or fire personnel. The communities adjacent to the proposed Harmon Ranch Project includes homes built in the 1960s and are in varying states of ignition resistance. Unlike most new master planned communities that incorporate newer construction practices, responding fire and law enforcement personnel may not be able to direct existing residents to temporarily refuge in their homes; however, it would be possible for residents of Harmon Ranch. Homes that are not built to the ignition-resistant standards can be retrofitted to increase their ability to withstand wildfire and ember storms by focusing on roofs, windows, walls, vents, appendages and defensible space. Attention to these components of a home's fire protection system is recommended for existing homeowners within the Project Area.

Options when evacuation is not considered feasible that may be available to responding fire and law enforcement personnel may include temporary refuge/sheltering on site where residents are instructed to remain in their homes while firefighters perform their structure protection function if it is considered unsafe to evacuate. This approach is consistent with San Diego County's (San Diego County 2022) evacuation approach which states, "The concept of shelter-in-place is an available option in those instances where physical evacuation is impractical. This procedure may be effective for residential dwellings in the immediately impacted areas, or for large facilities that house a high percentage of non-ambulatory persons (i.e., hospitals and convalescent homes). Sheltering-in-place attempts to provide a haven within the impacted area."

The surrounding communities do not currently include attributes that would allow a community-wide sheltering in place option, due primarily to the older construction methods and codes that guided construction at the time the homes were built. The structures in the Harmon Ranch community, including the proposed homes would be ignition-resistant materials (e.g., Class A roofs, stucco exterior, interior sprinklers) and defensible, which enables sheltering in place as a contingency option when it is considered safer than evacuation. However, the site is outside of a VHFHSZ; therefore, construction may not be required to use Chapter 7A features. The project would be built to the code level required for its location relative to nearby fire hazard severity zone mapping.

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## 4 Evacuation Road Network

As evidenced by mass evacuations during the 2007 Witch Fire along with other San Diego County evacuations, even with roadways that are designed to the code requirements, it may not be possible, or even the best response, to move large numbers of persons at the same time as part of a mass-evacuation. Instead, informed, phased evacuations enable more streamlined evacuations where those at highest risk are moved first. Road infrastructure throughout the United States, and including San Diego County, is not designed to accommodate a short-notice, mass evacuation without some level of congestion (FEMA 2008). The need for evacuation plans, pre-planning, and tiered or targeted and staggered evacuations becomes very important for improving evacuation effectiveness. Among the most important factors for successful evacuations in urban settings is control of intersections downstream of the evacuation area. If intersections are controlled by law enforcement, barricades, signal control, and other means, potential backups and slowed evacuations can be minimized. Multiple evacuation points enable more evacuees the ability to evacuate with less impact on roadways.

Wildfire risk for the Project site is believed to be from short-duration ember production from a wildfire burning in open spaces within the Project's vicinity. An early evacuation of Harmon Ranch may occur if a wildfire burns closely in the open spaces to the north, south or west of the Project. However, the surrounding terrain does not support aggressive runs at the community, which is separated from the open space by developed areas and wildfires during typical weather conditions are less aggressive and more manageable, rarely resulting in large evacuations. As conducted in past wildfires, an early evacuation of the area may occur several or more hours prior to actual threatening conditions at Harmon Ranch, depending on conditions and fire spread projections.

The Project is located within an area that is subject to occasional wildfires, with the average fire return interval within a 5-mile radius at roughly 2 years, but based on the residential uses surrounding the Project site, the wildfire potential within the Project structures' direct sphere of influence is considered minimal and direct exposure to unmaintained fuels is limited. Similarly, fire intensity would be expected to be low in the riparian area south of the Project site. This reduced fire behavior would be expected to facilitate evacuations as well as potential on-site sheltering for properly constructed residences, if considered safer than a short-notice evacuation.

This approach is consistent with San Diego County's (2022) Evacuation approach which states, "The concept of shelter-in-place is an available option in those instances where physical evacuation is impractical. This procedure may be effective for residential dwellings in the immediately impacted areas, or for large facilities that house a high percentage of non-ambulatory persons (e.g., hospitals and convalescent homes). Sheltering-in-place attempts to provide a haven within the impacted area." Although not a designated shelter-in-place community, the structures at Harmon Ranch would include fire resistant construction materials (e.g., Class A roofs, stucco walls) and landscape maintenance, are defensible against the short duration wildfire exposure anticipated, and would require less resources for protection, which enables these contingency options that may not be available to other nearby communities.

Among the most important factors for successful evacuations at the Project site is control of intersections downstream of the evacuation area. If intersections are controlled by law enforcement, barricades, signal control, firefighters or other means, potential backups and slowed evacuations can be minimized. Another important aspect of successful evacuation is a managed and phased evacuation declaration. Evacuating in phases, based on vulnerability, location, or other factors, enables the subsequent traffic surges on major roadway to be



smoothed over a longer time frame and can be planned to result in traffic levels that flow better than when mass evacuations include large evacuation areas at the same time. This plan defers to Law Enforcement and OES to appropriately phase evacuations and to consider the vulnerability of communities when making decisions. For example, newer development in the area, including Harmon Ranch's structures, will offer a higher level of fire safety onsite, then structures in nearby communities, most of which were built prior to 1990.

#### **Evacuation Routes**

Evacuees are anticipated to be considered in a "safe zone" once they are a reasonable distance away from open space and in a dense urbanized area. For this analysis, the I-15 and Poway Road interchange and the Town & Country Plaza were considered the gateways or safe zones for evacuees to seek refuge from the wildfire, although there are many other urbanized areas within Poway that would also provide safety from wildfires. The evacuation areas are anticipated to utilize the following roadway facilities as evacuation routes:

#### North-South Roadways

*Pomerado Road* – a four-lane north/south roadway that connects Twin Peaks Road to Spring Canyon Road. Within the study area, this roadway provides a center-left-turn lane median and has a posted speed limit of 45 miles (mph). Pomerado Road is primarily fronted by residential units and open space and provides pedestrian sidewalks and bicycle lanes on both sides of the roadway. San Diego MTS bus routes 945 and 945A currently provide services on Pomerado Road, north of Poway Road. Pomerado Road is classified as a Major Arterial by the City's Transportation Master Element, March 2010. Vehicles evacuating the project and adjacent neighborhoods are anticipated to travel north or south on this roadway to access Poway Road.

#### East-West Roadways

*Poway Road* – a four-lane east/west roadway that connects I-15 in the west to SR-67 in the east. The roadway has a posted speed limit of 35 miles per hour (mph) and is divided by a raised median. Within the study area, Poway Road provides direct access to commercial centers. Pedestrian sidewalks and bicycle lanes are present on both sides of the roadway. San Diego Metropolitan Transit System (MTS) bus routes 944, 945, and 945A currently provide services on Poway Road. Poway Road is classified as a Major Arterial by the City's Transportation Master Element, March 2010. Vehicles evacuating the project and adjacent neighborhoods are anticipated to travel east or west on this roadway to access I-15 or the Town & Country Plaza for safety.

*Oak Knoll Road* -a two-lane roadway that connects Sage View Road to Selier Street. The Proposed Project will take access via side-street stop-controlled intersections on Oak Knoll Road. This roadway is an undivided roadway with a posted speed limit of 25 mph and parallel parking provided on both sides of the roadway. Oak Knoll Road is fronted by residential units and small businesses. Pedestrian sidewalks are provided on both sides of the roadway and sharrow signs are painted on the roadway indicating that Oak Knoll Road is a bicycle route. According to the City's Transportation Master Element, March 2010, Oak Knoll Road is a local collector between Poway Road and Pomerado Road and a local road east of Pomerado Road. Vehicles evacuating the project and adjacent neighborhoods are anticipated to travel east or west on this roadway to access Carriage Road, Pomerado Road, or Poway Road. Roca Grande Drive was originally designated as an evacuation route for residents and to provide emergency vehicle access to the Project. After discussion with residents living on Roca Grande Drive and an analysis of the evacuation study provided by Intersecting Metrics (Appendix C), the RSFFPD has accepted that the Project is able to be serviced by a single access route via Oak Knoll Road.



#### **Evacuation Alternatives**

Fires occurring on typical (non-extreme) fire weather days, when humidity is higher and winds are not as high or gusty, have been very successfully controlled at small sizes within minutes of ignition and would not typically trigger a need to evacuate the Harmon Ranch community. Partial evacuation of some dwellings could be an option, particularly those homes that are on the perimeter of the Project site.

If a wildfire ignited closer to the Harmon Ranch community during weather that facilitates fire spread, where multiple hours are not available for evacuation and placing residents on the roads could expose them to wildfire, an alternative evacuation approach would need to be explored. It is preferred to evacuate long before a wildfire is near, and in fact, history indicates that most human fatalities from wildfires are due to late evacuations when they are overtaken on roads. Therefore, it is prudent to consider a contingency option of temporary on-site refuge. For example, if a wildfire is anticipated to encroach upon the community or Oak Knoll Road in a timeframe that is shorter than would be required to evacuate all residents, then evacuations could be significantly impacted and the ability to temporarily shelter residents in their homes is a prudent contingency.

#### 4.1 Evacuation Time Discussion

This analysis was performed in accordance with the requirements of the County of San Diego – Operational Area Emergency Operation Plan – Annex Q (Evacuation), September 2018 for the calculation of evacuation times. To analyze the evacuation events, simulations were conducted by transportation engineering firm INTERSECTING METRICS using Synchro/SimTraffic microsimulation software package (Version 10) by Trafficware Ltd. It considers lane utilization, turn pocket storage lengths, upstream and downstream queue spillbacks, and coordinated signal timings on intersection and roadway operations. Intersection delay/level of service results are based on the SimTraffic results, which are calculated from the simulated vehicles tracked throughout the network. A total of 10 simulations run were conducted to obtain a reasonable sample size, and the results of those runs were averaged to obtain the evacuation travel time (Appendix C).

#### Simulation Area

The simulation area used for this modeling includes the roadway network bounded by I-15 to the west, Carriage Road to the east, and Oak Knoll to the south. The same intersections analyzed in the Harmon Ranch Draft Local Transportation Analysis (Intersecting Metrics, April 4, 2023) were included in this model, as well as intersections on Poway Road between I-15 to Oak Knoll Road to simulate vehicles traveling to the I-15 and Poway Road interchange and Town & Country Plaza.

The residential neighborhoods included in the evacuation analysis are neighborhoods adjacent to the project site and close proximity to native fuels, which are most likely to be compromised during a wildfire. These neighborhoods include the residential units immediately south, east, and west of the project site, the units north and south of Poway Road, the units along Pomerado Avenue and Sabre Springs Parkway, and the units in the eastern area of the City of Poway. While there are other non-residential uses within the study area, such as business offices and retail centers, trips from those uses were not assumed in the evacuation analysis since the analyses were for late night conditions and those buildings would be closed for operation.



#### **Evacuating Vehicles**

The number of vehicles existing the evacuation area was developed based on the American Community Services 2021 data for 21 census block groups in the study area. A portion of residents in several of the census block groups were not assumed to enter the study area based on their closer proximity to other interchanges or major intersections. Therefore, the data for the census block groups were modified to include only the number of residents assumed to travel to the I-15 and Poway Road interchange or the Town & Country Plaza.

Additionally, there are two planned projects in the study area (Poway Road Mixed Use and Meridian Poway) that were assumed in the evacuation analysis. The Harmon Ranch Project's evacuation vehicles were calculated using vehicle ownership per household data for an adjacent census tract multiplied by the number of dwelling units. Therefore, assuming a vehicle ownership rate of 2.04 vehicles per household (per census tract 170.48), the Project would generate 129 evacuating vehicles).

#### **Table 2. Evacuating Vehicles**

	Evacuating Vehicles			
Scenario	Adjacent Neighborhoods and Planned Projects	Proposed Project	Total	
Fire Driven from East	9,481	129	9,610	
Fire Driven from West	6,673		6,802	

As detailed in Appendix C, certain roadway network modifications were assumed in the model to represent potential traffic mitigation for roadways with available capacity and/or deployed traffic personnel directing traffic at key intersections. Additionally, the model assumes that under emergency evacuation conditions, traffic signals would revert to special timing plans and/or traffic personnel will be deployed at key intersections to help regulate traffic flow for primary evacuation approaches. Further, the model was coded to include primarily aggressive drivers, with drivers travelling with faster reaction times and shorter headways. Vehicle speeds would be limited by presumed congested conditions.

#### **Evacuation Scenarios**

The evacuation analysis includes the following four scenarios that considered traffic from Proposed Project and as evacuees from the adjacent neighborhoods:

- Opening Year Land Uses with Fire Driven from the East This scenario estimates the evacuation time of the existing residential areas and planned projects adjacent to the project site. Under this scenario, it is assumed that the wind fire is driven from the east and evacuees are traveling west to the I-15 and Poway Road interchange for refuge.
- Opening Year Land Uses with Fire Driven from the West This scenario estimates the evacuation time of the
  existing residential areas and planned projects adjacent to the project site. Under this scenario, it is assumed
  that the wind fire is driven from the west and evacuees are traveling east to the Town & Country Plaza.
- Opening Year Land Uses with Project With Fire Driven from the East This scenario estimates the evacuation time of the Proposed Project residents, the existing residential areas adjacent to the project site, as well as the planned projects adjacent to the project site. Under this scenario, it is assumed that the

wind fire is driven from the east and evacuees are traveling west to the I-15 and Poway Road interchange for refuge.

Opening Year Land Uses with Project with Fire Driven from the West – This scenario estimates the
evacuation time of the Proposed Project residents, the existing residential areas adjacent to the project
site, as well as the planned projects adjacent to the project site. Under this scenario, it is assumed that the
wind fire is driven from the west and evacuees are traveling east to the Town & Country Plaza.

#### 4.1.1 Potential for Project Evacuation Impact

Based on the analysis methodology described in the previous section, Table 3 summarizes the evacuation time for each analysis scenario. The evacuation time does not depict the evacuation time for each population modeled, but rather the time needed to evacuate all populations modeled. Populations located in closer proximity to the safe zone will safely evacuate sooner than the calculated evacuation time. Detailed evacuation travel time analysis information is provided in Attachment D of Appendix C.

#### Table 3. Evacuation Travel Time

	Total Evacuation Traffic		Evacuation Travel Time		
Safe Zone	Existing Land Uses	Existing Land Uses w/ Project	Existing Land Uses	Existing Land uses w/ Project	Delta
Fire Driven from East	9,481	9,610	118.2 mins (1 hr & 58 mins)	122.9 mins (2 hr & 2 mins)	4.6 mins
Fire Driven from West	6,673	6,802	83.0 mins (1 hr & 23 mins)	86.0 mins (1 hr & 26 mins)	3.0 mins

As shown in Table 3, for a wildfire driven from the east, it is anticipated to take the Proposed Project and the adjacent residential neighborhoods a total of 122.85 minutes to fully evacuate the study area, which is a 4.62-minute increase from the Opening Year conditions. For a wildfire driven from the west, it is anticipated to take the Proposed Project and the adjacent residential neighborhoods 86.04 minutes to evacuate the study area, which is a 3-minute increase from Opening Year conditions.

In addition to reviewing the evacuation travel time, the total intersection delay for the study area was evaluated to see the impact of the Proposed Project's traffic to the overall delay of the intersections along the evacuation routes. Table 4 displays the total intersection delay for the two scenarios. Detailed evacuation intersection delay information is provided in Attachment D of Appendix C.

	Total Intersection Delay (Seconds)			
Scenario	Opening Year Land Uses	Opening Year Land Uses w/ Project	Delta	
Fire Driven from East	725.3 sec (12 min & 05 sec)	732.2 sec (12 min & 12 sec)	6.9 sec	
Fire Driven from West	637.6 sec (10 min & 37 sec)	640.9 sec (10 min & 40 sec)	3.3 sec	

#### Table 4. Evacuation Intersection Delay - Total Study Area

As shown in Table 4, the average total intersection delay for the study area with the Proposed Project is 732.2 and 640.9 seconds under the wildfire driven from the east and west scenarios, respectively. This is less than a 7 second increase compared to Opening Year conditions under each scenario.

There are currently no significance standards for evacuation travel time for the City of Poway or CEQA. Public safety, not time, is generally the guiding consideration for evaluating impacts related to emergency evacuation. The City considers a Project's impact on evacuation significant if the Project will significantly impair or physically interfere with implementation of an adopted emergency response or evacuation plan; or if the Project will expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Safely undertaking large-scale evacuations may take several hours or more and require moving people long distances to designated areas. Further, evacuations are fluid and timeframes may vary widely depending on numerous factors, including, among other things, the number of vehicles evacuating, the road capacity to accommodate those vehicles, residents' awareness and preparedness, evacuation messaging and direction, and on-site law enforcement control.

Notwithstanding evacuation challenges and variables, the success rate in the City of Poway in safely managing both mass and targeted evacuations is nearly 100% safe evacuations based on research showing there were no fire-caused deaths during the evacuation of the Witch Fire in 2007. Technological advancements and improved evacuation strategies learned from prior wildfire evacuation events have resulted in a system that is many times more capable of managing evacuations. With the technology in use today in the City, evacuations are more strategic and surgical than in the past, evacuating smaller areas at highest risk and phasing evacuation traffic so that it flows more evenly and minimizes the surges that may slow an evacuation. Mass evacuation scenarios where large populations are all directed to leave simultaneously, resulting in traffic delays, are thereby avoided, and those populations most at risk safely evacuate.

Based on the evacuation simulations above, evacuation traffic generated by the Project would only increase the total evacuation travel time by less than 5 minutes. With proper and effective evacuation managers and traffic control personnel, evacuation flow is anticipated to be able to be effectively managed.

The Project would provide emergency managers the alternative option of recommending residents temporarily seeking refuge on-site in fire-resistant buildings or within the wide, converted landscapes and hardscapes that would not readily facilitate wildfire spread. This would provide emergency managers with a safer alternative to risking a late evacuation. By contrast, the examples of Southern California evacuations that have included loss of life have been the result of residents who did not evacuate when directed, and then attempted a late evacuation with travel through long distances of exposed travel ways as wildfire were overtaking the area. These examples occurred in fire environments that were more aggressive and included less maintenance than would occur at the Project area.

The Project would not cut off or otherwise modify existing evacuation routes. It would, instead, implement certain roadway improvements that would improve evacuation, as discussed under the "Analysis Methodology" section above.

This information will be provided to emergency managers for use in pre-planning scenarios to better inform in the field decisions made pursuant to adopted Emergency Operations Plans. Emergency personnel who issue an evacuation order may take into account these time estimates in determining when and where to issue evacuation orders. In a real evacuation scenario, emergency managers may use alternative actions/options to further expedite evacuation.



Such actions may include providing additional lead time in issuing evacuation orders, providing alternative signal control at downstream intersections, utilizing additional off-site routes or directing traffic to roadways with additional capacity, implementing contra-flow lanes, issuing "shelter-in-place" orders when determined to be safer than evacuation, or considering the possibility of a delayed evacuation where parts of the population could be directed to remain on-site until the fire burns out in the sparse fuels around the evacuation route. These options require "in the field" determinations of when evacuations are needed and how they are phased to maximize efficiency. Overall, safe evacuation of the Project and surrounding community is possible in all modeled scenarios.

#### 4.1.2 Mass Evacuation Vehicle Traffic

Mass evacuation events have become extremely rare as wildfire evacuation technology and capabilities have improved dramatically in the last 20 years. Wildfire evacuations are managed to move smaller populations in a successive phasing to minimize traffic surges. Populated areas are evacuated in phases based on proximity to the event and risk levels. For example, it is anticipated that wildfire evacuations of the Project area will likely include the relocation of perimeter populations that are closest to open space, either to on-site temporary shelter sites or off-site, rather than mass evacuating the entire area. The Project is built to ignition resistant standards and represent fire-safe fuel breaks that provide emergency managers many options that do not all include a mass evacuation. The result of this type of evacuation is that residents that may be in locations that would be closest to a wildfire burning in open space areas are temporarily moved from the vicinity and vehicle congestion on evacuation routes is minimized, enabling a more efficient evacuation. Under this evacuation approach, the evacuation would include a much smaller population and would be implemented in a surgical way. The evacuation time would be even lower and would have very little impact on the existing communities, except for evacuees who decide to leave the area despite not being directed to do so (Sorensen and Vogt 2006).

**Phased Evacuation** The purpose of a phased evacuation is to reduce congestion and transportation demand on designated evacuation routes by controlling access to evacuation routes in stages and sections. This strategy can also be used to prioritize the evacuation of certain communities that are in proximity to the immediate danger. A phased evacuation effort will need to be enforced by law enforcement agencies and coordinated with the EOC and affected jurisdictions.

Evacuations in San Diego County will soon be managed by a system that enables emergency managers to designate small areas in a surgical approach that can target neighborhoods, blocks or streets for alert messaging. Similarly, numerous cities and counties are implementing similar plans, with one example being an evacuation planning system called Genasys. Genasys is a software program that uses an algorithm incorporating various factors or inputs affecting disasters or emergency events to produce a digital evacuation map or real-time guide based on numerous, pre-set, community zones vs large swaths of a community. These factors include weather, traffic flows, street design, historical disaster data, geography and more. They are used to build a communitywide (city or county or whatever entity is purchasing the program) baseline digital map of evacuation zones.

First responders use these types of programs to guide decision-making for if, when, and where to order evacuations or evacuation warnings. Residents of affected zones are alerted using a variety of means, including alert systems, Nixle local alerts, social media such as Twitter and Facebook, and door-to-door warnings.



Dept of Homeland Security (2019) provides supporting data for why jurisdictions have moved to the surgical evacuation approach that leverages the power of situation awareness to support decision making. According to their Planning Considerations: Evacuation and Shelter in Place document, they indicate that delineated zones provide benefits to the agencies and community members. Evacuation and shelter-in-place zones promote phased, zone-based evacuation targeted to the most vulnerable areas, which allows jurisdictions to prioritize evacuation orders to the most vulnerable zones first and limit the need to evacuate large areas not under the threat. Zones help:

- Jurisdictions to understand transportation network throughput and capacity, critical transportation and resource needs, estimated evacuation clearance times, and shelter demand.
- Planners to develop planning factors and assumptions to inform goals and objectives.
- Community members to understand protective actions to take during an emergency.
- Shelters to limit traffic congestion and select locations suitable for the evacuated population.

The amount of time needed to evacuate the Project would vary by the type of incident, the number of evacuation routes utilized, the amount of mobilization time, actual areas at risk, and other factors. It has also been established herein that the targeted approach would minimize the size of the area being evacuated and use a phased approach, which may further reduce the evacuation time estimates.

There is no evacuation timeframe threshold that Projects must meet in order to avoid a CEQA impact or to be consistent with codes, regulations or policies. Regardless, the Project has provided a comprehensive evacuation evaluation, and the evacuation time results are comparable to similar sized populations under a mass evacuation.

Further, any additional time does not necessarily generate a greater safety risk. Emergency personnel who issue evacuation orders can consider the additional time needed to implement an evacuation when determining when and where to issue evacuation orders. Risk to nearby development, including the Project or existing communities, is assessed on a regular basis in a wildfire event. Hours or days of lead time may be available to assess risk and make evacuation determinations. Further, peak occupancy conditions like those assumed in the modeling typically do not occur as all residents are not typically at home while maximum occupancy at industrial, commercial and office uses is also occurring. Further, drifting smoke, awareness of the risk, road closures, or other factors result in people avoiding the area in a fire event. Additionally, the Project could allow people to shelter-in-place or take temporary refuge within the Project site, which could reduce evacuating traffic from the site.

The potential occurrence of a large evacuation event including evacuation of existing populations is minimal, but possible. In this case, the existing populations for the Project would be existing residential surrounding the Project site and commercial uses to the north. During a large wildfire moving from east to west, it is most likely, that evacuations would be directed to I-15, depending on the fire location and movement. The vehicle capacity estimates utilized for this evacuation plan are based the current Highway Capacity Manual methodology for calculating adjusted saturation flow rates and are discounted for various assumed traffic-related slowing, such as higher volume and downstream bottlenecks; therefore, estimates include capability to absorb additional vehicles.

In an actual evacuation scenario, a phased evacuation would be implemented where orders are given to evacuate based on vulnerability, location, and/or other factors, which enables the subsequent traffic surges on major roadways to be smoothed over a longer time frame and improve traffic flow. A phased strategy can also be used to prioritize the evacuation of certain communities that are in proximity to the immediate danger. The limitations of



the model used for this analysis are such that it cannot accurately reflect phased evacuation conditions; hence, a worst-case mass evacuation scenario was assumed.

This WEP assumes that law enforcement personnel are controlling downstream intersections to maintain traffic flow out of the area. If traffic flow is not maintained, then the estimated evacuation times would be expected to increase, potentially substantially, as is the case in any urban area. Additionally, this analysis assumes that all existing populations within the Project area and the Project are evacuating simultaneously.

#### 4.2 Evacuation Route Determination

Typically, fire and law enforcement officials will identify evacuation points before evacuation routes are announced to the public. Evacuation routes are determined based on the location and extent of the incident and its spread rate and direction and include as many pre-designated transportation routes as possible. However, field conditions and shifting fire behavior may result in real-time changes to predetermined routes. Having additional evacuation route options is considered critical in these conditions. Under extreme fire weather events, when wildfire is approaching from the north or east, driven by Santa Ana winds, it is unlikely that evacuation would occur to the east, toward the fire, unless there is substantial time until the fire arrival. Therefore, under these conditions, which is the most likely type of wildfire to result in an evacuation, this analysis assumes all traffic, existing and proposed Project related, would be sent west to I-I5.

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## 5 Harmon Ranch Wildfire/ Evacuation Awareness

The Harmon Ranch HOA should be active in its outreach to its residents regarding fire safety and general evacuation procedures. There are aspects of fire safety and evacuation that require a significant level of awareness by the residents and emergency services to reduce and/or avoid problems with an effective evacuation. Mitigating potential impediments to successful evacuations requires focused and repeated information through a strong educational outreach program. The Harmon Ranch HOA should engage residents and coordinate with local fire agencies for fire safety awareness through a variety of methods.

This WEP will be accessible on the HOA's website. Annual reminder notices will be provided to each homeowner encouraging them to review this WEP and be familiar with community evacuation protocols. The HOA will coordinate with local fire agencies to hold an annual fire safety and evacuation preparedness informational meeting. The meeting will be attended by representatives of appropriate fire agencies and important fire and evacuation information will be reviewed. One focus of these meetings and of the HOA's annual message will be on the importance of each resident to prepare and be familiar with their own "Ready, Set, Go!" Action Plan. The "Ready, Set, Go!" program is defined at:

https://poway.org/830/Ready-Set-Go-Wildfire-Readiness , and information about preparing a personalized Action Plan is provided in Appendix A of this document.

The focus of the "Ready, Set, Go!" program is on public awareness and preparedness, especially for those living in the wildland-urban interface (WUI) areas. The program is designed to incorporate the local fire protection agency as part of the training and education process in order to ensure that evacuation preparedness information is disseminated to those subject to the potential impact from a wildfire. There are three components to the program:

- "READY" Preparing for the Fire Threat: Take personal responsibility and prepare long before the threat of a wildfire so you and your home are ready when a wildfire occurs. Create defensible space by planting and maintaining ignition-resistant vegetation near your home. Use only fire-resistant landscaping and maintain the ignition resistance of your home. Assemble emergency supplies and belongings in a safe spot. Confirm you are registered for Reverse 911, Alert San Diego, and Community alert system. Make sure all residents residing within the home understand the plan, procedures and escape routes.
- "SET" Situational Awareness When a Fire Starts: If a wildfire occurs and there is potential for it to threaten Harmon Ranch and surrounding communities, pack your vehicle with your emergency items. Stay aware of the latest news from local media and your local fire department for updated information on the fire. If you are uncomfortable, leave the area.
- "GO!" Leave Early! Following your Action Plan provides you with knowledge of the situation and how you will approach evacuation. Leaving early, well before a wildfire is threatening your community, provides you with the least delay and results in a situation where, if a majority of neighbors also leave early, firefighters are now able to better maneuver, protect and defend structures, evacuate other residents who couldn't leave early, and focus on citizen safety.

