

Katherine Douglas

Appellant Comments

# 4



**From:** Marc Chytilo <marc@lomcsb.com>  
**Sent:** Friday, December 5, 2025 11:55 AM  
**To:** sbcob  
**Cc:** Pegeen Soutar; Laura Capps  
**Subject:** LOMC to BOS 12-9-25 pkg.pdf  
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Clerk – pls accept the attached comments from Appellant on item # 4 on the 12/9/25 Board of Supervisors agenda

Pls confirm timely receipt

Thank you

Marc

\* \* \* \* \*

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LAW OFFICE OF MARC CHYTILO, APC  
A PROFESSIONAL CORPORATION

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ENVIRONMENTAL LAW

December 5, 2025

Santa Barbara County Board of Supervisors  
105 E. Anapamu Street  
Santa Barbara, California 93101

By Email to: [sbcob@countyofsb.org](mailto:sbcob@countyofsb.org)

RE: **Mission Isla Vista Partners LP Housing Development. Item # D4, 12/9/25**

*Chair Capps and Honorable Members of the Board of Supervisors:*

This office represents Pegeen and Jon Soutar in this matter.

Despite extensive good faith effort by the appellant and applicant, we were unable to identify a compromise project design that County Planning Staff could support. The Board's options are to approve the Revised project over Staff's objections, or denying the Project. Because this is the last allowable hearing, a final action must be taken.

**1. Either Approve the Revised Project**

Appellant and Applicant met five times and developed a Revised Project that materially improves upon the initial Project. The revisions entail a design with structures around a central courtyard, with parking in the rear and along the west side. Appellant sought one revision – to shift the buildings back 10' from Sueno to avoid looming over the street, identified as the Revised, Set Back Configuration. This version allows the required County Fire Department access to overlap with resident parking provided at the rear of the site. Unfortunately, Staff advised the applicant that the revised concept would require months to review, and could not be considered by the Board at this last hearing.

We ask the Board to approve the Revised, Set Back Configuration design, and direct staff to reconcile the final site plan and design with this action.

**2. Or Deny The Initial Project**

If the Board is unable or unwilling to approve the Revised, Set Back Configuration Project, it should deny the Project. The County has authority to deny the Project based on the extraordinary cumulative risks to public health, safety and welfare. Additionally, the County may not approve the Project under the proposed Public Resource Code § 21159.25 CEQA exemption due to the cumulative transportation impacts the Project causes, when considered with the 450 other bedrooms that have been approved or are in the pipeline for student housing in Isla Vista.

**A. Deny based on impacts to public health, safety and welfare**

California Gov. Code § 65589.5(j)(1)(A-B) authorizes denial of housing projects that have a specific adverse impact on public health or safety, and there is no feasible method of avoid the impacts.

The County's Multi-Jurisdictional Hazard Mitigation Plan assesses and identifies the multiple public safety hazards that Isla Vista is uniquely subject to. See Exhibit A. These include hazards, including impaired or eliminated transportation assess for evacuation and first responders due to flooding, tsunami, bluff erosion and failure, civil unrest.

The MJHMP provides as follows:

Isla Vista is located nine miles west of the City of Santa Barbara adjacent to UC Santa Barbara and the City of Goleta. It is located on a coastal bluff overlooking the Pacific Ocean. Land use in Isla Vista is determined by the County's Goleta Community Plan (1993). Isla Vista is accessed by Storke Road and Mesa Road from Highway 101. The current population of Isla Vista is approximately 24,696 residing within approximately 2 square miles (U.S. Census Bureau 2021). Isla Vista is home to many students living in dense housing and dormitories. Much of Isla Vista is a densely populated residential community, with one of the highest concentrations of people in the state (62.5 people per acre). Isla Vista's downtown area is located on the eastern edge of the community adjacent to the UC Santa Barbara Main Campus and contains approximately 134,000 square feet of commercial development along loop-shaped Embarcadero del Mar linking to Embarcadero del Norte. MJHMP at 4-30.

The MJHMP includes the following unique hazards present or likely to occur in Isla Vista:

- Identified as a "WUI Communities at Risk." MJHMP, at 5-13
- Blufftop hazards are well known to the Board
- Storms affecting access: on 2/2/1998 a tree crushed an apartment complex, forcing evacuation of residents during a severe storm that also knocked over hundreds of other trees. At 5-53
- On 2/6/1998 a second storm caused major flooding throughout south coast, including major flooding of streets in Isla Vista. Id
- Coastal Flooding is listed as Likely. At 5-72
- Identified as a "[p]articularly susceptible area of the County" to exacerbated impacts from sea level rise. At 5-73
- Experienced a tornado on 1/19/2010. At 5-102
- Projected to "Likely" experience civil unrest, noting 1970 Vietnam war protests, Halloween, Deltopia, Floatopia and other mass gatherings. At 5-119-120; 6-99

