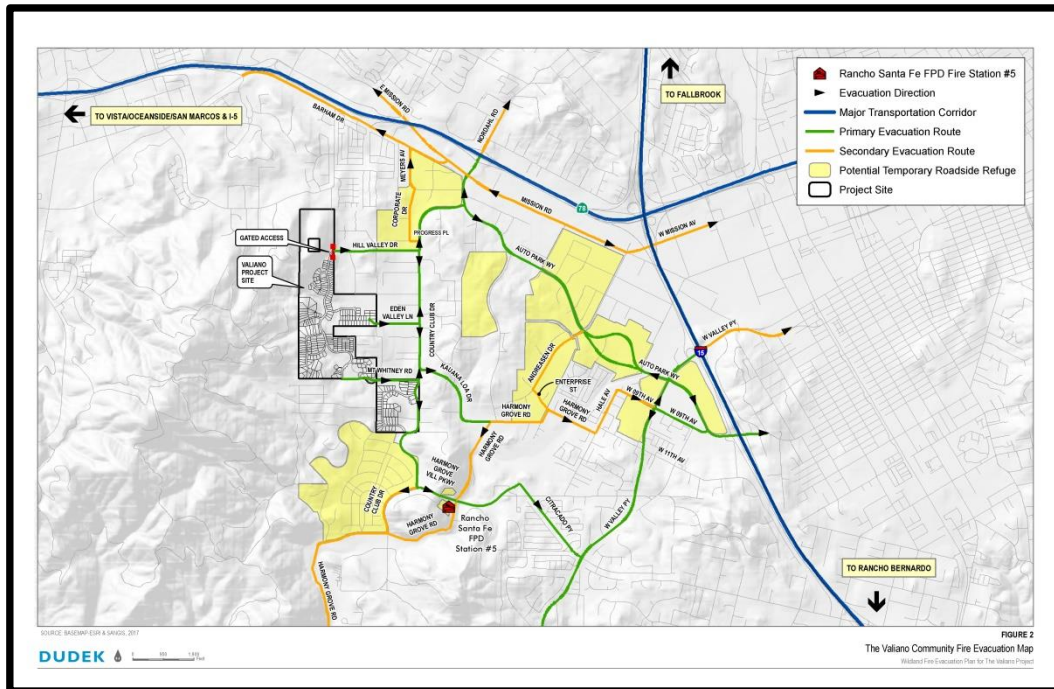


# DRAFT

## Wildland Fire Evacuation Plan for the Valiano Community



Prepared for:

**San Marcos Fire Department**  
San Diego County, California

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**MARCH 2018**



# Draft Wildland Fire Evacuation Plan for the Valiano Community

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## 1 QUICK REFERENCE – WILDLAND FIRE EVACUATION PLAN

**NOTE: Pages 1 through 12 are the focus of the homeowner evacuation educational outreach efforts. These pages will be available on the community's homeowners association (HOA) Website and provided to each homeowner at change of property ownership. The remainder of this evacuation plan provides more detailed analysis and background information intended for review by emergency management agencies, including this plan's consistency with standard San Diego County Office of Emergency Services evacuation planning.**

This Draft Wildland Fire Evacuation Plan clarifies information provided in the Draft Valiano Fire Protection Plan (Firewise 2000, Inc. 2015).

Figure 1 is the Valiano community map and Figure 2 displays the Emergency Evacuation Routes available to the Valiano Community. Figure 2 highlights the community's interior roads along with primary access points and primary roads and major traffic corridors leading to off-site areas.

The available evacuation routes, potential wildfire exposure, and contingency refuge areas along evacuation routes for the residents and guests of the Valiano project are detailed below and in Figure 2. *Residents 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.*

1. **Egress to the north via Country Club Drive** – Country Club Drive is one of the primary Valiano evacuation routes and connects to the north with Auto Park Way/Nordahl Road (one mile north of Eden Valley Lane), which offers travel to the north or to the southeast into Escondido. Numerous options are available to the north including Mission Road and SR-78, which provide travel east or west. Another option available off of Country Club Dr north is Progress Place (0.6 miles north of Eden Valley Lane), an industrial developed area. Corporate Drive intersects Progress Place and provides egress to the north to Barham Drive via Meyers Avenue, which offers travel to the east or west in the vicinity of SR-78. Depending on the type and nature of the evacuation, roughly 50% of the Valiano Community would utilize Country Club Dr. to the north. Specific events may require that up to 100% of the Valiano evacuees to use the north option (this may vary significantly based on the type of evacuation event and law enforcement directives).
  - a. **Country Club Dr North Wildland Fire Exposure Rating: Low.** Exposure along Country Club Dr. is limited to primarily flashy fuels/grass and maintained landscapes. Natural vegetation occurs on two hillsides east of CCD, but terrain is favorable and would facilitate fire spread away from the road and would be short duration.
  - b. **Potential Temporary Roadside Refuge:** Industrial area off Progress Place.

## Draft Wildland Fire Evacuation Plan for the Valiano Community

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2. **Egress to the south via Country Club Drive** – Country Club Drive is one of the primary Valiano evacuation routes and connects to the south with Harmony Grove Road (1.4 miles south of Eden Valley Lane), which offers travel to the west to San Elijo Hills, Carlsbad and the coastal cities or east to West Valley Parkway and the Interstate 15 (2.3 miles from Country Club Dr/Harmony Grove Road to W. Valley Parkway). Depending on the type and nature of the evacuation, roughly 50% of the Valiano Community would utilize Country Club Dr. to the south. Specific events may require that up to 100% of the Valiano evacuees to use the south option (this may vary significantly based on the type of evacuation event and law enforcement directives).
  - a. **Country Club Dr South Wildland Fire Exposure Rating: Low.** Exposure along Country Club Dr. is limited to primarily flashy fuels/grass and maintained landscapes. Natural vegetation occurs on two hillsides east of CCD, but terrain is favorable and would facilitate fire spread away from the road and would be short duration.
  - b. **Potential Temporary Roadside Refuge:** Within the Harmony Grove Community streets, parking lots, common areas.
3. **Egress to the east via Harmony Grove Village Parkway.** Another evacuation option that would be available to Valiano residents that was not available during the Cocos fire, is Harmony Grove Village Parkway, an east-bound road that intersects Country Club Dr. approximately ½ mile north of the Country Club Dr./Harmony Grove Road intersection. This road includes a bridge over Escondido Creek and traverses ¼ mile east before it intersects Harmony Grove Road. After another ½ mile east, the road intersects Citracado Parkway and provides travel to the east/southeast and West Valley Parkway.
  - a. **Harmony Grove Village Parkway Fire Exposure Rating: Low to Moderate.** The road includes exposure to wildland fuels over the bridge and east of the bridge for ¼ mile. This exposure would be limited in extent due to favorable terrain, short burn duration, and wind alignment which places fuels to the south of the road.
  - b. **Potential Temporary Roadside Refuge:** Along the roadway west of the bridge and at the RSFFPD Fire Station; potentially at the large road cut at the east end of this road before it enters urban areas.
4. **Egress to the east via Kauana Loa Drive.** This two-lane road intersects Country Club Drive just north of Mt. Whitney Road. The road travels one mile before intersecting Harmony Grove Road within an Industrial developed area. From there, it offers the option of continuing east toward W. Valley Parkway or north on Andreasen Dr. into urbanized Escondido.
  - a. **Kauana Loa Drive Fire Exposure Rating: Low to Moderate.** Rural landscapes dominate both sides of this evacuation route and the route crosses a vegetated electrical transmission ROW. There is exposure along this route in the form of flashy

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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fuels and some heavier fuels near the end of this road where Harmony Grove Road intersects it. However, exposure is limited in extent and fire duration.

- b. **Potential Temporary Roadside Refuge:** within the industrial area parking lots to the north and south of the road in the Enterprise Street vicinity or the parking lot at Palomar Medical Center on Citracado Parkway or shopping centers along W. Valley Parkway.

These evacuation routes would be available to Valiano and other Harmony Grove/Eden Valley area residents during an evacuation that enabled adequate time where fire was not in the immediate area or encroaching on the roadways. Short notice events, where a fire ignites close to the area may affect evacuation route availability. Each potentially available evacuation route includes varying degrees of potential exposure to wildland fire and therefore, varying likelihood that it may or may not be available in a short-notice evacuation, as noted above. In the event that one or more roads are not considered safe for evacuation, contingency options are available to the Valiano Community.

### **1.1 Nearest Medical Facilities**

#### **Palomar Medical Center (1.5 miles)**

2185 Citracado Parkway  
Escondido, California 92029

##### ***Directions:***

- Country Club Drive (north) to Auto Park Way (east)
- Second right on Citracado Parkway
- Hospital on Right

#### **Tri-City Medical Center (13 miles)**

4002 Vista Way  
Oceanside, California 92056

##### ***Directions:***

- Country Club Drive (north) to Auto Park Way (north)
- Stay straight to go onto Nordahl Road
- Turn left and merge onto SR 78 towards Oceanside
- Right toward College Boulevard

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

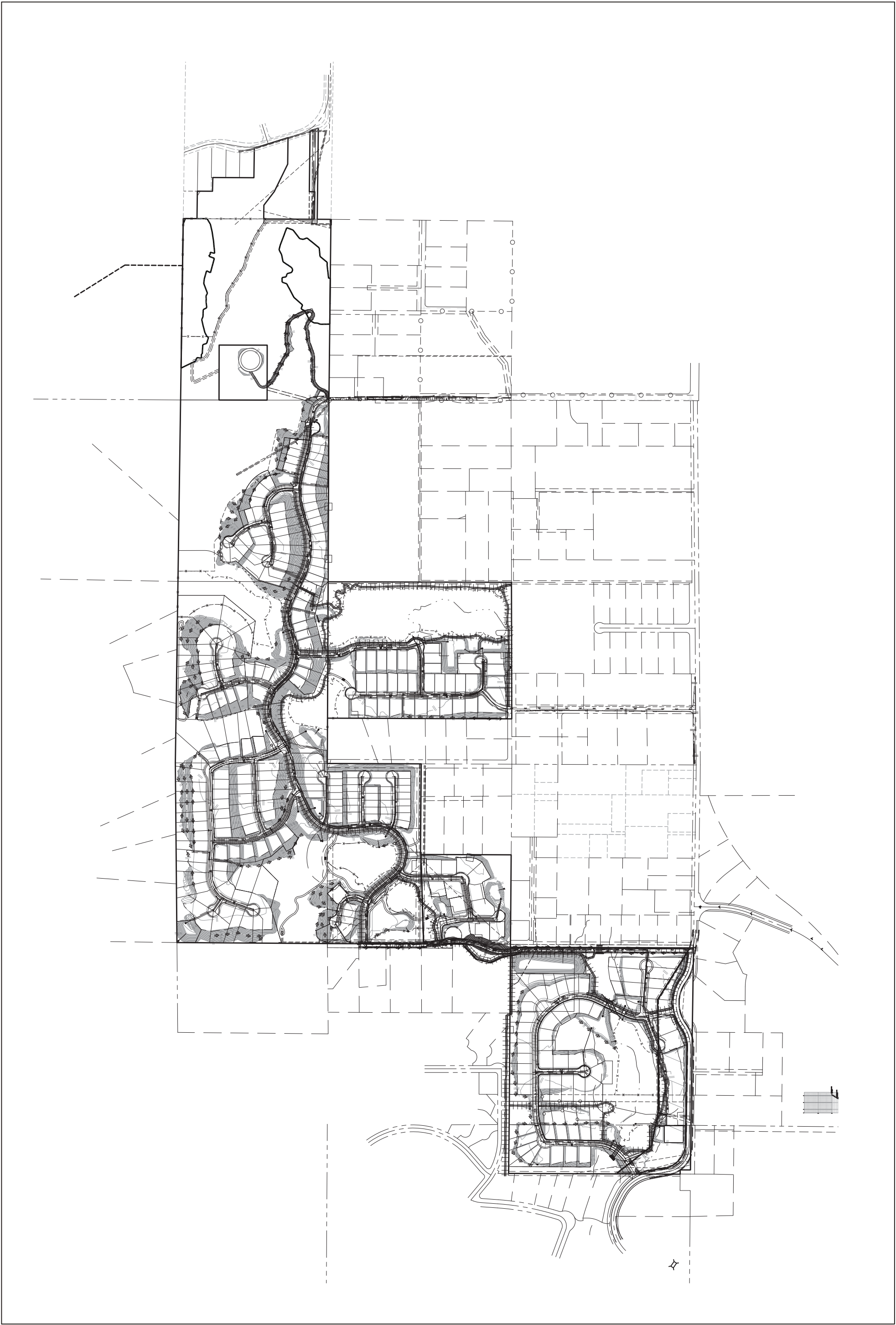
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- Left on Vista Way
- Hospital on Right

### **See also Local Urgent Care facilities, including:**

San Marcos Urgent Care  
295 South Rancho Santa Fe Road  
San Marcos, California 92078

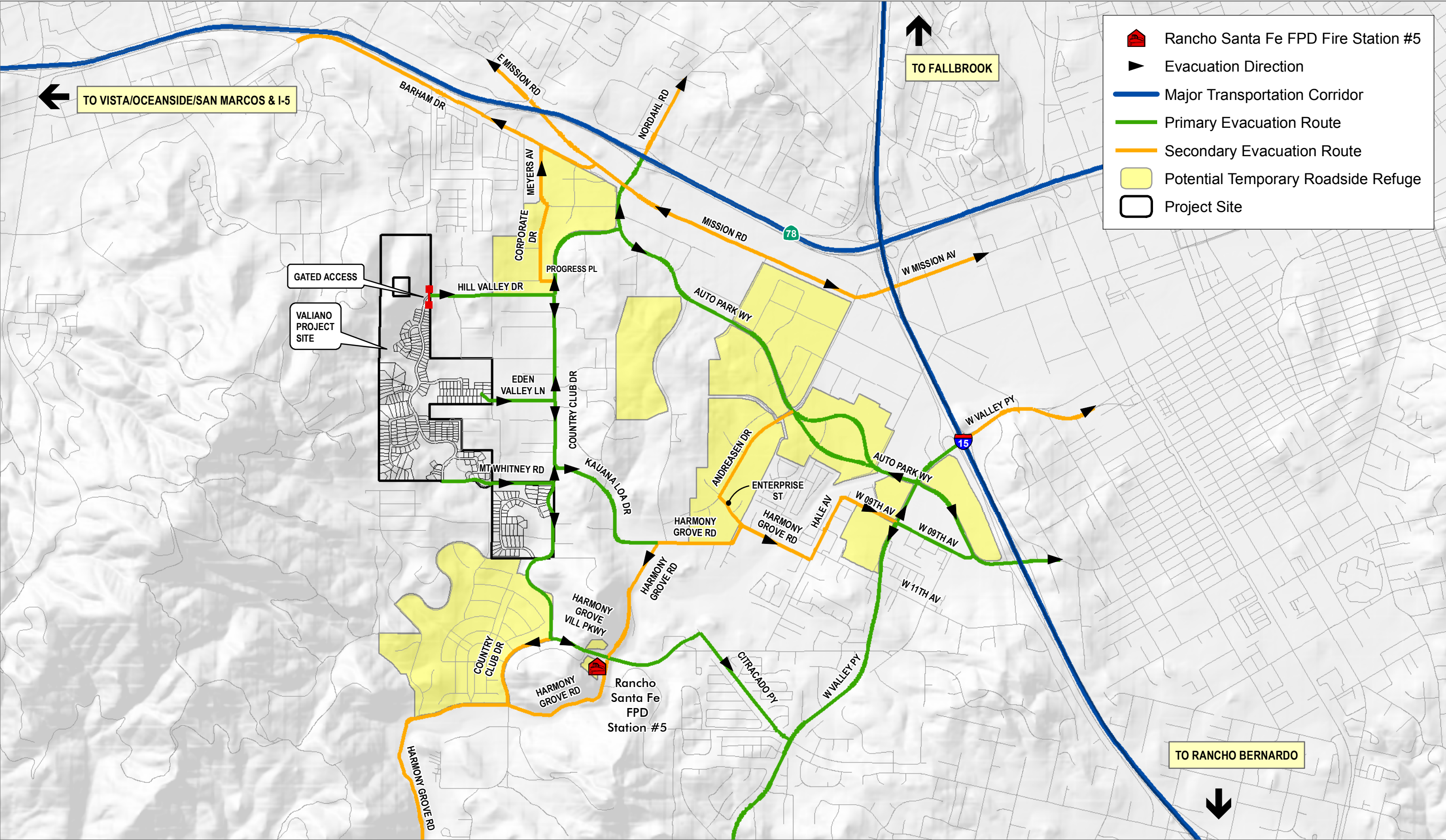
U.S. HealthWorks Medical Group  
860 West Valley Parkway, Suite 150  
Escondido, California 92025