"READY SET GO!" is predicated on the fact that being unprepared and attempting to flee an impending fire late (such as when the fire is physically close to your community) is dangerous and exacerbates an already confusing situation. This Harmon Ranch Wildfire Evacuation Plan provides key information that can be integrated into the individual evacuation plans, including the best available routes to use in the event of an emergency evacuation.

Situation awareness requires a reliable information source. One of the most effective public notification methods is Reverse 911. The San Diego OES operates the Reverse 911 notification system that provides a recorded message over land line telephone systems relating to evacuation notices. In addition, OES operates a program known as "Alert San Diego" that has the capability to send emergency notifications over both land lines as well as to cell phones and via text messages. It is up to individual residents to register their cell phones for "Alert San Diego." The registration of cell phones can be done online at www.ReadySanDiego.com. In addition, the San Diego Emergency Alert System (EAS) is county-wide and broadcasts emergency information via two radio stations: KOGO AM 600 and KLSD AM 1360.

Although not relying on this for safe and effective evacuations, as part of the Harmon Ranch resident fire awareness and evacuation readiness program, information will be delivered in a variety of methods (e.g., website, mailers, in-person meetings). The HOA will be responsible for providing access to this Wildfire Evacuation Plan, including materials from the "Ready, Set, Go!" Program.

The HOA, through its CC&R's will actively participate as a partner with the PFD to assist with the coordination and distribution of fire safety and evacuation information to Project residents.

## 6 Harmon Ranch Evacuation Procedures

#### 6.1 Relocation/Evacuation

It is estimated that the minimum amount of time needed to move the Harmon Ranch population to urbanized and/or designated evacuation areas may require up to approximately 2 hours under varying constraints that may occur during an evacuation. This does not include additional allowances for the time needed to detect and report a fire, for fire response and on-site intelligence, for phone, patrols, and aerial based notifications, and for notifying special needs citizens.

Wolshon and Marchive (2007) simulated traffic flow conditions in a computer derived WUI under a range of evacuation notice lead times and housing densities. To safely evacuate more people, they recommended that emergency managers (1) provide more lead time to evacuees and (2) control traffic levels during evacuations so that fewer vehicles are trying to exit at the same time.

Wildfire emergency response procedures will vary depending on the type of wildfire and the available time in which decision makers (IC, PFD, CAL FIRE, SDSD, and/or County Office of Emergency Management) can assess the situation and determine the best course of action. Based on the Harmon Ranch Project and surrounding communities, its road network, and the related fire environment, the first and primary type of evacuation envisioned is an orderly, pre-planned evacuation process where people are evacuated to more urban areas further from an encroaching wildfire (likely to urban areas north [and west]) well before fire threatens. This type of evacuation must include a conservative approach to evacuating (i.e., when ignitions occur and weather is such that fires may spread rapidly, evacuations should be triggered on a conservative threshold that includes time allowances for unforeseen, but possible, events that would slow the evacuation process).

The second type of evacuation is considered by many to offer the highest level of life protection to the public, but it can result in evacuees being placed in harm's way if the time available for evacuation is insufficient (Cova et al. 2011). An example of this type of evacuation, which is highly undesirable from a public safety perspective, is an evacuation that occurs when fire ignites close to vulnerable communities. This type of situation is inherently dangerous because there is generally a higher threat to persons who are in a vehicle on a road when fire is burning in the immediate area than in a well-defended, ignition-resistant home. Conditions may become so poor that the vehicle drives off the road or crashes into another vehicle, and flames and heat overcome the occupants. A vehicle offers little shelter from a wildfire if the vehicle is situated near burning vegetation or catches fire itself. This type of evacuation must be considered a very undesirable situation by law and fire officials in all but the rarest situations where late evacuation may be safer than seeking temporary refuge in a structure (such as when there are no nearby structures, the structure[s] is/are already on fire, or when there is no other form of refuge). Temporary refuge would be possible within the Harmon Ranch structures, but structures within surrounding communities, as previously discussed, are less desirable due to their higher vulnerability to ignition.

The third potential type of evacuation is a hybrid of the first two. In cases where evacuation is in process and changing conditions result in a situation that is considered unsafe to continue evacuation, it may be advisable to direct evacuees to pre-planned temporary refuge locations, including their own home if it is ignition-resistant and defensible. As with the second type of evacuation discussed above, this situation is considered highly undesirable, but the evacuation



pre-planning must consider these potential scenarios and prepare decision makers at the IC level and at the field level for enacting a contingency to evacuation when conditions dictate.

Indications from past fires and related evacuations, in San Diego County and throughout Southern California, which have experienced increasingly more frequent and larger fires, are that evacuations are largely successful, even with a generally unprepared populace. It then stands to reason that an informed and prepared populace would minimize the potential evacuation issues and related risk to levels considered acceptable from a community perspective.

Evacuation orders or notifications are often triggered based on established and pre-determined model buffers, which are based on topography, fuel, moisture content of the fuels and wind direction. Evacuations are initiated when a wildfire reaches or crosses one of these pre-determined buffers. Evacuations can also be very fluid. The IC, law enforcement and OES would jointly enact evacuations based on fire behavior.

#### 6.2 Harmon Ranch Project Evacuation Baseline

For purposes of this Wildfire Evacuation Plan, the first and most logical choice for all the residents and guests within the boundaries of Harmon Ranch Project is to adhere to the principles and practices of the "Ready, Set, Go!" Program previously mentioned in this document. As part of this program, it is important that each household develop a plan that is clearly understood by all family members and participates in the educational and training programs sponsored by the Harmon Ranch HOA and the PFD. It must be kept in mind that conditions may arise that will dictate a different evacuation route than the normal roads used on a daily basis.

Residents are urged to evacuate as soon as they are notified to do so or earlier if they feel uncomfortable. Directions on evacuation routes will be provided in most cases, but when not provided, residents of the Project will proceed according to known available routes away from the encroaching fire as detailed in Quick Reference section of this report. Residents are cautioned not to rely on navigation aid apps which may inadvertently lead them toward an oncoming fire. Depending on the type of emergency and the resulting evacuation, it could take up to approximately 2 hours or more to complete a community-wide evacuation of the Project and surrounding communities, based on road capacities and competing use of the roads by residents from other areas.

**Note**: This WEP will require adjustment and continued coordination by the Harmon Ranch HOA and/or developer and fire/law enforcement agencies during each of the construction phases. With each phase, the evacuation routes may be subject to changes with the addition of both primary and secondary evacuation routes.

#### 6.3 Civilian and Firefighter Evacuation Contingency

As of this document's preparation, no community in California has been directed to shelter-in- place during a wildland fire. Even the communities in Rancho Santa Fe, California, which are designed and touted as shelter-in-place communities, were evacuated during the 2007 Witch Creek Fire. This is not to say that people have not successfully sheltered-in-place during wildfire, where there are numerous examples of people sheltering in their homes, in hardened structures, in community buildings, in swimming pools, and in cleared or ignition-resistant landscape open air areas. The preference will always be early evacuation following the "Ready, Set, Go!" model, but there exists the potential for unforeseen civilian evacuation issues, and having a contingency plan will provide direction in these situations that may result in saved lives.



Potential problems during wildfire evacuation from the Harmon Ranch community include:

- Inadequate time to safely evacuate
- Fire evacuations during rush hour traffic or when large events are occurring
- Blocked traffic due to accidents or fallen tree(s) or power pole(s)
- The need to move individuals who are unable to evacuate

It is recommended that local law enforcement and fire agencies conduct concerted pre-planning efforts focusing on evacuation contingency planning for civilian populations when it is considered safer to temporary seek a safer refuge than evacuation. Harmon Ranch structures would allow for the possibility of temporary sheltering while structures in surrounding communities would not typically be considered ignition-resistant and therefore, not appropriate for temporary refuge.

#### 6.3.1 Safety Zones

The International Fire Service Training Association (IFTSA; Fundamentals of Wildland Fire Fighting, 3rd Edition) defines "safety zones" as areas mostly devoid of fuel, which are large enough to assure that flames and/or dangerous levels of radiant heat will not reach the personnel occupying them. Areas of bare ground, burned over areas, paved areas, and bodies of water can all be used as safety zones. The size of the area needed for a safety zone is determined by fuel types, its location on slopes and its relation to topographic features (chutes and saddles) as well as observed fire behavior. Safety zones should never be located in topographic saddles, chutes or gullies. High winds, steep slopes or heavy fuel loads may increase the area needed for a safety zone.

The National Wildland Fire Coordinating Groups (NWFCG), Glossary of Wildland Fire Terminology provides the following definitions for safety zones:

Safety Zone. An area cleared of flammable materials used for escape in the event the line is outflanked or in case a spot fire causes fuels outside the control line to render the line unsafe. In firing operations, crews progress so as to maintain a safety zone close at hand allowing the fuels inside the control line to be consumed before going ahead. Safety zones may also be constructed as integral parts of fuelbreaks; they are greatly enlarged areas, which can be used with relative safety by firefighters and their equipment in the event of blowup in the vicinity.

According to NWFCG, safety zone(s):

- Must be survivable without a fire shelter
- Can include moving back into a clean burn
- May take advantage of natural features (rock areas, water, meadows)
- Can include constructed sites (clear-cuts, roads, helispots)
- Are scouted for size and hazards
- Consider the topographic location (larger if upslope)
- Should be larger if downwind
- Should not include heavy fuels
- May need to be adjusted based on site-specific fire behavior



The definition for a safety zone includes provisions for separation distance between the firefighter and the flames of at least four times the maximum continuous flame height. Distance separation is the radius from the center of the safety zone to the nearest fuels. The Project is considered infill development with some conserved open space to the north of the Project site, it would be possible to navigate to roadways and structures on the southern portion of the Project site.

Safety zones are available within the Harmon Ranch community, but the Poway Crossings Shopping Mall parking lot, just north of the community offers the best possibility for a safety zone for firefighter use. The Harmon Ranch community will include the ability for firefighters to seek safety zones within the southern portion of the Project site, but identification of other potential safety zones will require additional focused study by PFD and other fire and law enforcement agencies.

#### 6.3.2 Temporary Firefighter Refuge Areas

Firescope California (Firefighting Resources of Southern California Organized for Potential Emergencies) was formed by legislative action to form a partnership between all facets of local, rural, and metropolitan fire departments, CAL FIRE and federal fire agencies. Firescope defines a contingency plan when it is not possible to retreat to a safety zone. This contingency includes establishment of firefighter temporary refuge areas (TRAs), which are defined as:

A preplanned area where firefighters can immediately take refuge for temporary shelter and short-term relief without using a fire shelter in the event that emergency egress to an established safety zone is compromised.

Examples of a TRA may include the lee side of a structure, inside of a structure, large lawn or parking areas, or cab of a fire engine, amongst others. Differences between a TRA and a Safety Zone is that TRAs are closer to the immediate firefighting area, are considered a contingency to being able to get to a safety zone, do not include a requirement for a large area set back four times the flame lengths of adjacent fuels, and cannot be feasibly pre-planned until firefighters arrive on-scene and size up the situation.

Firescope appropriately notes that although safety zones and viable escape routes shall always be identified in the WUI environment, they may not be immediately available should the fire behavior increase unexpectedly. Often a TRA is more accessible in the WUI environment. A TRA will provide temporary shelter and short-term relief from an approaching fire without the use of a fire shelter and allow the responders to develop an alternate plan to safely survive the increase in fire behavior.

The major difference between a TRA and a safety zone is that a TRA requires another planned tactical action (i.e., TRAs cannot be considered the final action, but must include self-defense and a move out of the area when the fire threat subsides). A TRA should be available and identified on site at a defended structure. TRAs are NOT a substitute for a safety zone. TRA pre-planning is difficult, at best because they are very site- and fire behavior-specific. For the Harmon Ranch community, TRAs would likely include navigating into the densely developed areas where firefighters would be separated from the unmaintained wildland fuels by wide areas including site-wide maintained landscapes, ignition-resistant residences, and wide roads that offer numerous opportunities for TRA.



The entire developed portion of Harmon Ranch development, but especially the interior dwellings, are considered TRAs. This is an important concept because it offers last-resort, temporary refuge of firefighters, and in a worst-case condition, residents. This approach would be consistent with Firescope California (2013), which indicates that firefighters must determine if a safe evacuation is appropriate and if not, to identify safe refuge for those who cannot be evacuated, including civilians.

Each of the Project's residences that can be considered for TRA include the following features:

- Ignition-resistant construction materials (e.g., Class A roofs, stucco exterior)
- Wide roadways with fire hydrants
- Interior fire sprinklers

Because there is the possibility that evacuation of the Project and surrounding communities may be less safe than temporarily refuging on site, such as during a fast-moving, wind-driven fire that ignites nearby, including temporary refuge within some properly designed, constructed and maintained residences onsite is considered a contingency plan for the Harmon Ranch Project. This concept is considered a component of the "Ready, Set, Go!" model as it provides a broader level of "readiness" should the ability to execute an early evacuation be negated by fire, road congestion, or other unforeseen issues.

Note: This approach would be considered a last-resort contingency during wildfire with the primary focus being on early evacuation. The decision for evacuation or temporarily refuging on site will be made by responding law enforcement and/or fire personnel.

#### 6.4 Social Aspects of Wildfire Evacuation

Orderly movement of people is the result of planning, training, education, and awareness, all of which are promoted in San Diego. Evacuation has been the standard term used for emergency movement of people and implies imminent or threatening danger. The term in this Wildfire Evacuation Plan, and under the "Ready, Set, Go!" concept, indicates that there is a perceived threat to persons and movement out of the area is necessary, but will occur according to a pre-planned and practiced protocol, reducing the potential for panic.

Citizen reactions may vary during an evacuation event, although several studies indicate that orderly movement during wildfire and other emergencies is not typically unmanageable. Evacuation can be made even less problematic through diligent public education and emergency personnel training and familiarity. Social science research literature indicates that reactions to warnings follow certain behavior patterns that are defined by people's perceptions (Aguirre 1994; Drabek 1991; Fitzpatrick and Mileti 1994; Gordon 2006; Collins 2004) and are not unpredictable. In summary, warnings received from credible sources by people who are aware (or have been made aware) of the potential risk, have the effect of an orderly decision process that typically results in successful evacuation. This success is heightened when evacuations are not foreign to residents (Quarantelli and Dynes 1977; Lindell and Perry 2004) as will occur within the Project area. Further, in all but the rarest circumstances, evacuees will be receiving information from credible sources during an evacuation. It would be anticipated that law enforcement and/or fire personnel would be on site to help direct traffic and would be viewed by evacuees as knowledgeable and credible. The importance of training these personnel cannot be overstated and annual education and training regarding fire safety and evacuation events will be essential for successful future evacuations.



#### 6.4.1 Evacuation of Special Populations

Vogt (1990 and 1991) defines special populations as those groups of people who, because of their special situations or needs, require different planning strategies from those of the general population. Special needs populations include those in institutions or special facilities, those with disabilities in homes, those who need care, children, and others who cannot provide for their own evacuation if necessitated. The special needs population is concentrated in facilities but is also widespread in terms of facility locations and those who live in residences. Special needs populations in Harmon Ranch include people with disabilities, the hearing or visually impaired, senior citizens, foreign speaking, visitors passing through the area, temporary visitors such as day workers, and the non-ambulatory confined to residences either temporarily or permanently.

#### 6.4.2 Animal Evacuations

Animal evacuations present a host of challenges that may affect the overall successful movement of people and their possessions out of harm's way. For example, livestock owners do not always have the means to load and trailer their livestock out of the area. Further, most wildfire evacuation relief shelters or commercial lodging facilities do not allow people to bring in pets or other animals. Sorensen and Vogt (2006) indicate that an issue receiving increasing attention is what evacuees do with pets or other animals such as livestock when they leave their homes and whether having pets or animals impacts their decision to evacuate.

The Harmon Ranch Project would not accommodate livestock onsite. However, household pets are a common occurrence.

#### 6.4.3 Re-Entry Procedures

An important component of evacuations is the citizen re-entry process. Guidance and procedures to ensure a coordinated, safe, and orderly re-entry into impacted communities following an incident is provided in the County of San Diego Re-Entry Protocol.

Guidance and procedures to ensure a coordinated, safe, and orderly repopulation into impacted communities following an incident is provided in the County of San Diego Evacuation and Repopulation Plans.

Repopulation will be initiated by the Incident Commander/Unified Command of the Incident Management Team, with the support of the Director of Emergency Services, the OA EOC Director, and the Operations Section Chief at the OA EOC. In most cases the OA EOC will remain activated until full repopulation is complete. In the event that the OA EOC has been deactivated, the Incident Commander or the Liaison Officer of the Incident Management Team will initiate repopulation procedures.

The Incident Commander will designate staff to the Evacuation/Repopulation Branch and the Operations Section Chief of the OA EOC will coordinate with and support the Evacuation/Repopulation Branch Coordinator. The Evacuation/Repopulation Coordinator is responsible for coordinating the repopulation procedures with all involved agencies and ensuring effective communication.

The public will be notified of repopulation through various notification measures previously mentioned in this annex, which may include Alert San Diego, the SDEmergency App for smart phones, emergency broadcast radio, television, press releases, informational phone lines such as 2-1-1, community briefings, and informational updates at shelters.



## 7 Implementing Conditions

- 1. The Harmon Ranch HOA will include a proactive facility wildfire education program utilizing a multi-pronged approach to fire safety including "Ready, Set, Go!" preparations and individual evacuation plans for residents. To include, but not limited to:
  - a. Annual wildfire and evacuation safety awareness meeting in coordination with local fire agencies.
  - b. Annual reminder notices will be provided to each homeowner encouraging them to review this WEP and be familiar with community evacuation protocols.
  - c. The HOA website will host a webpage dedicated to wildfire and evacuation education and awareness, which should include a copy of this Wildfire Evacuation Plan and the resources provided herein.
- 2. The HOA will designate a Fire Safety Coordinator(s) to oversee implementation of the wildfire education program. The Fire Safety Coordinator(s) will:
  - a. Prepare and distribute the annual reminder notice that shall be provided to each occupant encouraging them to review this WEP and be familiar with community evacuation protocols.
  - b. Coordinate with local fire agencies to hold an annual fire safety and evacuation preparedness informational meeting for occupants. The meeting should be attended by representatives of appropriate fire agencies and important fire and evacuation information should be reviewed.
  - c. Maintaining fire safety information on the development's website, including the WEP and materials from the "Ready, Set, Go!" Program.
  - d. Review and update, if necessary, the P.A.C.E. Evacuation Plan every two years.
- 3. The Project includes a contingency plan for the rare occurrence that evacuation is not safe that includes residents sheltering in place within onsite structures.

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## 8 Limitations

This Emergency Wildfire Evacuation Plan incorporates concepts and protocols consistent with industry standards and has been developed based on City of Poway and San Diego County wildfire and evacuation standards per the City's EOP and the County's EOP documents and is specifically intended as a guide for evacuations for the Harmon Ranch Project. This Emergency Wildfire Evacuation Plan provides basic evacuation information that will familiarize residents of the Project with the evacuation route options that may be available to them during an emergency. However, because emergencies requiring evacuation have many variables and must be evaluated on a case-by-case basis, real-time law enforcement and fire personnel/agencies' decision-making and direction during an emergency requiring evacuation would supersede this WEP.

This WEP analyzes the existing community's evacuation times currently and with the proposed Harmon Ranch Project. The estimated evacuation times are based on several assumptions as detailed in this WEP. However, actual evacuation times may be faster or slower than the estimates, depending on the type of emergency, the extent of the evacuation, the time of day, and other factors. A collective, community–wide evacuation of existing populations and the proposed population from the Project would include congested roads in its existing condition that are improved, but still congested, with the Harmon Ranch Project. Congested roads are normal in any urban setting when a large evacuation is declared unless it is managed and evacuation areas are staggered to reduce the potential traffic surges that can significantly impact evacuations. Therefore, there would likely still be congestion and delays.

This Wildfire Evacuation Plan promotes the "Ready, Set, Go!" model, adopted by PFD, San Diego County, CAL FIRE, and many fire agencies statewide. The goal is to raise agency and citizen awareness of potential evacuation issues and get a majority of the public "Ready" by taking a proactive stance on preparedness, and evacuation planning efforts. The Harmon Ranch Project populace will be "Set" by closely monitoring the situation whenever fire weather occurs and/or when wildland fire occurs and elevating pre-planned protocol activities and situation awareness. Lastly, officials will implement the plan and mandate that populations "Go" by executing pre-planned evacuation procedures in a conservative manner (i.e., evacuation will occur based on conservative decision points, as proposed in this evacuation plan or when directed by fire and law enforcement personnel, whichever is more conservative). The preferred alternative will always be early evacuation. However, there may be instances when evacuation is not possible, is not considered safe, or is not an option based on changing conditions. For example, should a fire occur and make evacuation from the Project area ill advised, a contingency plan for residents should be available. This contingency would include moving people to pre-designated TRAs until it is safe to evacuate or the threat has been mitigated.

Ultimately, it is the intent of this Wildfire Evacuation Plan to guide the implementation of evacuation procedures such that the process of evacuating people from the Harmon Ranch Project is facilitated in an efficient manner and according to a pre-defined evacuation protocol as well as providing a contingency option of temporarily refuging onsite, if evacuation is considered less safe. The Project's residents should be aware of this Wildfire Evacuation Plan and components of it shall be posted on the HOA's website. It is also recommended that the HOA provide reminders to residents on at least an annual basis. This educational outreach will result in a populace that understands the potential for evacuations and the routes and options that may be presented to them.



During extreme fire weather conditions, there are no guarantees that a given structure will not burn or that evacuations will be successful all the time. Wildfires may occur in the area that could damage property or harm persons. However, successful implementation of the procedures outlined in this Wildfire Evacuation Plan will provide for an informed populace regarding evacuations.

This WEP does not provide a guarantee that all persons will be safe at all times because of the procedures discussed. There are many variables that may influence overall safety. This WEP provides a summary for implementation of standard evacuation protocols and public outreach, which should result in reduced wildfire related risk and hazard. Even then, fire can compromise the procedures through various, unpredictable ways. The goal is to reduce the likelihood that the system is compromised through implementation of the elements of this WEP and regular occurring program maintenance and updates.

It is recommended that the evacuation process is carried out with a conservative approach to fire safety. This approach must include embracing a "Ready, Set, Go!" stance on evacuation. Accordingly, evacuation of the wildfire areas should occur as soon as they receive notice to evacuate, which may vary depending on many environmental and other factors. Fire is a dynamic and somewhat unpredictable occurrence, and it is important for anyone living at the wildland-urban interface to educate themselves on practices that will improve safety.

#### Limitations

The underlying planning principle for fire preparedness, given the dynamic nature of a fire, is to demonstrate the availability of multiple route alternatives and response strategies to permit emergency professionals to manage their response according to the specific circumstances. The Study Area provides ample route and response alternatives. Emergency responders will coordinate the safest possible evacuation based on the dynamic circumstances of the actual event, including the appropriate phasing of the evacuation, and utilization of the most appropriate ingress and egress routes for area residents and emergency responders.

The breadth of route alternatives and response strategies available to emergency professionals to manage a potential fire in this region cannot and should not be evaluated using the INTERSECTING METRICS' Evacuation Analysis – Technical Memorandum alone. A comprehensive view of Project fire safety is gained by understanding this memo, the Project's Wildfire Evacuation Plan, along with the standard protocols and "in-the-field" decision making of emergency responders.

This Wildfire Evacuation Plan presents a reasonable vehicle travel time estimate based on professional judgments made by INTERSECTING METRICS with input from Dudek. Changing any number of these assumptions can lengthen or shorten the average vehicle travel time.

For instance, a situation could arise in which professionals *may* choose to utilize additional roadways for evacuation not utilized in the Dudek/INTERSECTING METRICS analysis and *may also* choose to send more vehicle trips to certain evacuation routes, and *may also* choose to guide vehicle trips to more or different route permutations relative to what has been modeled in this the Dudek/INTERSECTING METRICS analysis.

The net result of changing the variables selected could yield an average evacuation travel time shorter or longer than the results detailed in the Dudek/INTERSECTING METRICS analysis. Many factors can shorten or lengthen the vehicle time from the results shown herein. For example:

- 1. Changing the possible evacuation routes selected would affect the results. For instance, utilizing roads for ingress and/or egress that are not utilized in this analysis could shorten vehicle travel times relative to the results shown herein.
- 2. Increasing or decreasing the number of path permutations and percentage of the population utilizing each route that leads out of the immediate area could shorten or lengthen vehicle travel time relative to the results shown herein.
- 3. Emergency professionals electing to reserve certain road lanes for emergency vehicle ingress for portions of time could affect the travel time relative to the results shown herein.
- 4. Assuming evacuees utilize fewer or more vehicles to evacuate from the Project or surrounding communities relative to the Vehicle Utilization Rate selected in the analysis would shorten or lengthen vehicle travel time relative to the results shown herein.
- 5. Changing the mix of vehicle trips allocated to each evacuation route could shorten or lengthen vehicle travel time relative to the results shown herein.
- 6. Assuming a different road capacity adjustment factors could shorten or lengthen the vehicle travel time relative to the results shown herein.
- 7. Assuming fewer people are at home when the evacuation notice is given would reduce the number of vehicle trips and shorten vehicle travel time relative to the results shown herein. For instance, an evacuation during daytime hours would typically result in fewer outbound trips than assumed in this analysis.
- 8. Assuming some portion of vehicle trips are made in advance of the evacuation notice would reduce the number of vehicle trips relative to the results shown herein.
- 9. Assuming some homeowners and their families are not in the Study Area when evacuation notice is given (most likely in a daytime evacuation event), could reduce the number for vehicle trips relative to the results shown herein.

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## **Appendix A1-A2**

San Diego County Emergency Preparedness Resource and "Ready, Set, Go!" Wildland Fire Action Guide

# COUNTY OF SAN DIEGO OFFICE OF EMERGENCY SERVICES **PERSONAL DISASTER DISASTER**

FOR PEOPLE WHO MAY NEED ASSISTANCE



# Introduction

This guide supports older adults, people with disabilities, caregivers, and others who may benefit from help when planning for disasters.

Emergencies can range from falls in the home to fires and earthquakes. Each person has unique abilities and needs during a disaster, and everyone can take steps to prepare.

This guide will help you evaluate your needs and make a personalized emergency plan so that you and your loved ones can be better prepared.



# **Steps to Prepare for any Emergency**

#### **GET CONNECTED**

Preparedness is all about people.

Build your support network.

#### **MAKE A PLAN**

Know where to go, what to do, and who can help.

Share your plan with your support network.

#### **GATHER SUPPLIES**

Create a Go Kit with supplies you can easily take with you.

Assemble a Home Kit with supplies for sheltering in place.

#### **STAY INFORMED**

Get alerts and know your local resources.









# Get Connected

The first step in disaster preparedness is building a support network of people who can help **GET CONNECTED** 











# **Preparedness is** all about People

#### Our social connections help us respond better to challenges during emergencies.

Social connections also provide physical and mental health benefits to improve your ability to react to disasters.

Think about the groups that you already belong to or could join:

- Volunteer groups
- ► Faith-based groups
- Co-workers
- School-based groups
- Neighborhood groups
- Exercise groups
- Support groups

During an emergency or disaster, you and members of your community can come together to help each other.



# **GET CONNECTED**

# Build your Support Network

Your support network can include anyone who can provide help during an emergency.

- Include a minimum of three people you trust.
- Consider family members, neighbors, friends, coworkers, and personal attendants.
- Organize networks for your home, workplace, volunteer sites, and any other places you spend a lot of time.
- Include one contact that lives out of the area.
- Network members should know your capabilities and limitations.
- Disasters can be stressful and overwhelming. Include people that are supportive when you are under stress.