- Experienced a terrorism incident in 2014 with multiple casualties. At 5-125
- Experienced a hazardous materials incident. At 5-134.
- Vulnerable to coastal Hazards, including rising sea level, erosion, flooding, storm surge, bluff failure. At 6-68.
- Vulnerable to Tsunami. At 6-85

Coastal resilience in Isla Vista is identified among the highest priority in 2022 MJHMP Mitigation actions. 7-28

Notably, missing from the 2023 MJHMP is any assessment of evacuation of Isla Vista

However the County-commissioned December 2024 KLD Engineering Evacuation Traffic Modelling Study, excerpts attached as Exhibit B, which did attempt to evaluate a single scenario of evacuating Isla Vista in an emergency, and while assuming an unrealistic 25 mph exit velocity, projected evacuating Isla Vista would take at least 3 hours, and require the instant availability of 90 MTD busses. UCSB was not included in that calculation, but **would also require a massive, instantaneous mobilization of dozens of large busses at the same time.**

The Project would both add more occupants to Isla Vista and exacerbate evacuation challenges, but also add more cars to Isla Vista's crowded streets. As shown by evidence previously submitted, including the IVCSB's parking studies, first responder access and evacuation are each compromised by the excessive number of cars stored in Isla Vista.

Collectively, this evidence establishes the existence of a specific adverse Project effect on public health and safety, sufficient to support a finding under Gov. Code § 65589.5(j)(1)(A-B).

**B. Deny based on California Environmental Quality Act – The Project Is NOT Exempt from CEQA**

§ 21159.25 exemption from CEQA is inapplicable if:

- a. "The cumulative impacts of successive projects of the same type in the same place over time is significant" §21,159.25(c)

Or

- b. There is a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances.

**i. Cumulative Impacts**

As noted above and in previously submitted materials, the record includes extensive evidence of at least 450 new bedrooms approved or under review, and the Project represents 10% of that number. Cumulative transportation and human risks as identified in CEQA Guidelines

Appendix G IX (impair evacuation), XVII (result in inadequate emergency access); and XXI (mandatory findings of significance for projects that can cause substantial adverse effects on human beings).

**ii. Unusual Circumstances**

As noted throughout the materials identified and submitted, Isla Vista's density, population, location and physical circumstances constitute unusual circumstances that trigger potentially significant project impacts.

**As such, the Board Cannot Make CEQA Findings and Must Deny the Project.**

Respectfully Submitted,

LAW OFFICE OF MARC CHYTILO, APC

A handwritten signature in black ink, appearing to read 'Marc Chytilo', with a stylized flourish extending to the right.

By: Marc Chytilo

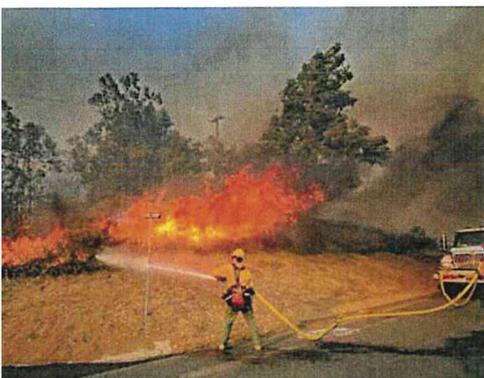
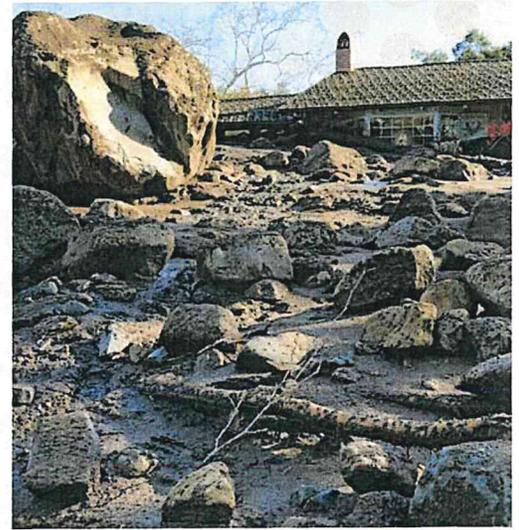
Exhibits



# SANTA BARBARA COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN (MJHMP)

County of Santa Barbara, City of Buellton, City of Carpinteria, City of Goleta, City of Guadalupe, City of Lompoc, City of Santa Barbara, City of Santa Maria, City of Solvang, Cachuma Operations and Maintenance Board, Carpinteria Valley Water District, Montecito Fire Protection District, Montecito Water District, Santa Maria Valley Water Conservation District, Goleta Water District

February 2023



Prepared by:  
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# **SANTA BARBARA COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN (MJHMP)**

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City of Guadalupe, City of Lompoc, City of Santa Barbara, City of Santa Maria, City of Solvang,  
Cachuma Operations Maintenance Board, Carpinteria Valley Water District,  
Montecito Fire Protection District, Montecito Water District,  
Santa Maria Valley Water Conservation District, Goleta Water District