SOURCE: FUSCOE 2018

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SOURCE: BASEMAP-ESRI & SANGIS, 2017

**FIGURE 2**  
The Valiano Community Fire Evacuation Map  
Wildland Fire Evacuation Plan for The Valiano Project

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### **1.2 Register to Receive Emergency Alerts**

The County of San Diego in partnership with Blackboard Connect Inc. utilizes AlertSanDiego for its Community Emergency Notification System. AlertSanDiego 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 proximity of the Valiano Community, the Incident Commander (IC) will contact the San Diego County Sheriff's Office (SDSO). The SDSO's communications center has the responsibility to request activation of the AlertSanDiego system and release an emergency notification to the affected population. Therefore, the Valiano community residents are strongly advised to register their land lines, mobile phone numbers and email addresses with Reverse 9-1-1, AlertSanDiego system (<http://www.readysandiego.org/AlertSanDiego/>) in order to receive emergency evacuation instructions.

The Valiano community is part of the greater San Diego media market and the media outlets will also be a good source of information, via television and radio. Emergency situations are provided coverage and information is disseminated guiding resident response. 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. The City of San Marcos provides residents with wildfire and evacuation information by subscribing to the City's e-alerts and facebook and twitter pages (<http://www.san-marcos.net/Home/Components/News/News/1135/>). Additional news outlets:

- San Marcos TV is another news sources available during an emergency and can be found online ([http://granicus.sandiego.gov/MediaPlayer.php?publish\\_id=1648](http://granicus.sandiego.gov/MediaPlayer.php?publish_id=1648)) or:
- Channel 19 – Cox Communications
- Channel 24 – Time Warner Cable
- Channel 99 – AT&T

### **1.3 Get Involved in Community Readiness**

Valiano residents are encouraged to form a volunteer Neighborhood Emergency Response Team through the Community Emergency Response Team (CERT) program (<http://www.san-marcos.net/departments/public-safety/fire-department/special-programs-services/cert>). In addition, the community HOA will organize annual evacuation public outreach, engage directly with organizations such as Fire Safe Council of San Diego County, as well as maintain a fire safe page on the community Web page, including this Emergency Evacuation Plan and links to important citizen preparedness information.

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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This evacuation plan is prepared specifically for the Valiano Community and focuses on wildland fire evacuations, although many of the concepts and protocols will be applicable to other emergency situations. Ultimately, this plan will be used by the Valiano HOA to educate community residents as to their evacuation approach during wildfires and other similar emergencies. It is important for the Valiano 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 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 familiarity with escape routes out of the area.
  - 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 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 Valiano residents are provided in Appendix A (“Ready, Set, Go!” Individual 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, Go!” Personal Action plan:  
[http://www.readyforwildfire.org/docs/files/File/Ready-Set-Go-Plan-09\\_CALFIRE\\_sm.pdf](http://www.readyforwildfire.org/docs/files/File/Ready-Set-Go-Plan-09_CALFIRE_sm.pdf) or <http://www.readyforwildfire.org/>
2. Red Cross Emergency Planning:  
<http://www.redcross.org/get-help/how-to-prepare-for-emergencies/make-a-plan>
3. Hazardous Materials Emergency Preparedness:  
<https://www.ready.gov/hazardous-materials-incidents>
4. Building a disaster kit:  
<http://www.redcross.org/get-help/prepare-for-emergencies/be-red-cross-ready/get-a-kit>
5. Making a Plan Checklist:  
<https://www.ready.gov/make-a-plan>

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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### 6. Family Communication Plan:

[https://www.fema.gov/media-library-data/1440449346150-1ff18127345615d8b7e1effb4752b668/Family\\_Comm\\_Plan\\_508\\_20150820.pdf](https://www.fema.gov/media-library-data/1440449346150-1ff18127345615d8b7e1effb4752b668/Family_Comm_Plan_508_20150820.pdf)

## **1.4 Evacuation Plan Purpose and Limitations**

Wildfire and other emergencies are often fluid 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 Emergency Evacuation plan is to be considered a tool that supports existing pre-plans and provides for citizens who are familiar with the evacuation protocol, but is subservient to emergency event-specific directives provided by agencies managing the event.

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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# **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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## **2 BACKGROUND**

This Valiano Wildland Fire Evacuation Plan has been prepared based on the City of San Marcos (City) Emergency Operations Procedures, the Unified San Diego County Emergency Services Organization and County of San Diego Operational Area Emergency Operations Plan (EOP) – Evacuation Annex. This plan also incorporates findings from the project’s Draft Fire Protection Plan (Firewise 2000, Inc. 2015), the Harmony Grove Village South Wildfire ‘Risk Analysis (Rohde & Associates 2016) Harmony Grove/Eden Valley Wildland Urban Interface Emergency Response Plan (Rohde & Associates 2016a), and the Coronado Hills Wildland Tactical Pre-Fire Plan (San Marcos Fire Department, No Date).

To establish a framework for implementing well-coordinated evacuations, the County of San Diego Office of Emergency Services (OES) developed an Evacuation Annex Q as part of the Area EOP (San Diego County 2014). 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. San Diego County OES is charged with emergency management and is responsible for maintaining situational awareness of threats that may necessitate a citizen evacuation. OES coordinates with cities during emergency events.

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. The SDSO Department, California Highway Patrol (CHP), and other cooperating law enforcement agencies have primary responsibility for evacuations. These agencies work closely within the Unified Incident Command System, with the County Office of Emergency Services, and responding fire department personnel who assess fire behavior and spread, which should ultimately guide evacuation decisions. To that end, SDSO, City of San Marcos Fire Department (SMFD), Public Works, Planning, Emergency Services Departments, and California Department of Transportation (Caltrans), amongst others, have worked as a part of a County Pre-Fire Mitigation Task Force to address wildland fire evacuation planning for San Diego County.

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. Risk is considered highest when occurring during a

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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short-notice evacuation, and fire encroachment is imminent. This hypothetical scenario highlights the importance of continuing to train responding agencies, model various scenarios, educate the public, and take a very conservative approach to evacuation decision timelines as well as providing contingency plans.

Equally as important, the evacuation procedures should be regularly updated with lessons learned from actual evacuation events, as they were following the 2003, 2007, 2014, 2016, and 2017 San Diego County fires. The authors of this Wildland Fire 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 the Project Area that may impact how evacuation is accomplished. At the time of this plan's preparation, there is no encompassing emergency evacuation plan available for the northern San Diego region. This Valiano Community Wildland Fire Evacuation Plan is consistent with the County's and City's evacuation planning standards and can be integrated into a regional evacuation plan and other pre-plans when and if the area officials and stakeholders ( SMFD, OES, San Diego Sheriff's Department, 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. San Diego 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 public address notifications, and Reverse 9-1-1 or AlertSanDiego.

### **3 SAN DIEGO COUNTY EVACUATION PLANNING SUMMARY**

This Wildland Fire Evacuation Plan incorporates concepts and protocols practiced throughout San Diego County. The San Diego County Evacuation Annex Q (2014) 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.

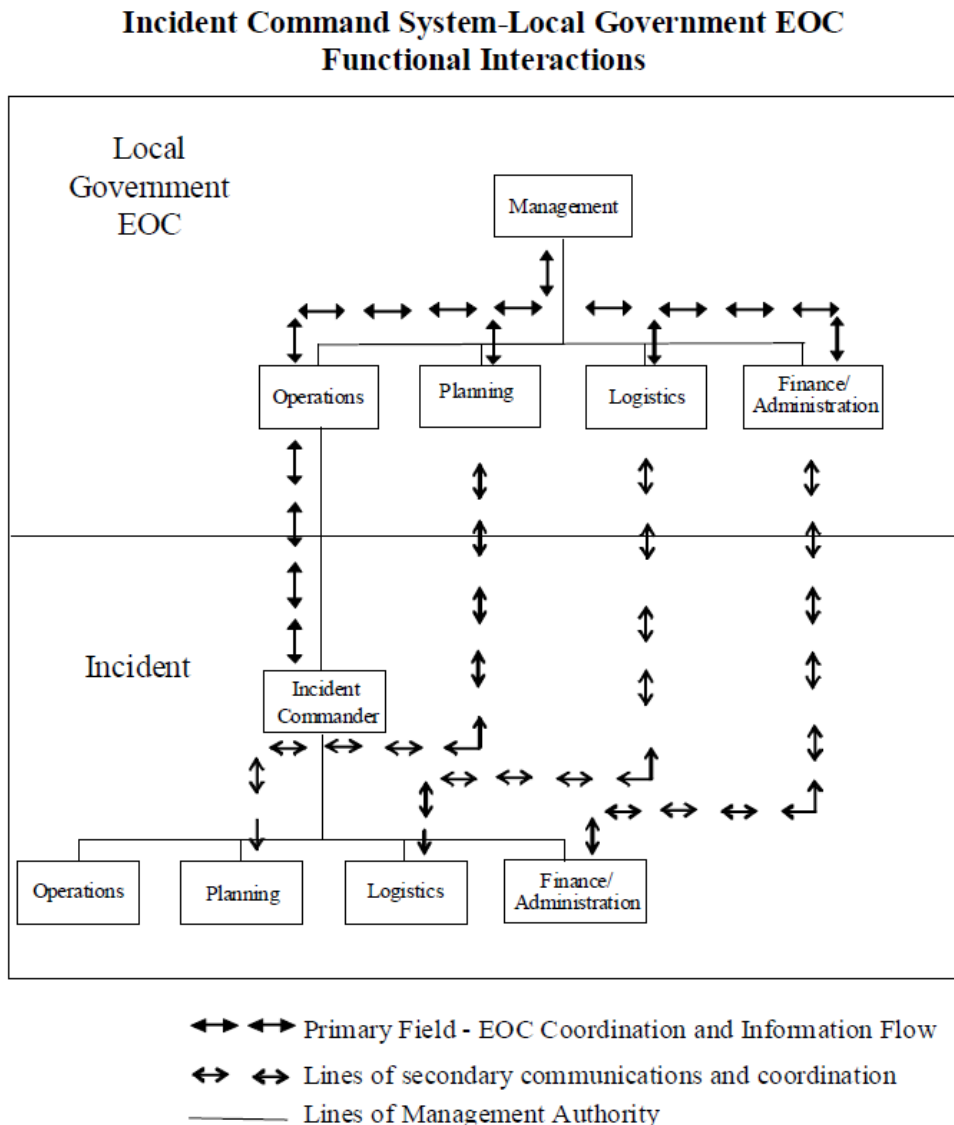
First responders are responsible for determining initial protective actions before EOCs and emergency management personnel have an opportunity to convene and gain situational awareness. Initial protective actions are shared/communicated to local EOCs and necessary support agencies as soon as possible to ensure an effective, coordinated evacuation. Figure 3 summarizes the functional interactions of local government EOC under the Incident Command System.

During an evacuation effort, the designated County Evacuation Coordinator is the Sheriff, who is also the Law Enforcement Coordinator. The Evacuation Coordinator will 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:

- County of San Diego Sheriff's Department
- San Marcos Fire Department and/or: Rancho Santa Fe Fire Protection District (RSFFPD), CAL FIRE, Escondido Fire Department
- County Health and Human Services Agency
- San Diego Humane Society
- Department of Animal Services,
- Department of Planning and Development Services
- Department of Environmental Health
- Department of General Services
- Department of Public Works
- Department of Agriculture, Weights, and Measures
- Department of Parks and Recreation

# Draft Wildland Fire Evacuation Plan for the Valiano Community

Figure 3 Incident Command System-Local Government EOC Functional Interactions



The following general information has been largely taken verbatim from the San Diego County Evacuation Annex and is consistent with the City's Emergency Operations Procedures:

## 3.1 Evacuation Objectives

The overall objectives of emergency evacuation operations and notifications are to:

- Expedite the movement of persons from hazardous areas;



## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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- Institute access control measures to prevent unauthorized persons from entering vacated, or partially vacated areas;
- Provide for evacuation to appropriate transportation points, evacuation points, and shelters;
- Provide adequate means of transportation for persons with disabilities, the elderly, other persons with access and functional needs, and persons without vehicles;
- Provide for the procurement, allocation, and use of necessary transportation and law enforcement resources by means of mutual aid or other agreements;
- Control evacuation traffic;
- 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 re-entry communications to the public through the Joint Information Center (JIC); and
- Assure the safe re-entry of the evacuated persons.

The SDSO is the lead agency for evacuations of the unincorporated areas of San Diego County, including the SMFD and the Valiano project. The SDSO, as part of a Unified Command, assesses and evaluates the need for evacuations, and orders evacuations according to established procedures. Additionally, as part of the Unified Command, the SDSO identifies available and appropriate evacuation routes and coordinate evacuation traffic management with the (Caltrans), the 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 are coordinated, allowing emergency managers and other supporting response organizations to make collaborative decisions.

### **3.2 Evacuation Coordination Process**

1. If the emergency only impacts a local jurisdiction, the decision to evacuate will be made at the local jurisdiction level with regional collaboration considerations.
  - a. 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 scenario 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.