## CONTACTS

-	Name/Relationship	
ſ,	Home Phone	🗒 Cell Phone
ſ,	Other Phone	🔀 Email
-	Name/Relationship	
L.	Home Phone	🗒 Cell Phone
¢,	Other Phone	🔀 Email
-	Name/Relationship	
ſ,	Home Phone	🗒 Cell Phone
¢,	Other Phone	🔀 Email
OUT	-OF-AREA CONTACTS	
2	Name/Relationship	
L	Home Phone	🗒 Cell Phone
¢,	Other Phone	🔀 Email
1	Name/Relationship	
¢,	Home Phone	🗒 Cell Phone
C	Other Phone	🔀 Email

# Planning with your Support Network

## **Communicating with Your Network Members**

- Share your disaster plan with your support network.
- Ask your network to notify you when an emergency arises.
- Agree on how you will contact each other during an emergency.
- When possible, text instead of calling during an emergency.
- Consider giving a trusted member of your network keys to your home and car.
- Choose an emergency meeting place where you can reunite.
- Show members of your network how to operate your medical equipment and assistive devices.
- If you have a service animal, make sure it knows and trusts the people in your network.









To learn more about the **NET** program or to connect with a **NET** member in your area.

🗹 readysd@sdcounty.ca.gov

, 858-565-3490



## **Connect with your Neighborhood Evacuation Team**

The **Neighborhood Evacuation Team (NET)** pairs trained **Community Emergency Response Team** members with individuals who may have difficulty evacuating during an emergency.

## Neighborhood Evacuation Team members can help you:

- > Prepare and review your evacuation plan
- Identify emergency contacts
- Register for AlertSanDiego and learn about other emergency communication tools
- Connect you with other resources to help you better prepare for disasters





Join a Community
 Emergency Response
 Team (CERT):
 ReadySanDiego.org/
 get\_involved

# Call 2-1-1 to connect to resources

Free, 24 hour, confidential phone service in 200+ languages and a searchable online database. Trusted local, nonprofit organization providing access to 6000+ community, health, and disaster services such as:

- Food Assistance
- Housing & Utilities
- Disaster Relief & Prevention
- Financial & Legal Assistance
- Transportation
- Health, Nutrition & Primary Care
- Military & Veteran Services
- Enrollment Services

If you have limitations hearing or speaking, a speciallytrained California Relay Service Communications Assistant can relay telephone conversations for all of your calls. Dial 7-1-1 and ask to be connected with 2-1-1 at (858) 300-1211.



TALK







**SEARCH** 



**ENROLL** 







Food Assistance



**Housing & Utilities** 



Disaster Relief & Prevention



Financial & Legal Assistance



Transportation



Health, Nutrition & Primary Care



Military & Veteran Services



**Enrollment Services** 



# **MAKE A PLAN**

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# Make a Plan

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NEWB

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If you smell gas, hear a hissing sound, or suspect a leak, turn off the main gas valve, open windows, and leave the area immediately. Do not light candles or strike matches. Only shut off the gas if you suspect a leak, because only the gas company can restore service.

# Your Home

## **Emergency planning starts in your home**

- Install smoke and carbon monoxide detectors on every level of your home and test regularly. If you are deaf or have hearing loss, install a system with flashing lights or vibrations. Call 2-1-1 if you need help installing smoke alarms.
- Know the location of utility valves and learn how to disconnect them during an emergency.

## Write down the locations of utilities

Gas Valve: \*

Water Valve:

Circuit Breaker:

Garage Door Manual Override:

#### **Insurance Coverage**

- Talk with your insurance agent to be sure that you have adequate insurance coverage. Typical homeowner's or renter's insurance may not provide full coverage for all hazards such as flooding, wildfires, or earthquakes.
- Inventory your possessions so you may claim reimbursement in case of loss or damage.

# **Evacuation Plan**

- Know your evacuation routes. Find the location of all exits, including doors and windows in each room.
- Evacuate early. If you have medical or mobility concerns, or pets or service animals, prepare to leave when an Evacuation Warning is issued instead of waiting for a mandatory Evacuation Order.
- Plan for unique needs. Consider the ability of you and your loved ones to evacuate, use stairs, and access transportation. Arrange help from your support network or call 2-1-1 for assistance before an emergency.
- Meeting places. Know where you will meet your friends and family after an emergency. Pick two places to meet, one right outside your home and meeting place outside of your neighborhood.

Meeting place close to home:

Meeting place outside of your neighborhood:







# **Emergency Shelters**

If an emergency requires you to evacuate, consider going to a hotel, a friend or relative's home, or a shelter. Emergency shelters may be set up in schools, community buildings, and places of worship.

- Shelters provide food, water, and basic supplies.
- Bring items you need, including medical equipment.
- Shelters will be accessible and can meet needs of people with different abilities. Service animals are allowed.
- Shelters follow public health safety recommendations, such as social distancing during the COVID-19 pandemic.

Call 2-1-1 or visit AlertSD.org to find a shelter near you.



<u>MAKE A PLAN</u>

# Planning for Your Medical Equipment

- Attach instruction cards on how to use and move each item in case of evacuation.
- Identify critical supplies (such as catheters, colostomy supplies, etc.) that must be taken.
- If you rely on electric medical equipment, ask your medical supply company about a back-up power source, and ask your utility company about programs you may be eligible for.
- If you depend on dialysis or other life-sustaining treatment, know the location of more than one treatment facility.





 To request a free Vial of LIFE kit, please call: 1-800-339-4661

 Fill out the medical information form included on the following pages or for a version with large print and different languages visit
 readysandiego.

## org/make-a-plan/

Make copies and store in your wallet or purse. Share a copy with members of your support network.



# Vial of LIFE

The **Vial of LIFE** program has saved countless lives by providing emergency responders with life-saving medical information. Store the **Vial of LIFE** envelope on your refrigerator.

## Each Vial of LIFE kit includes:

- A medical information form. List your medical conditions, medications, emergency contacts, insurance, and hospital preference.
- A vinyl envelope and magnet. Place the completed medical form in the envelope and store it on the outside of your refrigerator. Add a copy of your power of attorney for health care and health care directive.
- A Vial of LIFE sticker. Place on the door jamb of your front door or a front window. This informs emergency responders that you completed a Vial of LIFE.

**MAKE A PLAN** 

VIAL OF LIFE	LIVE WELL SAN DIEGO LIVEWELLSD.ORG	ARE A	Information & Assistance <b>1-800-339-4661</b> Updated On _/ /			
Name						
Blind Deaf	🗌 Alzheimer's Di	sease or Relate	ed Dementia			
Address City Zip			Zip			
Phone #	none # Male		Date of Birth			
Social Security Number (last four digits)		- LJ				
Medicare Number (last four digits)						
Other Insurance	Policy Num	ber				
Do you have an Advance Health Care Di	rective?		 	es 🗌	No 🗔	
If yes, location	Agent		Phone #			
Do you have a "Do Not Resuscitate Orde			 Ye	es 🗌	No 🗌	
Registered with Sheriff's "Take Me Home	۶"?		Ye	es	No 🗌	
F						
Emergency Contacts Name	Relationship	Phon	one # and E-mail			
Name	ame Relationship		Phone # and E-mail			
Caregiver		Phon	e # and E-mail			
Clergy		Phon	e # and E-mail			
Pet's Information Name & Type						
Veterinarian		Phon	ne #			
Medical Information						
Primary Doctor		Phon	ne #			
Secondary Doctor		Phon	ne#			
Hoight	\M/aiabt	Phon	d Turce			
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Alleraies to drugs or foods						
Please list any medical conditions that ar	oply (for example: cardiac_diabe	tes. hvnertensi	ion, stroke)			

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MAKE A PLAN

# **Planning** for Different Circumstances

**Disasters are challenging for everyone.** We benefit from understanding our own needs and the unique needs of our friends, neighbors, and family members. Disaster preparedness is an individual and a community effort. Review the tips below to help prepare for a variety of circumstances.

PLAN

PLAN!



## **People with Pets or Service Animals**

- Get your pet an ID tag. Ask for a free or discounted microchip.
- Pack food, water, medicine, and proof of immunization.
- > Dial **2-1-1** for local animal service resources.



## **Older Adults**

- Clear your home of clutter to prevent falls.
- If you receive home care, ask about their plans for emergencies.
- If you live in a retirement community, learn about their emergency plan.
- Consider getting a medical alert system so you can call for help.

## **Rural Communities**

- Share alerts through phone trees and ham radio networks.
- Meet with neighbors to discuss collaboration.
- > Plan for evacuating large animals.

MAKE A <u>PLAN</u>

## **People with Developmental Disabilities**

- Practice your disaster plan with your support network to help you feel safe.
- Ask emergency responders to repeat directions if you don't understand.
- Practice how you might quickly describe your disability to a rescuer.

#### **People with Speech/Communication Disabilities**

- Carry an instruction card on how to communicate with you.
- Carry communication devices, phrase cards, or picture boards, like on page 43 and 44.
- Know how to replace your assistive device if damaged.

## **People with Mobility or Other Physical Disabilities**

- Identify paratransit or accessible transportation options.
- Plan for damaged ramps, rails, or elevators.
- Bring an extra wheelchair battery, tire repair kit, and seat cushion.









## People who are Blind or who have Low Vision

- Mark emergency supplies with Braille or large print.
- Keep a Braille or deaf-blind communication device in your emergency supply kit.
- Keep Braille/text communication cards for two-way communication.

## **People with Dementia**

- Move to a quieter place to avoid agitation. Limit stimulation.
- Redirect the person's attention if he or she becomes upset.
- Find outlets such as taking a walk or engaging in simple tasks.
- > Avoid elaborate explanations. Use concrete terms.

## Pregnant women and families with infants

- Find out where to get prenatal or well-baby checkups if your doctor's office closes.
  - Include baby care supplies in your Go Kit.
  - Tell shelter staff if you have a baby or have issues with your pregnancy.





PERSONAL DISASTER PLAN

## **Transportation Challenged**

- Arrange for rides with neighbors if you must evacuate.
- Call 2-1-1 to identify transportation service providers in your area.
- Ask if public transit or ride share services may be free after a disaster.

## **People who speak Limited English**

- Find trusted community sources to talk to about safety options.
- Call 2-1-1 for information in over 200 languages.
- > Ask a bilingual person to share safety steps with you.
- Know which of your media sources provide emergency alerts.

## **New Californians**

- Learn emergency system basics, like dialing 2-1-1 for non-emergencies and 9-1-1 for emergencies.
- Ask your community how disasters here are different.
- Find trusted sources in emergencies beyond the government.







# Planning for Different Emergencies

In this section you will find tips on what to do in different disaster situations.



<u>MAKE A PLAN</u>



## **Fires**

## **Before:**

- Evacuation warning means prepare to leave NOW.
- > Plan for no electricity. Do not use candles.
- Get a bandana or mask to protect lungs.
- Plan escape routes from each room.
- Clean gutters. Remove brush near home. Call 2-1-1 to see if local Fire Safe Councils can assist.

## **During:**

- Evacuation order means you must leave NOW.
- Don't "wait and see." Leave immediately when ordered to evacuate.
- > When a door feels hot, do not open it.
- If trapped, close doors and windows to keep smoke out.
- If your clothes are on fire, Stop, Drop and Roll.
- Leave smoky areas quickly. Stay low to the ground as smoke rises.







## **Earthquakes**

## **Before:**

- Secure furniture to walls.
- Identify safe spots in each room, like sturdy tables and desks.
- Identify dangerous spots near windows, mirrors, and hanging objects.
- Learn how to shut off gas, water, and electricity.

## **During:**

- Don't rush outside. Get under a desk or table.
- If outside, move away from buildings, trees, streetlights, or powerlines.
- If driving, pull over and stop away from buildings and trees.
- Using a wheelchair: Go into a doorway, lock wheels, cover head and neck.
- Be ready for aftershocks.
- Watch for tsunamis on the coast.







MAKE A PLAN

ESCAPE ROUTE!

## Flooding

## **Before:**

- ▶ Keep storm pipes and drains clear.
- Move valuables to higher floors.
- Monitor TV and radio for flood watches or warnings.
- Learn best escape routes to higher ground.
- Use sandbags to divert water.

## **During:**

- Don't "wait and see." Leave immediately when ordered to evacuate.
- Never walk, swim, or drive through moving water. Remember, Turn Around, Don't Drown.
- Watch for mudslides.
- Avoid downed powerlines.
- If instructed, turn off water and electricity and unplug appliances.



## **Power Outages**

## **Before:**

- Prepare flashlights no candles.
- ▶ Keep an emergency backup phone charger.
- Buy food that won't spoil and doesn't need cooking.
- ▶ Keep car gas tank at least half full.

## **During:**

- Unplug appliances/electronics to prevent damage.
- ▶ Leave one light plugged in.
- ▶ Keep your refrigerator and freezer door closed.
- Do not use your gas stove for heat.
- Use generators, camp stoves, and grills outdoors.





# Be prepared for public safety power shutoff

San Diego Gas & Electric® (SDG&E®) sometimes turns power off in fire-prone areas during adverse weather conditions as a safety precaution. This is known as a Public Safety Power Shutoff (PSPS). While these events are more likely to occur in high fire-risk areas, all San Diegans could be affected and should be prepared. SDG&E aims to send early notifications via phone calls, text alerts, emails and other means before turning off power.

## Stay informed during PSPS

## Update Your Contact Information and/or Sign Up for Outage Notifications

Visit sdge.com/notifications or call **1-800-411-7343** to update your contact information and/or sign up to receive voice, text and/or email notifications, even if you don't have an **SDG&E** account.

## **Community Resource Centers**

**SDG&E** may open **Community Resource Centers** near affected communities during a PSPS event. Visitors can receive preparedness materials, ice, water, snacks,



Follow SDG&E on social media and the NewsCenter for updates during a PSPS



Facebook: facebook.com/ SanDiegoGasandElectric



Twitter: twitter.com/SDGE



Instagram: instagram.com/sdge



Nextdoor: San Diego Gas & Electric

NewsCenter: sdgenews.com **MAKE A PLAN** 





charging for mobile devices, small solar powered batteries, radios and up-to-date information about the shutoff event. Public health protocols may also be in place including social distancing measures, routine deep cleaning and drive through service. Learn more at **sdge.com/resource-centers**.

## **Event Duration/Backup Generation**

A PSPS event will require power to remain out for as long as a threat to public safety and to the electric system continues. Before power can be restored, crews must inspect power lines and equipment and make any needed repairs.

You are encouraged to explore safe, alternative power sources to operate your critical equipment during PSPS events. For additional information on choosing a generator or an alternative back-up system, please consult a licensed electrician and **SDG&E**. Learn more at **sdge.com/generator**.

## **Medical Baseline Allowance program**

If you or someone in your household has a qualifying medical condition or needs certain in-home medical equipment, you may be eligible for more electricity or natural gas at a lower rate. The person with the qualifying medical condition must live at the address on the application, and the medical equipment must be for home-use only. This program can also help by providing extra notifications in advance of a PSPS event. Learn more at **sdge.com/medicalbaseline**.

## **CARE and FERA programs**

**CARE** and **FERA** are two **SDG&E** programs that can provide you with a monthly discount on your bill.

 California Alternate Rates for Energy (CARE) 30% or more monthly bill discount.

Family Electric Rate Assistance (FERA) 18% monthly bill discount. FERA is only open to households with three or more people.

Learn more about qualifications, income guidelines, and apply to these programs at **sdge.com/CARE**.

#### **Energy Savings Assistance program**

Energy-efficient home improvements can make your home more comfortable, save you money now, and for years to come. You may be eligible to receive lowor no-cost products and installation. Learn more and apply at **sdge.com/ESA**.

#### **Access & Functional Needs (AFN) Resources**

**SDG&E** and **2-1-1** San Diego partner to support individuals with Access and Functional Needs. Information and services are provided to increase preparedness and self-resilience during PSPS events and emergencies. Services may include assisted transportation, backup power, preparedness items, food security, temporary shelter and welfare checks. Learn more at **211SanDiego.org** or dial **2-1-1**.







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**MAKE A PLAN** 

# Tips for other Emergencies

## **Pandemics and Public Health Emergencies**

- Store a two-week supply of water and food.
- ▶ Keep prescription drugs on hand.
- Wash hands frequently.
- Cover coughs or sneezes.
- Stay home if you are sick.

## **Extreme Heat**

- Seek air conditioning or a fan.
- Go to libraries, shopping malls, or call 2-1-1 to find a designated cool zone or visit coolzones.org.
- ▶ Take a cool bath.
- Drink cool, non-alcoholic, non-caffeinated beverages.
- ▶ If you feel ill, call a doctor or **9-1-1** immediately.

## **Extreme Cold**

- Stay indoors.
- > Wear warm, comfortable, dry clothing.
- Watch for frostbite, hypothermia, or overexertion.
- Do not use a charcoal or gas grill for heat inside your home.



## Tsunami

- Move to higher ground, inland and/or to a higher floor.
- Listen to your radio or TV for emergency instructions.
- Leave immediately if ordered to do so.
- Do not go sightseeing stay away from the coast.
- Do not return to the hazard zone until local safety officials give the "all clear."





## Terrorism

- Report suspicious activities to authorities.
- > Do not accept packages from strangers.
- Follow instructions from emergency officials.
- Be ready for instructions to shelter in place or evacuate.
- Remain calm, patient, and contact someone in your personal support network.

**Evacuation Warning:** The alerting of people in an affected area of potential threat to life and property. An Evacuation Warning considers the probability that an area will be affected in the near future and prepares people for a potential Evacuation Order. Vulnerable populations such as people with disabilities, with access or functional needs, and/or large animals should leave now.

**Evacuation Order:** Requires immediate movement out of an affected area due to an imminent threat to life.



**Shelter in Place:** Go inside. Shut and lock doors and windows. Prepare to self-sustain until further notice and/or contacted by emergency officials.

For more information

 on responding to
 specific emergencies,
 visit the County's
 preparedness website:

 ReadySanDiego.org

EVACUATE







Soup

# Go Kit

Most disasters are unexpected and happen fast. You might not have time to shop or pack. Pack a "Go Kit" for when you must leave in a hurry.

# Check off items you have and add those you will need:

- Bottled water and nonperishable food, such as granola bars
- Copies and/or a USB flash drive of your important documents in a waterproof container (identification, insurance, photos of family and pets for identification)
- List of the medications you take, why you take them, and their dosages
- If any medication needs to be refrigerated, keep an extra ice pack in the freezer
- Contact information for your household and members of your support network
- Flashlight, hand-crank or battery-operated AM/FM radio, and extra batteries
- 🗌 Cash, in small bills
- 🔲 Notepad and pen
- Antibacterial wipes and hand sanitizer





- 🗌 Face mask or bandana
- Back-up medical equipment (e.g., glasses, batteries) and chargers
- Aerosol tire repair kits and/or tire inflator to repair flat wheelchair or scooter tires
- Supplies for your service animal or pet (food, extra water, bowl, leash, cleaning items, vaccination records, and medications)
- Portable cell phone chargers
- 🗌 This guide
- Other items you will need:













# Home Kit

In some emergencies, you may be safer staying at home. You may not have water to drink or be able to flush the toilet. You may not have electricity to keep your food cold, turn on the light, or charge your phone. Prepare a "Home Kit" to survive for at least three days without water or electricity.

# Check off items you have and add those you will need:

- One gallon of drinking water, per person, per day
- Food that won't spoil, like ready-to-eat canned foods, and a manual can opener
- 🔲 First-aid kit
- Medications, including a list of the medications you take, why you take them, and their dosages
- □ Flashlight or battery-powered lantern, batteryoperated AM/FM radio, and extra batteries, or wind-up radios that do not require batteries

🔲 Whistle or bell

- Back-up medical equipment, if possible (e.g., oxygen, medication, scooter battery, hearing aids, mobility aids, glasses, facemasks, gloves)
- Style and serial numbers of medical devices (such as pacemakers) and usage instructions





# **GATHER SUPPLIES**



**TIP:** Your hot water heater is a source of water. Turn off the power and let the water cool. To get water, place a container underneath and open the drain valve on the bottom of the tank.

# Communication Tools

During an emergency, your normal way of communicating may be impacted by changes in environment, noise, service disruptions, or confusion.

If you are blind or have low vision, practice explaining to others how to guide you.

If you are Deaf or hard of hearing, find alternate ways to communicate your needs, such as through gestures, note cards, or text messages. Keep communication cards in your emergency supply kits.





## Necesito un traductor

Tôi cần một người phiên dịch

ةمجرتاا ىلا ةجاحب انا

Kailangan ko ng tagasalin

我需要翻

**GATHER SUPPLIES** 

When is tube coming out?	Massage	Prayer	8	Glasses/Socks		Teeth brushed
What is happening?	Excercise	Come back later		Pillow/blanket		Comb/Brush
What day/time?	Remove restraints	Don't leave		Cool cloth	-1 5	Shampoo/Bath
How am I doing?		Leave me alone		Bathroom		Wash face
e 3 3		23			pill Two pills	Can't move/numb
° •	Shot want pain me					Burns
CVEL OF PAIN					Radiating	Hurts/aches
				•)	Dull	Itches Stings

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PERSONAL DISASTER PLAN

**GATHER SUPPLIES**
**GATHER SUPPLIES** 

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	To be comforted	It quiet	To lie down	
	Water/Ice	Call light/Remote	To sit up	
	Lip moistened	TV/Video/DVD	To go home	
I WANT	To be suctioned	To sleep	Lights off/on	
	Feeling sick	bizz kzi	Sad	
	Choking	Tired	Frustrated	
	In pair	Cold/Hot	Afraid	• <b>•</b> ••
MM	Short of breath	Hungry/Thirsty	Angry	
41			2	

For infection control purposes, please do not reuse this board between patients.

Get out of bed

Head of bed up/down

To turn right

To turn left

Chaplain

Family

Nurse

Doctor

Thank you



SD County Emergency



ReadySanDiego Plan, Prepare

ž

**Emergency** Disaster Info, Maps, Shelters



**Recovery** Resources, Assi

Disaster Info | Refreshed: PT

Excessive Heat Warning Is 8/14/20,12:00 p.m. throug Fri Aug 14, 2020 12:00 PM

Excessive Heat Warning Sued Today, 7/30/20,11:00 a.m. through 8/02/20, 9:00 p.m. Thu Jul 30, 2020 1 2020 M PDT ASL/Audio



day. 20, 8 p.m. 1

Stay Informed



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SanDiegoCounty.gov













## Twitter.com/ ReadySanDiego



## Facebook.com/ ReadySanDiego

## Stay Informed

- County's preparedness website:
  ReadySanDiego.org
- Register your cell phone number, VoIP phone number and email at ReadySanDiego.org/ AlertSanDiego. This is the County's emergency mass notification system used by first responders to send evacuation instructions and other disaster information through calls, text, and email.
- Download the free SD Emergency App, available in English and Spanish for iOS and Android mobile devices. Visit ReadySanDiego.org/ SDEmergencyApp.
- During an emergency, visit AlertSD.org or the SD Emergency App for incident updates, shelter locations, evacuation areas, hazard perimeters, official social media feeds, and more.
- The main Emergency Alert System radio stations for San Diego County are KOGO AM 600 and KLSD AM 1360.
- ► For recovery information, visit **RecoverSD.org**.
- For non-emergency questions and updated disaster information, call 2-1-1.
- If you are experiencing a life-threatening emergency, call 9-1-1.

## **STAY INFORMED**

## **Getting Support**

**Disasters can be stressful and overwhelming.** You may feel irritable, sad, or angry. You may experience headaches or not be able to sleep.

Talk to someone about your feelings, even though it might be difficult.

Look to your support network or seek help from a professional.

## San Diego Access and Crisis Line

If you need support, experienced counselors are available 7 days a week/24 hours a day to provide you with a referral to meet your needs and help determine eligibility for mental health or substance use services.

## National Alliance on Mental Health (NAMI) San Diego

or visit our web site: www.sandiegocounty. gov/hhsa/programs/bhs

Call (888) 724-7240

Text NAMI to 741-741 or call (888) 523-5933

You can connect with a trained crisis counselor to receive free crisis support 24 hours a day.

## National Suicide Prevention Lifeline and Veterans Crisis Line

We can all help prevent suicide. The Lifeline provides 24/7, free and confidential support for people in distress, prevention and crisis resources for you or your loved ones, and best practices for professionals.

Call (800) 273-8255 or call 9-8-8



County of San Diego www.sandiegocounty.gov (800) 694-3900



Office of Emergency Services www.sandiegocounty.gov/oes (858) 565-3490



Listos California www.listoscalifornia.org (916) 845-8510

Thank you to the **County of San Diego Health and Human Services Agency**, Aging & Independence Services for their contributions to this guide. For aging resources, visit www.aging.sandiegocounty.gov

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# <section-header><section-header>



Wildfires are a fact of life in California. It's not a question of if they will occur, but when. Catastrophic wildfires are increasing in our state, encroaching further into populated areas. It is extremely important that Californians be prepared when wildfire strikes.

By preparing your home and property for wildfire, and knowing what to do if evacuation is necessary, you can dramatically increase your safety and the survivability of your home. It is your responsibility to prepare yourself, your family, and your home for when wildfire strikes.

This guide illustrates the importance of creating and maintaining Defensible Space and hardening your home by retrofitting it with ignition-resistant or noncombustible materials to protect against the threat of flying embers, direct flame contact, and radiant heat exposure. It also provides information about the preparations and precautions to make in order to evacuate early and safely.

If you need more information about preparing for wildfire or any other disaster, contact your nearest fire station or visit us at ReadyforWildfire.org.



These counties receive funding from the state to provide fire protection and prevention services to State Responsibility Area lands within their boundaries.





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## GO!

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There are three ways your home can be exposed to wildfire: through flying embers, direct flame contact, and radiant heat exposure.

Embers are the main cause of homes igniting during a wildfire. Wind can blow embers up to a mile ahead of a wildfire. These flying embers can directly ignite materials on, or attached to, a home. They can also ignite vegetation or combustible materials near the home, resulting in a subsequent fire that spreads to the home through direct flame contact or radiant heat.

Direct flame contact to the home can be the result of nearby vegetation or combustible materials catching on fire due to embers, or from the wildfire burning unchecked directly to the building.

Radiant heat exposure occurs when there are materials, vegetation, or other combustibles, that are burning close to the home—for a long enough period of time and generate enough heat to directly ignite a combustible component of the home.

Getting ready for wildfire begins with two very important efforts: **Home Hardening** and **Defensible Space.** Hardening your home is retrofitting it with fire-resistant materials. Defensible Space is creating and maintaining a buffer between buildings and vegetation to slow wildfire. While not a guarantee that your home will survive a wildfire, these efforts give it the best chance. Now is the time to retrofit your home—before a wildfire strikes. California Building Code Chapter 7A requires specific construction materials and methods for the building of new homes in wildfire-prone areas. These same materials and methods are also the minimum standards recommended when retrofitting a home. Retrofitting prepares your home for the exposure it will experience during a wildfire. Here's what you can do to harden your home:

## ROOF

Your roof is the most vulnerable part of your home. Homes with wood shake or shingle roofs are at high risk of being destroyed in a wildfire.

- Replace wood shake or shingle roofs with a Class A fire-rated roof, using materials such as composition, metal, or tile.
- Inspect your roof and maintain it by removing debris and plugging gaps.

## VENTS

Vents on homes create openings for flying embers.

- Avoid storing combustible items near attic or crawl space vents.
- Inspect vents to ensure they are in good condition with no tears or large openings.
- Cover all vent openings with 1/16 inch to 1/8 inch corrosion-resistant metal mesh screen.
- Consider replacing screened vents with ember and flame-resistant vents.

## **EAVES AND SOFFITS**

Eaves and soffits are a point of entry for flying embers from fires up to a mile away or flames from nearby vegetation or other material burning.

- Plug or caulk gaps greater than 1/8 inch in size with durable caulk.
- Enclose eaves with ignition-resistant or noncombustible materials if possible.