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**February 2023**

**SANTA BARBARA COUNTY  
MULTI-JURISDICTIONAL HAZARD  
MITIGATION PLAN (MJHMP)**

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**List of Acronyms and Abbreviations**

AADT	average annual daily trips
AB	Assembly Bill
ALERT	Automated Local Evaluation in Real Time
ARES	Amateur Radio Emergency Services
ATSDR	Agency for Toxic Substances and Disease Registry
BFE	base flood elevation
CAER	Community Awareness and Emergency Response
CAL FIRE	California Department of Forestry and Fire Protection
Cal OES	California Governor's Office of Emergency Services
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CASGEM	California Statewide Groundwater Elevation Monitoring
CBWD	Cuyama Basin Water District
CCR	California Code of Regulations
CCSD	Cuyama Community Services District
CDC	Center for Disease Control
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERT	Community Emergency Response Teams
cfs	cubic-feet-per-second
CIASO	Chief Information Security Officer
CIP	Capital Improvement Plan
County OEM	Santa Barbara County Office of Emergency Management
CRS	Community Rating System
CSDs	Community Service Districts
CWPP	Community Wildfire Protection Plans
CWPP	Community Wildfire Protection Plan
DOC	Department Operations Center
DRM	Office of the Disaster Recovery Manager
DSOD	Division of Safety of Dams
DWR	State Department of Water Resources
EDD	State of California Employment Development Department
EDRN	Existing Developed Rural Neighborhood
EOC	Emergency Operations Center
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FIRM	Flood Insurance Rates Map
FMMP	Farming Mapping and Monitoring Program
FY	Fiscal Year
GIS	geographic information systems

*List of Acronyms and Abbreviations*

GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
Highway 101	U.S. Highway 101
ICT	Information and Communications Technology
LPT	Local Planning Team
LRA	Local Responsibility Area
MAC	Mitigation Advisory Committee
MERRAG	Montecito Emergency Response & Recovery Action Group
MW	mega-watts
NFIP	National Flood Insurance Program
NWS	National Weather Service
OWTS	Onsite Wastewater Treatment Systems
PG&E	Pacific Gas & Electric Company
PV	photovoltaic
PXP	Plains Exploration and Production Company
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SBCAG	Santa Barbara County Association of Governments
SBIA	Santa Barbara Industrial Association
SCE	Southern California Edison Company
SEMS	California Standardized Emergency Management System
sf	square feet
SFHA	special flood hazard area
SGMA	Sustainable Groundwater Management Act
SoCalGas	Southern California Gas Company
SoVI	social vulnerability index
SR	State Route
SRA	state responsibility area
SWRCB	State Water Resources Control Board
SYWCD	Santa Ynez River Water Conservation District
TIP	transportation improvement plan
UCSB	University of California, Santa Barbara
UPRR	Union Pacific Railroad
USBR	U.S. Bureau of Reclamation
Vandenberg SFB	Vandenberg Space Force Base
VMT	vehicle miles traveled
VOAD	Voluntary Organizations Active in Disasters
WUI	wildland-urban interface
WWTP	wastewater treatment plants

## 1.0 INTRODUCTION

Natural and human-caused disasters can lead to death, injury, property damage, and interruption of business and government services. When they occur, the time, money, and effort to respond to and recover from these disasters divert public resources and attention from other important programs and problems.

However, the impact of foreseeable yet often unpredictable natural and human-caused events can be reduced through mitigation planning. History has demonstrated that it is less expensive to mitigate against disaster damage than to repeatedly repair damage in the aftermath. A mitigation plan states the aspirations and specific courses of action jurisdictions intend to follow to reduce vulnerability and exposure to future hazard events.

The County of Santa Barbara (County) recognizes the consequences of disasters and the need to reduce the impacts of all hazards, natural and human-caused. The County has prepared this update to its Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) to comprehensively identify, evaluate, and mitigate the known hazards that Santa Barbara County faces.

The 2022 MJHMP Update was prepared and formulated with input and coordination from each of the county's eight incorporated cities, six special districts, the County, citizen participation, responsible officials, and support from the State of California Governor's Office of Emergency Services (CalOES) and the Federal Emergency Management Agency (FEMA). The process to update the MJHMP included over a year of coordination with representatives from all of the incorporated cities and six special districts within the County and County representatives who comprised the Mitigation Advisory Committee (MAC) (described further in Section 3.2 below).