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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- c. Local jurisdictions may activate their Emergency Operations Center (EOC) and conduct evacuations according to procedures outline in their Emergency Operations Plan (EOP).
- d. The EOC may make recommendations on whether a jurisdiction should evacuate and may help coordinate the evacuation effort.
- e. The Evacuation Annex is automatically activated when an incident occurs requiring an evacuation effort that impacts two or more jurisdictions.
- f. The EOC will coordinate with fire, law enforcement, public health, and other relevant support agencies to obtain recommendations on protective actions.
- g. The EOC will coordinate with jurisdictional emergency management personnel and other public safety personnel. The Policy Group within the EOC will coordinate will other officials from jurisdictions within the OA to identify command decisions, including:
  - i. Gaining regional situational awareness
  - ii. Determining response status
  - iii. Reviewing status of initial protective actions
  - iv. Considering additional protective actions
  - v. Evaluating public information needs
  - vi. Determining next steps
  - vii. Establishing a regular time to share updates
- h. The EOC will coordinate emergency public information to citizens in accordance with established procedures.
- i. The EOC may support coordinating the evacuation response according to the EOP, including:
  - i. Providing transportation for those who need assistance
  - ii. Provide support for people with disabilities and other access and functional needs
  - iii. Coordinate and communicate with the private sector, community groups, and faith based organizations to utilize their services and resources available to support the response
  - iv. Providing shelter for evacuees

### **3.3 Evacuation Response Operations**

An evacuation of any area requires significant coordination among numerous public, private, and community/non-profit organizations. Wildfire evacuations will typically allow time for responders to

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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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). Evacuation assistance of specific segments of the population may also not be feasible.

### **3.3.1 Evacuation Points and Shelters**

When the SDSO or IC implements an evacuation order, they coordinate with the responding fire agency (e.g., EFD, SMFD and/or RSFFPD), the EOC, and others to decide on a location to use as a Temporary Evacuation Point (TEP). The SDSO Dispatch Center will utilize the AlertSanDiego system and City will use their social media pages and in the field direction of evacuees to the established TEPs or shelters. These evacuation points will serve as temporary safe zones for evacuees and will provide basic needs such as food, water, and restrooms. These points should be large, well known sites such as shopping centers, libraries, and schools. Possible shelters and assembly areas that can provide at least short-term refuge:

- Mission Hills High School at 1 Mission Hills Court in San Marcos
- Palomar College at 1140 West Mission Road in San Marcos
- HighTech High off of Valley Parkway at Scenic Trail Way
- Del Dios Middle School on 9th Avenue

Other refuge sites are available within urbanized areas of Carlsbad, Escondido, Vista, Oceanside, and developed communities primarily to the north, south, and east of the Valiano community.

If there are residents unable to evacuate and need transportation assistance to get to a TEP or shelter, the OES may establish transportation points to collect and transport people without transportation resources to evacuation points. Transportation should be accessible to all populations, including people with disabilities and other access and functional needs.

### **3.3.2 Animal Evacuations**

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.

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

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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addition, potential volunteer resources and private groups should be identified and tracked in WebEOC. 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. It is imperative that horse and livestock owners who reside in wildland urban interface areas are prepared for wildfire emergencies and have the resources to transport or have their animals transported out of the area during an evacuation, or have contingency options in place.

In most cases, DAS and the OA EOC will coordinate and attempt to co-locate animal shelters with people shelters. Additional Valiano specific animal evacuation information is provided in Section 6.4.2.

### **3.3.3 Shelter-in-Place**

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 2014). 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. Like most new master planned communities incorporating ignition resistant construction, fuel modification zones, and providing defensibility throughout, responding fire and law enforcement personnel will be able to direct residents to temporarily refuge in their homes at the Valiano community, in the event that sheltering is determined to be safer than evacuating.

### 4 VALIANO EVACUATION ROAD NETWORK

Wildfire emergencies that would be most likely to include an evacuation of Valiano would be large wildfires approaching from the south or west. These fires are often wind driven and occur during declared Red Flag Warning periods where low humidity and high winds facilitate fire ignition and spread. If a wildfire ignites within the open space areas west or south of Valiano and is fanned by fire weather conditions, an early evacuation of the area may occur as many as several or more hours prior to actual threatening conditions at the Valiano site. Fires occurring on typical weather days have been very successfully controlled at small sizes due to the slower fire spread and fast response and would not typically trigger a need to evacuate the project.

If a wildfire ignited closer to the Valiano community during weather that facilitates fire spread, where multiple hours are not available for evacuation, a different evacuation approach would need to be explored. Because 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 evacuees are overtaken on roads, it is prudent to consider a contingency option. For example, if a wildfire is anticipated to encroach upon the community in a timeframe that is shorter than would be required to evacuate all residents, then options available to responding fire and law enforcement personnel should include 1) partial relocation where residents in perimeter homes on the west edges are temporarily relocated to internal areas or nearby developed areas, or 2) temporary refuge where residents are instructed to remain in their homes while firefighters perform their structure protection function.

This approach is consistent with San Diego County's (2014) Evacuation approach which states *"Due to the nature of the threats requiring an evacuation, there may be insufficient time to perform an early evacuation of the area and shelter-in-place instructions may need to be provided."* Although not a designated shelter-in-place community, the structures in Valiano include the same level of ignition resistance and landscape maintenance and are defensible against the short duration wildfire exposure anticipated and they are designed to require minimal resources for protection, which enables these contingency options that may not be available to other vicinity communities.

The Valiano roads and adjacent road circulatory system will be consistent with other new communities in their ability to effectively handle average daily trips generated by the project. However, as evidenced by mass evacuations in San Diego County and elsewhere, even with roadways that are designed to the code requirements, it may not be possible, or necessary to move large numbers of persons at the same time. Road infrastructure throughout the United States, and including San Diego County is not designed to accommodate a short-notice, mass evacuation (FEMA 2008). The need for evacuation plans, pre-planning, and tiered or targeted and staggered evacuations becomes very important for improving evacuation effectiveness.

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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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, 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 communities in the area, including Valiano, will offer its residents a high level of fire safety on site (refer to the Valiano Fire Protection Plan prepared by Firewise 2000, Inc. 2015) along with options for firefighter safety zones and temporary on-site refuge as a contingency, as discussed further in this plan.

The Valiano planned community interior road network and the existing regional road system that it interconnects provide multi-directional primary and secondary emergency evacuation routes consistent with, or exceeding, most communities in this area. Consistent with County of San Diego evacuation planning annex (2014), major ground transportation corridors in the area will be used as primary evacuation routes during an evacuation effort. The road systems were evaluated to determine the best routes for fire response equipment and “probable” evacuation routes for relocating people to designated safety areas. The primary roadways that would be used for evacuation from Valiano are Country Club Drive, Harmony Grove Road, Harmony Grove Village Parkway, and Kauana Loa Drive. These roads provide access to urbanized areas and major traffic corridors including indirectly to West Valley Parkway, Auto Park Way, SR-78, and I-15.

During an emergency evacuation from the Valiano community, the primary and secondary roadways may be providing citizen egress while responding emergency vehicles are inbound. Because the roadways are all designed to meet or exceed County of San Diego Consolidated Fire Code or City of San Marcos requirements, with one exception along Hill Valley Road, including 12-foot-wide, unobstructed travel lanes, adequate parking, turning radius, grade maximums, signals at intersections, and roadside fuel modification zones, potential conflicts that could reduce the roadway efficiency are minimized, allowing for smooth evacuations.

The Valiano community’s primary evacuation routes are accessed through a series of internal neighborhood roadways, which connect with the primary ingress/egress roads (Mt. Whitney Road, Eden Valley Lane, and Hill Valley Drive) that intersect off-site primary and major evacuation routes. Based on the existing road network, the community can evacuate to the north (once off site), south, east and/or west depending on the nature of the emergency.

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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There are four primary ingress/egress routes for Valiano along with one additional emergency-only ingress/egress point (Figure 1):

### **Primary Ingress/Egress**

- Primary Route 1: Eden Valley Lane – off Country Club Drive, north-central Project location.
- Primary Route 2: Mt Whitney Road – off Country Club Drive, south-central Project location.
- South Primary Route 3: Unnamed direct access to Country Club Drive in southern development area.
- South Primary Route 4: Unnamed direct access to Country Club Drive in southern development area.

### **Emergency Ingress/Egress**

- Emergency Route 1: Hill Valley Drive - Northern Project location. – Gated access road that would be usable in an emergency, when opened by law enforcement or fire personnel.

Depending on the nature of the emergency requiring evacuation, it is anticipated that the majority of the community traffic would exit the project via Eden Valley Lane or Mt. Whitney (northern or central Valiano) or the two unnamed southerly ingress/egress points in southern Valiano. These are the direct routes out of the community and onto the public Country Club Drive and other down-stream roadways for Valiano. In a typical evacuation that allows several hours or more time (as experienced for most areas during the 2014 Cocos fire), all traffic may be directed to the north or south and east into Escondido and surrounding cities. If less time is available, or one or more potential routes are considered unsafe, fire and law enforcement officials may direct all traffic in one direction and may consider some neighborhoods for temporarily sheltering in their homes.

## **4.1 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 include as many pre-designated transportation routes as possible.

## **4.2 Roadway Capacities and Maximum Evacuation Time Estimate**

### **4.2.1 Roadway Emergency Capacities**

Roadway capacity represents the calculated number of vehicles that can reasonably be accommodated on a road. Roadway capacity is typically measured in vehicles per hour and can

## Draft Wildland Fire Evacuation Plan for the Valiano Community

fluctuate based on the number of available lanes, number of traffic signals, construction activity, accidents, and obstructions as well as positively by traffic control measures.

Each roadway classification has a different capacity based on level of service, with freeways and highways having the highest capacities. Based on traffic engineer estimates (City of San Diego Circulation Element) and using the City's Average Daily Traffic data as the baseline, and a conservative discounting of capacity, roads that would be the most likely available to the Valiano Project's residents and their hourly capacities are presented in Table 1.

**Table 1**  
**Valiano Evacuation Route Roadway and Freeway Estimated Vehicle Capacities**

Roadway	Segment	Estimated Roadway and Freeway Capacity				
		East	West	North	South	Total
Eden Valley Lane	Between Project and Country Club Drive	110	110			220 <sup>1</sup>
Mt. Whitney Road	Between Project and Country Club Drive	110	110			220 <sup>1</sup>
Unnamed Valiano Ingress/Egress 1	Between Project and Country Club Drive	110	110			220 <sup>1</sup>
Unnamed Valiano Ingress/Egress 2	Between Project and Country Club Drive	110	110			220 <sup>1</sup>
Hill Valley Drive	Between Project and Country Club Drive	110	110			220 <sup>1</sup>
Country Club Drive	Between Auto Parkway and Harmony Grove Road			500	500	1,000 <sup>2</sup>
Harmony Grove Road	East and West between San Elijo Hills and West Valley Parkway	500	500			1,000 <sup>3</sup>
Harmony Grove Village Parkway	Between Country Club Drive and Citracado Parkway	500	500			1,000 <sup>3</sup>
Kauana Loa Road	Between Country Club Drive and Harmony Grove Road	400	400			800 <sup>2</sup>
Auto Park Way	North and South of Country Club Drive	870	870			1,740 <sup>2</sup>
West Valley Parkway	Between Citracado Parkway and I-15	1,500	1,500			3,000 <sup>3</sup>
Mission Road	East and West of Nordahl	855	855			1,710 <sup>2</sup>
SR-78	East and West from Nordahl Road	7,200	6,000			13,200 <sup>2</sup>
I-15	North and South from SR-78			12,000	12,000	24,000 <sup>3</sup>

<sup>1</sup> The residential collector roads that are calculated as having lower capacity are assumed to be capable of relocating more than the calculated vehicles per hour during an emergency. For example, two lane collectors such as Eden Valley Lane, Mt. Whitney Road, Hill Valley Drive, and the new ingress/egress roads from the southern Valiano development area are assumed to be capable of flowing at least 8 to 9 vehicles per minute out of the community, or 500 vehicles per hour with traffic controls.

<sup>2</sup> Estimated vehicle traffic per hour estimates are based on Table 6-2 Existing Street Segment Operations (Linscott, Law & Greenspan 2015). The Table provides road capacities, Levels of Service and Average Daily Traffic. The capacity table indicates the daily capacities for Circulation Element roadways. The max capacity is measured based on these numbers. For example, a 4-lane divided road at 34,200 daily capacity, 8,550 capacity per lane per day. Assumes 10% occurs at peak time = 855 per lane per hour = 1,710 hourly max capacity in each direction at Level B service.

<sup>3</sup> Capacities for these roads were estimated by extrapolating road capacity information from a San Diego Road Capacity Guide, as presented in Appendix C.

**Note:** The vehicle capacity estimates utilized for this evacuation plan are based on available information and are discounted for various assumed traffic related slowing. This evacuation plan 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.



## Draft Wildland Fire Evacuation Plan for the Valiano Community

### 4.2.2 Evacuation Time Estimate

Using these averages, the estimated length of time it will take for an area to evacuate can be estimated by dividing the population by the average vehicle occupancy and then dividing by the roadway capacity (Figure 4). Based on Valiano's estimated population of 1,223 persons (3.11 persons per household – US Census Bureau 2016, adjusted to 3.75 for Valiano's second dwelling units), and assuming an average of 2 persons per vehicle, during an evacuation, it is calculated that approximately 612 vehicles could be evacuating in a major incident that required full evacuation of the community. Although this is a conservative estimate and that number may be lower, as many families would likely drive in one vehicle versus in multiple vehicles and depending on the time of day, as many of these vehicles may already be off site, such as if a fire occurred during typical work hours, for example. However, a conservative approach is used for purposes of estimating worst-case evacuation requirements.

Figure 4 Evacuation Time Formula.

$$\text{Evacuation Time} = \frac{\left( \frac{\text{Evacuation Population}}{\text{Average Vehicle Occupancy}} \right)}{\text{Roadway Capacity}}$$

Therefore, the potential amount of time needed to evacuate the Valiano Community, based on the planned roadway improvements, was calculated based on the following factors: 1) the internal roadway capacities, 2) three available egress routes with estimated 60% of vehicles (367) using Country Club Drive north to Auto Park Way, 30% of the vehicles (184) using Country Club Drive south to Harmony Grove Road, and 10% of the vehicles (61) using Kauana Loa Lane to the east, and 3) average off-site roadway capacities. The lowest capacity roadway was given priority and was the determining factor for determining the vehicle capacity and accounting for slower speeds during some evacuations.

Based on these factors and assumptions regarding neighborhood evacuation routes, it is estimated that the potential 367 vehicles anticipated to use Country Club Drive north (average capacity of 500 vehicles/hour out of the area) to Auto Park Way (mean capacity of 1,740 vehicles), to SR 78 , can be evacuated from the site within, conservatively 45 minutes and be out of the area into neighboring urbanized areas within one hour. Simultaneous evacuation of the estimated 184 vehicles via Country Club Drive south (minimum capacity of 500vehicles) to Harmony Grove Road (up to 500 vehicles to the east), to West Valley Parkway (capacity of 1,500 vehicles/hour) would require an estimated 25 minutes to be off site and arrive in urban areas of Escondido within

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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40 minutes. The estimated 61 vehicles using Kauana Loa Lane (capacity of 400 vehicles/hour) to Harmony Grove Village Road (500 vehicle/hour capacity) would require 10 minutes to be off site and an additional 20 minutes to urban areas of Escondido.