## WINDOWS

Heat from a wildfire can cause windows to break before the home ignites, allowing embers to enter and start fires inside. Single-paned and large windows are particularly at risk.

- Install dual or multi-paned windows with at least one pane being tempered glass.
- Consider limiting the size and number of windows that face large areas of vegetation.
- Install metal mesh screens on openable windows to increase ember resistance and reduce radiant heat exposure.

## DECKS

Surfaces within 10 feet of the building should be built with ignition-resistant, noncombustible, or other approved materials.

- Remove all combustible items from underneath deck.
- Limit combustible items on top of deck. Bring these items inside the home or move them away from the home when wildfire threatens.

## **EXTERIOR WALLS**

Wood products such as boards, panels, or shingles are common siding materials. However, they are combustible and not good choices for wildfire prone areas.

- Use noncombustible materials such as stucco, metal, or fiber cement, or use ignition-resistant siding.
- Be sure to extend materials from the foundation to the roof.
- Plug or caulk gaps and joints with openings greater than 1/8 inch.

## **RAIN GUTTERS**

Screen or enclose rain gutters with noncombustible corrosion-resistant materials to prevent accumulation of plant debris.

## **PATIO COVERS**

Consider using noncombustible material within eight feet of buildings.

## **CHIMNEYS**

Cover chimney or stovepipe outlet with a noncombustible corrosionresistant metal mesh screen with openings between 3/8 inch and 1/2 inch in size. Close the fireplace flue during fire season when the fireplace is not in use.

## **FENCES**

Construct fences using noncombustible materials within eight feet of your home.

## GARAGES

Install weather stripping to eliminate gaps around garage doors. Add a battery back-up to automatic garage door openers so the garage can easily be opened if the power is out.

## **DRIVEWAYS**

Ensure that access to your home complies with local fire codes.

## WATER SUPPLY

Have multiple garden hoses long enough to reach all areas of your house.

## ADDITIONAL HOME FIRE SAFETY RESOURCES



### HOME HARDENING INFORMATION GUIDE

ReadyforWildfire.org



### CALIFORNIA BUILDING CODE CHAPTER 7A

codes.iccsafe.org



WILDFIRE HOME RETROFIT GUIDE

ReadyforWildfire.org





osfm.fire.ca.gov

## DEFENSIBLE SPACE

Creating and maintaining Defensible Space is essential to reducing the impact of wildfire on your home and property. Defensible Space is the buffer created between a building on your property and the plants, brush, trees, or other combustible items in the near vicinity. This buffer helps to keep wildfire away from your home by reducing the fire's intensity and slowing or halting the spread of wildfire. The less there is to burn near your home, the less exposure your home will have to wildfire. Creating this space also provides protection for the firefighters defending your home.

## CREATING AND MAINTAINING YOUR DEFENSIBLE SPACE

Within the 100-foot perimeter of a home, there is a need for more intense reduction of wildfire fuels. Start at the home and work your way out 100 feet or to your property line, whichever is closer.

## **KNOW THE LAW - BE FIRE SMART**

One hundred feet of Defensible Space is required under the Public Resources Code (PRC) 4291. Zones 1 and 2 currently make up the 100 feet of Defensible Space required by law. Assembly Bill 3074, passed into law in 2020, requires an ignition-resistant Zone 0 for Defensible Space.

Many local government agencies have ordinances for Defensible Space. These local ordinances will often be more stringent than the state of California's minimum requirement in PRC 4291. Check with your local fire department or fire protection district for any additional Defensible Space requirements. **fire.ca.gov/dspace** 





### Zone 0 extends from zero to five feet from buildings, structures, decks, etc.

- Use hardscape like gravel, pavers, concrete, and other noncombustible mulch materials. No combustible bark or mulch.
- Remove all dead and dying weeds, grass, branches, and vegetative debris. Check your roofs, gutters, decks, porches, stairways, etc.
- Remove all branches within 10 feet of any chimney or stovepipe outlet.
- Limit plants in this area to low growing, nonwoody, properly watered, and maintained plants.
- 5. Limit combustible items (outdoor furniture, planters, etc.) on top of decks.
- 6. Relocate firewood and lumber to Zone 2.
- Replace within Zone O combustible fencing, gates, and arbors attached to the home with noncombustible alternatives.

16 ZONE 2 14 6 19 ZONE 1 17 13 ZONE 0 23 18 24 12 3 **0-5 FEET** 5-30 FEET 30-100 FEET 4 15 9 22 8 20 21 7

- 8. Relocate garbage and recycling containers outside this zone.
- 9. Relocate boats, RVs, vehicles, and other combustible items outside this zone.

## Zone 1 extends five to 30 feet from buildings, decks, and other structures.

- 10. Remove all dead plants, grass, and weeds (vegetation).
- Remove dead or dry leaves and pine needles from your yard, roof, and rain gutters.
- Remove branches that hang over your roof and keep dead branches 10 feet away from your chimney or stovepipe outlet.
- Trim trees regularly to keep branches a minimum of 10 feet from other trees.
- 14. Relocate exposed wood piles outside of Zone 1.

- 15. Remove or prune flammable plants and shrubs near windows.
- 16. Remove vegetation and items that could catch fire from around and under decks.
- Create a separation between trees, shrubs, and items that could catch fire, such as patio furniture, wood piles, swing sets, etc.

### Zone 2 extends from 30 feet to 100 feet from buildings, structures, decks, etc.

- Cut or mow annual grasses to a maximum height of four inches.
- All exposed wood piles must have a minimum of 10 feet clearance around them, down to bare mineral soil, in all directions.
- 20. Create horizontal space between shrubs and trees. (See diagram on page 11)

- Create vertical space between grass, shrubs, and trees. (See diagram on page 11)
- Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of three inches.

### All zones

- 23. Mow before 10 a.m., but never when it's windy or excessively dry.
- Protect water quality. Do not clear vegetation near waterways to bare soil. Vegetation removal can cause soil erosion—especially on steep slopes.
- Logs or stumps embedded in the soil must be removed in Zone 0. In Zones 1 and 2 they need to be removed or isolated from other vegetation.

It takes the combination of both Defensible Space and Home Hardening to give your home and property the best chance of surviving a wildfire. Below are examples of low-risk and high-risk scenarios:

## **HIGH RISK**

### UNENCLOSED EAVES



## **LOW RISK**

ENCLOSED EAVES



### UNSCREENED VENTS



DEFENSIBLE SPACE NONCOMPLIANT





DEFENSIBLE SPACE COMPLIANT



## FIRE SMART LANDSCAPING

While some plants are characterized as "fire-safe" or "fire-resistant," all plants will burn under the right conditions, regardless of how they are classified. The environment the plant grows in, how it is maintained, and its placement and spacing near other vegetation and combustibles will generally have more influence on the flammability of the plant than how it is characterized. Taking these items into consideration is crucial to reduce the spread of wildfire to your home. Scan the QR code below for more information.

## FIRE SMART LANDSCAPING

ReadyforWildfire.org/fire-smart-landscaping



## MINIMUM VERTICAL SPACING BETWEEN TREES AND SHRUBS

Eliminate opportunities for a vertical "fire ladder":

- Remove branches beneath large trees for a six-foot minimum clearance.
- Create proper vertical spacing between shrubs and the lowest branches of trees. See adjacent diagrams.

## MINIMUM HORIZONTAL SPACING BETWEEN TREES AND SHRUBS

Horizontal spacing depends on the slope of the land and the height of the shrubs or trees. See adjacent diagrams.

## **DEAD TREE REMOVAL**

If you have dead or dying trees on your property, the entire tree needs to be removed to reduce wildfire risk. Scan the QR code below to learn about permit requirements.

## PERMIT REQUIREMENTS

ReadyforWildfire.org/dead-tree-removal







Mild to moderate slope (20%-40%)



Moderate to steep slope (>40%)





It is important that you are prepared **before** wildfire strikes. In an emergency it is easy to become confused or panicked.

Getting Set requires three main preparation actions:

- Creating a Wildfire Action Plan
- Creating an Emergency Supply Kit
- Creating a Family Communication Plan

Preparing these items in advance will help keep you focused and able to act quickly when evacuation is anticipated or needed.

Use this guide to complete these actions to prepare in advance of wildfire.

## READY FOR WILDFIRE INCIDENT APP

Scan the QR code below to access accurate updates about active wildfires near you with our web-based Ready for Wildfire Incident App.



## CREATE A WILDFIRE

Your Wildfire Action Plan must be prepared and familiar to all members of your household well in advance of a wildfire. Use the checklist below to help create your plan. Each family's plan will be different, depending on a variety of issues, needs, and situations.

## Create an evacuation plan that includes:

- O A designated emergency meeting location outside the fire or hazard area. This is critical to determine who has safely evacuated from the affected area.
- O Identification of several different escape routes from your home and community. Practice these routes often so everyone in your family is familiar with them in case of emergency. Go to page 18 to write down your evacuation routes.
- O An evacuation plan for pets and large animals such as horses and other livestock.
- O A Family Communication Plan that designates an out-of-area friend or relative as a point of contact to act as a single source of communication among family members in case of separation. It is easier to call or message one person and let them contact others than to try and call everyone when phone, cell, and internet systems can be overloaded or limited during a disaster and under a stressful situation. See page 18 for a Family Communication Plan form.

### Be prepared:

- O Have fire extinguishers on hand and make sure everyone in the family knows how to use them. Many fire extinguishers have expiration dates, so make sure to check yours.
- O Ensure you and your family know where the home's gas, electric, and water main shutoff controls are located and how to safely shut them down in an emergency.
- O Assemble an Emergency Supply Kit for each person, as recommended by the American Red Cross. See Emergency Supply Kit on page 16 for details.

- O Maintain a list of emergency contact numbers in your cell phone, posted near your home phone, and in your Emergency Supply Kit.
- O Keep an extra Emergency Supply Kit in your car in case you cannot get to your home because of fire or other emergency.
- Have a portable radio or scanner, or follow the Ready for Wildfire App so you can stay updated on wildfires.
   Follow local law enforcement notifications for any evacuation information. Visit incidents.ReadyforWildfire.org or scan QR code on page 13 to view the incident app.
- O Tell your neighbors about Ready, Set, Go! and your Wildfire Action Plan.

## **THE SIX Ps**

### Remember the "Six Ps" and keep them ready in case immediate evacuation is required:

- O People and pets
- O Papers, phone numbers, and important documents
- O Prescriptions, vitamins, and eyeglasses
- O Pictures and irreplaceable memorabilia
- O Personal computer, hard drive, and disks
- O "Plastic" (credit cards, ATM cards) and cash



## EMERGENCY SUPPLY KIT

Put together your Emergency Supply Kit—also called a "go bag" before a wildfire or other disaster occurs and keep it easily accessible so you can take it with you when you evacuate. Backpacks work great for storing these items (except food and water) and are quick to grab. Storing food and water in a tub or chest on wheels will make it easier to transport. Keep it light enough to be able to lift it into your car.

### **Emergency Supply Kit Contents:**

- O Face masks or coverings
- O Three-day supply of non-perishable food and three gallons of water per person
- O Map marked with at least two evacuation routes
- O Prescriptions or special medications
- O Change of clothing, including a cotton long-sleeved shirt and pants
- O Extra eyeglasses or contact lenses
- O An extra set of car keys, phone charger, credit cards, cash, or traveler's checks
- O First aid kit
- O Flashlight
- O Battery-powered radio and extra batteries
- O Sanitation supplies
- O Copies of important documents (birth certificates, passports, insurance, etc.)
- O Food, water, and medications for pets
- O Can opener

## Items to take if time allows:

- O Easily carried valuables
- O Family photos and other irreplaceable items
- O Personal computer information on hard drives and disks
- O Extra cell phone chargers, laptops, etc.

Always keep a sturdy pair of shoes and a flashlight near your bed handy in case of a sudden evacuation at night.

## OUR FAMILY'S ADDITIONAL SUPPLY KIT MUST HAVES ARE:

## BE PREPARED FOR POWER OUTAGES

Power outages may occur before and during the threat of a wildfire. It's important to be prepared and know what actions to take when leaving your home during a power outage.

- Learn how to manually open your automatic garage doors or gates—this is extremely important!
- Be familiar with your home's utility shutoffs (electricity, water, and gas).
- Keep a flashlight and shoes near your bed in case you need to evacuate during the night.
- Keep your Emergency Supply Kit easily accessible so you can find it in the dark if you have to evacuate.
- Always keep at least a half tank of gas in your vehicles.
- If you have a power generator, be sure you know the safety guidelines of your model, including where to connect it, which electrical cords to use, and the electrical load rating. An improperly installed generator can electrocute you or an electric utility worker and can also be a fire hazard.
- Keep your cell phone charged.
- Keep a supply of bottled water.

## DURING A POWER OUTAGE

If the power goes out, follow these steps:

- Keep your refrigerator and freezer doors closed.
- Shut off the gas and other combustibles such as propane tanks.
- If wildfire is within your area, keep informed with a battery-powered radio or your cell phone.
- Stay at least 10 feet away from both overhead power lines and electrical facilities, and never approach or touch overhead power lines or any person or object in contact with the lines.



## SAVE THIS FAMILY COMMUNICATION PLAN

Fill out this form and place it in a location where it can easily be found by everyone in your household. Copy the form and keep it in your Emergency Supply Kit. This will allow all family members to have access to this key information in case you get separated.

## WHEN WE HAVE TO EVACUATE, WE WILL MEET AT:

## **OUR OUT-OF-AREA EMERGENCY CONTACT PERSON IS:**

Name:			
Home Phone #:			
Relationship:			
E-mail:			
Cell Phone #:			

## **OTHER IMPORTANT NUMBERS ARE:**

Emergency 911:	
Local Police:	
Local Fire Department:	
Other:	
Other:	
Other:	

## **OUR TWO EVACUATION ROUTES ARE (DESCRIBE BELOW):**

A home is generally your largest asset. Protect it.

Insurance is the critical back-up plan enabling you to rebuild your home after a wildfire. Follow these tips as part of your Ready, Set, Go! Wildfire Action Plan:

## Conduct an annual insurance checkup

• Call your agent or insurance company annually to discuss your policy limits and coverage. Make sure your policy reflects the correct square footage and features in your home. Consider purchasing building code upgrade coverage.

### Know what your policy covers

 Know if you have a replacement-cost policy that pays to replace all of your items at current market price, or if you have an actual cash value policy that takes depreciation into account and pays less for aged items.

## Update your policy to cover home improvements

 If you make home improvements, be sure to call your agent or company to update your coverage. Make sure your insurer knows about the changes, so that new countertops, floors, rooms, etc., are covered if you must rebuild.

### Maintain insurance

 If your home is paid off, be sure to maintain homeowner insurance. Without insurance, costs to repair or replace a home or structure is the responsibility of a homeowner.

### **Get renters insurance**

 Renters can lose everything in a fire and be left to start over. Many insurers bundle renters insurance coverage with an auto insurance policy at affordable prices.

### Make a home inventory

- Document the contents of your home before a wildfire occurs. Use your cell phone to video your belongings or a camera to take photos. Store the inventory list and photos at a location away from the property and/or in a cloud internet server. Include the cost of items and note important or expensive items. If possible, keep receipts for major purchases.
- Don't forget to include items inside the home, inside the garage, and outside of the home.





Give your household the best chance of surviving a wildfire by being ready to go and evacuating early.

Being ready to go means following pre-evacuation steps, knowing when to evacuate, preparing possible evacuation routes, and knowing what to do if you become trapped.

Be safe and don't wait until it's too late! Use these checklists to help prepare you and your family to be ready to evacuate if wildfire strikes.

It is also important to learn what to expect after a wildfire and what you should do before returning home. The danger is not over after the flames are put out.

## KNOW THE LAW—BE READY TO EVACUATE

California law authorizes officers to restrict access to any area where a menace to public health or safety exists due to a calamity such as flood, storm, fire, earthquake, explosion, accident, or other disaster. Refusal to comply is a misdemeanor. (Penal Code 409.5)

## PRE-EVACUATION STEPS

When evacuation is anticipated, follow these checklists (if time allows):

## Outside

- O Gather flammable items from the exterior of the house and bring them inside (patio furniture, children's toys, door mats, trash cans, etc.) or place them in your pool.
- O Turn off propane tanks.
- O Move propane BBQ appliances away from structures.
- O Connect garden hoses to outside water valves or spigots for use by firefighters. Fill water buckets and place them around the house.
- O Turn off sprinklers and running water; leaving them on can affect critical water pressure.
- O Leave exterior lights on so your home is visible to firefighters in the smoke or darkness of night.
- O Put your Emergency Supply Kit in your vehicle.
- O Back your car into the driveway with vehicle loaded and all doors and windows closed. Carry your car keys with you.
- O Have a ladder available and place it at the corner of the house for firefighters to quickly access your roof.

- O Seal attic and ground vents with pre-cut fire-resistant boards or commercial seals.
- O Monitor your property and the fire situation. Don't wait for an evacuation order if you feel threatened and need to leave.
- O Check on neighbors and make sure they are preparing to leave.

## Inside the House

- O Shut all windows and doors, leaving them unlocked.
- O Remove flammable window shades and curtains. Close metal shutters.
- Move flammable furniture to the center of the room, away from windows and doors.
- Shut off gas at the meter or tank. Turn off pilot lights.
- O Leave your lights on so firefighters can see your house under smoky conditions.
- O Shut off the air conditioning or heater.

## Animals

- O Locate your pets and keep them nearby.
- O Prepare livestock for transport and consider moving them to a safe location early.





## **EVACUATION STEPS**

- Review your Evacuation Checklist.
- Ensure your Emergency Supply Kit is in your vehicle.
- Cover up to protect against heat and flying embers. Wear long pants, a long-sleeved shirt, heavy shoes/boots, cap/hat, a dry bandana for face cover, goggles, or glasses. Clothing made of 100% cotton is preferable.
- $\bigcirc$  Locate your pets and take them with you.

## WHEN TO EVACUATE

Leave when evacuation is recommended by fire officials to avoid being caught in fire, smoke, or road congestion. You don't need to wait to be ordered by authorities to evacuate. In an intense wildfire, emergency personnel may not have time to knock on every door. If you feel you are in danger, the best course of action is to evacuate. If you are advised to leave, don't hesitate!

Officials will determine the areas to be evacuated and escape routes to use depending upon the fire's location, behavior, winds, terrain, etc.

Law enforcement agencies are typically responsible for enforcing an evacuation order. Follow their directions promptly.

You will be advised of potential evacuations as early as possible. You must take the initiative to stay informed and aware. Listen to your radio/TV for announcements from law enforcement and emergency personnel.

You may be directed to temporary assembly areas to await transfer to a safe location.

The terms "Warning" and "Order" are used to describe evacuation orders. However, local jurisdictions may use other terminology such as "Precautionary" and "Immediate Threat." These terms are used to alert you to the significance of the danger. All evacuation instructions provided by officials should be followed immediately for your safety.

## **ANIMAL EVACUATION**

You've taken steps to help keep your family and home fire safe. Don't forget your pets and livestock. With some advanced planning, you can increase their chances of surviving a wildfire.

- Clear Defensible Space around your barns, pastures, and property just as you do your home.
- 2. Contact your local fairgrounds, stockyards, equestrian centers, friends, etc. about their policies and ability to temporarily take livestock in an emergency.
- Have vaccination/medical records, registration papers, and photographs of your animals (proof of ownership).
- If you must leave your animals, leave them in a pre-selected, cleared area. If appropriate, leave enough hay for 48 to 72 hours.
  - Leave water for your animals. Do not rely on automatic watering systems, as a power outage could occur or the water system become compromised.
- 5. Arrange in advance for a neighbor to check on or transport your pets in case you are not home when disaster strikes.
  - Make sure your neighbors have your contact numbers (cell phone, work, home, etc.).

## LIVESTOCK AND PET DISASTER PREPAREDNESS KIT INSTRUCTIONS

ReadyforWildfire.org/animal-evacuation

- Make sure that each animal has its own pet carrier, as appropriate.
  - Birds, rodents, and reptiles should be transported in cages covered with a light sheet or cloth to minimize their fear.
- Make sure your pets are always wearing properly fitted collars with personal identification, rabies and license tags.
- Plan where you will take your pets and select an alternate prearranged location as well.
  - In the event of evacuation, pets may not be allowed inside human emergency shelters.
- 9. Prepare your livestock disaster preparedness kit.
- 10. Prepare your pet disaster preparedness kit.

Scan the QR code below to find what items to include in your livestock and pet disaster preparedness kit.









## WHILE IN YOUR VEHICLE:

- Stay calm.
- Park your vehicle in an area clear of vegetation.
- Close all vehicle windows and vents. If possible, cover inside of windows with a wool or cotton blanket to minimize radiant heat.
- Cover yourself with a wool or cotton blanket or jacket.
- Lie on vehicle floor.
- Use your cell phone to contact officials—
  Call 911

## WHILE ON FOOT:

- Stay calm.
- Go to an area clear of vegetation, a ditch, or depression on level ground, if possible.
- Lie face down and cover up your body.
- If near a body of water—pool, creek, pond, lake, etc.—seek safety in the water or use it to keep distance away from the fire. Be careful not to be swept away by moving water or get too deep.
- Use your cell phone to contact officials— Call 911

## WHILE IN YOUR HOME:

- Stay calm and keep your family together.
- Call 911 and inform authorities of your location.
- Fill sinks and tubs with cold water.
- Keep doors and windows closed but unlocked.
- Stay inside your house.
- Stay away from outside walls and windows.
- Turn on lights so emergency officials know you are inside.

## **RETURNING HOME AFTER A WILDFIRE**

ALWAYS check with officials before attempting to return to your home after a wildfire. Once home, check for the following:

- Call 911 if any danger is perceived.
- O Before inspecting your home, first check for the smell of gas.
   Turn off power until you've completed your inspection.
   Use a battery-powered flashlight to inspect a damaged home.
- O Check grounds for hot spots, smoldering stumps, and vegetation.
- O Check the roof and exterior areas for sparks or embers.
- O Check the attic and throughout your house for any hidden burning sparks or embers.
- O Check for fire damage to your home, turn off all appliances, and make sure the meter is not damaged before turning on the main circuit breaker.
- O Check the well or pump house to ensure it is in working order.

- O Do not drink or use water from the faucet until emergency officials say it is okay.
- O Discard any food that has been exposed to heat, smoke, or soot.
- O Consult local experts on the best way to restore and plant your land with fire smart landscaping.

Be aware of the following dangers that exist after a wildfire:

- Flash floods are a very real and potentially deadly hazard when rain occurs in heavily burned areas after a wildfire. Stay away from burned forests, storm channels, and natural drainages.
- Use extreme caution around trees, power poles, and other tall objects or structures that may have lost stability during the fire.









## Appendix B1-B4

Family Disaster Plan and Personal Survival Guide

San Diego County Office of Emergency Services

## Family Disaster Plan and Personal Survival Guide



## Family Disaster Plan and Personal Survival Guide

## I. PREPARATION

## **Family Meetings**

At least once a year, have a meeting with your family to discuss and update your disaster plan. Determine what additional training, equipment, and supplies are needed to meet your family's needs. Don't forget to practice! Occasional drills can improve reaction time and help to avoid panic in an actual emergency.

**A.** Know how and where to shut off utilities.

Location of Main Water Valve:
Location of Gas Valve*:
Location of Wrench:
Location of Garage Door Manual Override:
Location of Other Utilities:

\* Do not shut off gas unless you suspect a leak exists.

- **B.** On a separate sheet of paper, draw a floor plan of your home showing the location of exit doors and windows, utility shutoffs, first aid kit, and emergency supplies. Ensure EVERYONE in your household is familiar with it. Show it to babysitters and house guests when you're going away.
- C. Reunion locations: Establish two places where you and your family can meet following an emergency. One immediately outside of your home, e.g. a neighbor's mailbox, or community park AND another site outside of your immediate community in case you are unable to return home.

Home Location:

Away-from-Home Location:

**D.** Out-of-State Contact: Name and telephone number of a person outside of the state for family members to call and report their location and condition. Everyone should memorize this number!

Name:	
Location:	Phone: ( )

**E.** What is your children's school disaster policy?

Are medical consent forms for your children complete and current?

Where are they located?

F. Assemble a Home Emergency Supply Kit. Store it in a convenient and accessible location. See Section VII for details on what to put inside your Home Emergency Supply Kit.

Location of Home Emergency Supply Kit:

PREPAREDNESS STARTS WITH YX U!
#### **II. TRAINING**

- **A.** Learn how to protect yourself from falling objects, smoke, fire, toxic fumes, etc.
- **B.** Learn First Aid/CPR

Person(s) Trained:

Name: \_\_\_\_\_ Date Training Expires: \_\_\_\_\_

Name: \_\_\_\_\_ Date Training Expires: \_\_\_\_\_

#### III. BEFORE A DISASTER

There are many different kinds of disasters, such as earthquakes, fires, floods, airplane crashes, chemical spills, and explosions, which seldom give warning and can be equally devastating to their victims. Although this guide is primarily about earthquake preparation, the steps you take will help your family prepare for any type of disaster that could strike in your community. For additional information on local disaster preparedness for your home, school, and business visit www.ReadySanDiego.org.

- A. Register your cell phone, Voice over Internet Protocol (VoIP) phone, and email address with AlertSanDiego\*. Listed and unlisted landlines are already registered. Registering makes it more likely that you will receive an emergency notification. Registration is quick and simple. \*Also available in accessible formats such as American Sign Language.
- **B.** Download the **SD Emergency App** for Android and iOS devices.
- **C.** Inspect your home. Identify potential hazards and evacuation routes.
- **D.** Secure water heater and tall or heavy furniture to wall studs.
- **E.** Move heavy items to lower shelves in bookcases.
- **F.** Install clips, latches and other locking devices on cabinet doors.
- **G.** Provide strong support and flexible connections on gas appliances.
- **H.** Remove or isolate and secure flammable materials.
- **I.** Review and practice this plan.

#### **IV. DURING AN EARTHQUAKE**



A. If you are indoors STAY THERE. Move away from windows, bookcases, and high/overhanging shelves. Get under a sturdy table or desk and hold onto it. Be prepared to move with it and HOLD that position until the shaking stops and it is safe to relocate. If there is no desk or table to get under, brace yourself in an interior corner. Watch for falling, flying and sliding objects, and be especially careful around windows, as they can shatter during an earthquake.

**NOTE:** If you are in a mobile home which is resting on A-Frame supports, get on top of the bed or sofa and cover your head and face. If a mobile home slips off the supports they may penetrate the flooring and cause injuries.

- **B.** If you are outdoors, move to an open area away from buildings, trees, power poles, brick or block walls and other objects that could fall.
- **C.** If you are in an automobile, stop and stay in it until the shaking ends. Avoid stopping near trees and power lines or on or under overpasses or bridges.
- **D.** If you are in a multi-level building, get under a desk and hold on, or crouch next to an interior wall until the shaking stops. DO NOT USE THE ELEVATOR TO EVACUATE. Use the stairs.
- E. If you are in a store, get under a table or any sturdy object. Avoid stopping under anything that could fall. DO NOT **RUN FOR THE EXIT.** After the shaking has stopped, choose your exit carefully.

PREPAREDNESS STARTS WITH YX U!

#### **V. IF YOU EVACUATE**

- **A.** Take with you:
  - Medicines and first aid kit
  - Flashlight, radio and batteries
  - Important documents and cash
  - Blankets and extra clothes
  - Personal sanitary items
  - Any additional items you feel are necessary (e.g. photos, heirlooms, jewelry, etc.)
- **B.** Make arrangements for pets. Don't forget food, medications, vaccination records, and other important items.

#### VI. AFTER A DISASTER

- A. Put on heavy shoes immediately to avoid injury from stepping on glass.
- **B.** Locate a light source, such as a flashlight, if necessary.
- C. Check for injuries and administer first aid.
- **D.** Check for fires and fire hazards.
  - Sniff for gas leaks, starting at the hot water heater. If you smell gas, hear a hissing sound or suspect a leak, turn off the main gas valve, open the windows and carefully leave the house. DO NOT TURN LIGHTS ON OR OFF. DO NOT STRIKE MATCHES.