The MJHMP is used by local emergency management teams, decision-makers, and agency staff to implement needed mitigation to address known hazards. The MJHMP can also be used as a tool for all stakeholders to increase community awareness of local hazards and risks

### Key Terms

**Mitigation.** Sustained actions taken to reduce or eliminate long-term risk to life and property from hazards. \*

**Prevention.** Actions necessary to avoid, prevent, or stop an imminent threat or actual act of terrorism. \*\*

**Protection.** Actions necessary to secure the homeland against acts of terrorism and manmade or natural disasters. \*\*

**Preparedness.** Actions taken to plan, organize, equip, train, and exercise to build and sustain the capabilities necessary to prevent, protect against, mitigate the effects of, respond to, and recover from those threats that pose the greatest risk to the security of the Nation. \*\*

**Response.** Actions necessary to save lives, protect property and the environment, and meet basic human needs after an incident has occurred. \*\*

**Recovery.** Actions necessary to assist communities affected by an incident to recover effectively. \*\*

\* Source: 44 CFR §201.2 Mitigation Planning - Definitions.

\*\* Source: National Preparedness Goal, First Edition. September 2011, FEMA. <http://www.fema.gov/pdf/prepared/npg.pdf>

and provide information about options and resources available to reduce those risks. Informing and educating the public about potential hazards helps all county residents and visitors protect themselves against their effects.

Risk assessments were performed that identified and evaluated priority natural and human-caused hazards that could impact the County and its jurisdictions. The MJHMP describes historical hazard events and the future probability of these hazards and their impact on communities within the County. Vulnerability assessments summarize the identified hazards' impact on critical infrastructure, populations, and future development. Estimates of potential dollar losses to vulnerable structures are presented. The risk and vulnerability assessments were used to determine mitigation goals and objectives to minimize near-term and long-term vulnerabilities to the identified hazards. These goals and objectives are the foundation for a comprehensive range of specific attainable mitigation actions (see Chapter 7.0).

## **1.1 BACKGROUND ON MITIGATION PLANNING IN SANTA BARBARA COUNTY**

The updated MJHMP complies with Federal Emergency Management Agency (FEMA) guidance and California Office of Emergency Services guidelines for Local Hazard Mitigation Plans. The update followed the requirements noted in the Disaster Mitigation Act (DMA) of 2000 and FEMA's 2013 Local Hazard Mitigation Planning Handbook (described further in Section 2.0 below). The primary purpose of the MJHMP Update is to reduce or eliminate long-term risk to people and property from natural hazards and their effects on Santa Barbara County. Santa Barbara County recognized the need for and importance of a Hazard Mitigation Plan and initiated its development in 2006 after receiving a grant from the Federal Emergency Management Agency (FEMA), which also served as the primary funding source for this plan update. A Hazard Mitigation Plan was originally developed in 2006, updated in 2011 and 2017, and has undergone a comprehensive update for 2022. These updates occur every five years, consistent with FEMA requirements.

## **1.2 WHAT'S NEW IN THE PLAN UPDATE**

This MJHMP Update for 2022 involved a comprehensive review and update of each section of the 2017 MJHMP and includes an assessment of the progress in evaluating, monitoring, and implementing the mitigation strategy outlined in the former plan. The County Office of Emergency Management worked closely with Wood Environment & Infrastructure, Inc., a hazard mitigation consultant team based in Santa Barbara, to assist with developing the MJHMP Update. The planning process provided an opportunity to review jurisdictional priorities related to hazard significance and mitigation actions, and revisions were made wherever applicable to the MJHMP and its annexes for each participating agency. Only the information and data still valid from the 2017 plan were carried forward as applicable to this update.

One major change from 2017 was the desire to expand the participating agencies. In past plans, the participating agencies included the County and the eight incorporated cities. For this plan update, six special districts were added as participating agencies: Cachuma Operation and Maintenance Board (COMB), Carpinteria Valley Water District (CVWD), Montecito Fire Protection

District (MFPD), Montecito Water District (MWD), Goleta Water District (GWD), and Santa Maria Valley Water Conservation District (SMVWCD).

In addition to additional agencies, the 2022 MJHMP provides a more in-depth review of hazards that have particularly impacted the county in the last five years, such as wildfires, pandemics, and debris flows. The 2022 MJHMP also provides expanded analysis on hazards that were included but not fully addressed in past plans, such as drought, energy shortages, extreme heat, and agricultural pests. The following table provides a summary of highlights in this plan update.

**Table 1-1. Santa Barbara County Multi-Jurisdiction Hazard Mitigation 2022 Plan Update Highlights**

<b>Plan Section</b>	<b>Summary of Plan Review, Analysis, and Updates</b>
1. Introduction	Provides an overview of the MJHMP's purpose, adds the history of mitigation planning within the county, and summarizes plan updates since 2017.
2. Plan Purpose and Authority	Summarizes key hazard mitigation legislation, explains collaboration and compliance of the project, and displays adoption resolutions.
3. Planning Process	Explains how the COVID-19 pandemic affected the MJHMP's development, summarizes mitigation advisory committee and local planning team participants and meetings, and outlines the public outreach approach.
4. Community Profile and Capability Assessment	Provides an overview of the county, including its communities, demographics, social vulnerabilities, economy, climate, geography, infrastructure, and land use. Explains the administrative, technical, regulatory, fiscal, and outreach capabilities of the County.
5. Hazards Assessment	Refreshes geographic extent and descriptions of all hazards and updates maps, and adds new hazards and events of the past five years.
6. Vulnerability Assessment	Updates critical facilities list and maps, and recalculates models for quantifiable hazards.
7. Mitigation Plan	Updates status of all pending 2017 mitigation strategies, provides new goals and objectives, adds new mitigation strategies for key hazards, and refreshes mitigation priorities
8. Plan Maintenance	Refreshes requirements for monitoring, reporting, and annual review and updates for the MJHMP and annexes
Jurisdictional Annexes	Updates to annexes for each participating agency, and provides annexes for new participating jurisdictions in 2022.
Appendices	Compiled appendices for technical data outputs and community outreach.