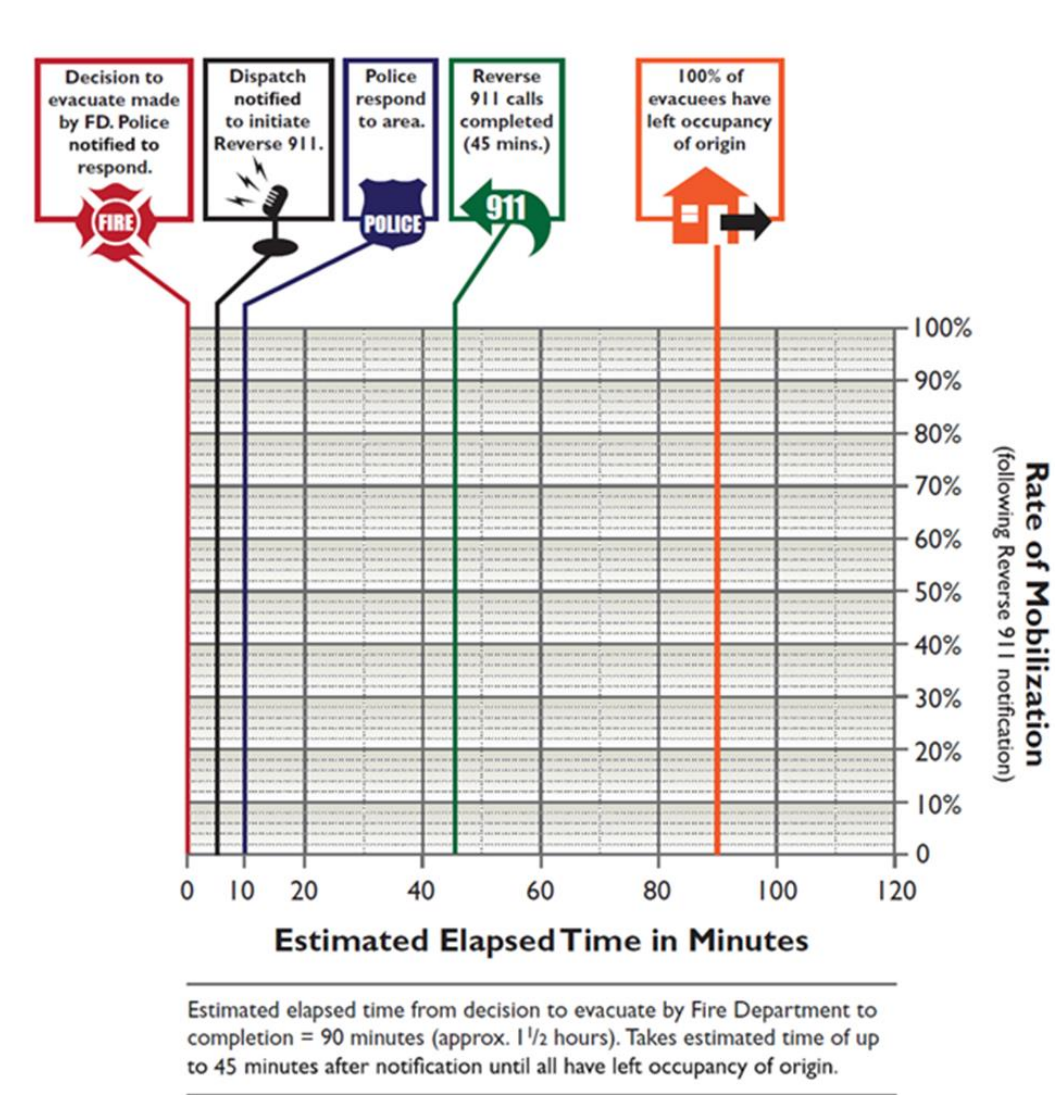
Therefore, it is conservatively estimated that the community can be completely evacuated within approximately one hour travel time. The timeframe may be longer if traffic flow is not maintained, and may be double or more if a region-wide evacuation is declared that does not enable pre-planned traffic management measures. Traffic flow is a priority during evacuation events and phased evacuations are important to reduce the number of vehicles accessing roadways at the same time.

While the capacity of these roadways is adequate to facilitate the evacuation of the total number of vehicles generated by Valiano in an estimated one hour or less travel time, this timeframe also assumes “wheels rolling”, actual travel time and additional time that must be considered in the evacuation process (Figure 5), including:

1. Fire detection and reporting (up to 10 minutes)
2. Dispatch and fire response (up to 10 minutes)
3. Evacuation decision (10 minutes or more)
4. Message to dispatch (5 minutes)
5. Evacuation message dissemination (up to 45 minutes)
6. Residents receive evacuation message and gather personal items, pets (if able) and begin evacuation travel (45 minutes)
7. Contingency time to allow for shadow evacuees, special needs population, unforeseen congestion or blockages (30 minutes)

## Draft Wildland Fire Evacuation Plan for the Valiano Community

Figure 5 Evacuation Component Time Frame Estimates



Total minimum time that may be needed for a Valiano evacuation from initial evacuation notification until the last person is out of harm's way is up to 2.25 hours, with variation on the size of the evacuation and the minutes required for each step.

### 4.2.2.1 Evacuation Time Discussion

Evacuation time of 45 minutes for all residents to be out of the project is considered average for this type of community and is aided by the multiple ingress/egress points and the major road improvements to existing roads that would occur with the project. The time of up to 2.25 hours for all residents to be out of the area and in urban areas of neighboring cities is also average. This evacuation timeframe would be accommodated during distant wildfires where advance notice

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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allows appropriate evacuation order timing/phasing. Wildfires originating closer to the community could allow significantly less time for evacuation than would be required and could make one or more evacuation route not usable. Valiano offers decision makers with contingency options, including evacuating or relocating a portion of the community (much lower number of vehicles and faster evacuation time, proportional to the vehicle total being relocated), or not evacuating any of the residents if it is safer to shelter on site.

### **4.2.2.2 Potential Project Impacts on Existing Resident Evacuation**

The Valiano project could add up to 612 vehicles to some evacuation scenarios. This could affect evacuation times, resulting in longer timeframes for residents using Country Club Drive and the other roads along identified evacuation routes. However, as discussed, Valiano offers options that do not require the community to evacuate in every emergency scenario. When a fire ignites in the area, and there are multiple hours available for evacuation, then it is likely that incident managers will evacuate Harmony Grove residents, including Valiano. However, if there are not multiple hours available, then certain communities within Harmony Grove, those that are built and maintained to highly ignition resistant standards, may not be evacuated. If conditions are such that evacuating is considered more dangerous than sheltering in protected homes, then decision makers will have the option of focusing evacuations on those residents who are at higher risk due to their property's higher hazard rating. This available option mitigates potential impacts on existing resident evacuations.

Long evacuation times experienced during the Cocos fire are partially mitigated by the improved evacuation routes in the area. Cocos Fire evacuation included traffic congestion and reported delays of an hour to two hours. Since that fire, enhancements in the area have been made that would improve the ability of evacuees to leave the area, primarily the extension of Harmony Grove Village Parkway, and a bridge leading to Citracado Parkway and the Harmony Grove Village road network. Also, a Rancho Santa Fe Fire Protection District fire station is operational, reducing response times and providing an area presence for emergency evacuation declarations. Evacuation delays have been assumed in this evacuation plan and contingency options have been detailed.

Additional mitigation is provided by Harmony Grove Village, which offer contingency sheltering for residents and evacuation shelter for existing residents who may utilize these communities as a safer option than continuing an evacuation out of Harmony Grove in a short-notice scenario.

### **4.2.2.4 Future Harmony Grove Evacuation Scenario**

Future development within the Harmony Grove area will include the build out of Harmony Grove Village and potentially, other projects that would add a substantial number of potential

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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evacuating residents and their vehicles to the area. The additional evacuation traffic could result in longer evacuation times from the area to urbanized areas of neighboring cities. However, the conversion of large areas of Harmony Grove from undeveloped, vegetated landscapes to ignition resistant residential communities has a positive impact in that fuels are removed and continuity is interrupted. This results in altered fire behavior and over time, the acreage burned by wildfires within the area will decline as urban landscapes are not as susceptible to fire ignition and spread.

Countering the potentially longer evacuation times resulting from a large number of added vehicles in the area, the development of Harmony Grove and other larger projects offers the potential for minimizing evacuation impacts if it is considered safer to shelter on site. This would result in a reduction in the number of evacuating vehicles and the time needed to leave the area. Also, the larger developments, including portions of Valiano, offer contingency refuge to evacuees from older neighborhoods should an evacuation become dangerous. Evacuees would have the ability to drive into one of the larger communities and seek temporary refuge in their vehicles, surrounded by ignition resistant landscapes.

However, greater emphasis on both resident and emergency response agency preparedness and pre-planning, along with a commitment to traffic control, phased evacuations, and as a contingency option, utilizing on-site sheltering for communities equipped for this evacuation alternative, are considered to have a significant positive impact on evacuation success.

### **4.3 Evacuation Triggers**

As identified in this evacuation plan, in case of wildfire, the preferred plan is early evacuation following the principles of “Ready, Set, Go”. The Valiano and its structures will be designed and constructed to withstand significant wildfire. Nevertheless, a conservative approach to evacuations off site and out of the area are planned. As indicated in the 2003, 2007, 2014, 2016, and 2017 fires in San Diego County, along with numerous other large wildfires in southern California over the last decade, early notification and evacuation of residents is an effective means of limiting loss of life. Evacuation planning for wildfires in the Harmony Grove area is incident based, but uses Reverse 911 evacuation zones, incident pre-plans, and is executed by law enforcement and emergency operations agencies. Evacuations of specific areas are based on fire behavior (spread rates), area vulnerability, and road conditions.

The status of evacuation decision making, i.e., trigger thresholds, methods, and management has been fine-tuned over the last decade from real-world implementation and evaluation of successes and failures. It is reasonable to assume, based on past examples, that the wildfire evacuation triggers in San Diego County are conservative in nature and would typically enable evacuation of threatened areas well before a fire encroaches. However, this evacuation plan provides a

## Draft Wildland Fire Evacuation Plan for the Valiano Community

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contingency plan for the rare event that there is not enough time for an off-site evacuation. This contingency plan is discussed in greater detail in the following sections.

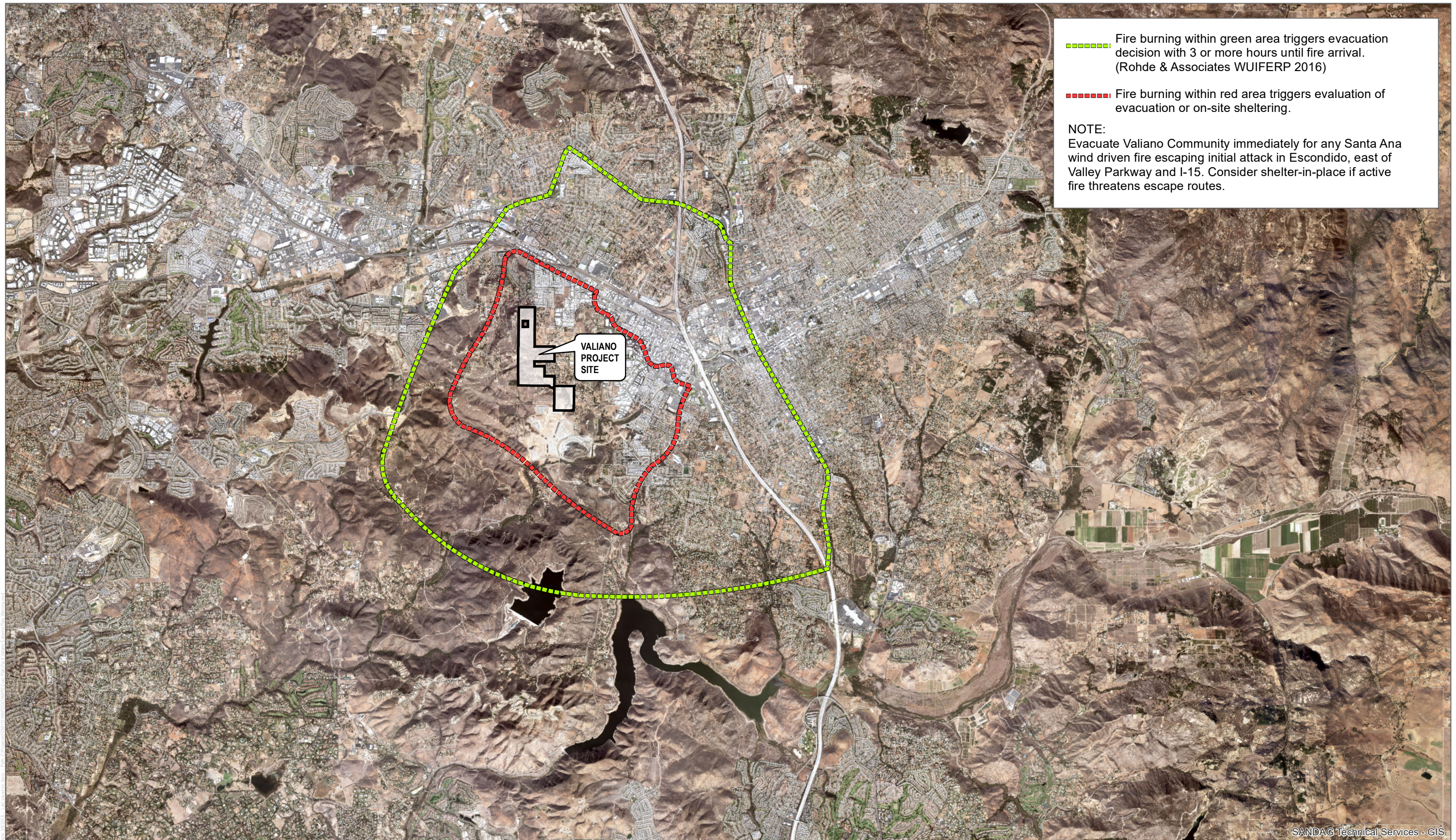
### 4.3.1 Evacuation Trigger Thresholds

Based on Dudek's review of fire behavior, fire spread rates, fire progression and spotting occurrence during the Cocos Fire and confirmed by available fire behavior modeling, and given the estimated timing required to evacuate Valiano, the recommended trigger for evacuation is:

1. **Red Flag Warning Period** (low humidity and high wind): whenever there is an "active wildfire" burning to the eastsouth, or west of Valiano, inside the "GREEN" threshold perimeter on Figure 6, or when ordered to evacuate by fire or law officials, whichever occurs first, the Valiano Community will be considered for evacuation by Incident managers. If fire burns into the area bounded by the "RED" threshold perimeter on Figure 6, evacuations will be re-evaluated and may include a decision to cease evacuations if already occurring in favor of temporary sheltering in site structures. *NOTE: Green perimeter is 1.2 to 2.7 miles from project site and based on Cocos Fire progression and Fire Modeling (Rohde & Associates 2016a), enables up to several hours until fire arrival at Valiano.*
2. **Non-Red Flag Warning Period** (higher humidity and typical winds): whenever there is an active wildfire burning within the "GREEN" threshold perimeter on Figure 7, or when ordered to evacuate by fire or law enforcement officials, the Valiano Community will be considered for evacuation by Incident managers. If fire burns into the area bounded by the "RED" threshold perimeter on Figure 7, evacuations will be re-evaluated and may include a decision to cease evacuations if already occurring in favor of temporary sheltering in site structures. *NOTE: Green perimeter is 1.8 to 3 miles from project site and based on fire behavior modeling (Rohde & Associates 2016a), enables up to several hours until fire arrival at Valiano.*

Winds associated with extreme weather can carry airborne embers miles ahead of the active fire front, igniting new fires that exponentially accelerate the fire spread rate and proportionally cut down the available time for evacuation. Conversely, fires occurring during the low fire season, when fuel moisture is higher and it is less likely to experience Santa Ana conditions, wildfires are less frequent and typically burn fewer acres (CAL FIRE 2013). The trigger thresholds provided are based on fire progression of the 2014 Cocos Fire as well as the forecast fire modeling conducted by Rohde & Associates (2016) and presented in Figures 8 and 9.



