**Response Safety**

Harmony Grove is located in a upper canyon bowl within an historic fire corridor with a history of loss of life & extensive structural loss. It contains both new interface & older intersnity conditions, with serious entrapment threats along Escondido Creek, in the Spiritualist Camp, and upper Cordrey Rd. & Crestwind Dr. areas. VHF/cell is sporadic-800Mhz. best. Use CDF CMD 2, T11 or XSD N. CMD. interface & older intersnity conditions, with serious entrapment threats along Escondido Creek, in the Spiritualist Camp, and upper Cordrey Rd. & Crestwind Dr. areas. VHF/cell is sporadic-800Mhz. best. Use CDF CMD 2, T11 or XSD N. CMD.

**Aviation Hazards**

Powerline & 3 large radio towers on ridge between Harmony Grove and Encinitas. Lines cross low & mid canyon, and are without aircraft warning devices. Communications towers on highest peaks.

**Potential Choke Points/Entrapments**

Powerline & 3 large radio towers on ridge between Harmony Grove and Encinitas. Lines cross low & mid canyon, and are without aircraft warning devices. Communications towers on highest peaks.

**BRIEFING INFORMATION**

**Fuels**

Mixed heavy chaparral/coast sage on ridges/slopes and in Escondido Creek/San Elijo Canyon, grasslands in Harmony Grove bowl and Eden Valley. Ripplean in bottom of Escondido Creek.

**Last Year(s) Burned**


**Expected Fire Behavior**

Fires may burn with extreme behavior, high rates of spread, & long range spotting. This area is in an historic fire corridor. Past Santa Anna wind driven fires have originated to the N/E & traveled west to threaten Harmony Grove, Elfin Forest, Rancho Santa Fe, San Marcos, & Encinitas. Plume dominated behavior is possible when heavy chaparral fuels are in alignment with steep slopes & wind. Heavy fire brand casting should be expected for fires approaching from Escondido Creek/San Elijo Cyn. or the east side of Escondido due to alignment of heavy fuels & slope. Fire whirls are possible in canyon confluences and on ridge lines. Onshore winds may drive fire into cities North & East.

**Topography**

Harmony Grove is a basin at 570 ft. elevation, surrounded by steep slopes and ridgelines to 1736 feet (at Mt. Whitney). The community lies directly west of the City of Escondido, south of the City of San Marcos, and east of the city of Elfin Forest. Escondido Creek follows San Elijo Canyon immediately SW of Harmony Grove.

**Access**

Harmony Grove is accessed by Country Club Dr. south from Escondido, Harmony Grove Rd. from Escondido or Elfin Forest, Harmony Grove Village Parkway from Escondido, and a dirt trail from Del Dios Hwy. and Encinitas. All routes may be dangerous during fire except Country Club Dr. or Harmony Grove Village Parkway.

**Special Hazards**

1. Equine & other large animals in older Harmony Grove & Eden Valley. 2. 60 + hikers/weekends in Efin Forest Recreational Preserve. 3. Oil/liquid resevoir reservoir, pump station, at base of dam-end of Via Ambienta staffed 24/7. 4. Questhaven Retet at top of ridge north of Escondido Creek, 20560 Questhaven, San Marcos. Safety Zones onsite. 700-744-8758/858-922-8846. Up to 40 people onsite.

**Safety Zones/ Temporary Safe Refuge Areas**

<table>
<thead>
<tr>
<th>Type</th>
<th>Location</th>
<th>Limits of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>SZ</td>
<td>Community Park - Harmony Grove Rd at Country Club Dr</td>
<td></td>
</tr>
</tbody>
</table>
| SZ         | Harmony Grove Village 1, NO Harmony Grove Rd at Country Club Dr | Within residential neighborhood/nearhead\n
**TRA**

Around homes with large clearance/defensible space

**SZ**

Into urban areas to the North & East

**Water Supply**

Hydrants supplied by gravity fed/static water system. Good municipal pressure and volume within new residential tracts. Rural homes are on wells, some with 10,000 gal. fire supply tank.

**CRITICAL INFORMATION**

**LARGE FIRE DEVELOPMENT FACTORS**

**Weather**

Temperature: +100 degrees F

Relative Humidity: 35%

Wind Speed: Avg. 30 MPH

**Fuel Moisture**

Seasonally dry or long term drought

**Fire Behavior**

Rate of Spread: 9,900 - 15,378 ft/hr max

Spotting: >3/4 mile

**Flame Length**

Avg. 8-12 ft

Peak 30-60 ft

* Peak flame lengths occur when fire growth is in alignment with heavy fuel, slope and wind.

**Additional Info**

Interface: x Interim: x Urban: x Suburban: x Rural: x Other:
Primary Plan (Offensive)
Offensive and aggressive attack on flanks, with aircraft holding fire on ridges above and away from structures. Limited evacuation of fire perimeter homes. Evacuate homes in potential entrapment areas along Harmony Grove Rd. either East or West of Harmony Grove’s newer tract homes, the Harmony Grove Spiritualist Camp, and the area up slope off Cordy Rd., Crestwind Dr., and Wild Willow Rd. when threatened. (No safety zones in these areas).