## **2.0 PLAN PURPOSE AND AUTHORITY**

### **2.1 LOCAL COMPLIANCE WITH THE DISASTER MITIGATION ACT (DMA)**

Federal legislation has historically provided funding for disaster preparedness, response, recovery, and mitigation. The Disaster Mitigation Act (DMA) of 2000, also commonly known as “The 2000 Stafford Act Amendments” (the Act), constitutes an effort by the Federal government to reduce the rising cost of disasters. The legislation reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur.

Section 322 of the DMA requires local governments to develop and submit mitigation plans to qualify for the Federal Emergency Management Agency’s (FEMA) Hazard Mitigation Assistance (HMA) grant program funds. This Multi-Jurisdiction Hazard Mitigation Plan (MJHMP) is written to meet the statutory requirements of DMA 2000 (P.L. 106-390), enacted October 30, 2000, and 44 CFR Part 201 – Mitigation Planning, Interim Final Rule, published February 26, 2002. The HMA grants include the Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM) program, and the Flood Mitigation Assistance (FMA) program. Additional FEMA mitigation funds include the HMGP Post Fire funding associated with Fire Management Assistance Grant (FMAG) declarations and the Building Resilient Infrastructure and Communities (BRIC) funding associated with the 2018 Disaster Recovery Reform Act (DRRA).

DMA 2000 specifically addresses mitigation planning at the state and local levels. It identifies requirements that allow HMGP funds to be used for planning activities and increases the amount of HMGP funds available to states that have developed a comprehensive, enhanced mitigation plan before a disaster. State, county, and local jurisdictions must have an approved mitigation plan in place before receiving post-disaster HMGP funds. These mitigation plans must demonstrate that their proposed projects are based on a sound planning process that accounts for the local risks and the capabilities of the individual communities.

Local governments have certain responsibilities for implementing Section 322, including:

- Preparing and submitting a local mitigation plan;
- Reviewing and updating the plan every five years; and
- Monitoring Projects.

To facilitate implementation of the DMA 2000, FEMA created an Interim Final Rule (the Rule), published in the Federal Register in February of 2002 in section 201 of 44 CFR. The Rule spells out the mitigation planning criteria for states and local communities. Specific requirements for local mitigation planning efforts are outlined in section §201.6 of the Rule.

In March 2013, FEMA released The Local Mitigation Planning Handbook (Handbook) as the official guide for local governments to develop, update and implement local mitigation plans. The Handbook complements and references the October 2011 FEMA Local Mitigation Plan Review Guide (Guide) to help “Federal and State officials assess Local Mitigation Plans in a fair and consistent manner.” Local jurisdictions must demonstrate that proposed mitigation actions are based upon a sound planning process that accounts for the inherent risk and capabilities of the individual

communities as stated in section §201.5 of the Rule. The 2022 – 2026 FEMA Strategic Plan outlines a bold vision and three goals to address key challenges, including instilling equity as a foundation of emergency management, leading communities in climate resilience, and promoting and sustaining readiness and preparedness nationwide. Throughout the 2022 update of the MJHMP, the Handbook and Guide were consulted to ensure thoroughness, diligence, and compliance with the DMA 2000 planning requirements. The MJHMP also aspires to the goals outlined in FEMA's Strategic Plan.

DMA 2000 is intended to facilitate cooperation between state and local authorities, prompting them to work together. It encourages and rewards local and state pre-disaster planning and promotes sustainability as a strategy for disaster resistance. This enhanced planning network is intended to enable local and state governments to articulate accurate needs for mitigation, resulting in a faster allocation of funding and more effective risk reduction projects. As such, the MJHMP was prepared jointly by the County of Santa Barbara (County); the cities of Buellton, Carpinteria, Goleta, Guadalupe, Lompoc, Santa Barbara, Santa Maria, and Solvang; and special districts Cachuma Operation and Maintenance Board (COMB), Carpinteria Valley Water District (CVWD), Montecito Fire Protection District (MFPD), Montecito Water District (MWD), Goleta Water District (GWD), and Santa Maria Valley Water Conservation District (SMVWCD). The risk assessment and mitigation strategies within the MJHMP and its annexes were developed jointly to benefit all of the above jurisdictions and make them more resilient to future disasters.