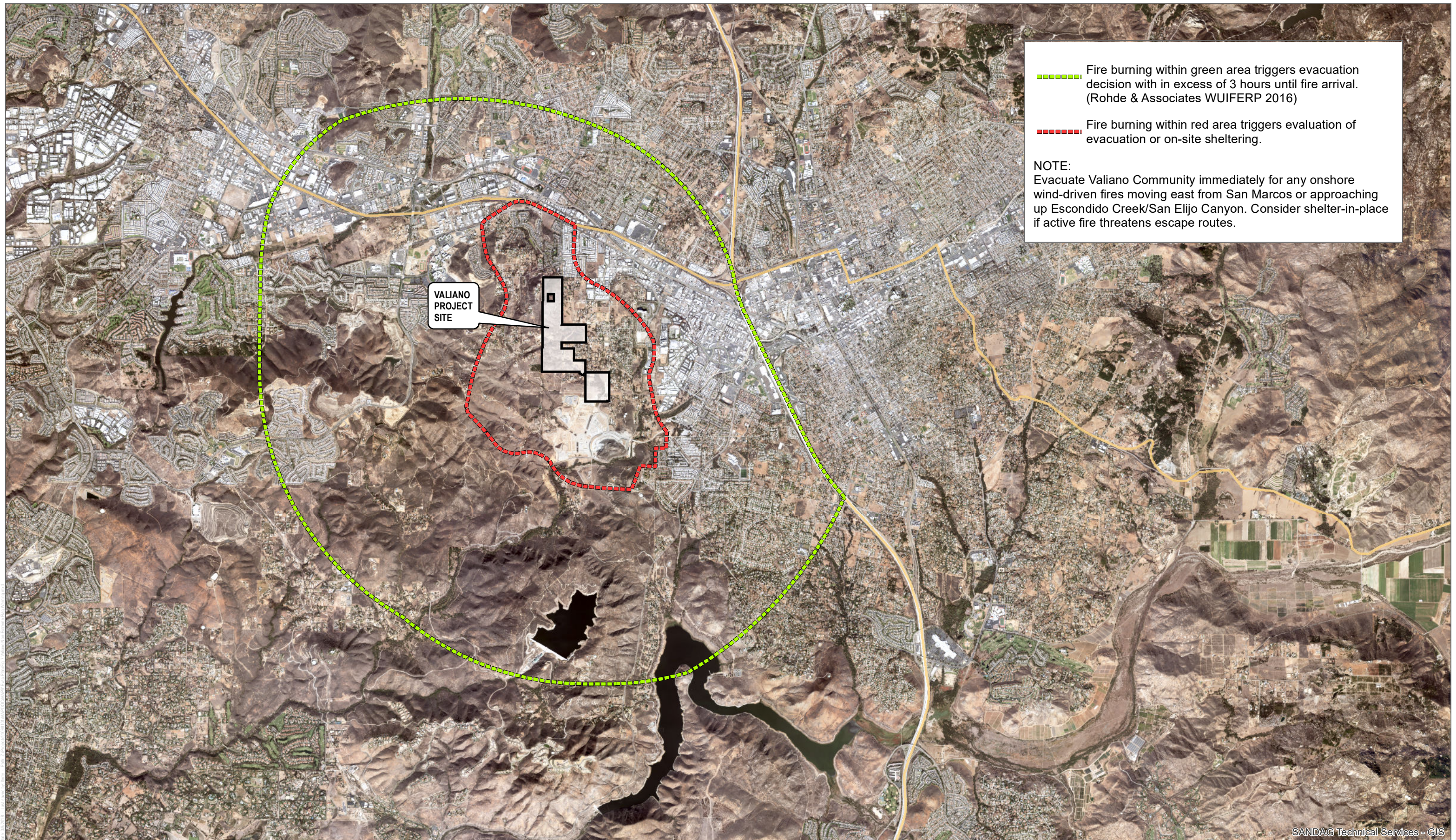


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**FIGURE 7**

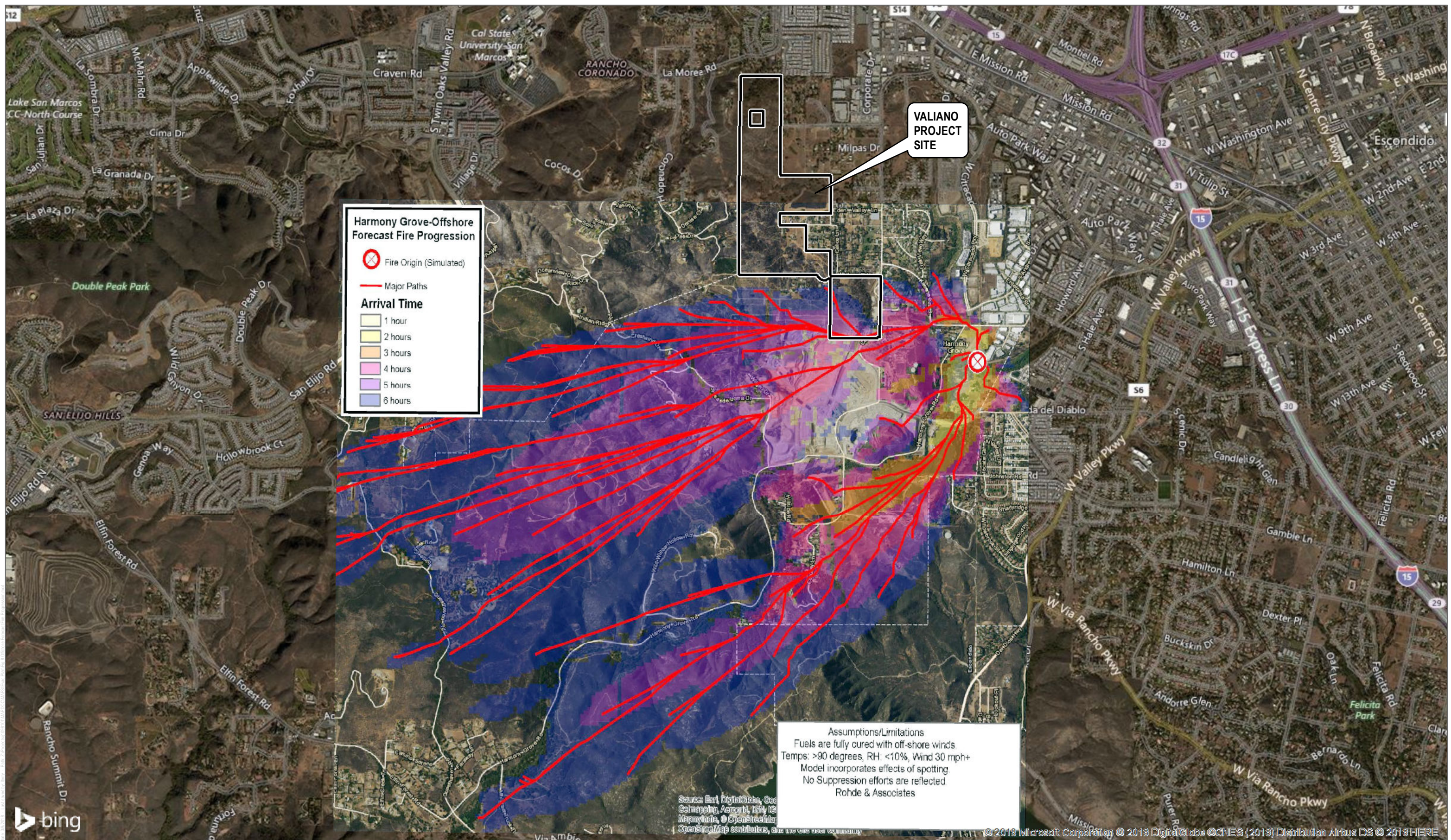
Non-Extreme Fire Weather Potential Evacuation Decision Trigger Threshold

Wildland Fire Evacuation Plan for The Valiano Project



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SOURCE: Rohde & Associates WUIFERP 2016

**FIGURE 8**

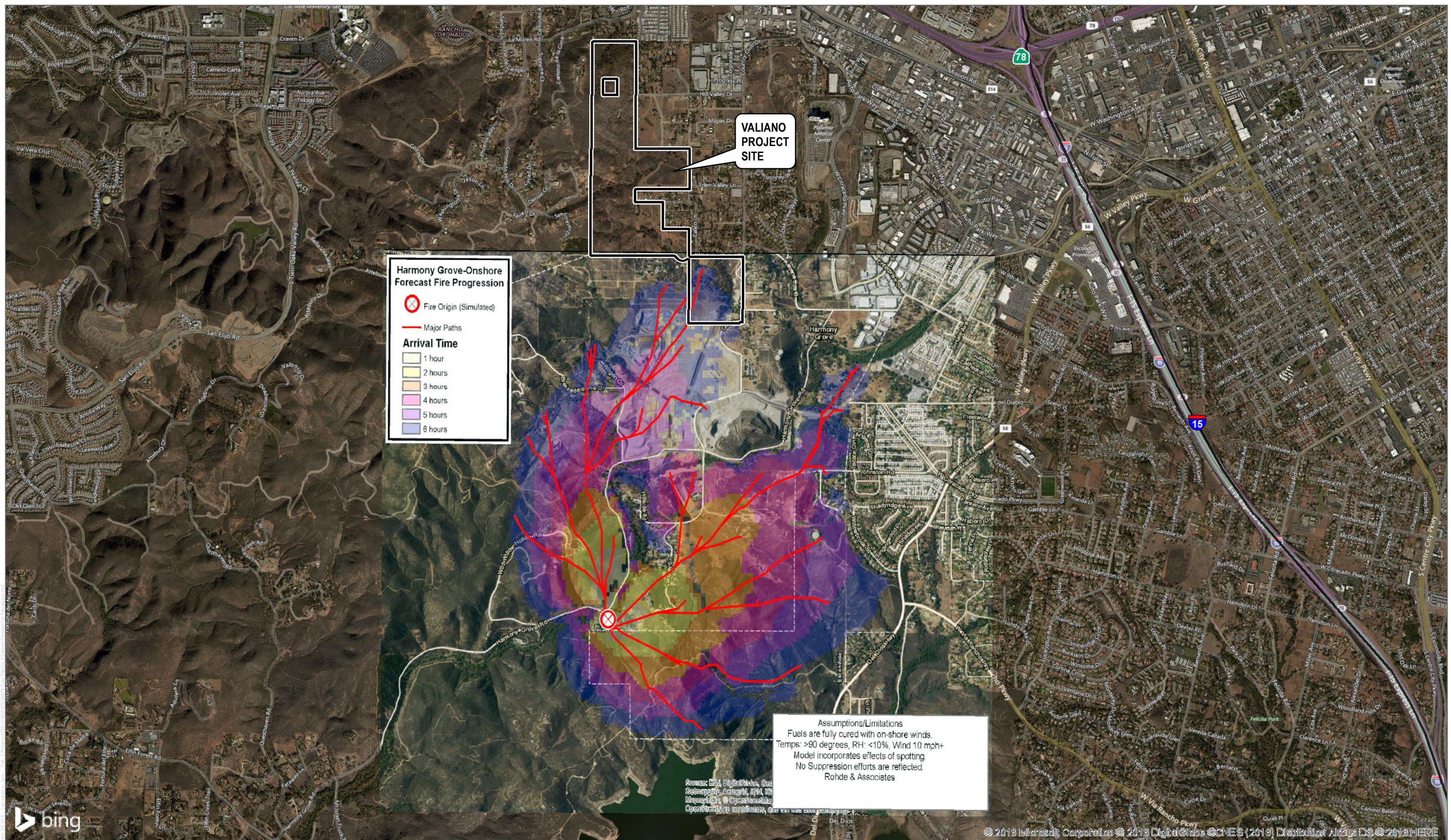
Harmony Grove Offshore Forecast Fire Progression

Wildland Fire Evacuation Plan for The Valiano Project



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SOURCE: Rohde & Associates WUIFERP 2016



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### **5 VALIANO RESIDENT FIRE/EVACUATION AWARENESS**

The Valiano Community HOA will be active in its outreach to 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 in order 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 Valiano HOA will engage residents and SMFD through a variety of methods.

This emergency evacuation plan will be provided to each homeowner/HOA member as well as being accessible on the HOA Website. Annual reminder notices will be provided to each homeowner encouraging them to review the plan and be familiar with community evacuation protocols. The HOA will coordinate with SMFD to hold an annual fire safety and evacuation preparedness informational meeting. Representatives of SMFD will be invited to attend and important fire and evacuation information 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!" evacuation plan. The "Ready, Set, Go!" program is defined at: [http://www.readysandiego.org/Resources/wildfire\\_preparedness\\_guide.pdf](http://www.readysandiego.org/Resources/wildfire_preparedness_guide.pdf) and information about preparing an individual Action Plan is provided in Appendix A.

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 insure 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 clearing brush away from your home as detailed in the Valiano FPP (Firewise 2000, Inc. 2015). 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 9-1-1 and AlertSanDiego 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 the Valiano community, pack your vehicle with your emergency items. Stay aware of the latest news from local media, County of San Diego (<http://www.sdcountyemergency.com/updates/>), and SMFD for updated information on the fire. If you are uncomfortable, leave the area.

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**“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 Valiano Wildland Fire Evacuation Plan provides key information that can be integrated into the individual Action Plans, including the best available routes for them 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 9-1-1. The San Diego OES operates the reverse 9-1-1 notification system that provides a recorded message over land line telephone systems relating to evacuation notices. In addition, the (OES) operates a program known as “AlertSanDiego” 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 “AlertSanDiego”. The registration of cell phones can be done on line at [www.ReadySanDiego.com](http://www.ReadySanDiego.com). The Valiano HOA will strongly encourage all residents to register telephone numbers.

