



**CITY OF SAN JACINTO
SB 99 ANALYSIS
WHITE PAPER**

Emergency Evacuation Route Analysis

Prepared by De Novo Planning Group

City of San Jacinto SB 99 Analysis White Paper

In coordination with its Public Safety Element Update (2022), the City of San Jacinto has prepared an analysis consistent with Senate Bill 99 to identify residential developments in hazard areas that do not have at least two emergency evacuation routes. The analysis found that out of 4,990 unique land parcels identified as Residential AND within the Combined Hazard Zone, approximately 10% of those (499) have one exit point that warrant further study. These parcels are widespread throughout the planning area, and they tend to be condo, apartment, and mobile home communities, or large rural residential parcels. These are shown in orange on the map on Page 5. The following is an explanation of the methodology used to map the evacuation routes and identify areas of concern.

Definitions & Data Sources

Residential Developments

Using the parcel dataset developed for the San Jacinto General Plan update, parcels with the following proposed general plan land use designations were considered residential:

- VLDR
- LDR
- MDR
- HDR
- VHDR
- SPA

This set of parcels was further refined by removing the parcels with following assessed (on-ground) uses:

- Agricultural parcels (AG-P, AG-NP)
- Commercial parcels (C)
- Educational facilities (ED)
- Open Space (OS)
- Public Facilities (PF)
- Vacant parcels (VAC) – unless the vacant parcels were small parcels within a subdivision, then they were kept as part of the “residential” data set

Hazard Areas

High Hazard Zones were defined as areas that are in one or more of the following pre-defined hazard zones:

1. FEMA’s 100-year flood zone (PRESENT)
2. California OES dam inundation area (PRESENT – Diamond Valley East and Lake Hemet Inundation Areas)
3. California Geological Survey’s Map Sheet 58 Landslide Susceptibility classes 8, 9, or 10 (PRESENT)
4. Hazards identified by California Geological Survey’s Seismic Hazard Zonation Program:
 - a. Potential Liquefaction Zones (none present)
 - b. Potential Landslide Zones (none present)
 - c. Fault Zones (PRESENT)

5. CalFire's High, Very High and Extreme Fire Threat zones (PRESENT)
6. CalFire's High and Very High Fire Hazard Severity Zones in State Responsibility Areas (PRESENT)
7. CalFire's Very High Fire Hazard Severity Zones in Local Responsibility Areas (PRESENT)

These hazard zones were combined into one single "Combined Hazard Area" using ArcGIS merge and dissolve geoprocessing tools.

Evacuation Routes

The City of San Jacinto's General Plan update categorizes roadways in the following manner:

- California Highway
- Major Road
- Arterial Street
- Collector Street
- Residential Street

For this analysis, road categories were reclassified as follows:

1. California Highway = California Highway
2. Arterials = Major Road and Arterial Street
3. Local = Collector Street and Residential Street

Assumptions & Methodology

Identification of Residential Developments in Hazard Areas

Using ArcGIS, Residential Developments in Hazard Areas were identified by running a location query to find the parcels in residential developments that intersect the single Combined Hazard Area.

Identification of Residential Subdivision Exit Points

The goal of this analysis was to find at least two separate points of exit from residential areas in hazard zones by following a rudimentary roadway network in which vehicles move from Local Roads to Arterials, and eventually to the California Highway system. The following assumptions apply:

1. Residential Developments have immediate access to Local Roads but are distant from Highways
2. Arterials connect Local Roads to the Highway Network
3. Residential Exit Points are the points where Local Roads intersect Arterials, thereby providing eventual access to the California Highway system

Analysis & Results

Analysis

Upon visual analysis, residential parcels in within the Combined Hazard Area were assigned to one of four categories:

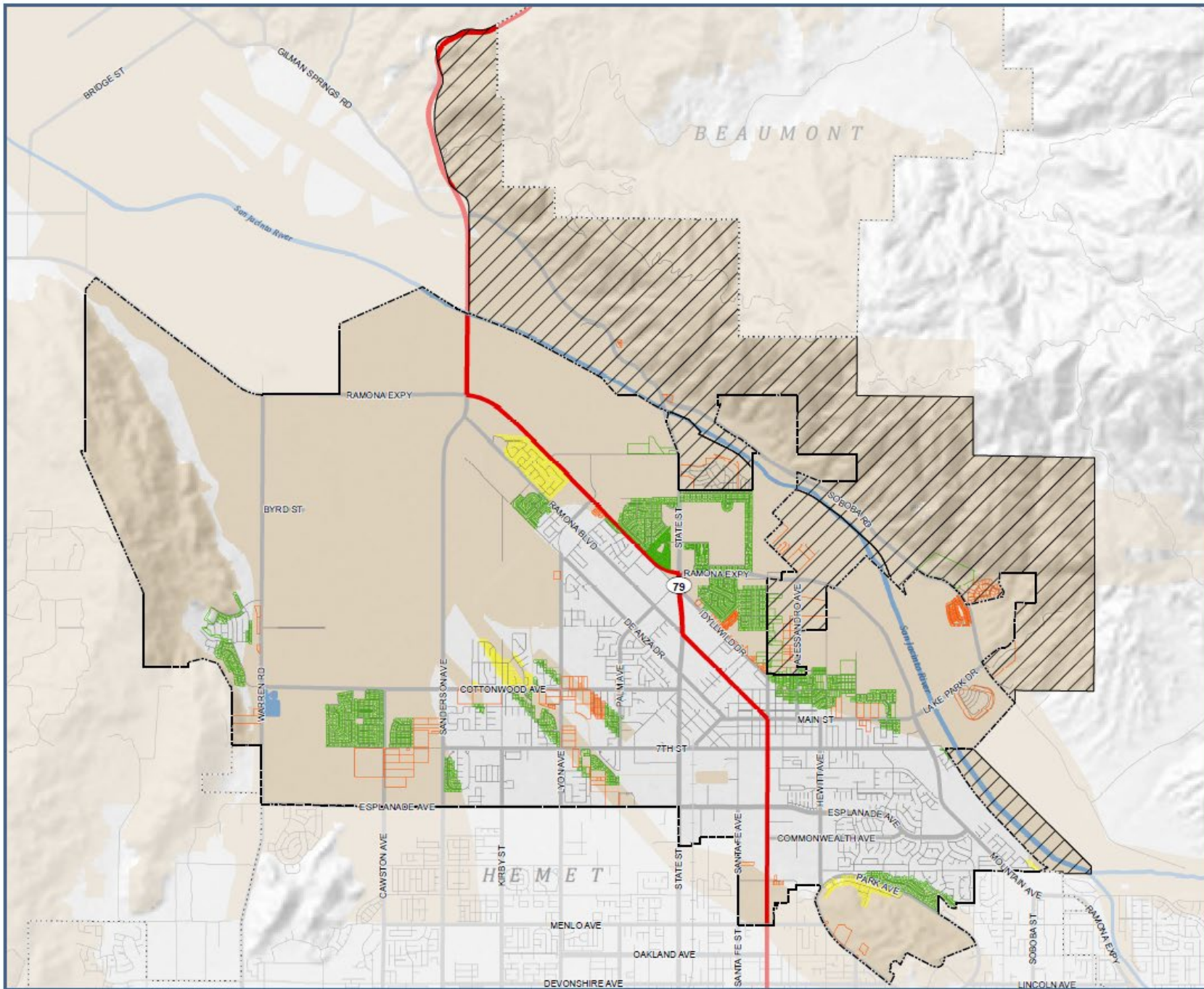
1. One Exit Point with some distance to a Single Arterial
2. One Exit Point directly onto a Single Arterial
3. Multiple Exit Points with access to a single Arterial (Loop Road)
4. Multiple Exit Points with access to multiple Arterials

Results

4,990 unique land parcels were identified as Residential AND within the Combined Hazard Zone:

1. Approximately 77% of the parcels have multiple exit points with access to multiple arterials (GREEN ON THE MAP)
2. Approximately 13% of the parcels have multiple exit points with access to a single arterial, a loop road. (YELLOW ON THE MAP) These parcels show up in three main areas:
 - a. South of park avenue, within the Park Avenue loop road
 - b. The Luz del Sol community off Ramona Blvd and Hwy 79
 - c. The residential area north of Cottonwood, between Sanderson and Lyon
3. Approximately 10% of the parcels have one exit point with access directly onto a single arterial. These parcels are widespread throughout the planning area, and they tend to be condo, apartment, and mobile home communities, or large rural residential parcels. (ORANGE ON THE MAP)
4. There are no parcels described as having “One Exit Point with some distance to a single arterial”

Arterial Access for Residential Areas in High Hazard Zones



Legend

- Combined Hazard Area*
 - City of San Jacinto
 - San Jacinto Sphere of Influence
 - Neighboring City
 - California Highway
 - Arterial
 - Local Street
- Residential Parcels in Hazard Areas**
- Multiple Exit Points with Access to Multiple Arterials
 - Multiple Exit Points with Access to a Single Arterial (Loop Road)
 - One Exit Point directly onto a Single Arterial
 - One Exit Point with Access to a Single Arterial
 - (There are no parcels with the San Jacinto Planning Area that meet these criteria)

* The Combined Hazard Area is an undifferentiated combination of the following mapped hazards: Areas within Landslide Susceptibility Classes 8, 9, and 10 (CGS Map Sheet 58); Areas within the 100-year flood zone (FEMA); Potential Liquefaction Zones, Potential Landslide Zones, and Fault Zones, (CGS Seismic Hazard Zonation Program); Dam Inundation Areas (CALDES/DWR); Areas of Very High and High Fire Hazard Threat (CalFire); Areas of High and Very High Fire Hazard Areas in State Responsibility Areas (CalFire), and Areas of Very High Fire Hazard Severity in Local Responsibility Areas (CalFire). Some or all of these hazards may be present within the Combined Hazard Area.



Source: City of San Jacinto, Riverside County, CGS, FEMA, DWR, CALDES, CalFire. Map date: October 25, 2022.