The following pages show the County resolutions that adopted the 2022 MJHMP.

**RESOLUTION OF THE BOARD OF SUPERVISORS OF THE  
COUNTY OF SANTA BARBARA, STATE OF CALIFORNIA**

**A RESOLUTION IN THE MATTER OF  
THE ADOPTION OF THE SANTA  
BARBARA COUNTY MULTI-  
JURISDICTIONAL HAZARD  
MITIGATION PLAN**

Resolution No. 23-71

**WHEREAS**, the Federal Disaster Mitigation Act of 2000 (“Act”), as described in Title 44 of the Code of Federal Regulations Section 201.6 (44 CFR § 201.6) mandates local governments to submit and maintain a Federal Emergency Management Agency (“FEMA”) approved local hazard mitigation plan to maintain eligibility for future mitigation grant opportunities; and

**WHEREAS**, the County of Santa Barbara Office of Emergency Management, working with the Public Works Department and other County departments, has coordinated the hazard mitigation planning efforts among the incorporated cities and participating special districts; and

**WHEREAS**, the Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan, (“Plan”) identifies a county-wide risk assessment and mitigation strategies to reduce the impacts of natural, technological, and human caused disasters on the public and local government; and

**WHEREAS**, identification of hazards in the county assists with response planning, exercise development, public education and awareness, and other emergency management functions; and

**WHEREAS**, the County and participating agencies prepared a multi-hazard mitigation plan, hereby known as the Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan (February 2023) in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

**WHEREAS**, the Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan (February 2023) identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property within the County of Santa Barbara from the impacts of future hazards and disasters; and

**WHEREAS**, the Santa Barbara County Board of Supervisors last adopted the revised Safety Element to the Comprehensive Plan February 3, 2015; and

A Resolution in the Matter of the Adoption of the 2022 Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan

**WHEREAS**, the Safety Element of the Comprehensive Plan currently integrates the 2017 Multi-Jurisdictional Hazard Mitigation Plan, in accordance with California Government Code Sections 8685.9, 65302, and 65302.6; and

**WHEREAS**, adoption by the County of Santa Barbara demonstrates its commitment to hazard mitigation and achieving the goals outlined in the Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan; and

**WHEREAS**, the Office of Emergency Management will coordinate the incorporated cities and participating special districts respective Annexes submitted to FEMA for inclusion in the Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan after they are adopted by their City Councils or respective governing bodies.

**NOW, THEREFORE, BE IT RESOLVED**, that the County of Santa Barbara Board of Supervisors hereby adopts the Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan (February 2023). While content related to the Plan may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the County of Santa Barbara to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

The County of Santa Barbara Board of Supervisors also directs the Office of Emergency Management to continue its work with the incorporated cities to include their respective Annexes to the Plan, and resolves to integrate the updated Plan by reference into the Safety Element of the Comprehensive Plan with the next Safety Element update in accordance with the requirements of Government Code sections 65302, 65302.6 and 8685.9.

**PASSED AND ADOPTED** by the Board of Supervisors of the County of Santa Barbara, State of California this 4<sup>th</sup> day of April, 2023 by the following vote:

AYES: Supervisors Williams, Capps, Hartmann, Nelson and Lavagnino

NOES: None

ABSTAIN: None

ABSENT: None

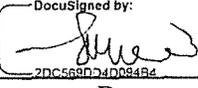


DAS WILLIAMS, CHAIR  
BOARD OF SUPERVISORS

A Resolution in the Matter of the Adoption of the 2022 Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan

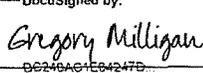
**ATTEST:**  
MONA MIYASATO  
CLERK OF THE BOARD

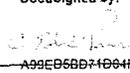
**APPROVED AS TO FORM:**  
RACHEL VAN MULLEM  
COUNTY COUNSEL

By  Deputy  
By  Deputy

**APPROVED AS TO FORM**  
GREG MILLIGAN, ARM  
RISK MANAGEMENT

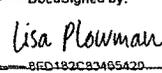
**APPROVED AS TO FORM**  
BETSY M. SCHAFFER, CPA  
AUDITOR-CONTROLLER

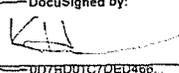
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**APPROVED AS TO FORM**  
PLANNING & DEVELOPMENT  
LISA PLOWMAN, DIRECTOR

**APPROVED AS TO FORM**  
OFFICE OF EMERGENCY  
MANAGEMENT  
KELLY HUBBARD, DIRECTOR

By:   
Date: 3/22/2023 | 3:22 PM PDT

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Date: 3/22/2023 | 2:09 PM PDT

**4.1.2 Population and Demographics**

For hazard mitigation planning purposes, Santa Barbara County can be separated into five planning areas: the Santa Maria Valley, Cuyama Valley, Lompoc Valley, Santa Ynez Valley, and South Coast (refer to Figure 4-1). Delineations of these planning areas are based on population centers where residents tend to gather because they share amenities such as recreational features, government buildings, roadway networks, and other services such as school districts.