As part of the Valiano resident fire awareness and evacuation readiness program, information will be delivered in a variety of methods. The HOA will be responsible to provide and distribute to each homeowner a complete copy of the project’s Fire Protection Plan and this Wildland Fire Evacuation Plan, including materials from the READY! SET! GO! Program. The HOA is also responsible for insuring the distribution of copies of the aforementioned materials to those individuals that purchase properties for re-sales and to the management of non-residential properties. Management of the commercial properties will be responsible for the dissemination of the Evacuation Plan information to their employees.

As part of the approval of this project, it shall be binding on the HOA to actively participate as a partner with the SMFD to assist with the coordination and distribution of fire safety information they develop.



## **6 VALIANO EVACUATION PROCEDURES**

### **6.1 Relocation/Evacuation**

It is estimated that the minimum amount of time needed to move the Valiano population to urbanized and/or designated evacuation areas may require up to 2.25 hours under varying constraints that may occur during an evacuation. This includes additional allowances for the time needed to detect and report a fire, for law enforcement and fire response and on-site intelligence, for phone, patrols, and aerial based notifications, and for notifying special needs citizens (Figure 5).

Wolshon and Marchive (2007) simulated traffic flow conditions in the wildland urban interface (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. In some emergencies, more lead time will be possible while in others, it will not. Traffic controls may be possible with longer lead times, but may be limited to controlling some intersections during short notice events.

Wildfire emergency response procedures will vary depending on the type of wildfire and the available time in which decision makers (IC, SMFD, SDSO, and/or County Office of Emergency Management) can assess the situation and determine the best course of action. Based on the community, its road network, and the related fire environment, the primary type of evacuation envisioned is an orderly, pre-planned evacuation process where people are evacuated from the Valiano community to urban areas further from an encroaching wildfire (likely to urban areas north, east, or southeast) 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. This threshold must include time allowances for unforeseen, but possible, events that could slow the evacuation process.

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. Conditions may become so poor, that the vehicle drives off the road or crashes into another vehicle, and flames and heat overcome the occupants. This scenario occurred in San Diego County during the 2003 Cedar Fire and in the 2017 northern California wildfires. This type of evacuation must be considered a very undesirable situation by law and fire officials in all

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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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).

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, such as those at Valiano. 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 large wildfires, 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 buffers. These buffers are often hard or soft lines on a map and 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 County OES would jointly enact evacuations based on fire behavior.

### **6.2 Valiano Community Evacuation Baseline**

For purposes of this Wildland Fire Evacuation Plan, the first and most logical choice for all of the residents and guests within the boundaries of the Valiano community is to adhere to the principals and practices of the “READY! SET! GO!” Program previously mentioned in this document. As part of this program, it is imperative 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 Valiano HOA and the SMFD. In addition, it is imperative that the “READY! SET! GO!” information be reviewed on a routine basis along with the accompanying maps illustrating evacuation routes, temporary evacuation points and pre-identified safety zones. It must be kept in mind that conditions may arise that will dictate a different evacuation route than the roads used on a daily basis.

Residents are urged to follow the directions of emergency notices and personnel and 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, Valiano residents will

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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proceed according to known available routes away from the encroaching fire as detailed in Section 1 of this plan. Residents are cautioned not to rely on navigation apps which may inadvertently lead them toward an oncoming fire. Depending on the type of emergency and the resulting evacuation, it could take as long as 2.25 hours to complete a Valiano community-wide evacuation, based on road capacities and double that or longer if a Harmony Grove-wide evacuation is declared without a phased approach.

**Note:** This evacuation plan should be updated periodically, (suggested every 5 years) to review changing conditions in the Harmony Grove area and to refine evacuation options, routes, and contingencies as the landscape and road system develops over time.

### **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 for Valiano 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 Valiano include:

- Fires that prevent safe passage along planned evacuation routes (particularly for Harmony Grove Road, portions of Harmony Village Parkway and portions of Kauana Loa Lane)
- Inadequate time to safely evacuate
- Fire evacuations during peak traffic conditions 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 SDSO and SMFD conduct concerted pre-planning efforts focusing on evacuation contingency planning for civilian populations when it is considered safer to temporarily seek a safer refuge than evacuation.

#### **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

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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 Zone and Escape routes:

*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. For example, considering worst case 23-foot-tall flame lengths in treated fuels that may be possible adjacent this site (Firewise 2000, Inc. 2015), then a 92-foot separation would be required, and potentially

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more if there were site-specific features that would result in more aggressive fire behavior. This setback would be provided on all streets within the Valiano developed areas.

If one considers the ignition resistant and maintained landscaping within each of the Valiano neighborhoods, along with the adjacent up to 150 feet wide fuel modification zones and Chapter 7A of California Building Code compliant structures. The Valiano interior roads and neighborhoods would provide Safety Zones available to responding firefighters. The Valiano neighborhoods as Safety Zones can be part of SMFD's and County's pre-planning efforts, although during a fire, the identified safety zones may not be feasible due to distance, location, fire behavior, etc.

Identification of potential safety zones will require additional focused study by SMFD 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, California Department of Forestry and Fire Protection (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 (TRA), 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 (fire resistant tent) 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 fire engine, amongst others. Differences between a TRA and a Safety Zone is that TRA's 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.

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TRAs are pre-planned areas (planned shortly after firefighters arrive on scene) where firefighters may take refuge and temporary shelter for short-term thermal relief, without using a fire shelter in the event that escape routes to an established safety zone are compromised. 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 Valiano community, TRAs would likely include navigating into any of the neighborhoods where up to 150-foot-wide fuel modification zones provide defensible space and maintained landscapes are provided, along with ignition resistant residences and wide roads that offer numerous opportunities for TRA.

The entire developed portions of the Valiano neighborhoods, but especially the interior areas of neighborhoods, 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 site's residences that can be considered for TRA include the following features:

- Ignition Resistant Construction
- up to 150-foot wide Fuel Modification Zone around perimeter of project
- Wide roadways with fire hydrants
- Maintained landscapes and roadside fuel modification
- Ember resistant vents
- Interior fire sprinklers

Because there is the possibility that evacuation of the project may be less safe than temporarily refuging on site, such as during a fast-moving, wind or slope driven fire that ignites off of Harmony Grove Road or in the foothills west of the site, including temporary refuge within residences or elsewhere on site is considered a contingency plan for Valiano. 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. 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 County and by SMFD. Evacuation has been the standard term used for emergency movement of people and implies imminent or threatening danger. The term in this Wildland Fire 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 Valiano project. Further, in all but the rarest circumstances, evacuees will be receiving information from credible sources during an evacuation. Further, 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 understated 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 Valiano include the hearing or visually impaired, foreign speaking, visitors passing through the area, temporary visitors such as day workers, and the non-ambulatory confined to residences either temporarily or permanently.

Tourists and temporary visitors may not have knowledge of the area’s fire hazard, they may not know how to react in a fire emergency, and they may not understand what they are being told to

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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do. Conversely, this segment of the population would typically be easier to evacuate quickly as they have no possession or pets that they would need to prepare. They can get in their cars and be directed out of the area.

The reasons why special needs populations may fail to respond to warnings to take protective actions is that they may require special transportation while others require different types of warnings or technologies to receive a warning. Some groups must rely on care-givers to hear the warning and respond.

### **Valiano Community Approach:**

The Valiano community will provide information to residents regarding notifying SMFD, County OES and Health and Human Services of special needs residents so that accommodations for their notification (Accessible AlertSanDiego, CERT programs, or other), transportation or other special requirements can be provided during an emergency evacuation. Visitors and guests to the Valiano will be advised of their options during an emergency by law enforcement or fire officials, residents whom they are visiting, commercial vendor staff, or HOA representatives, as appropriate.

### **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 Valiano project may include a small number of horse owners. Household pets will be a common occurrence.

### **The Valiano Community Approach**

- Develop a strong outreach program for pet or equestrian owners so they understand their responsibilities and that they will not likely be allowed re-entry once evacuated.
- Require horse owners to be responsible for providing appropriate shelter for their animals and for arranging for their evacuation.
- It is advised that barns/stalls are constructed to the same ignition resistance levels as Valiano structures and provided fuel modification such that they are able to withstand a short duration exposure to wildfire.



## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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- It is also advised that any Valiano horse owner must own and keep in a functional condition an adequately sized horse trailer and a means to pull the trailer out of the area. Horses should be comfortable being loaded onto a trailer.
- Develop a registration for owners of animals who cannot evacuate them without assistance so that volunteer organizations or individuals, can provide resources.

### **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.

Re-entry 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 re-entry 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 re-entry procedures.

The Incident Commander will designate a Re-Entry Coordinator and the Operations Section Chief of the OA EOC will coordinate with and support the re-entry coordinator. The Re-Entry Coordinator is responsible for coordinating the re-entry procedures with all involved agencies and ensuring effective communication. Priorities for re-entry include:

The impacted areas must be thoroughly investigated to ensure it is safe for residents to return and normal operations have been restored. This assessment will include verification that:

The public will be notified of the re-entry status through the notification measures previously mentioned in this annex, including [www.SDCountyEmergency.com](http://www.SDCountyEmergency.com), 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.

Once evacuees are permitted to return, it is important that procedures are established to properly identify residents and critical support personnel, as well as ensure the legitimacy of contractors, insurance adjusters, and other personnel. Re-entry points should be staffed by law enforcement personnel.

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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### **7 LIMITATIONS**

This Wildland Fire Evacuation Plan has been developed based on wildfire and evacuation standards and the San Diego County Evacuation Annex Q (San Diego County 2014) and is specifically intended as a guide for evacuations for the Valiano Community. This plan provides basic evacuation information that will familiarize Valiano residents 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, this plan shall be subservient to real-time law enforcement and fire personnel/ agencies' decision making and direction during an emergency requiring evacuation.

This Evacuation Plan promotes the “Ready, Set, Go!” model, adopted by County OES, 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, training drills, and visitor education, and evacuation planning efforts. The Valiano 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, considering proposed evacuation trigger thresholds, 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 with short notice and make evacuation from the project ill advised, a contingency plan for residents is available. This contingency would include moving people to pre-designated temporary refuge areas, including possibly within Valiano residences and other structures, until it is safe to evacuate or the threat has been mitigated.

Ultimately, it is the intent of this Evacuation Plan to guide the implementation of evacuation procedure recommendations such that the process of evacuating people from the Valiano project is facilitated in an efficient manner and according to a pre-defined evacuation protocol as well as providing a contingency option of temporarily refuting, if evacuation is considered less safe.

The Valiano residents will be aware of and familiar with this evacuation plan as the HOA will post it on its Website and 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.

## **Draft Wildland Fire Evacuation Plan for the Valiano Community**

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During extreme fire weather conditions, there are no guarantees that a given structure will not burn or that evacuations will be successful all of the time. Wildfires may occur in the area that could damage property or harm persons. However, successful implementation of the recommendations outlined in this Evacuation Plan will provide for an informed populace regarding evacuations. The Valiano community is designed specifically to be resistant to wildfire ignition and perform as a fire adapted project, offering fire and law officials with additional options for resident safety than are available from less defensible communities.

This Wildland Fire Evacuation Plan does not provide a guarantee that all persons will be safe at all times because of the recommendations proposed. There are many variables that may influence overall safety. This Plan provides a summary for implementation of standard evacuation protocols, suggested roadway enhancements, 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 Plan 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 maintaining the Valiano fuel modification landscape, infrastructural, and ignition resistant construction components according to the appropriate standards and embracing a “Ready, Set, Go!” stance on evacuation. Accordingly, evacuation of the wildfire areas should occur according to pre-established evacuation decision points, or 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.

## Draft Wildland Fire Evacuation Plan for the Valiano Community

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# **APPENDIX A**

*“Ready, Set, Go!”*

*Personal Wildland Fire Action Guide*





# READY, SET, GO!

YOUR PERSONAL WILDLAND FIRE ACTION GUIDE



# READY, SET, GO!

## Wildland Fire Action Guide

Saving Lives and Property  
through Advance Planning



**F**ire is a constant threat in San Diego County, and drought, high temperatures in the summer and fall, combined with seasonal Santa Ana winds can lead to explosive fire growth.

In San Diego County, first responders are busy year-round fighting fires. When large fires threaten our community, local, state, federal, tribal, military and other agencies work together to save lives, protect property, and help those impacted by the disaster.

First responders can't do it alone though. Residents, especially those in the Wildland Urban Interface, play a critical role in being prepared for wildfires before, during, and after the next one strikes.

This guide has been modeled off of the Ready, Set, Go! program that is used locally, throughout California, and across the nation. This version is customized for San Diego County, with important local tips and information.

Use this guide to get "Ready" by making your home hardened against wildfire by using defensible space and smart fire resistant building and design choices. Create and practice a family disaster plan that includes storing essentials like food and water supplies, knowing how you'll meet up or communicate with each other, where you can safely evacuate to, and other important information.

Visit [ReadySanDiego.org](http://ReadySanDiego.org) to register with AlertSanDiego to receive emergency alerts via email, text, cell and landline phones, and download the SD Emergency App to get the latest emergency updates delivered to your Android/iOS devices.



Be "Set" and prepared to leave when in danger by monitoring local media, viewing disaster updates on [SDCountyEmergency.com](http://SDCountyEmergency.com), talking with 2-1-1 San Diego, and taking important steps to harden your home even further when you decide to evacuate.

Finally, be able to "Go" and go early, both to keep you and your family safe, and to make it easier for first responders to get into your community.

This guide is a great place to start as you take action to protect your family home, and community.

Tony Mecham, County Fire Chief

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Photos courtesy of CAL FIRE, FEMA and ©Kevin Pack/K.E. Photography

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# Living in the Wildland Urban Interface and the Ember Zone

Ready, Set, Go! begins with a house that firefighters can defend

## Defensible Space Works!

If you live next to a naturally vegetated area, often called the Wildland Urban Interface, provide firefighters with 100 feet of defensible space to protect your home. The buffer zone you create by removing weeds, brush and thinning vegetation helps keep the fire away from your home and reduces the risk from flying embers. Firewise Communities and your local fire department's brush management guidelines provide valuable guidance on property enhancements.



A home within one mile of a natural area is in the Ember Zone. Wind-driven embers can attack your home. You and your home must be prepared well before a fire occurs. Ember fires can destroy homes or neighborhoods far from the actual flame front of the wildland fire.



# What is Defensible Space?



Defensible space is the required space between a structure and the wildland area that, under normal conditions, creates a sufficient buffer to slow or halt the spread of wildland fire to a structure. It protects the home from igniting due to direct flame or radiant heat. Defensible space is essential for structure survivability during wildland fire conditions. For more information about defensible space zones and preparedness techniques within each, visit [ReadySanDiego.org/wildland-fire](https://ReadySanDiego.org/wildland-fire)

## ZONE ONE

Zone One extends 50 feet from your home.