**NOTE:** Do not shut off the gas unless you suspect a leak exists. Only the gas company can restore service.

- If necessary, turn off the electrical system at the main circuit breaker or fuse box.
- **E.** Check on your neighbors.
- **F.** Visit <u>www.SDCountyEmergency.com</u> or the SD Emergency App for updates, shelter locations, interactive mapping information (e.g. evacuation areas and hazard perimeters), official social media feeds, and other critical information.
- **G.** Listen for advisories using a battery powered radio. The primary Emergency Alert System station for San Diego County is KOGO AM 600. The secondary station is KLSD AM 1360.
- **H.** Do not use the phone except in emergencies. Only call 9-1-1 for life threatening emergencies. Have a plug-in analog phone in case the power is out, but phone lines are still working.
- I. For general and updated disaster information or volunteer opportunities, call 2-1-1.
- J. Do not touch downed power lines or objects touching downed wires. Do not stand in water near downed lines.
- **K.** Remove fallen debris that may cause personal injury.
- L. Assess house, roof, and chimney for damages.
- **M.** Be prepared for aftershocks.
- N. Open closets and cupboards carefully because items may have fallen or become rearranged.
- **O.** Cooperate with public safety officials.
- **P.** Be prepared to evacuate when/if necessary.
- Q. DO NOT GO SIGHTSEEING!

**PREPAREDNESS STARTS WITH Y** 

#### VII. HOME EMERGENCY SUPPLIES

This list contains items usually available in your home. It is recommended that they be organized and located together for easy access during an emergency. Your emergency supplies should be sufficient to sustain you, your family and pets for a minimum of 72 hours. A two (2) week supply of prescription and necessary over-the-counter medications is recommended.

#### **Basic Supplies**

- Water\* minimum of 1 gallon per person per day
- Non-Perishable Foods\*
- First Aid Kit and Manual
- Can opener non-electric
- Watch or clock – non-electric
- Plug-in analog telephone
- Cash
- Important documents

- Blankets or sleeping bags for each member of the family
- Radio – portable, with spare batteries
- Prescription and over-the-counter medications\*
- Additional equipment glasses, dentures, hearing aids
- Flashlight spare batteries and light bulb
- Fire extinguisher multipurpose labeled "ABC"
- Whistle
- Dust mask
- Activity items for adults (e.g. deck of cards) and kids (e.g. coloring books with crayons)

\*Rotate food, water, and medications as necessary. Remember to consider household members with unique needs:

infants, elderly, disabled, allergies. Avoid salty foods, as they will make you thirsty.

#### Water Tips

The best option is to store drinking water prior to a disaster, in appropriate containers. If purified water is not available, water should be boiled for 1 full minute, keeping in mind that some water will evaporate. Let the water completely cool before use.

#### **Sanitation Supplies**

- Large plastic trash bags for waste, sanitation, and protection
- Pre-moistened towelettes
- Hand soap and liquid detergent
- Shampoo П
- Toothpaste & toothbrush

#### **Cooking Supplies**

- Plastic bags various sizes, sealable
- Paper plates, plastic utensils, paper towels
- Pots (cooking) – at least two
- Barbecue or gas grill; charcoal and lighter or propane (for outdoor use only); Sterno® stove

## PREPAREDNESS STARTS WITH YXU!

- **Feminine** Supplies
- Toilet paper and paper towels
- Deodorant
- Infant supplies

#### VII. HOME EMERGENCY SUPPLIES (CONTINUED)

#### **Safety Supplies**

- □ Knife, razor blade, and multipurpose tool
- Clothes complete change for each family member
- Heavy gloves for each adult
- Heavy shoes for each family member
- (Preferably long pants and long sleeves for protection)

#### **Pet Supplies**

- **Carrier**
- Food
- Medications

- Collar with ID tag and harness or leash
- Water

- □ Sanitation items Litter and litter box if appropriate
- Important documents such as vaccination records and license information

#### **Car Survival Kit**

- Non-perishable food
- Flares
- Bottled water
- First Aid Kit and Manual
- □ Fire extinguisher
- Blanket

Pre-moistened towelettes and tissues

Sealable plastic bags

Flashlight with batteries

Tools and rubber hose

Critical medications

Extra clothing

#### **VIII. IMPORTANT TELEPHONE NUMBERS**

#### **USE ''9-1-1'' FOR LIFE THREATENING EMERGENCIES ONLY**

NON-EMERGENCY FIRE DEPARTMENT:
NON-EMERGENCY LAW ENFORCEMENT AGENCY:
PRIMARY DOCTOR:
GAS COMPANY:
ELECTRIC COMPANY:
WATER COMPANY:
OUT-OF-STATE CONTACT:
DOLGON CONTROL 1 000 000 1000
PUISUN CUNTKUL: <u>1-800-222-1222</u>
OTHER:

PREPAREDNESS STARTS WITH YXU!

#### IX. PRACTICE YOUR PLAN AS A FAMILY

- A. Practice helps people feel less disoriented and better organized in case of a disaster even in the middle of the night.
- **B.** Make sure your family knows where to locate fire extinguishers, gas and water valves, and the main circuit breaker.
- **C.** Update your Family Disaster Plan every year.
  - Verify the telephone numbers and personal information of everyone listed in the plan.
  - Print updated copies for all the members of your family.
- **D.** In case of emergency, you should know the school's disaster plan.
  - Determine what is required to release your child to your representatives if you cannot get there yourself.
  - Ensure that the school knows your current contact information and those people authorized to pick up your child.
- **E.** Check the contents of your emergency kits.
  - Change the batteries in your flashlights and portable radio; replace spare batteries.
  - Replenish your emergency kits. Replace bottled water; ensure that all food is still safe to eat and that medications have not expired.

Every family member should carry a copy of this important information:

EMERGENCY CONTACT INFORMATION	EMERGENCY CONTACT INFORMATION
Out-of-State Contact	Out-of-State Contact
Name:	Name:
Telephone:	Telephone:
Neighborhood Meeting Place:	Neighborhood Meeting Place:
Out-of-Area Meeting Place:	Out-of-Area Meeting Place:
Call 2-1-1 for disaster information such as shelters, road closures, affected areas, and recovery and relief programs.	Call 2-1-1 for disaster information such as shelters, road closures, affected areas, and recovery and relief programs.
EMERGENCY CONTACT INFORMATION	EMERGENCY CONTACT INFORMATION
Out-of-State Contact	Out-of-State Contact
Name:	Name:
Telephone:	Telephone:
Neighborhood Meeting Place:	Neighborhood Meeting Place:
Out-of-Area Meeting Place:	Out-of-Area Meeting Place:

Call 2-1-1 for disaster information such as shelters, road closures, affected areas, and recovery and relief programs.

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PREPAREDNESS STARTS WITH YXU!

#### NOTICE:

The information presented in this brochure is believed to be accurate and of practical value in preparing for a disaster, however, no guarantee can be given that the guidance presented will provide protection.

The County of San Diego, the San Diego County Office of Emergency Services, the Unified San Diego County Emergency Services Organization, the Unified Disaster Council and each organization's officers, employees, and agents, assume no legal liability for the accuracy, completeness, or usefulness of any information, product, or process disclosed herein, or for any injuries or damages arising from any disaster or occurrence giving rise to the use or application of the information, products or processes described or disclosed herein.







County of San Diego Office of Emergency Services Phone: (858) 565-3490 Website: <u>www.ReadySanDiego.org</u>

	San Diego	County Board of Su	pervisors	
Greg Cox	Dianne Jacob	Kristin Gaspar	Ron Roberts	Bill Horn
District 1	District 2	District 3	District 4	District 5

Background cover-photos provided by Robert A. Eplett/Cal-EMA

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#### Additional Items to Consider Adding to an Emergency Supply Kit:

- Prescription medications and glasses
- Infant formula and diapers
- **Pet food and extra water for your pet**
- Important family documents such as copies of insurance policies, identification and bank account records in a waterproof, portable container
- Cash or traveler's checks and change
- Emergency reference material such as a first aid book or information from www.ready.gov
- □ Sleeping bag or warm blanket for each person. Consider additional bedding if you live in a cold-weather climate.
- Complete change of clothing including a long sleeved shirt, long pants and sturdy shoes. Consider additional clothing if you live in a cold-weather climate.
- Household chlorine bleach and medicine dropper When diluted nine parts water to one part bleach, bleach can be used as a disinfectant. Or in an emergency, you can use it to treat water by using 16 drops of regular household liquid bleach per gallon of water. Do not use scented, color safe or bleaches with added cleaners.
- □ Fire Extinguisher
- Matches in a waterproof container
- Feminine supplies and personal hygiene items
- □ Mess kits, paper cups, plates and plastic utensils, paper towels
- Paper and pencil
- Books, games, puzzles or other activities for children



# Emergency Supply List



www.ready.gov



# **Recommended Items to Include in a Basic Emergency Supply Kit:**

Water, one gallon of water per person per day for at least three days, for drinking and sanitation

Food, at least a three-day supply of non-perishable food

Battery-powered or hand crank radio and a NOAA Weather Radio with tone alert and extra batteries for both

Flashlight and extra batteries

First aid kit

Whistle to signal for help

Dust mask, to help filter contaminated air and plastic sheeting and duct tape to shelter-in-place

Moist towelettes, garbage bags and plastic ties for personal sanitation

Wrench or pliers to turn off utilities

Can opener for food (if kit contains canned food)

Local maps

#### Through its Ready Campaign,

the Federal Emergency Management Agency educates and empowers Americans to take some simple steps to prepare for and respond to potential emergencies, including natural disasters and terrorist attacks. *Ready* asks individuals to do three key things: get an emergency supply kit, make a family emergency plan, and be informed about the different types of emergencies that could occur and their appropriate responses.

All Americans should have some basic supplies on hand in order to survive for at least three days if an emergency occurs. Following is a listing of some basic items that every emergency supply kit should include. However, it is important that individuals review this list and consider where they live and the unique needs of their family in order to create an emergency supply kit that will meet these needs. Individuals should also consider having at least two emergency supply kits, one full kit at home and smaller portable kits in their workplace, vehicle or other places they spend time.



Federal Emergency Management Agency Washington, DC 20472



# BE SMART. TAKE PART. CREATE YOUR FAMILY EMERGENCY COMMUNICATION PLAN

# Join with others to prepare for emergencies and participate in America's PrepareAthon! | ready.gov/prepare

Creating your Family Emergency Communication Plan starts with one simple question: "What if?"

"What if something happens and I'm not with my family?" "Will I be able to reach them?" "How will I know they are safe?" "How can I let them know I'm OK?" During a disaster, you will need to send and receive information from your family.

Communication networks, such as mobile phones and computers, could be unreliable during disasters, and electricity could be disrupted. Planning in advance will help ensure that all the members of your household—including children and people with disabilities and others with access and functional needs, as well as outside caregivers—know how to reach each other and where to meet up in an emergency. Planning starts with three easy steps:



## **1. COLLECT.**

Create a paper copy of the contact information for your family and other important people/offices, such as medical facilities, doctors, schools, or service providers.



# 2. SHARE.

Make sure everyone carries a copy in his or her backpack, purse, or wallet. If you complete your *Family Emergency Communication Plan* online at <u>ready.gov/make-a-plan</u>, you can print it onto a wallet-sized card. You should also post a copy in a central location in your home, such as your refrigerator or family bulletin board.



# **3. PRACTICE.**

Have regular household meetings to review and practice your plan.



If you are using a mobile phone, a text message may get through when a phone call will not. This is because a text message requires far less bandwidth than a phone call. Text messages may also save and then send automatically as soon as capacity becomes available.



#### **HOUSEHOLD INFORMATION**

Write down phone numbers and email addresses for everyone in your household. Having this important information written down will help you reconnect with others in case you don't have your mobile device or computer with you or if the battery runs down. If you have a household member(s) who is Deaf or hard of hearing, or who has a speech disability and uses traditional or video relay service (VRS), include information on how to connect through relay services on a landline phone, mobile device, or computer.

#### SCHOOL, CHILDCARE, CAREGIVER, AND WORKPLACE EMERGENCY PLANS

Because a disaster can strike during school or work hours, you need to know their emergency response plans and how to stay informed. Discuss these plans with children, and let them know who could pick them up in an emergency. Make sure your household members with phones are signed up for alerts and warnings from their school, workplace, and/or local government. To find out more about how to sign up, see *Be Smart. Know Your Alerts and Warnings* at http://1.usa.gov/1BDloze. For children without mobile phones, make sure they know to follow instructions from a responsible adult, such as a teacher or principal.

#### **OUT-OF-TOWN CONTACT**

It is also important to identify someone outside of your community or State who can act as a central point of contact to help your household reconnect. In a disaster, it may be easier to make a long-distance phone call than to call across town because local phone lines can be jammed.

#### **EMERGENCY MEETING PLACES**

Decide on safe, familiar places where your family can go for protection or to reunite. Make sure these locations are accessible for household members with disabilities or access and functional needs. If you have pets or service animals, think about animal-friendly locations. Identify the following places:

*Indoor*: If you live in an area where tornadoes, hurricanes, or other high-wind storms can happen, make sure everyone knows where to go for protection. This could be a small, interior, windowless room, such as a closet or bathroom, on the lowest level of a sturdy building, or a tornado safe room or storm shelter.

*In your neighborhood*: This is a place in your neighborhood where your household members will meet if there is a fire or other emergency and you need to leave your home. The meeting place could be a big tree, a mailbox at the end of the driveway, or a neighbor's house.

*Outside of your neighborhood*: This is a place where your family will meet if a disaster happens when you're not at home and you can't get back to your home. This could be a library, community center, house of worship, or family friend's home. *Outside of your town or city*: Having an out-of-town meeting place can help you reunite if a disaster happens and:

- You cannot get home or to your out-of-neighborhood meeting place; or
- Your family is not together and your community is instructed to evacuate the area.

This meeting place could be the home of a relative or family friend. Make sure everyone knows the address of the meeting place and discuss ways you would get there.

#### **OTHER IMPORTANT NUMBERS AND INFORMATION**

You should also write down phone numbers for emergency services, utilities, service providers, medical providers, veterinarians, insurance companies, and other services.



Discuss what information you should send by text. You will want to let others know you are safe and where you are. Short messages like "I'm OK. At library" are good.

	Talk about who will be the lead person to send out information about the designated meeting place for the household.
	Practice gathering all household members at your indoor and neighborhood emergency meeting places. Talk about how each person would get to the identified out-of-neighborhood and out-of-town meeting places. Discuss all modes of transportation, such as public transportation, rail, and para-transit for all family members, including people with disabilities and others with access and functional needs.
	Regularly have conversations with household members and friends about the plan, such as whom and how to text or call, and where to go.
	To show why it's important to keep phone numbers written down, challenge your household members to recite important phone numbers from memory— now ask them to think about doing this in the event of an emergency.
	Make sure everyone, including children, knows how and when to call 911 for help. You should only call 911 when there is a life-threatening emergency.
	Review, update, and practice your <i>Family Emergency Communication Plan</i> at least once a year, or whenever any of your information changes.
To he step: <i>It Sta</i> www icon	elp start the conversation or remind your family why you are taking s to prepare and practice, you may want to watch the 4-minute video, <i>arted Like Any Other Day</i> , about families who have experienced disaster, at v.youtube.com/watch?v=w_omgt3MEBs. Click on the closed captioning (CC) on the lower right to turn on the captioning.
After impr reme	you practice, talk about how it went. What worked well? What can be oved? What information, if any, needs to be updated? If you make updates, ember to print new copies of the plan for everyone.
отн	ER IMPORTANT TIPS FOR COMMUNICATING IN DISASTERS <sup>1</sup>
	Text is best when using a mobile phone, but if you make a phone call, keep it brief and convey only vital information to emergency personnel and/or family or household members. This will minimize network congestion, free up space on the network for emergency communications, and conserve battery power. Wait 10 seconds before redialing a number. If you redial too quickly, the data from the handset to the cell sites do not have enough time to clear before you've re-sent the same data. This contributes to a clogged network.
	Conserve your mobile phone battery by reducing the brightness of your screen, placing your phone in airplane mode, and closing apps you do not need. Limit watching videos and playing video games to help reduce network congestion.

Keep charged batteries, a car phone charger, and a solar charger available for backup power for your mobile phone, teletypewriters (TTYs), amplified phones, and caption phones. If you charge your phone in your car, be sure the car is in a well-ventilated area (e.g., not in a closed garage) to avoid life-threatening carbon monoxide poisoning.

If driving, do not text, read texts, or make a call without a hands-free device.
Maintain a household landline and analog phone (with battery backup if it has a cordless receiver) that can be used when mobile phone service is unavailable. Those who are Deaf or hard of hearing, or who have speech disabilities and use devices and services that depend on digital technology (e.g., VRS, Internet Protocol [IP] Relay, or captioning) should have an analog phone (e.g., TTY, amplified phone, or caption phone) with battery backup in case Internet or mobile service is down.
If you evacuate and have a call-forwarding feature on your home phone, forward your home phone number to your mobile phone number.
Use the Internet to communicate by email, Twitter, Facebook, and other social media networks. These communication channels allow you to share information quickly with a widespread audience or to find out if loved ones are OK. The Internet can also be used for telephone calls through Voice over Internet Protocol. For those who are Deaf or hard of hearing, or who have speech disabilities, you can make calls through your IP Relay provider.
If you do not have a mobile phone, keep a prepaid phone card to use if needed during or after a disaster.
Use a pay phone if available. It may have less congestion because these phones don't rely on electricity or mobile networks. In some public places, you may be able to find a TTY that can be used by those who are Deaf or hard of hearing, or who have speech disabilities.

#### America's PrepareAthon! is a grassroots campaign for action to get more people prepared for emergencies. Make your actions count at ready.gov/prepare.

The reader recognizes that the Federal Government provides links and informational data on various disaster preparedness resources and events and does not endorse any non-Federal events, entities, organizations, services, or products.



## **FAMILY EMERGENCY COMMUNICATION PLAN**

HOUSEHOLD INFORMATION

Home #: Address:
Name:
Name:
Name:
Name:
Name: Address: Emergency/Hotline #: Website: Emergency Plan/Pick-Up:

America's PrepareAthon! Ready

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SCHOOL, CHILDCARE,

CAREGIVER, AND WORKPLACE

**EMERGENCY PLANS** 

SCHOOL, CHILDCARE, CAREGIVER, AND WORKPLACE EMERGENCY PLANS	Name: Address: Emergency/Hotline #: Website: Emergency Plan/Pick-Up:
	Name: Address: Emergency/Hotline #: Website: Emergency Plan/Pick-Up:
	Name: Address: Emergency/Hotline #: Website: Emergency Plan/Pick-Up:
IN CASE OF EMERGENCY (ICE) CONTACT	Name:
OUT-OF-TOWN Contact	Name:
EMERGENCY MEETING PLACES	Indoor: Instructions: Neighborhood: Instructions:
	Out-of-Neighborhood: Address: Instructions:
	Out-of-Town: Address: Instructions:

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#### IMPORTANT NUMBERS OR INFORMATION

Police:	Dial 911 c	or #:	
Fire:	Dial 911 c	or #:	
Poison Control:		#:	
Doctor:		#:	
Doctor:		#:	
Pediatrician:		#:	
Dentist:		#:	
Hospital/Clinic:		#:	
Pharmacy:		#: .	
Medical Insurance:		#:	
Policy #:			
Medical Insurance:		#:	
Policy #:			
Homeowner/Rental	Insurance	9:	
#:			
Policy #:			
Flood Insurance:		#:	
Policy #:			
Veterinarian:		#:	
Kennel:		#:	
Electric Company: .		#:	
Gas Company:		#:	
Water Company:		#:	
Alternate/Accessible	e Transpor	rtatio	n:
#:			
Other:		#:	
Other:		#:	
Other:		#:	

r		IN CASE OF EMERGENCY (ICE) CONTACT	
	i i	Nabile #	
AMERICA'S	i i	NameNiobile #.	
PrepareAthon! Ready		Address:	
BE SMART. TAKE PART. PREPARE.			
	i i	OUT-OF-TOWN CONTACT	
	i i	Name: Mobile #:	
Mite vour family's name above		Home #: Email:	
Family Emergency Communication Plan	1 1	Address:	
· · · · · · · · · · · · · · · · · · ·	FOLD >		_
HOUSEHOLD INFORMATION	I I	EMERGENCY MEETING PLACES	
Home #:	1		
Address:	i i	Indoor:	•
I Name:Mobile #:	1 1	Instructions:	•
I Other # or social media: Email:		· · · · · · · · · · · · · · · · · · ·	
I Important medical or other information:	1 1		
	i i	Neighborhood:	•
Name:Mobile #:	1 1	Instructions:	-
Other # or social media: Email:	1 1		-
Important medical or other information	FOLD		
·	HERE >		
I Namo: Mobile #:		Out-of-Neighborhood:	•
		Address:	•
Other # or social media: Email:	1	Instructions:	-
Important medical or other information:	1 1		
1	1 1		
Name:Mobile #:	1 1	Out-of-Town:	•
Other # or social media: Email:	i i	Address:	
Important medical or other information:		Instructions:	
	<pre>FOLD HERE</pre>		-
SCHOOL, CHILDCARE, CAREGIVER, AND WORKPLACE EMERGENCY PLANS	<u>i</u> i	Police:Dial 911 or #:	
l Addrose:	i i	Fire:Dial 911 or #:	
	1 1	Poison Control:#:	•
Emergency/Hotline #: Website:	1 1	Doctor: #:	
Emergency Plan/Pick-Up:	į i	Pediatrician:#:	
I Name:		Dentist:	-
I Address:		Medical Insurance:	•
I Emergency/Hotline #: Website:	1	Medical Insurance:	
	i i	Policy #:	
Emergency Plan/Pick-Up:	FOLD	Hospital/Clinic:#:	2
Name:		Pharmacy:#:	
Address:	i i	Homeowner/Rental Insurance:#:	•
Emergency/Hotline #: Website		Policy #:	
		Policy #:	
Emergency Franziscop		Veterinarian:#:	
Name:	i i	Kennei:#: Electric Company:	•
Address:		Gas Company:#:	
Emergency/Hotline #:Website:	1 1	Water Company:#:	
Emergency Plan/Pick-Up:	i i	Alternate/Accessible Iransportation:#:	•
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	a (		



#### **Family Disaster Plan**

Family Last Name(s) or Household Address:			Date:
Family Member/Household Co	ontact Info (If needed, a	dditional space is provid	ed in #10 below):
Name	Home Phone	Cell Phone	<u>Email</u> :
Pet(s) Info:			
Name:	<u>Type:</u>	<u>Color:</u>	Registration #:

#### **Plan of Action**

1. The disasters most likely to affect our household are:

2. What are the escape routes from our home?

3. If separated during an emergency, what is our meeting place near our home?

4. If we cannot return home or are asked to evacuate, what is our meeting place outside of our neighborhood?

 What is our route to get there and an alternate route, if the first route is impassible?

 5. In the event our household is separated or unable to communicate with each other, our emergency

5. In the event our household is separated or unable to communicate with each other, our emergency contact outside of our immediate area is:

<u>Name</u>	<u>Home Phone</u>	<u>Cell Phone</u>	<u>Email</u> :

After a disaster, let your friends and family know you are okay by registering at "Safe and Well" at <u>https://safeandwell.communityos.org/cms//</u> or by calling 1-800-733-2767. You can also give them a call, send a quick text or update your status on social networking sites.

6. If at school/daycare, our child(ren) will be evacuated to:

Child's Name:	Evacuation Site (address and contact info):
7. Our plan for people in our he	ousehold with a disability or special need is:
Person's Name:	<u>Plan:</u>

8. During certain emergencies local authorities may direct us to "shelter in place" in our home. An accessible, safe room where we can go, seal windows, vents and doors and listen to emergency broadcasts for instructions, is:

9. Family Member Responsibilities in the Event of a Disaster

Task	Description	Family Member Responsible
Disaster Kit*	Stock the disaster kit and take it if evacuation is necessary. Include	
	to include medications and eye glasses.	
Be informed	Maintain access to NOAA or local radio, TV, email or text alerts for	
	important and current information about disasters.	
Family	Make sure the household medical information is taken with us if	
Medical	evacuation is necessary.	
Information		
Financial	Obtain copies of bank statements and cash in the event ATMs and	
Information	credit cards do not work due to power outages. Bring copies of	
	utility bills as proof of residence in applying for assistance.	
Pet	Evacuate our pet(s), keep a phone list of pet-friendly motels and	
Information	animal shelters, and assemble and take the pet disaster kit.	
Sharing and	Share the completed plan with those who need to know. Meet	
Maintaining	with household members every 6 months or as needs change to	
the Plan	update household plan.	

\*What supplies and records should go in your disaster kit? Visit <u>www.redcross.org</u>

10. Other information, if not able to be included above.

Congratulations on completing your family disaster plan! Please tell others: "We've made a family disaster plan and you can, too, with help from the American Red Cross."

Get the facts about what you should do if an emergency or disaster occurs at <u>www.redcross.org</u>

# Appendix C

Intersecting Metrics Fire Evacuation Analysis



To:Michael Huff, DudekFrom:Dale Aquino, Intersecting MetricsDate:May 10, 2023Regarding:Harmon Ranch – Fire Evacuation Analysis

The purpose of this technical memorandum (memo) is to analyze and document the travel time required for an emergency fire evacuation of the Harmon Ranch Project (Proposed Project) and surrounding neighborhoods in the City of Poway.

#### 1.0 Background

The Harmon Ranch project entails the development of 63-single family dwelling units on a currently vacant site in the City of Poway. The Proposed Project is located north of Oak Knoll Road, south of Poway Road, and in between Pomerado Road and Carriage Road. Proposed amenities will include 20,000 square feet of open space for residents to utilize and a trail connecting to the existing commercial center north of the site. A total of 40 public parking spaces will be provided, including 24 parallel and 16 perpendicular spaces, in addition to the two car parking garages and driveways provided for each unit. **Figure 1** displays the project site plan.

#### 2.0 Fire Emergency Evacuation

An evacuation analysis was performed for the Proposed Project to quantify the time it would take for residents and patrons of the Proposed Project, as well as adjacent residential communities, to evacuate to nearby urban areas in the event of a mass evacuation due to a wildfire. The analysis performed was based on traffic simulation models developed using existing travel data, roadway network, signal controls, and calibrated aggressive driver behaviors.

Due to the native vegetation areas east, west, and south of the study area, the analysis assumes two separate evacuation scenarios, the first being a fire driven from the east and the second being a fire driven from the west. A Santa Ana-wind driven fire from the north/east of the study area and travels in the southwest bound direction, and a fire driven from the west and travels in the eastbound direction. This fire condition is the one most likely to require a large-scale evacuation and one that creates the most risk to property and human life.

A mass evacuation scenario was modeled, which analyzes a mass exodus of residents and patrons from the Proposed Project and residents of nearby neighborhoods. The neighborhoods included in the evacuation analysis are residents immediately adjacent to the project site, residents along Pomerado Road, residents along Poway Road between Interstate 15 (I-15) and Garden Road, and residents in the Sabre Springs neighborhood. It is assumed that residents within a half mile from an open space fire would need to evacuate. This distance is considered conservative as typical evacuations in a somewhat urban area is considered to be an eighth of a mile from an open space.



Intersecting



This scenario assumes nighttime conditions when majority of residents are at home, and represents a worstcase scenario as it assumes all traffic would be released onto the roadway network at once; however, there are robust emergency evacuation plans that include preemptive warning and phased evacuation protocols to help efficiently and effectively evacuate residents without overwhelming the transportation network.