Santa Barbara County is geographically diverse with 450,084 residents as of 2019 living in cities and unincorporated communities that range from suburban communities such as Orcutt and Eastern Goleta Valley to small rural towns such as Sisquoc, Los Olivos, Santa Ynez, and Los Alamos. Most County residents live in urban areas with approximately 309,226 (68.7 percent) of County residents living in the eight incorporated cities and 140,858 (31.3 percent) residing in unincorporated communities and rural areas. The largest proportion of people live in the Santa Maria Valley, along the eastern and central reach of the South Coast from Goleta to Carpinteria, and, to a lesser extent, the Lompoc Valley and Santa Ynez Valley. Within these regions, most residents live in the cities of Santa Maria, Santa Barbara, Goleta, and Lompoc, which support 276,494 residents or 61 percent of the county’s population. The largest unincorporated communities are Orcutt, Eastern Goleta Valley, and Isla Vista, supporting 88,309 residents or 20 percent of the county’s population (U.S. Census Bureau 2021).

**Projected Growth**

Santa Barbara County’s population is projected to increase by 13.2 percent through 2050, a total increase of approximately 45,875 residents (U.S. Census Bureau 2021; Santa Barbara County Association of Governments [SBCAG] 2018). Most of this growth (48.5 percent) is projected to occur in the Santa Maria Valley with an increase of 22,263 residents or approximately 15 percent. Although the total population is smaller, the Lompoc Valley is projected to grow by 16.3 percent, the highest growth rate in the county. While the South Coast is projected to experience the lowest growth rate by percent, the population is projected to increase by 14,130 residents. While all communities in Santa Barbara County are projected to grow, the City of Guadalupe is projected to have the highest population increase of 27.9 percent between 2019 and 2050, followed by the City of Buellton and Vandenberg SFB with a 19.9 percent total increase (Table 4-2).

**Table 4-2. Projected Population Growth Across Communities in Santa Barbara County**

Planning Area	Cities and Communities	Current Population (2019)	Projected Population (2050)	Percent Increase
Santa Maria Valley	City of Santa Maria	107,859	125,288	16.2%
	City of Guadalupe	7,719	9,873	27.9%
	Casmalia	173	188	8.7%
	Garey	67	73	9.0%
	Orcutt	30,819	33,462	8.6%
	Sisquoc	201	218	8.5%
	<b>Area Total</b>	<b>146,838</b>	<b>169,102</b>	<b>15.2%</b>

**Table 4-2. Projected Population Growth Across Communities in Santa Barbara County (Continued)**

Planning Area	Cities and Communities	Current Population (2019)	Projected Population (2050)	Percent Increase
Cuyama Valley	Cuyama	59	64	8.5%
	New Cuyama	537	581	8.2%
	<b>Area Total</b>	<b>596</b>	<b>645</b>	<b>8.2%</b>
Lompoc Valley	City of Lompoc	44,188	52,200	18.1%
	Vandenberg Village	6,988	7,469	6.9%
	Mission Hills	3,630	3,880	6.9%
	Vandenberg SFB	5,441	6,525	19.9%
	<b>Area Total</b>	<b>60,247</b>	<b>70,074</b>	<b>16.3%</b>
Santa Ynez Valley	City of Buellton	5,441	6,525	19.9%
	City of Solvang	5,761	6,298	9.3%
	Ballard	507	542	6.9%
	Los Alamos	1,422	1,520	6.9%
	Los Olivos	1,190	1,272	6.9%
	Santa Ynez	4,836	5,169	6.9%
	<b>Area Total</b>	<b>19,157</b>	<b>21,326</b>	<b>11.3%</b>
South Coast	City of Goleta	32,413	34,884	7.6%
	City of Santa Barbara	92,034	98,655	7.2%
	City of Carpinteria	13,811	14,602	5.7%
	Gaviota	824	874	6.1%
	Isla Vista	24,696	26,188	6.0%
	Eastern Goleta Valley	30,071	31,888	6.0%
	Mission Canyon	2,344	2,486	6.1%
	Montecito	9,235	9,793	6.0%
	Summerland	1,504	1,595	6.1%
	Toro Canyon	1,598	1,695	6.1%
	<b>Area Total</b>	<b>208,530</b>	<b>222,660</b>	<b>6.8%</b>

(U.S. Census Bureau 2021; SBCAG 2021)

**Age**

The median age in Santa Barbara County is 35.1. The largest age group in the county is seniors over 55 years old with 27.3 percent, and children under 15 years old make up 18 percent of residents. Seniors over 55 are projected to increase in number by 13 percent through 2050, and

the number of children and young adults is projected to decrease by four percent. Age ranges differ substantially between planning areas. The youngest, with a median age of 37.2, is Santa Maria Valley, and the oldest, with a media age of 48.4, is the Santa Ynez Valley. Communities like Isla Vista, the City of Buellton, and the City of Guadalupe have the youngest populations in the county, while the City of Solvang, Montecito, and Vandenberg Village have some of the county’s oldest populations based on median age.