- Must be permanently irrigated to maintain green and healthy plants.
- Is primarily low-growing plant material, with the exception of trees. Plants shall be low-fuel and fire-resistive.
- Trim tree canopies regularly to remove dead wood and keep branches a minimum of 10 feet from structures, chimney outlets and other trees.
- Remove leaf litter (dry leaves/pine needles) from yard, roof and rain gutters.
- Relocate woodpiles and other combustible materials into Zone Two.
- Remove combustible material and vegetation from around and under decks.
- Remove or prune vegetation near windows.
- Remove "ladder fuels" (low-level vegetation that would allow the fire to spread from the ground to the tree canopy). Create a separation between low-level vegetation and tree branches by reducing the height of the vegetation and/or trimming low branches.

## ZONE TWO

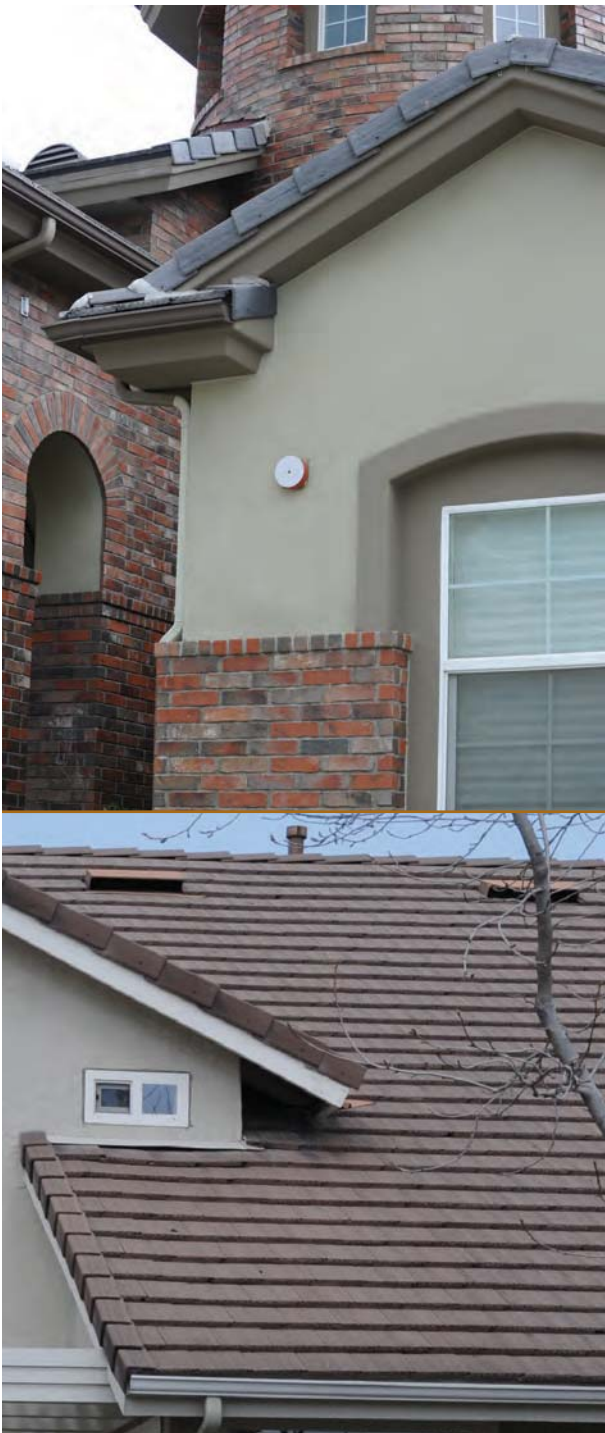
Zone Two extends 50 to 100 feet from your home.

- Minimize the chance of fire jumping from plant to plant by removing dead material and removing or thinning vegetation seasonally. The minimum spacing between vegetation is three times the dimension of the plant.
- There should be no permanent irrigation in Zone Two.
- Remove "ladder fuels."
- Cut or mow annual grass down to a maximum height of 4 inches.
- Trim tree canopies regularly to keep branches a minimum of 10 feet from other trees.



# What is a Hardened Home?

Construction materials and the quality of the defensible space surrounding a home are what gives it the best chance to survive a wildland fire. Embers from a wildland fire can find the weak link in your home's fire protection scheme and gain the upper hand because of a small, overlooked or seemingly inconsequential factor. However, there are measures you can take to safeguard your home from wildland fire. While you may not be able to accomplish all the measures listed below, each will increase your home's, and possibly your family's, safety and survival during a wildland fire.



## ROOFS

Roofs are the most vulnerable surface where embers land because they can lodge and start a fire. Roof valleys, open ends of barrel tiles and rain gutters are all points of entry.

## EAVES

Embers can gather under open eaves and ignite exposed wood or other combustible material.

## VENTS

Embers can enter the attic or other concealed spaces through vents and ignite combustible materials. Vents in eaves and cornices are particularly vulnerable, as are any unscreened vents.

## WALLS

Combustible siding or other combustible or overlapping materials provide surfaces or crevices for embers to nestle and ignite.

## WINDOWS and DOORS

Embers can enter through open windows and gaps in doors, including garage doors. Plants or combustible storage near windows can ignite from embers and generate heat that can break windows and/or melt combustible frames.

## BALCONIES and DECKS

Embers can collect in or on combustible surfaces or the undersides of decks and balconies, ignite the material and enter the home through walls or windows.

To harden your home further, consider protecting your home with a residential fire sprinkler system. In addition to extinguishing a fire started by an ember that enters your home, it also protects you and your family year-round from any fire that may start in your home.

# Tour a Wildland Fire Prepared Home

**Home Site and Yard:** Ensure you have at least a 100-foot radius of defensible space (thinned vegetation) around your home. Note that even more clearance may be needed for homes in severe hazard areas. This means looking beyond what you own to determine the impact a common slope or neighbors' yard will have on your property during a wildland fire.

Cut and remove dry weeds and grass before noon when temperatures are cooler to reduce the chance of sparking a fire.

Landscape with fire-resistant plants that have a high moisture content and are low-growing.

Keep woodpiles, propane tanks and combustible materials away from your home and other structures such as garages, barns and sheds.

Ensure that trees are far away from power lines.

**Inside:** Keep working fire extinguishers on hand. Install smoke alarms and carbon monoxide detectors on each level of your home and near bedrooms. Test them monthly and change the batteries twice a year.

**Address:** Make sure your address is clearly visible from the road.

**Roof:** Your roof is the most vulnerable part of your home because it can easily catch fire from wind-blown embers. Homes with wood-shake or shingle roofs are at high risk of being destroyed during a wildland fire.

Build your roof or re-roof with fire-resistant materials such as composition, metal or tile. Block any spaces between roof decking and covering to prevent ember intrusion.

Clear pine needles, leaves and other debris from your roof and gutters.

Cut any tree branches within ten feet of your roof.

**Vents:** Vents on homes are particularly vulnerable to flying embers.

All vent openings should be covered with  $\frac{1}{8}$  inch metal mesh. Do not use fiberglass or plastic mesh because they can melt and burn.

Attic vents in eaves or cornices should be baffled or otherwise protected to prevent ember intrusion (mesh is not enough).

**Windows:** Heat from a wildland fire can cause windows to break even before the home ignites. This allows burning embers to enter and start internal fires. Single-paned and large windows are particularly vulnerable.

Install dual-paned windows with the exterior pane of tempered glass to reduce the chance of breakage in a fire.


Limit the size and number of windows in your home that face large areas of vegetation.

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

Build or remodel with fire-resistant building materials, such as brick, cement-fiber board, masonry or stucco.

Be sure to extend materials from foundation to roof.





**Garage:** Have a fire extinguisher and tools such as a shovel, rake, bucket and hoe available for fire emergencies.

Install a solid door with self-closing hinges between living areas and the garage. Install weather stripping around and under door to prevent ember intrusion.

Store all combustibles and flammable liquids away from ignition sources.

**Driveways and Access Roads:** Driveways should be designed to allow fire and emergency vehicles and equipment to reach your house.

Access roads should have a minimum 10-foot clearance on either side of the traveled section of the roadway and should allow for two-way traffic.

Ensure that all gates open inward and are wide enough to accommodate emergency equipment.

Trim trees and shrubs overhanging the road to a minimum of 13½ feet to allow emergency vehicles to pass.

**Non-Combustible Fencing:** Make sure to use non-combustible fencing to protect your home during a wildland fire.

**Non-Combustible Boxed In Eaves:** Box in eaves with non-combustible materials to prevent accumulation of embers.

**Raingutters:** Screen or enclose rain gutters to prevent accumulation of plant debris.

**Water Supply:** Have multiple garden hoses that are long enough to reach any area of your home and other structures on your property.  
If you have a pool or well, consider a pump.

**Chimney:** Cover your chimney and stovepipe outlets with a non-flammable screen of ½ inch wire mesh or smaller to prevent embers from escaping and igniting a fire.

Make sure that your chimney is at least 10 feet away from any tree branches.

**Decks and Balconies:** Decks, balconies, and other floor projections and attachments must be of one – or a combination – of the following:

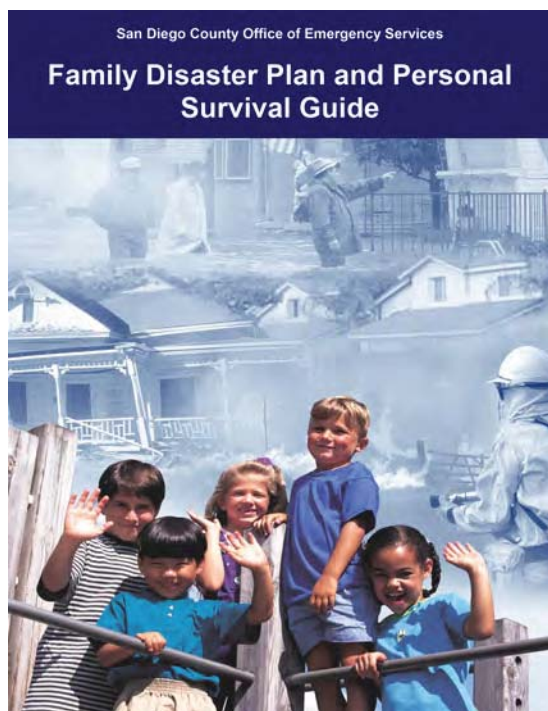
- non-combustible construction (e.g., concrete, metal)
- protected by one-hour fire-resistive material (e.g., stucco, cement-fiber board, ceramic tile, deck surface listed by approved evaluation service as one-hour-rated or Class A roof covering)
- approved fire-retardant treated materials (factory-applied fire retardant, pressure-treated lumber, listed for exterior use, installed per listing)
- heavy timber construction (minimum 4x8 joists, 4x10 or 6x8 beams, 3x ledgers, and 6x6 columns/posts)
- alternative decking materials per County Building Code 92.1.709A.1.4

# READY, SET, GO!

## Create Your Own Action Guide

Now that you've done everything you can to protect your house, it's time to prepare your family. Your **Wildland Fire Action Guide** must be prepared well in advance of a fire. Include *all* members of your household. Use these checklists to help you gain a situational awareness of the threat and to prepare your Wildland Fire Action Guide. For more information on property and home preparedness before a fire threat, review the preparedness checklist on the Firewise Communities website, [www.firewise.org](http://www.firewise.org)

## Ready – Preparing for the Fire Threat



For a more extensive survival guide, please visit: [ReadySanDiego.org/make-a-plan](http://ReadySanDiego.org/make-a-plan)

- ☐ Create an in-depth family disaster plan at [ReadySanDiego.org](http://ReadySanDiego.org)
- ☐ Register to receive emergency notifications on phone, cell, text, and email for your area. Sign up at [AlertSanDiego.org](http://AlertSanDiego.org)
- ☐ Have fire extinguishers on hand
- ☐ Ensure that your family knows the location of your utility shut-off controls
- ☐ Plan and practice several different evacuation routes
- ☐ Designate an emergency meeting location
- ☐ Assemble an emergency supply kit (water, food, medicine)
- ☐ Maintain a list of emergency contact numbers
- ☐ Have a portable radio



All the information in your hands when you need it! Get the SD Emergency App for Android and iOS!



Find out how to volunteer, and get the most up-to-date disaster information! Call 2-1-1



Visit [ReadySanDiego.org](http://ReadySanDiego.org) for all your preparedness needs! Get a plan, get the app, get informed!



# Set – Situational Awareness when a Fire Starts

- ☐ Alert family and neighbors
- ☐ Ensure that you have your emergency supply kit
- ☐ Stay tuned to media, visit: [SDCountyEmergency.com](http://SDCountyEmergency.com)
- ☐ Close all windows and doors, leaving them unlocked
- ☐ Remove flammable window shades and curtains
- ☐ Move furniture to the center of the room
- ☐ Turn off pilot lights and air conditioning
- ☐ Leave inside and outside lights on so firefighters can see your house through smoke
- ☐ Bring patio furniture, children's toys, etc. inside
- ☐ Turn off propane tanks and other gas at the meter
- ☐ Don't leave sprinklers on or water running
- ☐ Back your car into the driveway to facilitate a quick departure

- ☐ Cover attic and ground vents with pre-cut plywood or commercial covers
- ☐ Call 2-1-1 for all non-emergency inquiries or visit: [211SanDiego.org](http://211SanDiego.org)

## IF YOU ARE TRAPPED: SURVIVAL TIPS

- ☐ Call 9-1-1
- ☐ Remain inside your home until the fire passes
- ☐ Shelter away from outside walls
- ☐ Bring garden hoses inside the house so embers don't destroy them
- ☐ Patrol inside your home for spot fires and extinguish any you find
- ☐ Wear long sleeves and long pants made of natural fibers such as cotton
- ☐ Stay hydrated
- ☐ Ensure you can exit the home if it catches fire (remember if it is hot inside the house, it is four to five times hotter outside)
- ☐ Fill sinks and tubs for an emergency water supply
- ☐ Place wet towels under doors to keep smoke and embers out
- ☐ After the fire has passed, check your home and roof. Extinguish any fires, sparks or embers
- ☐ Check inside the attic for hidden embers
- ☐ If there are fires that you cannot extinguish with a small amount of water or in a short period of time, call 9-1-1



# Go – Leave Early

By leaving early, you give your family the best chance of surviving a wildland fire. You also help firefighters by keeping roads clear of congestion.

## WHEN TO LEAVE

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Do not wait to be advised to leave if there is a possible threat to your home or evacuation route. Leave early enough to avoid being caught in fire, smoke or road congestion. If you are advised to leave by local authorities, do not hesitate!

## MEETING LOCATION

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Travel to a predetermined location. It should be a low-risk area, such as a well-prepared neighbor or relative's house, a shelter or motel, etc.

## HOW TO GET THERE

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Know several travel routes out of your community in case one route is blocked by the fire or by emergency vehicles.

## WHAT TO TAKE

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Take your emergency supply kit containing your prepared family and pet's necessary items.