Large open space vegetated areas surround the west, east, and south sides of the study area. The roadway network was evaluated to determine the best routes for fire response equipment and possible evacuation routes for relocating people to designated safety areas. Consequently, given the surrounding vegetation and the movement of the wind-driven fire, the evacuees of the residents in the study area and Proposed Project are considered to travel west to the I-15 and Poway Road interchange, for fires coming from the east, or to the Town & Country Plaza in east Poway, for fires coming from the west to access more urbanized areas away from the fire. **Figures 2 & 3** display the evacuation neighborhoods and evacuation routes for each analysis scenario.

The following analysis is intended to present representative evacuation scenarios using the best available information, conservative assumptions, and the best available modeling technology.

#### Analysis Scenarios

The evacuation analysis includes the following four scenarios that considered traffic from Proposed Project and as evacuees from the adjacent neighborhoods:

- Opening Year Land Uses with Fire Driven from the East This scenario estimates the evacuation time of the existing residential areas and planned projects adjacent to the project site. Under this scenario, it is assumed that the wind fire is driven from the east and evacuees are traveling west to the I-15 and Poway Road interchange for refuge.
- Opening Year Land Uses with Fire Driven from the West This scenario estimates the evacuation time of the existing residential areas and planned projects adjacent to the project site. Under this scenario, it is assumed that the wind fire is driven from the west and evacuees are traveling east to the Town & Country Plaza.
- Opening Year Land Uses with Project With Fire Driven from the East This scenario estimates the evacuation time of the Proposed Project residents, the existing residential areas adjacent to the project site, as well as the planned projects adjacent to the project site. Under this scenario, it is assumed that the wind fire is driven from the east and evacuees are traveling west to the I-15 and Poway Road interchange for refuge.
- Opening Year Land Uses with Project With Fire Driven from the West This scenario estimates the evacuation time of the Proposed Project residents, the existing residential areas adjacent to the project site, as well as the planned projects adjacent to the project site. Under this scenario, it is assumed that the wind fire is driven from the west and evacuees are traveling east to the Town & Country Plaza.





Evacuation Study Area and Routes Fire from the East



Intersecting Harmon Ranch

Evacuation Study Area and Routes Fire from the West



#### Analysis Methodology

This analysis was performed in accordance with the requirements of the *County of San Diego – Operational Area Emergency Operation Plan – Annex Q (Evacuation), September 2018* for the calculation of evacuation times. The evacuation analysis was conducted using Synchro/SimTraffic microsimulation software package (Version 10) by Trafficware Ltd. It considers lane utilization, turn pocket storage lengths, upstream and downstream queue spillbacks, and coordinated signal timings on intersection and roadway operations. Intersection delay/level of service results are based on the SimTraffic results, which are calculated from the simulated vehicles tracked throughout the network. A total of 10 simulations run were conducted to obtain a reasonable sample size, and the results of those runs were averaged to obtain the evacuation travel time.

The following assumptions were coded into the Synchro/SimTraffic network:

#### **Simulation Area**

The simulation area used for this modeling includes the roadway network bounded by I-15 to the west, Carriage Road to the east, and Oak Knoll to the south. The same intersections analyzed in the *Harmon Ranch Draft Local Transportation Analysis* (Intersecting Metrics, April 4, 2023) were included in this model, as well as intersections on Poway Road between I-15 to Oak Knoll Road to simulate vehicles traveling to the I-15 and Poway Road interchange and Town & Country Plaza.

The residential neighborhoods included in the evacuation analysis are neighborhoods adjacent to the project site and close proximity to native fuels, which are most likely to be compromised during a wildfire. These neighborhoods include the residential units immediately south, east, and west of the project site, the units north and south of Poway Road, the units along Pomerado Avenue and Sabre Springs Parkway, and the units in the eastern area of the City of Poway. While there are other non-residential uses within the study area, such as business offices and retail centers, trips from those uses were not assumed in the evacuation analysis since the analyses were for late night conditions and those buildings would be closed for operation.

#### Vehicle Volumes

The base intersection volumes were developed using existing traffic counts collected in 2022 and 2023, as well as the number of households in the evacuating areas multiplied by the average number of vehicle ownership in that area to represent evacuating vehicles. Since the analysis represents late night conditions, the intersection counts were developed by comparing the late night roadway volume to the PM peak hour volume, then applying that ratio to the PM intersection volume to yield late night volumes. For this analysis, the PM peak hour volumes were reduced by 90 percent to represent late night conditions. Count worksheets are included in **Attachment A**.

#### **Evacuating Vehicles**

The number of vehicles existing the evacuation area was developed based on the American Community Services 2021 data for 21 census block groups<sup>1</sup> in the study area. A portion of residents in several of the census block groups were not assumed to enter the study area based on their closer proximity to other interchanges or major intersections. Therefore, the data for the census block groups were modified to

<sup>&</sup>lt;sup>1</sup> ACS 2021 vehicle and household data obtained for the 60730170492, 60730170091, 60730170092, 6073010102, 60730170394, 60730170682, 60730170672, 60730170395, 60730170681, 6073010483, 60730170402, 60730170403, 60730170412, 60730170413, 60730170414, 60730170481, 60730107484, 60730170502, 60730170482, 60730170393, 60730170671 census block groups.



include only the number of residents assumed to travel to the I-15 and Poway Road interchange or the Town & Country Plaza.

Additionally, there are two planned projects in the study area (Poway Road Mixed Use and Meridian Poway) that were assumed in the evacuation analysis. The Proposed Project's evacuation vehicles were calculated using vehicle ownership per household data for an adjacent census tract multiplied by the number of dwelling units. Therefore, assuming a vehicle ownership rate of 2.04 vehicles per household (per census tract 170.48), the Proposed Project would generate 129 evacuating vehicles (2.04 vehicles x 63 dwelling units = 129 evacuating vehicles).

The evacuation volumes development summary sheets are provided in Attachment B.

 Table 1 displays the number of vehicles evacuating under each scenario.

Table 1 Evacuating Vehicles

	Evacuating Vehicles From	Evacuating Vehicles	
	Adjacent Neighborhoods	From the	Total Evacuating
Scenario	and Planned Projects	Proposed Project	Vehicles in the Model
Fire Driven from East	9,481	120	9,610
Fire Driven from West	6,673	129	6,802

#### Roadway Network Assumptions

Certain roadway network modifications were assumed in the model to represent potential traffic mitigation for roadways with available capacity and/or deployed traffic personnel directing traffic at key intersections. One intersection modification assumed was at the Poway Road and Sabre Springs Parkway intersection, where one of the northbound through lanes would be converted to a second northbound left-turn lane. This assumption was only assumed under the fire driven from the east scenario as additional capacity is needed for the northbound left-turn movement to serve vehicles trying to travel to the I-15 interchange.

#### Traffic Signals

It is assumed that under emergency evacuation conditions, traffic signals would revert to special timing plans and/or traffic personnel will be deployed at key intersections to help regulate traffic flow for primary evacuation approaches. As such, all signalized study intersections were optimized giving ample green time to the major traffic direction movements and to represent optimal signal control along the evacuation corridors. Additionally, the pedestrian calls were removed as pedestrian crossings are assumed to be nulled during a fire evacuation.

#### **Driver Behavior**

The simulation models were calibrated to imitate aggressive drivers during an evacuation scenario. The SimTraffic software includes 10 different type of drivers in a simulation, ranging from conservative to aggressive drivers. The model was coded to include primarily aggressive drivers, with drivers travelling with faster reaction times and shorter headways. Vehicle speeds would be limited by presumed congested conditions.



#### **Evacuation Routes**

Evacuees are anticipated to be considered in a "safe zone" once they are a reasonable distance away from open space and in a dense urbanized area. For this analysis, the I-15 and Poway Road interchange and the Town & Country Plaza were considered to be the gateways or safe zones for evacuees to seek refuge from the wildfire. The evacuation areas are anticipated to utilize the following roadway facilities as evacuation routes:

#### North-South Roadways

*Pomerado Road* – a four-lane north/south roadway that connects Twin Peaks Road to Spring Canyon Road. Within the study area, this roadway provides a center-left-turn lane median and has a posted speed limit of 45 miles (mph). Pomerado Road is primarily fronted by residential units and open space and provides pedestrian sidewalks and bicycle lanes on both sides of the roadway. San Diego MTS bus routes 945 and 945A currently provide services on Pomerado Road, north of Poway Road. Pomerado Road is classified as a Major Arterial by the City's *Transportation Master Element, March 2010.* Vehicles evacuating the project and adjacent neighborhoods are anticipated to travel north or south on this roadway to access Poway Road.

#### East-West Roadways

*Poway Road* – a four-lane east/west roadway that connects I-15 in the west to SR-67 in the east. The roadway has a posted speed limit of 35 miles per hour (mph) and is divided by a raised median. Within the study area, Poway Road provides direct access to commercial centers. Pedestrian sidewalks and bicycle lanes are present on both sides of the roadway. San Diego Metropolitan Transit System (MTS) bus routes 944, 945, and 945A currently provide services on Poway Road. Poway Road is classified as a Major Arterial by the City's *Transportation Master Element, March 2010.* Vehicles evacuating the project and adjacent neighborhoods are anticipated to travel east or west on this roadway to access I-15 or the Town & Country Plaza for safety.

*Oak Knoll Road* -a two-lane roadway that connects Sage View Road to Selier Street. The Proposed Project will take access via side-street stop-controlled intersections on Oak Knoll Road. This roadway is an undivided roadway with a posted speed limit of 25 mph and parallel parking provided on both sides of the roadway. Oak Knoll Road is fronted by residential units and small businesses. Pedestrian sidewalks are provided on both sides of the roadway and sharrow signs are painted on the roadway indicating that Oak Knoll Road is a bicycle route. According to the City's *Transportation Master Element, March 2010,* Oak Knoll Road is a local collector between Poway Road and Pomerado Road and a local road east of Pomerado Road. Vehicles evacuating the project and adjacent neighborhoods are anticipated to travel east or west on this roadway to access Carriage Road, Pomerado Road, or Poway Road.

#### **Evacuation Results**

Based on the analysis methodology described in the previous section, **Table 2** summarizes the evacuation time for each analysis scenario. The evacuation time does not depict the evacuation time for each population modeled, but rather the time needed to evacuate all populations modeled. Populations located in closer proximity to the safe zone will safely evacuate sooner than the calculated evacuation time. Detailed evacuation travel time analysis information is provided in **Attachment C**.



#### Table 2 Evacuation Travel Time

	Total Evacuating Vehicles		Evacuation Travel Time (Min)		
	Opening	Opening Year		Opening Year	
	Year Land	Land Uses w/	Opening Year	Land Uses w/	
Scenario	Uses	Project	Land Uses	Project	Delta
Fire Driven	0.401	0.610	118.23 Min	122.85 Min	4.62 Min
from East	9,401	9,010	(1 hr & 58 mins)	(2 hrs & 2 mins)	(4 mins & 37 sec)
Fire Driven	6 672	6 000	83.04 Min	86.04 Min	3.00 Min
from West	0,075	0,002	(1 hr & 23 mins)	(1 hr & 26 mins)	(3 mins)

As shown in Table 2, for a wildfire driven from the east, it is anticipated to take the Proposed Project and the adjacent residential neighborhoods a total of 122.85 minutes to fully evacuate the study area, which is a 4.62 minute increase from the Opening Year conditions. For a wildfire driven from the west, it is anticipated to take the Proposed Project and the adjacent residential neighborhoods 86.04 minutes to evacuate the study area, which is a 3 minute increase from Opening Year conditions.

In addition to reviewing the evacuation travel time, the total intersection delay for the study area was evaluated to see the impact of the Proposed Project's traffic to the overall delay of the intersections along the evacuation routes. **Table 3** displays the total intersection delay for the two scenarios. Detailed evacuation intersection delay information is provided in **Attachment D**.

	Total Intersection Delay (seconds)		
Scenario	Opening Year Land Uses	Opening Year Land Uses w/ Project	Delta
Fire Driven from East	725.3 Sec	732.2 Sec	6.9 Sec
	(12 mins & 05 secs)	(12 mins & 12 secs)	(0 min & 6 secs)
Fire Driven from West	637.6 Sec	640.9 Sec	3.3 Sec
	(10 mins & 37 secs)	(10 mins & 40 secs)	(0 min & 3 secs)

#### Table 3 Evacuation Intersection Delay – Total Study Area

As shown in Table 3, the average total intersection delay for the study area with the Proposed Project is 732.2 and 640.9 seconds under the wildfire driven from the east and west scenarios, respectively. This is less than a 7 second increase compared to Opening Year conditions under each scenario.



Conclusions

There are currently no significance standards for evacuation travel time for the City of Poway or CEQA. Public safety, not time, is generally the guiding consideration for evaluating impacts related to emergency evacuation. The City considers a Project's impact on evacuation significant if the Project will significantly impair or physically interfere with implementation of an adopted emergency response or evacuation plan; or if the Project will expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Safely undertaking large-scale evacuations may take several hours or more and require moving people long distances to designated areas. Further, evacuations are fluid and timeframes may vary widely depending on numerous factors, including, among other things, the number of vehicles evacuating, the road capacity to accommodate those vehicles, residents' awareness and preparedness, evacuation messaging and direction, and on-site law enforcement control.

Notwithstanding evacuation challenges and variables, the success rate in the City of Poway in safely managing both mass and targeted evacuations is nearly 100% safe evacuations based on research showing there were no fire-caused deaths during the evacuation of the Witch Fire in 2007. Technological advancements and improved evacuation strategies learned from prior wildfire evacuation events have resulted in a system that is many times more capable of managing evacuations. With the technology in use today in the City, evacuations are more strategic and surgical than in the past, evacuating smaller areas at highest risk and phasing evacuation traffic so that it flows more evenly and minimizes the surges that may slow an evacuation. Mass evacuation scenarios where large populations are all directed to leave simultaneously, resulting in traffic delays, are thereby avoided, and those populations most at risk populations are able to safely evacuate.

Based on the evacuation simulations above, evacuation traffic generated by the Project would only increase the total evacuation travel time by less than 5 minutes. With proper and effective evacuation managers and traffic control personnel, evacuation flow is anticipated to be able to be effectively managed.

The Project would provide emergency managers the alternative option of recommending residents temporarily seeking refuge on-site in fire-resistant buildings or within the wide, converted landscapes and hardscapes that would not readily facilitate wildfire spread. This would provide emergency managers with a safer alternative to risking a late evacuation. By contrast, the examples of Southern California evacuations that have included loss of life have been the result of residents who did not evacuate when directed, and then attempted a late evacuation with travel through long distances of exposed travel ways as wildfire were overtaking the area. These examples occurred in fire environments that were more aggressive and included less maintenance than would occur at the Project area.

The Project would not cut off or otherwise modify existing evacuation routes. It would, instead, implement certain roadway improvements that would improve evacuation, as discussed under the "Analysis Methodology" section above.

This information will be provided to emergency managers for use in pre-planning scenarios to better inform in the field decisions made pursuant to adopted Emergency Operations Plans. Emergency personnel who issue an evacuation order may take into account these time estimates in determining when and where to issue evacuation orders. In a real evacuation scenario, emergency managers may use alternative



actions/options to further expedite evacuation. Such actions may include providing additional lead time in issuing evacuation orders, providing alternative signal control at downstream intersections, utilizing additional off-site routes or directing traffic to roadways with additional capacity, implementing contra-flow lanes, issuing "shelter-in-place" orders when determined to be safer than evacuation, or considering the possibility of a delayed evacuation where parts of the population could be directed to remain on-site until the fire burns out in the sparse fuels around the evacuation route. These options require "in the field" determinations of when evacuations are needed and how they are phased to maximize efficiency. Overall, safe evacuation of the Project and surrounding community is possible in all modeled scenarios.

#### Limitations

In coordination with fire professionals at Dudek, Intersecting Metrics has presented a conservative analysis simulating evacuation during an extreme wildfire event. However, as discussed above, wildfires are variable events. The underlying planning principle for fire preparedness, given the dynamic nature of a fire, is to demonstrate the availability of multiple route alternatives and response strategies to permit emergency professionals to manage their response according to the specific circumstances. The Project area provides ample route and response alternatives that were not considered in this model. Emergency responders will coordinate the safest possible evacuation based on the dynamic circumstances of the actual event, including the appropriate phasing of the evacuation, and utilization of the most appropriate ingress and egress routes for area residents and

emergency responders.

The breadth of route alternatives and response strategies available to emergency professionals to manage a potential fire in the City cannot and should not be evaluated using this evacuation analysis alone. A comprehensive view of Project fire safety is gained by understanding this memorandum, the Fire Protection Plan and Construction Fire Protection Plan, the Evacuation Plan, along with the standard protocols and "in-the-field" decision making of emergency responders as detailed in the County and City Emergency Operations Plans.

This travel time analysis presents a reasonable vehicle travel time estimate based on professional judgment made by Intersecting Metrics, Dudek, and fire operations experts with experience participating in evacuations in the City and San Diego County. Changing any number of these assumptions can lengthen or shorten the average vehicle travel time.

For instance, a situation could arise in which professionals may choose to utilize additional roadways for evacuation not utilized in the analyses and may also choose to guide vehicle trips to more or different route permutations relative to what has been modeled in this analysis. A phased evacuation is also likely to be implemented, which improves the orderly flow of traffic in an evacuation scenario.

The net result of changing the variables selected could yield an average evacuation travel time shorter or longer than the results detailed in the analysis. Many factors can shorten or lengthen the vehicle time from the results shown herein. For example:

1. Changing the possible evacuation routes selected would affect the results. For instance, utilizing roads for ingress and/or egress that are not utilized in this analysis could shorten vehicle travel times relative to the results shown herein.



- 2. Increasing or decreasing the number of path permutations and percentage of the population utilizing each route that leads out of the immediate area could shorten or lengthen vehicle travel time relative to the results shown herein.
- 3. Emergency professionals electing to reserve certain travel lanes for emergency vehicle ingress for periods of time could affect the travel time relative to the results shown herein.
- 4. Assuming evacuees utilize fewer or more vehicles to evacuate from their homes relative to the vehicle utilization rate selected in the analysis would shorten or lengthen vehicle travel time relative to the results shown herein.
- 5. Changing the mix of vehicle trips allocated to each evacuation route could shorten or lengthen vehicle travel time relative to the results shown herein.
- 6. Assuming different road condition adjustment factors could shorten or lengthen the vehicle travel time relative to the results shown herein.
- 7. Assuming fewer people are at home when the evacuation notice is given would reduce the number of vehicle trips and shorten vehicle travel time relative to the results shown herein. For instance, an evacuation during daytime hours could result in fewer outbound trips than assumed in this analysis.
- 8. Assuming some portion of vehicle trips are made in advance of the evacuation notice would reduce the number of vehicle trips relative to the results shown herein.
- 9. Assuming emergency professionals elect to implement contraflow on certain roadways to open up additional lanes for emergency evacuation egress could reduce the travel time results shown herein.

This evacuation time analysis is necessarily limited in scope given the numerous variables inherent in a wildfire and evacuation event. However, as discussed above, it is not anticipated that the Project will significantly impact evacuation of the proposed or existing surrounding community based upon either evacuation timing and other qualitative considerations.



#### INTERSECTION TURNING MOVEMENT COUNTS

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#### HARMON RANCH STUDY AREA EVAC VOLS

			Fire East	Fire West
		Total	Vehicles in Study	Vehicles in
GEOID		Vehicles	Area	Study Area
60	730170373	941	0	0
607	730170492	1520	1140	0
60	730170371	1646	0	0
607	730170411	1209	0	0
607	730170091	1795	359	0
607	730170092	1587	794	0
607	730170102	1433	1003	0
607	730170394	1141	0	342
607	730170682	2040	0	408
607	730170672	994	398	398
607	730170395	1120	0	1120
607	730170681	1516	0	758
607	730170483	1154	808	0
607	730170402	1138	0	228
607	730170403	887	887	665
607	730170412	1393	1045	0
607	730170413	665	665	0
607	730170414	738	369	0
<u>60</u>	<u>730170481</u>	1179	1179	884
60	730170484	1045	523	0
607	730170502	1055	211	633
607	730170372	471	0	0
607	730170401	1294	0	0
60	730170182	1705	0	0
607	730170482	1092	100	0
607	730170393	1258	0	629
60	730170671	608	0	608
TOTAL		32624	9481	6673

TOTAL	32624	9481	6673
Orange	6335	3296	0
Purple	4478	1414	228
Blue	2846	1552	665
Yellow	4470	2610	884
Green	2657	609	1639
Brown	7075	0	3257
Red	4763	0	0
Total	Vehicles	Vehs in SA	Vehs in SA
Development Zones	Total	Fire East	Fire West

#### HARMON RANCH EVACUATION VOLUME

Project Land Use	Units	Ra	te	Evac Traffic
Residential Units		63	2.04	129
TOTAL				129

Residential rates based on Census Data for project tract (which includes mf dus)

_	170.48	27	468	911	604	2010	4102	3549	2.04
		-		AL FO FU	UTILIC OT		44400		



## 1: Poway Rd & I-15 SB Ramps Performance by movement

Movement	EBT	EBR	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.5	0.9	0.8	0.1	2.3
Total Del/Veh (s)	1.0	1.2	2.1	2.1	78.2	13.3	3.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.8	0.0	0.8
Stop Del/Veh (s)	0.1	0.1	0.1	0.0	71.6	6.5	1.1
Vehicles Entered	68	72	879	1504	37	15	2575
Vehicles Exited	68	71	878	1503	37	15	2572
Hourly Exit Rate	68	71	878	1503	37	15	2572
Input Volume	73	71	1831	3153	38	15	5181
% of Volume	93	100	48	48	97	100	50
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

# 2: I-15 NB Ramps & Poway Rd Performance by movement

Movement	EBT	WBT	WBR	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	13.3	8.9	1.5	0.0	23.7
Total Del/Veh (s)	1.1	20.3	20.4	70.2	0.0	20.2
Stop Delay (hr)	0.0	0.1	0.0	1.3	0.0	1.4
Stop Del/Veh (s)	0.3	0.1	0.0	63.1	0.0	1.2
Vehicles Entered	105	2303	1541	73	130	4152
Vehicles Exited	105	2308	1546	75	130	4164
Hourly Exit Rate	105	2308	1546	75	130	4164
Input Volume	111	4909	3394	75	128	8617
% of Volume	95	47	46	100	102	48
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0

## 3: Sabre Springs Pkwy & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.6	0.0	0.0	0.0	14.7	0.2	0.2	0.1	0.0	0.4	0.2	0.3
Total Del/Veh (s)	64.6	1.0	1.7	59.2	13.8	8.0	61.4	49.1	5.0	70.0	53.8	42.6
Stop Delay (hr)	0.5	0.0	0.0	0.0	1.2	0.0	0.2	0.1	0.0	0.3	0.2	0.3
Stop Del/Veh (s)	59.1	0.4	0.4	49.0	1.2	0.3	56.4	44.5	2.0	64.1	49.3	37.7
Vehicles Entered	30	165	20	1	3810	102	9	4	1	19	13	27
Vehicles Exited	30	166	20	2	3803	102	9	4	1	18	12	27
Hourly Exit Rate	30	166	20	2	3803	102	9	4	1	18	12	27
Input Volume	29	174	18	1	8258	242	12	6	1	20	8	29
% of Volume	103	95	111	200	46	42	75	67	100	90	150	93
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

# 3: Sabre Springs Pkwy & Poway Rd Performance by movement

Movement	Δ١
wovernent	
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	16.6
Total Del/Veh (s)	14.2
Stop Delay (hr)	2.8
Stop Del/Veh (s)	2.4
Vehicles Entered	4201
Vehicles Exited	4194
Hourly Exit Rate	4194
Input Volume	8798
% of Volume	48
Denied Entry Before	0
Denied Entry After	0

## 4: Creekview Dr & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBR	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	3.6
Total Del/Veh (s)	82.1	0.9	0.8	89.1	3.1	69.0	7.4	31.2	3.1
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	75.3	0.1	0.0	77.9	0.0	64.8	4.0	28.7	0.1
Vehicles Entered	2	181	4	1	3915	2	1	1	4107
Vehicles Exited	2	182	4	1	3912	2	1	1	4105
Hourly Exit Rate	2	182	4	1	3912	2	1	1	4105
Input Volume	3	190	4	2	8500	2	1	1	8703
% of Volume	67	96	100	50	46	100	100	100	47
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

# 5: Springbrook Dr & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBR	All	
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Denied Del/Veh (s)	0.0	0.0	0.3	0.0	0.0	0.2	0.1	0.1	0.1	0.0	
Total Delay (hr)	0.1	0.2	0.0	0.0	15.0	2.7	0.1	1.1	2.4	21.7	
Total Del/Veh (s)	64.7	4.3	3.5	86.4	14.7	64.9	7.7	64.6	67.6	18.3	
Stop Delay (hr)	0.1	0.1	0.0	0.0	2.7	2.4	0.1	1.0	2.2	8.6	
Stop Del/Veh (s)	59.8	2.5	0.9	71.9	2.6	58.4	3.9	59.7	61.6	7.3	
Vehicles Entered	5	172	14	2	3632	147	54	59	125	4210	
Vehicles Exited	5	172	14	2	3643	147	54	59	126	4222	
Hourly Exit Rate	5	172	14	2	3643	147	54	59	126	4222	
Input Volume	5	175	18	3	8214	151	51	50	137	8805	
% of Volume	100	98	78	67	44	97	106	118	92	48	
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	
Denied Entry After	0	0	0	0	0	0	0	0	0	0	

## 6: Springhurst Dr & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.0
Total Delay (hr)	0.0	0.2	0.0	0.1	2.7	0.0	1.5	0.0	0.1	1.1	1.2	7.0
Total Del/Veh (s)	98.9	2.2	1.9	71.9	2.7	4.5	69.8	56.0	7.0	67.4	57.4	6.2
Stop Delay (hr)	0.0	0.1	0.0	0.1	0.6	0.0	1.4	0.0	0.1	1.0	1.1	4.4
Stop Del/Veh (s)	95.1	0.8	0.4	66.0	0.6	0.0	64.4	53.7	3.5	61.1	51.5	3.8
Vehicles Entered	1	285	12	5	3479	1	76	1	67	58	77	4062
Vehicles Exited	1	286	12	6	3481	1	75	1	68	59	77	4067
Hourly Exit Rate	1	286	12	6	3481	1	75	1	68	59	77	4067
Input Volume	1	275	10	9	8064	3	79	1	58	50	74	8625
% of Volume	100	104	120	67	43	33	95	100	117	118	104	47
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

# 7: Poway Rd & Lola Way Performance by movement

Movement	EBL	EBT	WBT	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.1	0.0	9.5	0.0	0.0	9.6
Total Del/Veh (s)	90.3	0.2	9.8	76.8	69.8	8.9
Stop Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.2
Stop Del/Veh (s)	86.5	0.0	0.1	71.4	65.7	0.2
Vehicles Entered	2	410	3462	1	2	3877
Vehicles Exited	2	409	3476	1	2	3890
Hourly Exit Rate	2	409	3476	1	2	3890
Input Volume	2	380	8090	2	1	8476
% of Volume	100	108	43	50	200	46
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0

## 8: Oak Knoll Rd & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	4.2
Total Delay (hr)	0.3	7.8	0.3	0.0	98.4	0.1	27.3	0.1	0.0	0.1	0.1	0.0
Total Del/Veh (s)	133.9	80.0	26.7	166.4	125.9	187.6	116.2	109.3	129.0	77.9	83.1	24.8
Stop Delay (hr)	0.3	7.4	0.3	0.0	68.3	0.0	22.3	0.0	0.0	0.1	0.1	0.0
Stop Del/Veh (s)	130.4	75.4	25.3	136.3	87.4	119.6	94.6	88.8	99.1	75.8	80.5	24.0
Vehicles Entered	9	345	42	1	2665	1	816	2	1	3	3	4
Vehicles Exited	9	317	38	1	2659	1	800	2	1	3	4	4
Hourly Exit Rate	9	317	38	1	2659	1	800	2	1	3	4	4
Input Volume	6	324	39	4	7208	2	881	2	1	5	2	4
% of Volume	150	98	97	25	37	50	91	100	100	60	200	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