Alternate Plan (Offensive)
Evacuate homes in potential entrapment areas very early. (Harmony Grove Rd. either East or West of Harmony Grove’s newer tract homes, the Harmony Grove Spiritualist Camp, and the area up slope off Cordy Rd. & up slope off Crestwind Dr.) Use caution when moving on canyon roads and watch for spotting along access roads in heavy rains. Prep-and-defend newer tract homes & around rural homes with defensible space. Prep-and-go in entrapment areas if time, or conduct check-and-go of accessible properties. Fire-front-following in these areas once fire front has passed. Watch for spotting deep into tract homes.

Contingency Plan (Defensive - Responder Safety)
Firefighters and law enforcement seek temporary refuge around homes with good defensible space in new tract areas. Gather civilians trapped in plan area with you. Use extreme caution in potential entrapment areas and conduct check-and-go if time, otherwise fire-front-follow. Use Country Club Dr. northbound as primary escape route, or Harmony Grove Village Pkwy. eastbound if not blocked by fire near Escondido Creek. Most isolated structures may not be defensible or accessible during extreme fires in tract developments. Watch for spotting deep into tract developments.

Perimeter Control Plan:
Use 3 blade wide old Cocos Fire dozer line (crosses Mt. Whitney) & burn area to hold ridge between Harmony Grove and San Marcos. (1 mi., 2 D6 dozers+2 crews-2 hrs to reopen). Establish new dozer line from Harmony Grove SW to Del Dios Hwy. along truck trail if appropriate (1.1 mi., 2 D6 dozers+2 crews-2 hrs). Hold Country Club Dr. N/O Harmony Grove. Extensive crew work may be required in steep, heavily fuelled terrain. Fireline construction may not be safe until fire behavior abates. Firing operations with IC or OPSC approval only.

EVACUATION PLAN
Primary Evacuation Plan Activate “Alert SD”. Evacuate to urban area in Escondido. Do not use dirt roads/truck trails for evacuation! Move north via Country Club Dr. as the primary route, or east via Harmony Grove Village Pkwy. (only if fire is not in Escondido Creek threatening this route). Do not use Harmony Grove Rd. either east or west of Harmony Grove unless certain it will not be compromised by fire. Evac. Questhaven Resort, San Marcos for fires traveling Escondido Creek.

Evacuation Trigger Point
Evacuate all entrapment areas immediately for any Santa Ana wind driven fire evacuating initial attack in Escondido east of Harmony Grove, or onshore wind-driven fires moving west from Encinatas/Lone Jack, Elfin Forest, or approaching up Escondido Creek/San Elijo Canyon. Consider shelter-in-place in newer housing tracts if active fire threatens evacuation routes.

Temp. Evacuation Assembly Points (Human & Animal)

POPULATION & STRUCTURES AT-RISK

| Population | 2,087 |
| Planning Unit Acreage | 2,116 acres |
| Structures | 735 homes |

STRUCTURAL TRIAGE

| Threatened | 15% |
| Non-Defensible | Structures without defensible space |
| Threatened/Defensible | 85% |
| Non-Threatened | 0% |
| W/ Defensible Space | 75% |

EMERGENCY RESOURCE NEEDS - FIRST SIX HOURS
(In addition to Initial Attack Resource)

| Fire | NorthCom (858)756-3006 |
| Ordering Point | FIRE MVI 619-401-778/19-593-2271 |

| Engines | The number range reflects the number of "minimum" to "preferred" resources. |
| Type 1 Strike | 5-6 |
| Crews | 6 |
| Type 3 Strike Teams | 4-5 |
| Dozers | 3-4 |
| Water Tenders | 6 |
| Overhead | 4-5 |
| Div. Sup. | 3-4 |

| Aircraft | Type 1 Helicopter (Large) | 1 |
| Type 2 Helicopter (Med.) | 3 |
| Air Tankers | 2-4 |

| WUI Engine Deployment - High Risk | 1 engine/2-4 perimeter structures, 1 engine/isolated structures, 2 engines/multi-family structures |
| WUI Engine Deployment - Moderate Risk | 1 engine/2-4 perimeter structures, 1 engine/isolated structures, 2 engines/multi-family structures |
| WUI Engine Deployment - Low Risk | 1 strike team/2 blocks of perimeter homes |
Harmony Grove-Offshore Forecast Fire Progression

- Fire Origin (Simulated)
- Major Paths

Arrival Time:
- 1 hour
- 2 hours
- 3 hours
- 4 hours
- 5 hours
- 8 hours

Assumptions/Limitations:
Fuels are fully cured with off-shore winds.
Temps: >80 degrees, RH: <10%, Wind 30 mph+
Model incorporates effects of spotting.
No Suppression efforts are reflected.
Rohde & Associates
Harmony Grove-Onshore Forecast Fire Progression

- Fire Origin (Simulated)
- Major Paths

**Arrival Time**
- 1 hour
- 2 hours
- 3 hours
- 4 hours
- 5 hours
- 8 hours

**Assumptions/Limitations**
- Fuels are fully cured with on-shore winds.
- Temps: >90 degrees, RH: <10%, Wind 10 mph+.
- Model incorporates effects of spotting.
- No Suppression efforts are reflected.
- Rohde & Associates

Additional Info
- RSF28W
- Source: GIS, Digital Maps, USGS, Forest Service, CalFire, ROHDE & ASSOC.
- Map credit: @ OpenMapQuest.com, Google

**Public Safety Grids:**
- 5126-5425

**WUI Name:** Harmony Grove
**Location:** Community of Harmony Grove, Eden Valley
**Date:** 4/14/2016
**Grid No.:** 5126-5425
**Insp'd By:** Thomas Guide Grids: 1129-1149