The County of San Diego Office of Emergency Services has a free, printable, All Hazards Family Disaster Plan and Survival Guide at: [ReadySanDiego.org/make-a-plan](http://ReadySanDiego.org/make-a-plan)

Here is a brief checklist to get your emergency supply kit started.

- ☐ Three-day supply of water (one gallon per person per day)
- ☐ Non-perishable food for all family members and pets (three-day supply)
- ☐ First aid kit
- ☐ Flashlight, battery-powered radio, and extra batteries
- ☐ An extra set of car keys, credit cards and cash or traveler's checks
- ☐ Sanitation supplies
- ☐ Extra eyeglasses or contact lenses
- ☐ Important family documents and contact numbers
- ☐ Map marked with evacuation routes
- ☐ Prescriptions or special medications
- ☐ Family photos, valuable and other irreplaceable items that are easy to carry
- ☐ Personal computers, hard drives, disks and flash drives
- ☐ Chargers for electronic communication devices

Note: Keep a pair of old shoes and a flashlight handy in case of a sudden evacuation at night.

## Why can't I immediately return home?

Although a fire has been contained or extinguished there are post-hazard concerns that must be addressed before re-entry into the impacted area(s) may be permitted. Priorities for re-entry include:

1. Safety
2. Security
3. Damage Assessment
4. Restoration of Services
5. Communication of Information

The impacted areas must be thoroughly investigated to ensure it is safe for residents to return and that services have been restored. You will be notified of the re-entry status through: *emergency broadcast radio, television, internet [www.SDCountyEmergency.com](http://www.SDCountyEmergency.com), 2-1-1, community briefings, and informational updates at shelters.*

# Returning Home

After a disaster, **DO NOT attempt to return to your home or cross any barriers or caution tape without permission from law enforcement officials.** When returning home, be cautious in your neighborhood and watch out for:

- Emergency personnel still operating in the area.
- Power lines lying on the ground.
- Small fires that may flare up without warning.
- Ash pits, which are holes filled with hot ash created by burned trees.
- Damaged buildings or debris (including glass, nails, etc.)
- Charred power poles and trees that may be unstable and fall.

**Take the following precautions when attempting to enter your house:**

<b>POWER:</b> <i>If a person or piece of equipment comes in contact with an electric line, or if a line is down or broken.</i> <ul style="list-style-type: none"><li><input type="checkbox"/> <b>Call 9-1-1.</b></li><li><input type="checkbox"/> If you see an electrical fire, fight it with a dry CO(2) extinguisher.</li><li><input type="checkbox"/> If possible, shut off the power.</li><li><input type="checkbox"/> <b>Don't touch the person or any equipment involved.</b> The line may still be energized and dangerous.</li><li><input type="checkbox"/> Freeing someone from energized power lines or equipment should only be attempted by a qualified SDG&amp;E employee or a trained rescuer such as a fire fighter.</li><li><input type="checkbox"/> Always assume that power lines are energized.</li><li><input type="checkbox"/> Do not smoke or attempt to light anything. Use a <b>flashlight instead.</b></li></ul>	<b>GAS:</b> <ul style="list-style-type: none"><li><input type="checkbox"/> Check to see if your gas utility is working properly. If you smell gas, leave your home immediately, and call (24/7) SDG&amp;E at 1-800-411-7343.</li><li><input type="checkbox"/> <b>DO NOT</b> light a match, candle, or cigarette.</li><li><input type="checkbox"/> <b>DO NOT</b> turn electrical devices on or off, including light switches.</li><li><input type="checkbox"/> <b>DO NOT</b> start an engine or use any device, including a telephone, which could cause a spark.</li><li><input type="checkbox"/> <b>DO NOT</b> attempt to control the leak or repair the damaged pipe or meter. Do not use or turn off any equipment that could cause a spark.</li></ul>
<input type="checkbox"/> Check for burning embers on roofs, gutters, porches, attic, crawlspace, and throughout your property for several days after a wildfire.	<input type="checkbox"/> Check for any structural damage before entering your home. If you are uncertain, have your home professionally inspected before returning.
<input type="checkbox"/> Do not smoke or attempt to light anything as there could be flammables or leaking gases. Use a flashlight instead.	<input type="checkbox"/> Open windows and doors to allow airflow, which will help dry out of any water damage areas.

San Diego Gas & Electric can be reached at 1-800-411-7343 or [SDGE.com/customer-service/contact-us](http://SDGE.com/customer-service/contact-us)  
For more information on damage assessment visit the County's Recovery page at [SDCountyRecovery.com](http://SDCountyRecovery.com).

# Fire Action Guide

Out of Area Contact: \_\_\_\_\_ Phone #: \_\_\_\_\_

Work: \_\_\_\_\_ School: \_\_\_\_\_ Other: \_\_\_\_\_

Evacuation Routes: \_\_\_\_\_

Meeting Location: \_\_\_\_\_ Location of Supply Kit: \_\_\_\_\_

Information: [SDCountyEmergency.com](http://SDCountyEmergency.com) [211SanDiego.org](http://211SanDiego.org) SD Emergency App

You can create a more in-depth plan for free at: [ReadySanDiego.org/make-a-plan](http://ReadySanDiego.org/make-a-plan)



## READY, SET, GO!

### Safety Checklist

#### Tips To Improve Family and Property Survival During A Wildland Fire

##### Home

1. Does your home have a metal, composition, tile or other non-combustible roof with capped ends and covered fascia?
2. Are the rain gutters and roof free of leaves, needles and branches?
3. Are all vent openings screened with  $\frac{1}{8}$  inch non-combustible, corrosion-resistant metal mesh?
4. Are approved spark arrestors on chimneys?
5. Does the house have non-combustible siding material?
6. Are the eaves "boxed in" and the decks enclosed?
7. Are the windows dual-paned or tempered glass?
8. Are decks, porches and similar areas made of non-combustible material and are they free of easily combustible material?
9. Is all firewood at least 30 feet from the house?

Yes

No

<input type="checkbox"/>	<input type="checkbox"/>
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##### Defensible Space

1. Has dead vegetation been removed from the defensible space zones around your home? (Consider adding distance due to slope of property.)
2. Is the required separation between shrubs maintained?
3. Have ladder fuels been removed?
4. Is there a clean and green area extending at least 50 feet from the house?
5. Is there a non-combustible area within five feet of the house?
6. Is the required separation between trees and crowns maintained?

Yes

No

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

##### Emergency Access

1. Is the home address plainly legible and visible from the street?
2. Are trees and shrubs overhanging the street trimmed to 15½ feet?
3. If your home has a long driveway, does it have a suitable turnaround area?

Yes

No

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>



# **APPENDICES**

## **B-1 THROUGH B-4**

*Family Emergency Readiness Information  
and Planning Aids*





## **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](http://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**



# Ready

Prepare. Plan. Stay Informed.®



## **Emergency Supply List**



# FEMA

[www.ready.gov](http://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.



**FEMA**

**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](http://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 [ready.gov/make-a-plan](http://ready.gov/make-a-plan), 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.

**TEXT  
IS  
BEST!**

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.

**The following sections will guide you through the process to create and practice your  
*Family Emergency Communication Plan.***



## **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.



- ☐ Make copies of your *Family Emergency Communication Plan* for each member of the household to carry in his or her wallet, backpack, or purse. Post a copy in a central place at home. Regularly check to make sure your household members are carrying their plan with them.
- ☐ Enter household and emergency contact information into all household members' mobile phones or devices.
- ☐ Store at least one emergency contact under the name "In Case of Emergency" or "ICE" for all mobile phones and devices. This will help someone identify your emergency contact if needed. Inform your emergency contact of any medical issues or other requirements you may have.
- ☐ Create a group list on all mobile phones and devices of the people you would need to communicate with if there was an emergency or disaster.
- ☐ Make sure all household members and your out-of-town contact know how to text if they have a mobile phone or device, or know alternative ways to communicate if they are unable to text.
- ☐ Read *Be Smart. Know Your Alerts and Warnings* at <http://1.usa.gov/1BDloze> and sign up to receive emergency information.



Once you have completed your *Family Emergency Communication Plan*, made copies for all the members of your household, and discussed it, it's time to practice!

Here are some ideas for practicing your plan:

- ☐ Practice texting and calling. Have each person practice sending a text message or calling your out-of-town contact and sending a group text to your mobile phone group list.
- ☐ 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 *Family Emergency Communication Plan* at least once a year, or whenever any of your information changes.

To help start the conversation or remind your family why you are taking steps to prepare and practice, you may want to watch the 4-minute video, *It Started Like Any Other Day*, about families who have experienced disaster, at [www.youtube.com/watch?v=w\\_omgt3MEBs](http://www.youtube.com/watch?v=w_omgt3MEBs). Click on the closed captioning (CC) icon on the lower right to turn on the captioning.

After you practice, talk about how it went. What worked well? What can be improved? What information, if any, needs to be updated? If you make updates, remember to print new copies of the plan for everyone.

## OTHER 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.

<sup>1</sup> Federal Communications Commission, Public Safety and Homeland Security Bureau. (n.d.) *Tips for communicating in an emergency*. Retrieved from <http://transition.fcc.gov/pshs/emergency-information/tips.html>

- ☐ 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](http://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.*



## 10 WAYS TO PARTICIPATE IN AMERICA'S *PrepareAthon!*



**Access Alerts  
and Warnings**



**Test  
Communication Plans**



**Assemble or  
Update Supplies**



**Drill or Practice  
Emergency Response**



**Participate in a Class,  
Training, or Discussion**



**Plan with  
Neighbors**



**Conduct an  
Exercise**



**Make Property  
Safer**



**Document and  
Insure Property**



**Safeguard  
Documents**

# FAMILY EMERGENCY COMMUNICATION PLAN

## HOUSEHOLD INFORMATION

Home #: .....

Address:.....

Name: ..... Mobile #: .....

Other # or social media: .....

Email: .....

Important medical or other information: .....

.....

Name: ..... Mobile #: .....

Other # or social media: .....

Email: .....

Important medical or other information: .....

.....

Name: ..... Mobile #: .....

Other # or social media: .....

Email: .....

Important medical or other information: .....

.....

Name: ..... Mobile #: .....

Other # or social media: .....

Email: .....

Important medical or other information: .....

.....

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

Name: .....

Address:.....

Emergency/Hotline #: .....

Website: .....

Emergency Plan/Pick-Up: .....



Ready

America's PrepareAthon!



---

**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: ..... Mobile #: .....  
Home #: ..... Email: .....  
Address: .....

---

**OUT-OF-TOWN  
CONTACT**

---

Name: ..... Mobile #: .....  
Home #: ..... Email: .....  
Address: .....

---

**EMERGENCY  
MEETING PLACES**

---

Indoor: .....  
Instructions: .....  
Neighborhood: .....  
Instructions: .....

Out-of-Neighborhood: .....  
Address:.....  
Instructions: .....

Out-of-Town: .....  
Address:.....  
Instructions: .....



**IMPORTANT  
NUMBERS OR  
INFORMATION**

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



Write your family's name above

### Family Emergency Communication Plan

#### HOUSEHOLD INFORMATION

Home #: .....  
Address: .....  
Name: ..... Mobile #: .....  
Other # or social media: ..... Email: .....  
Important medical or other information: .....  
Name: ..... Mobile #: .....  
Other # or social media: ..... Email: .....  
Important medical or other information: .....

Name: ..... Mobile #: .....  
Other # or social media: ..... Email: .....  
Important medical or other information: .....

Name: ..... Mobile #: .....  
Other # or social media: ..... Email: .....  
Important medical or other information: .....

#### 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: .....

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

#### IN CASE OF EMERGENCY (ICE) CONTACT

Name: ..... Mobile #: .....  
Home #: ..... Email: .....  
Address: .....

#### OUT-OF-TOWN CONTACT

Name: ..... Mobile #: .....  
Home #: ..... Email: .....  
Address: .....

#### EMERGENCY MEETING PLACES

Indoor: .....  
Instructions: .....  
Neighborhood: .....  
Instructions: .....

Out-of-Neighborhood: .....  
Address: .....  
Instructions: .....  
Out-of-Town: .....  
Address: .....  
Instructions: .....

#### IMPORTANT NUMBERS OR INFORMATION

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



## Family Disaster Plan

Family Last Name(s) or Household Address:

Date:

Family Member/Household Contact Info (If needed, additional space is provided in #10 below):

Name

Home Phone

Cell Phone

Email:

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<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>

**Pet(s) Info:**

Name:

Type:

Color:

Registration #:

<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>

### Plan of Action

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

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2. What are the escape routes from our home?

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

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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 contact outside of our immediate area is:

Name

Home Phone

Cell Phone

Email:

---

*After a disaster, let your friends and family know you are okay by registering at "Safe and Well" at <https://safeandwell.communityos.org/cms//> 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 household with a disability or special need is:

Person's Name:

Plan:

---

---

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 items you might want to take to an evacuation shelter. Remember 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 Medical Information	Make sure the household medical information is taken with us if evacuation is necessary.	
Financial Information	Obtain copies of bank statements and cash in the event ATMs and credit cards do not work due to power outages. Bring copies of utility bills as proof of residence in applying for assistance.	
Pet Information	Evacuate our pet(s), keep a phone list of pet-friendly motels and animal shelters, and assemble and take the pet disaster kit.	
Sharing and Maintaining the Plan	Share the completed plan with those who need to know. Meet with household members every 6 months or as needs change to update household plan.	

\*What supplies and records should go in your disaster kit? Visit [www.redcross.org](http://www.redcross.org)

## 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 [www.redcross.org](http://www.redcross.org)

# **APPENDIX C**

## *San Diego Road Capacity Data*





## APPENDIX C

### Road Capacity Guide

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#### Roadway Classifications, Levels of Service (LOS) and Average Daily Traffic (ADT)

STREET CLASSIFICATION	LANES	CROSS SECTIONS	LEVEL OF SERVICE				
			A	B	C	D	E
Freeway	8 lanes		60,000	84,000	120,000	140,000	150,000
Freeway	6 lanes		45,000	63,000	90,000	110,000	120,000
Freeway	4 lanes		30,000	42,000	60,000	70,000	80,000
Expressway	6 lanes	102/122	30,000	42,000	60,000	70,000	80,000
Primary Arterial	6 lanes	102/122	25,000	35,000	50,000	55,000	60,000
Major Arterial	6 lanes	102/122	20,000	28,000	40,000	45,000	50,000
Major Arterial	4 lanes	78/98	15,000	21,000	30,000	35,000	40,000
Collector	4 lanes	72/92	10,000	14,000	20,000	25,000	30,000
Collector (no center lane) continuous left-turn lane)	4 lanes 2 lanes	64/84 50/70	5,000	7,000	10,000	13,000	15,000
Collector (no fronting property)	2 lanes	40/60	4,000	5,500	7,500	9,000	10,000
Collector (commercial-industrial fronting)	2 lanes	50/70	2,500	3,500	5,000	6,500	8,000
Collector (multifamily)	2 lanes	40/60	2,500	3,500	5,000	6,500	8,000
Sub-Collector (single-family)	2 lanes	36/56	—	—	2,200	—	—

## APPENDIX C (Continued)

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