# 8: Oak Knoll Rd & Poway Rd Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	134.5
Total Del/Veh (s)	118.8
Stop Delay (hr)	98.9
Stop Del/Veh (s)	87.3
Vehicles Entered	3892
Vehicles Exited	3839
Hourly Exit Rate	3839
Input Volume	8478
% of Volume	45
Denied Entry Before	0
Denied Entry After	0

## 9: Pomerado Rd & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	2.1	0.1	0.0	0.0	1.4	0.1	0.0	0.0	0.0	0.0	0.1	0.4
Denied Del/Veh (s)	35.6	3.1	0.0	0.0	2.7	3.2	0.0	0.0	0.0	2.1	1.5	1.5
Total Delay (hr)	58.7	2.2	0.1	0.5	143.7	5.8	7.7	3.8	0.2	6.5	63.8	231.5
Total Del/Veh (s)	891.2	78.7	65.5	273.4	264.9	250.7	128.8	31.1	29.4	691.4	661.7	821.8
Stop Delay (hr)	58.2	2.0	0.1	0.3	101.7	4.1	7.1	2.6	0.1	6.1	60.4	208.3
Stop Del/Veh (s)	884.3	71.0	59.0	206.8	187.4	177.0	120.1	21.6	24.5	641.1	626.6	739.6
Vehicles Entered	206	100	4	6	1807	79	210	436	22	31	321	886
Vehicles Exited	163	97	3	5	1809	76	208	438	22	22	252	650
Hourly Exit Rate	163	97	3	5	1809	76	208	438	22	22	252	650
Input Volume	219	106	3	20	6143	239	203	469	19	34	336	868
% of Volume	74	92	100	25	29	32	102	93	116	65	75	75
Denied Entry Before	0	0	0	0	2	0	0	0	0	0	0	0
Denied Entry After	5	0	0	0	1	0	0	0	0	0	2	6

# 9: Pomerado Rd & Poway Rd Performance by movement

Movement	All
Denied Delay (hr)	4.1
Denied Del/Veh (s)	3.6
Total Delay (hr)	524.3
Total Del/Veh (s)	423.6
Stop Delay (hr)	451.1
Stop Del/Veh (s)	364.4
Vehicles Entered	4108
Vehicles Exited	3745
Hourly Exit Rate	3745
Input Volume	8659
% of Volume	43
Denied Entry Before	2
Denied Entry After	14

10: Silverlake Dr & Poway Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.4	0.0	0.0	1.1	1.5
Denied Del/Veh (s)	0.0	0.0	0.9		15.0	10.5	2.7
Total Delay (hr)	0.1	1.7	56.6	0.0	0.4	14.4	73.2
Total Del/Veh (s)	76.7	42.3	129.4		133.5	135.0	124.6
Stop Delay (hr)	0.1	1.5	44.4	0.0	0.4	13.1	59.5
Stop Del/Veh (s)	70.5	37.3	101.6		121.0	122.7	101.2
Vehicles Entered	4	137	1510	0	10	369	2030
Vehicles Exited	4	137	1511	0	10	365	2027
Hourly Exit Rate	4	137	1511	0	10	365	2027
Input Volume	4	154	6033	4	9	354	6559
% of Volume	100	89	25	0	111	103	31
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	3	3

#### 11: Carriage Rd & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	6.0	3256.6	6.4	0.0	0.0	0.0	7.5	3.1	254.7
Denied Del/Veh (s)	0.4	0.0	0.0	1785.6	1719.8	1762.9	1.9	0.0	0.0	1797.9	2810.6	1946.4
Total Delay (hr)	0.1	0.4	0.0	1.0	664.5	1.0	0.1	0.0	0.0	0.2	0.0	21.3
Total Del/Veh (s)	106.0	9.8	5.9	1182.3	1120.5	885.7	96.6	62.2	10.6	223.5		817.3
Stop Delay (hr)	0.1	0.2	0.0	0.7	486.5	0.7	0.1	0.0	0.0	0.2	0.0	21.5
Stop Del/Veh (s)	98.1	5.6	1.1	880.0	820.3	649.4	92.9	57.1	6.5	217.9		822.2
Vehicles Entered	4	128	6	2	1431	3	3	2	9	3	0	72
Vehicles Exited	4	129	6	2	1430	3	4	2	9	3	0	73
Hourly Exit Rate	4	129	6	2	1430	3	4	2	9	3	0	73
Input Volume	5	140	6	10	5677	13	4	4	8	10	2	353
% of Volume	80	92	100	20	25	23	100	50	112	30	0	21
Denied Entry Before	0	0	0	2	1205	2	0	0	0	4	0	109
Denied Entry After	0	0	0	10	5386	10	0	0	0	12	4	399

#### 11: Carriage Rd & Poway Rd Performance by movement

Movement	All
Denied Delay (hr)	3534.2
Denied Del/Veh (s)	1700.1
Total Delay (hr)	688.6
Total Del/Veh (s)	1036.0
Stop Delay (hr)	510.0
Stop Del/Veh (s)	767.3
Vehicles Entered	1663
Vehicles Exited	1665
Hourly Exit Rate	1665
Input Volume	6232
% of Volume	27
Denied Entry Before	1322
Denied Entry After	5821

## 12: Pomerado Rd & Oak Knoll Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.1	8.2	0.1	16.1	12.3	0.0	0.1	0.8	0.1
Total Del/Veh (s)	47.9	24.2	6.4	96.6	61.7	59.6	140.0	61.0	16.0	73.0	10.8	36.0
Stop Delay (hr)	0.0	0.1	0.0	0.1	7.1	0.1	14.5	10.2	0.0	0.1	0.4	0.0
Stop Del/Veh (s)	45.6	23.1	5.7	92.1	53.8	55.6	125.8	50.4	13.6	68.1	5.6	33.7
Vehicles Entered	3	22	18	4	471	5	397	708	6	5	250	5
Vehicles Exited	2	21	18	4	463	5	351	661	6	5	251	5
Hourly Exit Rate	2	21	18	4	463	5	351	661	6	5	251	5
Input Volume	3	21	21	4	477	5	401	683	6	7	346	6
% of Volume	67	100	86	100	97	100	88	97	100	71	73	83
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

# 12: Pomerado Rd & Oak Knoll Rd Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.1
Total Delay (hr)	38.0
Total Del/Veh (s)	70.5
Stop Delay (hr)	32.7
Stop Del/Veh (s)	60.8
Vehicles Entered	1894
Vehicles Exited	1792
Hourly Exit Rate	1792
Input Volume	1980
% of Volume	91
Denied Entry Before	0
Denied Entry After	0

## 13: Oak Knoll Rd & Project Dwy Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	1.2	0.3	0.3
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.4	0.0	0.0
Vehicles Entered	20	477	497
Vehicles Exited	20	479	499
Hourly Exit Rate	20	479	499
Input Volume	23	485	508
% of Volume	87	99	98
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

## 14: Carriage Rd & Oak Knoll Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.2	0.1	0.0	0.0	0.2
Total Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.2
Total Del/Veh (s)	5.7	0.5	1.2	1.0	0.9	5.5	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.9	0.1	0.0	0.0	0.2	1.3	0.0
Vehicles Entered	9	12	468	1	6	2	498
Vehicles Exited	9	12	467	2	6	2	498
Hourly Exit Rate	9	12	467	2	6	2	498
Input Volume	10	13	473	1	11	6	515
% of Volume	90	92	99	200	55	33	97
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

## 1: Poway Rd & I-15 SB Ramps Performance by movement

Movement	EBT	EBR	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.1	0.0	0.8	0.1	1.0
Total Del/Veh (s)	0.8	1.0	2.4	2.0	80.9	16.6	9.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.7	0.0	0.8
Stop Del/Veh (s)	0.0	0.0	0.2	0.1	74.1	9.9	7.1
Vehicles Entered	72	72	184	6	33	16	383
Vehicles Exited	73	73	188	6	35	16	391
Hourly Exit Rate	73	73	188	6	35	16	391
Input Volume	73	71	198	6	38	15	401
% of Volume	100	103	95	100	92	107	98
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

# 2: I-15 NB Ramps & Poway Rd Performance by movement

Movement	EBT	WBT	WBR	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.1	0.0	1.6	0.0	1.8
Total Del/Veh (s)	1.3	3.3	3.4	69.7	0.0	13.8
Stop Delay (hr)	0.0	0.0	0.0	1.5	0.0	1.5
Stop Del/Veh (s)	0.4	0.2	0.2	62.8	0.0	11.4
Vehicles Entered	108	109	36	81	130	464
Vehicles Exited	108	111	36	79	131	465
Hourly Exit Rate	108	111	36	79	131	465
Input Volume	111	129	39	75	128	482
% of Volume	97	86	92	105	102	96
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0

## 3: Sabre Springs Pkwy & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	1.1	27.2	39.6	49.2	35.9	2.4
Denied Del/Veh (s)	0.1	0.0	0.0	0.0	0.0	0.0	300.8	244.1	231.2	271.9	279.2	286.2
Total Delay (hr)	0.7	15.2	3.3	0.0	1.5	0.1	1.1	25.6	68.9	155.3	39.4	3.5
Total Del/Veh (s)	89.7	325.1	471.5	107.5	42.8	7.2	388.6	318.7	543.1	1267.8	464.6	657.9
Stop Delay (hr)	0.6	14.9	3.2	0.0	1.3	0.0	1.0	24.4	67.3	154.7	38.1	3.4
Stop Del/Veh (s)	81.5	319.1	464.9	101.8	38.5	2.1	371.8	304.1	530.0	1262.9	450.2	651.0
Vehicles Entered	27	167	25	1	121	28	9	286	451	420	298	19
Vehicles Exited	26	125	16	1	120	28	8	248	345	189	251	12
Hourly Exit Rate	26	125	16	1	120	28	8	248	345	189	251	12
Input Volume	29	174	18	1	123	30	12	406	627	646	458	29
% of Volume	90	72	89	100	98	93	67	61	55	29	55	41
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	4	115	165	231	165	11

# 3: Sabre Springs Pkwy & Poway Rd Performance by movement

Movement	All
Denied Delay (hr)	155.3
Denied Del/Veh (s)	219.9
Total Delay (hr)	314.4
Total Del/Veh (s)	597.6
Stop Delay (hr)	309.1
Stop Del/Veh (s)	587.5
Vehicles Entered	1852
Vehicles Exited	1369
Hourly Exit Rate	1369
Input Volume	2553
% of Volume	54
Denied Entry Before	0
Denied Entry After	691

4: Creekview Dr & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBR	All	
Denied Delay (hr)	0.0	1.6	0.0	0.0	0.0	0.7	178.6	60.1	0.8	241.9	
Denied Del/Veh (s)		8.9	0.0	0.0	0.0	1300.3	1513.2	1280.0	1000.1	615.5	
Total Delay (hr)	0.1	185.3	0.4	0.0	0.4	0.0	7.6	9.8	0.0	203.6	
Total Del/Veh (s)		936.8	1567.9	59.6	8.8	126.6	368.2	665.3	0.1	733.1	
Stop Delay (hr)	0.1	186.6	0.4	0.0	0.2	0.0	7.6	9.8	0.0	204.9	
Stop Del/Veh (s)		943.6	1576.5	49.5	5.5	129.0	370.6	663.2	0.0	737.5	
Vehicles Entered	0	657	1	1	154	1	67	45	1	927	
Vehicles Exited	0	505	1	1	151	1	67	43	1	770	
Hourly Exit Rate	0	505	1	1	151	1	67	43	1	770	
Input Volume	3	1442	4	2	153	2	410	168	1	2185	
% of Volume	0	35	25	50	99	50	16	26	100	35	
Denied Entry Before	0	0	0	0	0	0	7	2	0	9	
Denied Entry After	0	3	0	0	0	1	358	124	2	488	

# 5: Springbrook Dr & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All	
Denied Delay (hr)	0.0	3.2	0.6	0.0	0.0	0.0	1.1	32.7	0.1	0.0	37.7	
Denied Del/Veh (s)	0.0	19.0	285.3	0.0	0.0	0.0	227.3	210.4	0.9	0.3	83.7	
Total Delay (hr)	0.5	225.1	2.1	0.1	1.1	0.0	0.3	24.1	6.2	0.0	259.6	
Total Del/Veh (s)	917.6	961.4	935.7	66.1	27.7	7.7	75.5	164.2	78.3	36.8	510.3	
Stop Delay (hr)	0.5	227.5	2.1	0.0	0.9	0.0	0.3	22.9	5.6	0.0	259.8	
Stop Del/Veh (s)	919.2	971.4	945.1	59.1	22.4	2.6	70.0	155.6	70.6	33.5	510.8	
Vehicles Entered	2	608	6	3	137	2	15	507	276	4	1560	
Vehicles Exited	2	616	6	2	137	2	15	501	281	4	1566	
Hourly Exit Rate	2	616	6	2	137	2	15	501	281	4	1566	
Input Volume	5	2004	18	3	133	1	18	558	284	4	3028	
% of Volume	40	31	33	67	103	200	83	90	99	100	52	
Denied Entry Before	0	0	0	0	0	0	0	2	0	0	2	
Denied Entry After	0	5	1	0	0	0	2	53	0	0	61	

## 6: Springhurst Dr & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	7.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	18.6	96.4	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.1
Total Delay (hr)	0.1	199.7	0.6	0.2	0.3	0.0	0.1	0.0	18.4	4.7	0.0	0.0
Total Del/Veh (s)	320.9	450.3	372.4	91.4	9.6	3.1	51.7	32.3	124.7	52.8	72.9	45.8
Stop Delay (hr)	0.1	201.1	0.6	0.2	0.2	0.0	0.1	0.0	16.5	4.0	0.0	0.0
Stop Del/Veh (s)	323.4	453.4	370.0	85.6	6.9	0.4	47.6	27.2	111.8	44.7	58.7	38.0
Vehicles Entered	1	1392	5	7	128	3	8	2	512	310	1	3
Vehicles Exited	1	1383	5	8	128	3	8	2	505	317	1	3
Hourly Exit Rate	1	1383	5	8	128	3	8	2	505	317	1	3
Input Volume	1	2844	10	9	127	3	7	1	501	313	1	2
% of Volume	100	49	50	89	101	100	114	200	101	101	100	150
Denied Entry Before	0	2	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	13	0	0	0	0	0	0	0	0	0	0

# 6: Springhurst Dr & Poway Rd Performance by movement

Movement	All
Denied Delay (hr)	7.4
Denied Del/Veh (s)	11.2
Total Delay (hr)	224.3
Total Del/Veh (s)	309.5
Stop Delay (hr)	222.9
Stop Del/Veh (s)	307.6
Vehicles Entered	2372
Vehicles Exited	2364
Hourly Exit Rate	2364
Input Volume	3819
% of Volume	62
Denied Entry Before	2
Denied Entry After	13

## 7: Poway Rd & Lola Way Performance by movement

Movement	EDT	\//DT		CDI	CDD	٨١
MOVEMENT	EDI	VVDI	VVDR	SDL	JDR	All
Denied Delay (hr)	0.0	0.0	0.0	61.1	0.2	61.2
Denied Del/Veh (s)	0.0	0.0	0.0	356.3	677.6	74.1
Total Delay (hr)	54.5	0.2	0.0	23.6	0.0	78.3
Total Del/Veh (s)	86.7	3.8	0.8	157.4	135.9	95.2
Stop Delay (hr)	39.7	0.1	0.0	21.1	0.0	61.0
Stop Del/Veh (s)	63.2	2.8	0.2	141.1	118.1	74.2
Vehicles Entered	2199	156	1	510	1	2867
Vehicles Exited	2181	153	1	522	1	2858
Hourly Exit Rate	2181	153	1	522	1	2858
Input Volume	3656	153	1	576	1	4389
% of Volume	60	100	100	91	100	65
Denied Entry Before	0	0	0	22	0	22
Denied Entry After	0	0	0	107	0	107

#### 8: Oak Knoll Rd & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.1	0.1	4.2
Total Delay (hr)	0.3	81.2	9.4	0.1	0.3	0.0	0.6	0.0	0.0	0.2	0.0	0.0
Total Del/Veh (s)	187.6	118.0	100.6	55.2	7.3	7.6	69.7	30.5		120.3	54.8	7.1
Stop Delay (hr)	0.2	41.6	4.5	0.1	0.2	0.0	0.5	0.0	0.0	0.2	0.0	0.0
Stop Del/Veh (s)	142.3	60.5	48.1	53.0	4.7	6.1	67.1	28.5		118.1	51.8	5.9
Vehicles Entered	4	2372	319	6	128	3	28	2	0	5	3	3
Vehicles Exited	5	2388	322	6	128	3	27	2	0	5	3	3
Hourly Exit Rate	5	2388	322	6	128	3	27	2	0	5	3	3
Input Volume	6	3715	498	4	120	2	32	3	1	5	2	4
% of Volume	83	64	65	150	107	150	84	67	0	100	150	75
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

#### 8: Oak Knoll Rd & Poway Rd Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	92.1
Total Del/Veh (s)	110.5
Stop Delay (hr)	47.4
Stop Del/Veh (s)	56.9
Vehicles Entered	2873
Vehicles Exited	2892
Hourly Exit Rate	2892
Input Volume	4392
% of Volume	66
Denied Entry Before	0
Denied Entry After	0

## 9: Pomerado Rd & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.7	0.0	0.0	0.2	0.0	0.5	0.0	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	38.1	26.1	0.0	4.3	1.1	0.1	0.6	14.0	0.5	25.2	2.9	0.0
Total Del/Veh (s)	144.4	61.1	57.7	96.5	37.5	17.8	121.5	74.9	72.5	236.7	40.7	5.1
Stop Delay (hr)	29.1	13.4	0.0	4.0	0.9	0.1	0.5	11.7	0.4	23.1	2.4	0.0
Stop Del/Veh (s)	110.3	31.5	34.6	90.6	32.2	15.4	113.0	62.5	64.9	217.4	33.4	2.7
Vehicles Entered	894	1500	1	155	102	29	17	658	23	357	249	15
Vehicles Exited	897	1490	2	150	103	29	17	659	23	353	250	16
Hourly Exit Rate	897	1490	2	150	103	29	17	659	23	353	250	16
Input Volume	1362	2354	3	154	97	27	14	656	19	367	253	15
% of Volume	66	63	67	97	106	107	121	100	121	96	99	107
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

# 9: Pomerado Rd & Poway Rd Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.2
Total Delay (hr)	112.8
Total Del/Veh (s)	97.9
Stop Delay (hr)	85.8
Stop Del/Veh (s)	74.4
Vehicles Entered	4000
Vehicles Exited	3989
Hourly Exit Rate	3989
Input Volume	5321
% of Volume	75
Denied Entry Before	0
Denied Entry After	0

10: Silverlake Dr & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	3.5	0.7	0.4
Total Delay (hr)	0.1	8.3	0.0	1.9	0.0	3.0	0.3	13.6
Total Del/Veh (s)	72.9	15.8	10.5	34.2	11.3	37.3	15.9	19.9
Stop Delay (hr)	0.1	1.9	0.0	1.5	0.0	2.4	0.2	6.2
Stop Del/Veh (s)	59.9	3.7	0.0	27.4	5.8	30.7	10.0	9.1
Vehicles Entered	5	1860	1	199	4	281	73	2423
Vehicles Exited	5	1852	1	198	4	282	74	2416
Hourly Exit Rate	5	1852	1	198	4	282	74	2416
Input Volume	4	2735	1	191	4	289	72	3296
% of Volume	125	68	100	104	100	98	103	73
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0

## 11: Carriage Rd & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.4	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.1	7.5	0.0	0.1	0.2	0.0	0.0	1.3	0.1	1.1	0.0	0.2
Total Del/Veh (s)	75.1	12.6	11.1	42.5	5.1	6.7	43.2	41.2	47.3	45.5	62.9	7.1
Stop Delay (hr)	0.1	1.5	0.0	0.1	0.1	0.0	0.0	1.2	0.1	1.0	0.0	0.1
Stop Del/Veh (s)	62.4	2.5	1.9	37.1	3.3	3.9	38.5	36.6	42.2	40.2	59.4	3.8
Vehicles Entered	4	2116	5	8	116	11	4	113	6	86	1	79
Vehicles Exited	4	2118	6	9	117	11	4	115	6	89	1	79
Hourly Exit Rate	4	2118	6	9	117	11	4	115	6	89	1	79
Input Volume	5	3001	6	10	117	13	4	126	8	92	2	71
% of Volume	80	71	100	90	100	85	100	91	75	97	50	111
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

#### 11: Carriage Rd & Poway Rd Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	10.6
Total Del/Veh (s)	14.9
Stop Delay (hr)	4.2
Stop Del/Veh (s)	5.8
Vehicles Entered	2549
Vehicles Exited	2559
Hourly Exit Rate	2559
Input Volume	3455
% of Volume	74
Denied Entry Before	0
Denied Entry After	0

## 12: Pomerado Rd & Oak Knoll Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.5	0.0	0.0	0.2	0.1	1.3	0.0	0.0	1.3	0.0
Total Del/Veh (s)	34.7	5.4	5.6	23.0	22.8	6.2	24.9	7.9	1.0	32.2	11.6	5.7
Stop Delay (hr)	0.0	0.0	0.4	0.0	0.0	0.2	0.1	0.6	0.0	0.0	0.6	0.0
Stop Del/Veh (s)	32.2	4.0	4.0	21.3	20.1	5.2	22.8	4.0	0.5	29.0	5.2	1.8
Vehicles Entered	3	14	313	3	4	133	20	564	5	3	393	5
Vehicles Exited	3	14	311	3	4	133	20	562	5	3	394	5
Hourly Exit Rate	3	14	311	3	4	133	20	562	5	3	394	5
Input Volume	3	21	480	4	6	127	23	559	6	7	397	6
% of Volume	100	67	65	75	67	105	87	101	83	43	99	83
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

# 12: Pomerado Rd & Oak Knoll Rd Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	3.5
Total Del/Veh (s)	8.6
Stop Delay (hr)	2.0
Stop Del/Veh (s)	4.8
Vehicles Entered	1460
Vehicles Exited	1457
Hourly Exit Rate	1457
Input Volume	1639
% of Volume	89
Denied Entry Before	0
Denied Entry After	0

## 13: Oak Knoll Rd & Project Dwy Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Total Del/Veh (s)	0.9	0.2	0.3
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	0.3	0.0	0.0
Vehicles Entered	15	140	155
Vehicles Exited	16	139	155
Hourly Exit Rate	16	139	155
Input Volume	23	136	159
% of Volume	70	102	97
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

## 14: Carriage Rd & Oak Knoll Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.6	0.6	1.5	1.5	1.8	7.1	1.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.7	0.0	0.0	0.0	0.4	2.6	0.1
Vehicles Entered	6	10	131	115	12	4	278
Vehicles Exited	6	10	130	114	12	4	276
Hourly Exit Rate	6	10	130	114	12	4	276
Input Volume	10	13	124	123	11	6	288
% of Volume	60	77	105	93	109	67	96
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

## 1: Poway Rd & I-15 SB Ramps Performance by movement

Movement	EBT	EBR	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.2	0.0
Total Delay (hr)	0.0	0.0	0.4	0.8	0.8	0.1	2.1
Total Del/Veh (s)	1.1	1.3	1.9	2.0	75.5	13.5	3.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.7	0.0	0.8
Stop Del/Veh (s)	0.1	0.1	0.0	0.0	68.4	6.8	1.1
Vehicles Entered	77	75	857	1466	37	16	2528
Vehicles Exited	77	76	857	1468	36	16	2530
Hourly Exit Rate	77	76	857	1468	36	16	2530
Input Volume	73	71	1831	3153	38	15	5181
% of Volume	105	107	47	47	95	107	49
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

## 2: I-15 NB Ramps & Poway Rd Performance by movement

Movement	EBT	WBT	WBR	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	12.8	10.1	1.4	0.0	24.3
Total Del/Veh (s)	1.2	20.1	21.8	68.1	0.0	20.5
Stop Delay (hr)	0.0	0.0	0.0	1.2	0.0	1.3
Stop Del/Veh (s)	0.3	0.1	0.1	61.1	0.0	1.1
Vehicles Entered	113	2247	1624	71	125	4180
Vehicles Exited	113	2253	1628	71	125	4190
Hourly Exit Rate	113	2253	1628	71	125	4190
Input Volume	111	4910	3523	75	128	8747
% of Volume	102	46	46	95	98	48
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0

# 3: Sabre Springs Pkwy & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.6	0.1	0.0	0.0	15.0	0.2	0.2	0.1	0.0	0.4	0.1	0.3
Total Del/Veh (s)	64.1	1.3	1.8	74.2	14.1	7.6	58.6	42.1	6.1	68.7	56.5	32.5
Stop Delay (hr)	0.5	0.0	0.0	0.0	1.2	0.0	0.2	0.1	0.0	0.4	0.1	0.2
Stop Del/Veh (s)	58.6	0.5	0.5	64.8	1.2	0.3	53.1	37.0	1.2	63.6	50.7	27.9
Vehicles Entered	30	174	16	1	3835	74	13	5	1	21	8	29
Vehicles Exited	31	174	16	1	3825	74	12	4	1	21	8	30
Hourly Exit Rate	31	174	16	1	3825	74	12	4	1	21	8	30
Input Volume	29	174	18	1	8387	242	12	6	1	20	8	29
% of Volume	107	100	89	100	46	31	100	67	100	105	100	103
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

# 3: Sabre Springs Pkwy & Poway Rd Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	17.0
Total Del/Veh (s)	14.4
Stop Delay (hr)	2.8
Stop Del/Veh (s)	2.4
Vehicles Entered	4207
Vehicles Exited	4197
Hourly Exit Rate	4197
Input Volume	8927
% of Volume	47
Denied Entry Before	0
Denied Entry After	0
4: Creekview Dr & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBR	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	3.3	0.1	0.0	0.0	3.6
Total Del/Veh (s)	80.1	1.0	1.7	83.2	3.0	71.1	6.3	35.6	3.1
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2
Stop Del/Veh (s)	73.6	0.1	0.1	75.3	0.0	67.5	3.5	32.0	0.2
Vehicles Entered	2	191	6	2	3945	3	2	2	4153
Vehicles Exited	2	192	6	2	3937	3	2	2	4146
Hourly Exit Rate	2	192	6	2	3937	3	2	2	4146
Input Volume	3	190	4	2	8629	2	1	1	8832
% of Volume	67	101	150	100	46	150	200	200	47
Denied Entry Before	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0

# 5: Springbrook Dr & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBR	All	
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Denied Del/Veh (s)	0.4	0.0	0.1	0.0	0.0	0.2	0.1	0.1	0.1	0.0	
Total Delay (hr)	0.1	0.2	0.0	0.1	15.0	2.5	0.1	0.9	2.3	21.3	
Total Del/Veh (s)	97.0	4.9	3.7	133.1	14.5	60.4	7.3	65.0	66.7	17.8	
Stop Delay (hr)	0.1	0.1	0.0	0.1	2.5	2.2	0.1	0.8	2.1	8.1	
Stop Del/Veh (s)	91.3	3.0	1.1	116.2	2.5	54.3	3.6	60.2	60.7	6.8	
Vehicles Entered	4	180	18	2	3661	144	52	48	124	4233	
Vehicles Exited	4	181	18	2	3680	142	53	48	125	4253	
Hourly Exit Rate	4	181	18	2	3680	142	53	48	125	4253	
Input Volume	5	175	18	3	8343	151	51	50	137	8934	
% of Volume	80	103	100	67	44	94	104	96	91	48	
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	
Denied Entry After	0	0	0	0	0	0	0	0	0	0	

### 6: Springhurst Dr & Poway Rd Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.4	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.0
Total Delay (hr)	0.2	0.0	0.1	2.8	0.0	1.4	0.0	0.1	1.0	0.0	1.2	6.7
Total Del/Veh (s)	2.4	1.6	81.7	2.9	5.7	68.6	19.2	7.0	62.9	82.2	55.7	5.9
Stop Delay (hr)	0.1	0.0	0.1	0.6	0.0	1.2	0.0	0.1	0.9	0.0	1.0	4.0
Stop Del/Veh (s)	0.9	0.3	75.2	0.6	0.0	63.2	16.6	3.5	56.7	76.9	49.8	3.5
Vehicles Entered	278	12	4	3517	1	69	1	68	53	1	73	4077
Vehicles Exited	280	12	4	3517	1	70	1	68	53	1	74	4081
Hourly Exit Rate	280	12	4	3517	1	70	1	68	53	1	74	4081
Input Volume	275	10	9	8193	3	79	1	58	50	1	74	8754
% of Volume	102	120	44	43	33	89	100	117	106	100	100	47
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

# 7: Poway Rd & Lola Way Performance by movement

Movement	EBL	EBT	WBT	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0		0.1	0.0
Total Delay (hr)	0.0	0.0	9.3	0.0	0.0	9.4
Total Del/Veh (s)	73.4	0.2	9.4		52.4	8.5
Stop Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.1
Stop Del/Veh (s)	69.8	0.0	0.1		49.0	0.1
Vehicles Entered	1	401	3528	0	3	3933
Vehicles Exited	1	401	3528	0	3	3933
Hourly Exit Rate	1	401	3528	0	3	3933
Input Volume	2	380	8219	2	1	8605
% of Volume	50	106	43	0	300	46
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0

### 8: Oak Knoll Rd & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	3.8
Total Delay (hr)	0.2	5.1	0.1	0.0	99.6	0.0	44.5	0.1	0.0	0.1	0.1	0.0
Total Del/Veh (s)	78.1	54.0	10.8	141.4	129.8	71.0	167.8	148.6	141.9	79.9	67.0	24.1
Stop Delay (hr)	0.1	4.7	0.1	0.0	70.1	0.0	34.3	0.1	0.0	0.1	0.1	0.0
Stop Del/Veh (s)	75.0	49.1	8.8	115.0	91.4	54.6	129.4	115.0	103.0	77.0	64.3	23.4
Vehicles Entered	7	338	41	1	2604	1	909	3	1	5	3	4
Vehicles Exited	7	319	39	1	2617	0	909	3	1	5	3	4
Hourly Exit Rate	7	319	39	1	2617	0	909	3	1	5	3	4
Input Volume	6	324	39	4	7208	2	1010	2	1	5	2	4
% of Volume	117	98	100	25	36	0	90	150	100	100	150	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

# 8: Oak Knoll Rd & Poway Rd Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	149.9
Total Del/Veh (s)	130.8
Stop Delay (hr)	109.7
Stop Del/Veh (s)	95.7
Vehicles Entered	3917
Vehicles Exited	3908
Hourly Exit Rate	3908
Input Volume	8607
% of Volume	45
Denied Entry Before	0
Denied Entry After	0

### 9: Pomerado Rd & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.9	0.5	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	15.5	16.2	0.0	4.4	5.2	0.0	0.0	0.0	0.0	2.1	0.5	0.5
Total Delay (hr)	52.1	2.3	0.1	0.6	144.2	5.8	5.6	2.0	0.0	6.3	53.7	208.5
Total Del/Veh (s)	807.7	76.4	86.3	296.5	269.2	257.6	111.1	17.1	8.9	616.6	550.6	753.6
Stop Delay (hr)	51.4	2.1	0.1	0.4	102.7	4.1	5.2	1.3	0.0	5.7	50.2	186.6
Stop Del/Veh (s)	797.1	68.4	80.7	227.8	191.8	182.9	103.6	10.7	6.5	555.1	514.6	674.4
Vehicles Entered	202	109	4	6	1781	75	180	427	14	34	330	882
Vehicles Exited	171	106	4	7	1784	76	179	428	14	24	263	642
Hourly Exit Rate	171	106	4	7	1784	76	179	428	14	24	263	642
Input Volume	219	106	3	20	6143	239	203	469	19	34	336	868
% of Volume	78	100	133	35	29	32	88	91	74	71	78	74
Denied Entry Before	0	0	0	0	3	0	0	0	0	0	0	0
Denied Entry After	2	2	0	0	1	0	0	0	0	0	3	7

# 9: Pomerado Rd & Poway Rd Performance by movement

Movement	All
Denied Delay (hr)	4.2
Denied Del/Veh (s)	3.7
Total Delay (hr)	481.2
Total Del/Veh (s)	396.5
Stop Delay (hr)	409.8
Stop Del/Veh (s)	337.7
Vehicles Entered	4044
Vehicles Exited	3698
Hourly Exit Rate	3698
Input Volume	8659
% of Volume	43
Denied Entry Before	3
Denied Entry After	15

10: Silverlake Dr & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.2	0.0	0.0	1.3	1.6
Denied Del/Veh (s)	0.0	0.0	0.0	0.5		18.8	13.6	2.9
Total Delay (hr)	0.1	1.6	0.0	56.7	0.0	0.4	14.0	72.8
Total Del/Veh (s)	73.8	39.9	16.1	130.6		141.1	136.2	125.1
Stop Delay (hr)	0.1	1.4	0.0	44.7	0.0	0.3	12.8	59.3
Stop Del/Veh (s)	67.6	35.2	13.1	102.9		129.5	124.2	101.9
Vehicles Entered	2	141	2	1502	0	9	355	2011
Vehicles Exited	3	144	2	1500	0	9	346	2004
Hourly Exit Rate	3	144	2	1500	0	9	346	2004
Input Volume	4	154	1	6033	4	9	354	6559
% of Volume	75	94	200	25	0	100	98	31
Denied Entry Before	0	0	0	0	0	0	2	2
Denied Entry After	0	0	0	0	0	0	0	0

### 11: Carriage Rd & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	8.7	3332.2	9.9	0.0	0.0	0.0	5.8	2.0	207.5
Denied Del/Veh (s)	0.7	0.0	0.0	1852.2	1750.5	1879.8	1.4	0.0	0.0	1896.9	1836.5	1800.2
Total Delay (hr)	0.0	0.6	0.0	1.7	664.8	1.4	0.2	0.1	0.0	0.2	0.2	21.1
Total Del/Veh (s)	83.7	14.7	20.2	1226.3	1124.6	1284.2	178.1	82.1	11.0	358.9	767.5	751.5
Stop Delay (hr)	0.0	0.4	0.0	1.3	492.0	1.1	0.2	0.1	0.0	0.2	0.2	21.2
Stop Del/Veh (s)	74.2	9.8	16.1	912.9	832.4	955.3	174.0	77.2	6.7	353.2	772.3	755.4
Vehicles Entered	2	137	6	3	1411	2	4	3	8	2	1	79
Vehicles Exited	2	137	6	4	1417	3	4	3	8	2	0	79
Hourly Exit Rate	2	137	6	4	1417	3	4	3	8	2	0	79
Input Volume	5	140	6	10	5677	13	4	4	8	10	2	353
% of Volume	40	98	100	40	25	23	100	75	100	20	0	22
Denied Entry Before	0	0	0	3	1234	2	0	0	0	2	1	80
Denied Entry After	0	0	0	14	5442	17	0	0	0	9	3	336

#### 11: Carriage Rd & Poway Rd Performance by movement

Movement	All
Denied Delay (hr)	3566.2
Denied Del/Veh (s)	1716.6
Total Delay (hr)	690.3
Total Del/Veh (s)	1034.2
Stop Delay (hr)	516.7
Stop Del/Veh (s)	774.0
Vehicles Entered	1658
Vehicles Exited	1665
Hourly Exit Rate	1665
Input Volume	6232
% of Volume	27
Denied Entry Before	1322
Denied Entry After	5821

### 12: Pomerado Rd & Oak Knoll Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.0
Total Delay (hr)	0.1	0.2	0.0	0.1	8.8	0.1	45.7	39.4	0.3	0.0	1.4	0.1
Total Del/Veh (s)	99.6	27.8	5.4	118.9	54.3	46.6	392.9	204.7	163.0	55.8	19.6	32.9
Stop Delay (hr)	0.1	0.2	0.0	0.1	7.3	0.1	40.1	32.2	0.2	0.0	0.7	0.0
Stop Del/Veh (s)	96.9	26.3	4.7	113.3	45.3	38.4	344.3	167.5	129.9	52.6	9.4	28.9
Vehicles Entered	2	23	17	2	578	7	382	657	5	2	265	6
Vehicles Exited	2	23	18	2	573	7	335	613	5	3	263	6
Hourly Exit Rate	2	23	18	2	573	7	335	613	5	3	263	6
Input Volume	3	21	21	4	607	5	401	683	6	7	346	6
% of Volume	67	110	86	50	94	140	84	90	83	43	76	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

# 12: Pomerado Rd & Oak Knoll Rd Performance by movement

Movement	ΔII
MOVEINEIIL	
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.1
Total Delay (hr)	96.1
Total Del/Veh (s)	170.8
Stop Delay (hr)	81.0
Stop Del/Veh (s)	143.9
Vehicles Entered	1946
Vehicles Exited	1850
Hourly Exit Rate	1850
Input Volume	2110
% of Volume	88
Denied Entry Before	0
Denied Entry After	0

#### 13: Oak Knoll Rd & Project Dwy Performance by movement

Movement	EBT	WBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Delay (hr)	0.0	0.1	0.3	0.4
Total Del/Veh (s)	1.1	0.5	8.8	2.2
Stop Delay (hr)	0.0	0.0	0.1	0.2
Stop Del/Veh (s)	0.3	0.0	4.3	0.9
Vehicles Entered	21	464	124	609
Vehicles Exited	21	462	124	607
Hourly Exit Rate	21	462	124	607
Input Volume	23	485	129	637
% of Volume	91	95	96	95
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

### 14: Carriage Rd & Oak Knoll Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.2	0.2	0.0	0.0	0.2
Total Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.2
Total Del/Veh (s)	4.8	0.3	1.3	2.0	1.7	7.2	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.8	0.0	0.0	0.0	0.3	2.9	0.0
Vehicles Entered	8	13	459	1	7	3	491
Vehicles Exited	8	13	457	1	7	3	489
Hourly Exit Rate	8	13	457	1	7	3	489
Input Volume	10	13	473	1	11	6	515
% of Volume	80	100	97	100	64	50	95
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

# 1: Poway Rd & I-15 SB Ramps Performance by movement

Movement	EBT	EBR	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.1	0.0	0.7	0.1	0.9
Total Del/Veh (s)	1.0	1.0	2.4	3.5	73.1	11.9	8.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.6	0.0	0.6
Stop Del/Veh (s)	0.0	0.0	0.2	0.1	66.5	5.6	6.1
Vehicles Entered	77	67	172	8	32	18	374
Vehicles Exited	77	67	174	8	33	18	377
Hourly Exit Rate	77	67	174	8	33	18	377
Input Volume	73	71	198	6	38	15	401
% of Volume	105	94	88	133	87	120	94
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

### 2: I-15 NB Ramps & Poway Rd Performance by movement

Movement	EBT	WBT	WBR	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.1	0.0	1.6	0.0	1.7
Total Del/Veh (s)	1.2	2.7	3.2	73.2	0.0	13.5
Stop Delay (hr)	0.0	0.0	0.0	1.4	0.0	1.4
Stop Del/Veh (s)	0.3	0.3	0.2	66.2	0.0	11.3
Vehicles Entered	110	105	31	76	131	453
Vehicles Exited	110	106	31	74	131	452
Hourly Exit Rate	110	106	31	74	131	452
Input Volume	111	129	39	75	128	482
% of Volume	99	82	79	99	102	94
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0

### 3: Sabre Springs Pkwy & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	1.0	33.6	52.7	40.0	28.3	1.3
Denied Del/Veh (s)	0.0	0.0	0.0		0.0	0.0	307.4	280.4	294.4	225.0	227.0	174.0
Total Delay (hr)	0.8	20.8	2.4	0.0	1.3	0.0	0.9	27.9	69.0	145.8	36.3	2.8
Total Del/Veh (s)	109.3	417.4	436.4		42.3	6.3	391.0	323.9	544.9	1131.2	417.0	488.2
Stop Delay (hr)	0.7	20.5	2.4	0.0	1.2	0.0	0.8	26.9	67.5	145.2	35.3	2.8
Stop Del/Veh (s)	100.6	412.0	430.0		38.4	1.6	371.9	312.5	532.9	1126.6	405.7	482.8
Vehicles Entered	26	176	19	0	109	27	8	304	448	444	308	20
Vehicles Exited	22	142	16	0	109	26	7	265	349	211	251	15
Hourly Exit Rate	22	142	16	0	109	26	7	265	349	211	251	15
Input Volume	29	174	18	1	123	30	12	406	627	646	458	29
% of Volume	76	82	89	0	89	87	58	65	56	33	55	52
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	4	127	196	196	140	7

# 3: Sabre Springs Pkwy & Poway Rd Performance by movement

	A 11
Movement	All
Denied Delay (hr)	156.8
Denied Del/Veh (s)	220.6
Total Delay (hr)	308.0
Total Del/Veh (s)	573.1
Stop Delay (hr)	303.3
Stop Del/Veh (s)	564.3
Vehicles Entered	1889
Vehicles Exited	1413
Hourly Exit Rate	1413
Input Volume	2553
% of Volume	55
Denied Entry Before	0
Denied Entry After	670

#### 4: Creekview Dr & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.9	0.0	0.0	0.0	1.0	178.8	54.7	0.6	236.1
Denied Del/Veh (s)	0.0	4.6	0.0	0.0	0.0	1879.3	1514.6	1159.2	2184.6	590.6
Total Delay (hr)	0.1	178.4	0.4	0.0	0.3	0.0	7.5	9.2	0.0	196.0
Total Del/Veh (s)	451.9	897.2	769.1	123.8	8.5		449.7	580.3		723.8
Stop Delay (hr)	0.1	179.5	0.4	0.0	0.2	0.0	7.5	9.2	0.0	197.0
Stop Del/Veh (s)	449.1	902.4	773.4	115.5	5.1		452.0	578.7		727.2
Vehicles Entered	1	698	1	1	138	0	56	52	0	947
Vehicles Exited	0	515	1	1	138	0	52	47	0	754
Hourly Exit Rate	0	515	1	1	138	0	52	47	0	754
Input Volume	3	1442	4	2	153	2	410	168	1	2185
% of Volume	0	36	25	50	90	0	13	28	0	35
Denied Entry Before	0	0	0	0	0	0	1	0	0	1
Denied Entry After	0	2	0	0	0	2	369	118	1	492

# 5: Springbrook Dr & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All	
Denied Delay (hr)	0.0	2.3	0.0	0.0	0.0	0.0	0.4	15.7	0.1	0.0	18.5	
Denied Del/Veh (s)	0.0	13.4	0.0	0.0	0.0	0.7	115.6	97.0	1.5	0.1	40.9	
Total Delay (hr)	0.5	226.3	1.8	0.1	1.0	0.0	0.2	21.8	7.0	0.1	258.6	
Total Del/Veh (s)	904.8	983.7	911.0	98.7	27.6	7.3	61.9	142.0	84.3	86.4	508.4	
Stop Delay (hr)	0.5	228.3	1.8	0.1	0.8	0.0	0.2	20.4	6.3	0.1	258.5	
Stop Del/Veh (s)	910.7	992.6	918.1	90.2	22.3	2.2	57.6	133.3	76.5	82.4	508.2	
Vehicles Entered	2	609	5	2	122	2	13	535	286	4	1580	
Vehicles Exited	1	597	5	2	122	2	13	525	290	4	1561	
Hourly Exit Rate	1	597	5	2	122	2	13	525	290	4	1561	
Input Volume	5	2004	18	3	133	1	18	558	284	4	3028	
% of Volume	20	30	28	67	92	200	72	94	102	100	52	
Denied Entry Before	0	0	0	0	0	0	0	1	0	0	1	
Denied Entry After	0	5	0	0	0	0	1	47	0	0	53	

### 6: Springhurst Dr & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		12.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.2
Total Delay (hr)	0.0	198.6	0.4	0.2	0.3	0.0	0.1	0.0	21.6	4.9	0.0	0.0
Total Del/Veh (s)		444.4	388.3	94.1	10.5	4.5	44.0	68.6	140.7	57.7	124.7	71.9
Stop Delay (hr)	0.0	199.5	0.4	0.2	0.3	0.0	0.1	0.0	19.6	4.2	0.0	0.0
Stop Del/Veh (s)		446.3	384.5	87.7	7.9	1.3	40.2	61.4	127.7	49.7	113.6	59.0
Vehicles Entered	0	1408	4	7	116	5	7	1	523	296	1	1
Vehicles Exited	0	1389	3	7	116	5	7	1	515	300	1	1
Hourly Exit Rate	0	1389	3	7	116	5	7	1	515	300	1	1
Input Volume	1	2844	10	9	127	3	7	1	501	313	1	2
% of Volume	0	49	30	78	91	167	100	100	103	96	100	50
Denied Entry Before	0	1	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	9	0	0	0	0	0	0	0	0	0	0

# 6: Springhurst Dr & Poway Rd Performance by movement

Movement	All
Denied Delay (hr)	4.8
Denied Del/Veh (s)	7.2
Total Delay (hr)	226.3
Total Del/Veh (s)	312.2
Stop Delay (hr)	224.4
Stop Del/Veh (s)	309.5
Vehicles Entered	2369
Vehicles Exited	2345
Hourly Exit Rate	2345
Input Volume	3819
% of Volume	61
Denied Entry Before	1
Denied Entry After	9

#### 7: Poway Rd & Lola Way Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	39.0	0.1	39.2
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	248.1	507.4	48.5
Total Delay (hr)	0.1	54.4	0.1	0.0	23.3	0.1	78.0
Total Del/Veh (s)	166.8	87.2	3.5	2.7	163.5	187.9	96.6
Stop Delay (hr)	0.1	40.1	0.1	0.0	21.0	0.0	61.4
Stop Del/Veh (s)	140.1	64.3	2.5	1.2	147.7	162.1	76.0
Vehicles Entered	3	2195	141	1	488	1	2829
Vehicles Exited	3	2166	141	1	497	1	2809
Hourly Exit Rate	3	2166	141	1	497	1	2809
Input Volume	2	3656	153	1	576	1	4389
% of Volume	150	59	92	100	86	100	64
Denied Entry Before	0	0	0	0	5	0	5
Denied Entry After	0	0	0	0	78	0	78

### 8: Oak Knoll Rd & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	4.1
Total Delay (hr)	0.3	79.8	9.9	0.1	0.1	0.0	0.7	0.0	0.0	0.1	0.0	0.0
Total Del/Veh (s)	183.6	119.4	102.9	105.9	3.9	0.4	73.8	48.5	2.6	110.5	64.6	5.7
Stop Delay (hr)	0.2	44.1	5.0	0.1	0.1	0.0	0.7	0.0	0.0	0.1	0.0	0.0
Stop Del/Veh (s)	133.7	66.0	52.7	104.4	1.9	0.2	71.1	47.0	0.7	108.5	62.8	4.8
Vehicles Entered	5	2317	333	3	106	1	32	3	1	4	1	7
Vehicles Exited	5	2316	336	3	105	1	32	3	1	3	1	7
Hourly Exit Rate	5	2316	336	3	105	1	32	3	1	3	1	7
Input Volume	6	3715	498	4	120	2	32	3	1	5	2	4
% of Volume	83	62	67	75	88	50	100	100	100	60	50	175
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

#### 8: Oak Knoll Rd & Poway Rd Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	91.0
Total Del/Veh (s)	112.3
Stop Delay (hr)	50.3
Stop Del/Veh (s)	62.1
Vehicles Entered	2813
Vehicles Exited	2813
Hourly Exit Rate	2813
Input Volume	4392
% of Volume	64
Denied Entry Before	0
Denied Entry After	0

### 9: Pomerado Rd & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.4	0.1	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	38.3	24.3	0.0	3.7	0.8	0.1	0.3	11.7	0.2	21.3	2.9	0.0
Total Del/Veh (s)	152.1	57.2	52.2	84.5	34.4	16.7	96.7	63.7	49.4	202.1	39.7	4.8
Stop Delay (hr)	29.9	12.4	0.0	3.4	0.7	0.1	0.3	9.6	0.2	19.6	2.4	0.0
Stop Del/Veh (s)	138.8	29.1	23.7	78.5	29.6	14.6	88.8	52.2	42.6	185.5	33.0	2.7
Vehicles Entered	848	1475	2	152	85	27	11	651	17	351	256	16
Vehicles Exited	866	1493	2	150	84	25	11	645	18	353	253	15
Hourly Exit Rate	866	1493	2	150	84	25	11	645	18	353	253	15
Input Volume	1362	2354	3	154	97	27	14	656	19	367	253	15
% of Volume	64	63	67	97	87	93	79	98	95	96	100	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

# 9: Pomerado Rd & Poway Rd Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.1
Total Delay (hr)	123.8
Total Del/Veh (s)	92.1
Stop Delay (hr)	78.7
Stop Del/Veh (s)	69.7
Vehicles Entered	3891
Vehicles Exited	3915
Hourly Exit Rate	3915
Input Volume	5321
% of Volume	74
Denied Entry Before	0
Denied Entry After	0

10: Silverlake Dr & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	3.5	0.7	0.4
Total Delay (hr)	0.0	6.9	0.0	1.7	0.0	3.3	0.3	12.3
Total Del/Veh (s)	44.0	13.3	6.9	32.9	23.6	39.9	15.0	18.2
Stop Delay (hr)	0.0	1.4	0.0	1.4	0.0	2.8	0.2	5.8
Stop Del/Veh (s)	32.2	2.7	0.0	26.6	17.4	32.9	8.9	8.5
Vehicles Entered	3	1860	1	183	6	293	66	2412
Vehicles Exited	3	1845	1	185	6	299	67	2406
Hourly Exit Rate	3	1845	1	185	6	299	67	2406
Input Volume	4	2735	1	191	4	289	72	3296
% of Volume	75	67	100	97	150	103	93	73
Denied Entry Before	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	1	0	1

### 11: Carriage Rd & Poway Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.1	9.3	0.0	0.2	0.2	0.0	0.1	2.0	1.7	1.6	0.0	0.1
Total Del/Veh (s)	74.9	15.6	13.0	66.9	6.0	3.6	88.1	54.7	45.1	58.1	48.5	6.6
Stop Delay (hr)	0.1	2.8	0.0	0.2	0.1	0.0	0.1	1.8	1.5	1.4	0.0	0.1
Stop Del/Veh (s)	63.0	4.8	4.6	61.6	4.2	1.2	81.5	48.3	39.1	52.3	45.7	3.4
Vehicles Entered	3	2128	5	13	110	14	3	131	129	95	2	73
Vehicles Exited	3	2145	5	12	111	13	3	130	130	94	2	73
Hourly Exit Rate	3	2145	5	12	111	13	3	130	130	94	2	73
Input Volume	5	3001	6	10	117	13	4	126	137	92	2	71
% of Volume	60	71	83	120	95	100	75	103	95	102	100	103
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

#### 11: Carriage Rd & Poway Rd Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	15.4
Total Del/Veh (s)	20.2
Stop Delay (hr)	8.1
Stop Del/Veh (s)	10.6
Vehicles Entered	2706
Vehicles Exited	2721
Hourly Exit Rate	2721
Input Volume	3584
% of Volume	76
Denied Entry Before	0
Denied Entry After	0

### 12: Pomerado Rd & Oak Knoll Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.6	0.0	0.0	0.2	0.2	1.1	0.0	0.0	1.4	0.0
Total Del/Veh (s)	46.2	8.1	6.0	23.1	15.0	6.0	23.0	7.2	4.8	34.9	12.4	4.5
Stop Delay (hr)	0.0	0.0	0.4	0.0	0.0	0.2	0.1	0.6	0.0	0.0	0.7	0.0
Stop Del/Veh (s)	42.6	6.4	4.5	21.3	12.5	5.2	21.4	3.7	4.5	30.8	5.9	1.6
Vehicles Entered	1	15	323	3	5	123	22	559	4	4	396	5
Vehicles Exited	1	15	324	2	6	123	23	555	4	4	402	5
Hourly Exit Rate	1	15	324	2	6	123	23	555	4	4	402	5
Input Volume	3	21	480	4	6	127	23	559	6	7	397	6
% of Volume	33	71	68	50	100	97	100	99	67	57	101	83
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

# 12: Pomerado Rd & Oak Knoll Rd Performance by movement

Movement	٨١
wovernent	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	3.6
Total Del/Veh (s)	8.7
Stop Delay (hr)	2.1
Stop Del/Veh (s)	5.0
Vehicles Entered	1460
Vehicles Exited	1464
Hourly Exit Rate	1464
Input Volume	1639
% of Volume	89
Denied Entry Before	0
Denied Entry After	0

#### 13: Oak Knoll Rd & Project Dwy Performance by movement

Movement	EBT	WBT	SBL	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1
Total Delay (hr)	0.0	0.0	0.3	0.3
Total Del/Veh (s)	1.2	0.3	7.5	3.7
Stop Delay (hr)	0.0	0.0	0.1	0.1
Stop Del/Veh (s)	0.4	0.0	3.0	1.5
Vehicles Entered	17	129	131	277
Vehicles Exited	17	130	132	279
Hourly Exit Rate	17	130	132	279
Input Volume	23	136	129	288
% of Volume	74	96	102	97
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

### 14: Carriage Rd & Oak Knoll Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All	
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Denied Del/Veh (s)	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.1	
Total Delay (hr)	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.4	
Total Del/Veh (s)	6.8	2.6	1.2	1.4	5.6	2.1	7.4	3.3	
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Stop Del/Veh (s)	0.8	0.3	0.0	0.1	0.5	0.5	2.3	0.4	
Vehicles Entered	139	9	117	120	1	12	6	404	
Vehicles Exited	139	9	117	120	1	12	6	404	
Hourly Exit Rate	139	9	117	120	1	12	6	404	
Input Volume	139	13	124	123	1	11	6	417	
% of Volume	100	69	94	98	100	109	100	97	
Denied Entry Before	0	0	0	0	0	0	0	0	
Denied Entry After	0	0	0	0	0	0	0	0	



Denied Delay (hr)	3540.0	
Denied Del/Veh (s)	1083.0	
Total Delay (hr)	1552.6	
Total Del/Veh (s)	725.3	
Stop Delay (hr)	1170.7	
Stop Del/Veh (s)	546.8	
Vehicles Entered	5929	
Vehicles Exited	5455	
Hourly Exit Rate	5455	
Input Volume	108844	
% of Volume	5	
Denied Entry Before	1324	
Denied Entry After	5838	

Denied Delay (hr)	504.1
Denied Del/Veh (s)	236.1
Total Delay (hr)	1360.3
Total Del/Veh (s)	637.6
Stop Delay (hr)	1235.1
Stop Del/Veh (s)	579.0
Vehicles Entered	6327
Vehicles Exited	5711
Hourly Exit Rate	5711
Input Volume	46650
% of Volume	12
Denied Entry Before	35
Denied Entry After	1360

Denied Delay (hr)	3572.1	
Denied Del/Veh (s)	1092.6	
Total Delay (hr)	1585.0	
Total Del/Veh (s)	732.2	
Stop Delay (hr)	1194.1	
Stop Del/Veh (s)	551.6	
Vehicles Entered	5934	
Vehicles Exited	5510	
Hourly Exit Rate	5510	
Input Volume	110265	
% of Volume	5	
Denied Entry Before	1327	
Denied Entry After	5836	

Denied Delay (hr)	455.9
Denied Del/Veh (s)	210.2
Total Delay (hr)	1371.0
Total Del/Veh (s)	640.9
Stop Delay (hr)	1241.5
Stop Del/Veh (s)	585.6
Vehicles Entered	6504
Vehicles Exited	5800
Hourly Exit Rate	5800
Input Volume	47166
% of Volume	12
Denied Entry Before	8
Denied Entry After	1303