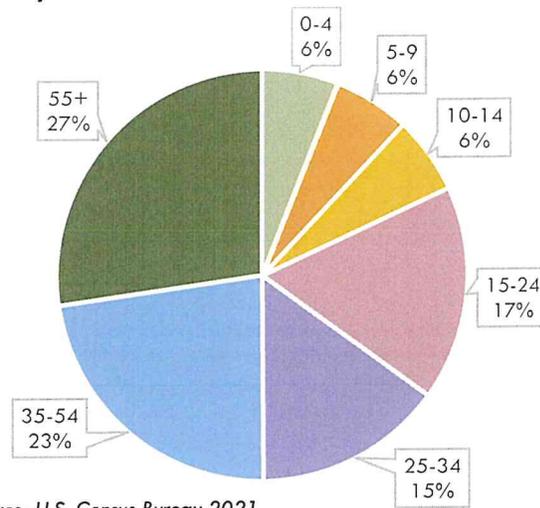
In general, cities tend to have lower median ages than surrounding unincorporated communities. The cities of Guadalupe, Lompoc, and Santa Maria have populations that are generally younger than the county’s median and their surrounding unincorporated communities.

In south county, the cities of Carpinteria, Goleta, and Santa Barbara have populations that are older than the county average. This trend is expected to continue as the median age of the county is projected to rise incrementally. A notable exception is Isla Vista on the South Coast, which has the lowest median age in the county due in large part to its proximity to the University of California, Santa Barbara (UC Santa Barbara) campus and serving as the primary source of off-campus housing for UC Santa Barbara students (SBCAG 2018; U.S. Census Bureau 2021).

**Race**

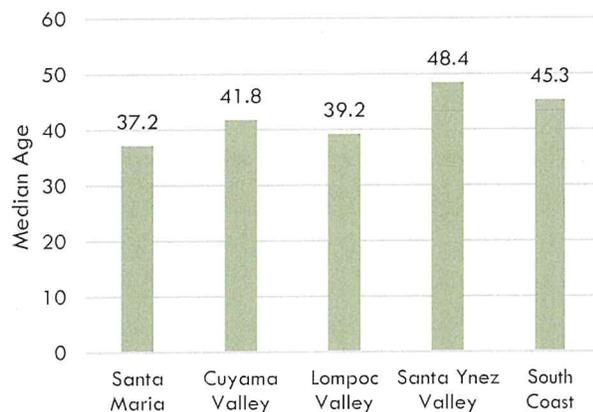
Santa Barbara County’s population identifies as 45.1 percent Hispanic, 44.9 percent White, 5.2 percent Asian, 1.8 percent Black, 2.5 percent Mixed Race, and 0.5 percent Other. Most residents in the cities of Guadalupe, Santa Maria, and Lompoc identify as Hispanic while most residents in the cities of Buellton, Solvang, Goleta, Santa Barbara, and Carpinteria identify as White. By 2050, ethnicity distribution is expected to change countywide with an increase of 13 percent in Hispanic residents and three percent in Other residents, a decrease of 15 percent in White residents, and a one percent decrease in Black residents (SBCAG 2018).

**Chart 4-1. Age Distribution in Santa Barbara County**



Source: U.S. Census Bureau 2021

**Chart 4-2. Median Ages in Santa Barbara County Communities**



Source: SBCAG 2018

**Housing**

As of 2019, there were 149,662 households in Santa Barbara County with an average household size of 2.88 people (Environmental Systems Research Institute [ESRI] 2019). Considering each planning area, the total average household size is relatively similar, ranging from 2.57 on the South Coast to 2.95 in the Santa Maria Valley, but there are substantial differences when reviewing household size on a community level. For example, the City of Guadalupe has the highest average household size of 3.93, followed by the City of Santa Maria at 3.73. The City of Solvang has the lowest average household size at 2.39. In 2024, the average household size for Santa Barbara County is projected to remain at 2.88 residents per household. Average household size and median age are also closely linked. For example, the City of Guadalupe, the City of Santa Maria, and Isla Vista have the youngest populations with the highest average household sizes, whereas communities such as the City of Solvang and Montecito have generally older populations with smaller household sizes.

The owner-occupied housing unit rate in Santa Barbara County from 2015 to 2019 was 52.1 percent. The median value of those owner-occupied units was \$577,400. The median monthly rent in that same timeframe was \$1,643 (U.S. Census Bureau 2021).

**Income**

The 2019 median household income in Santa Barbara County was \$73,602, though the range throughout the county is significant, from \$25,300 in Isla Vista to \$166,746 in Montecito. Comparing the five planning areas, Santa Ynez Valley has the highest median household income at \$108,005 and Cuyama Valley has the lowest at \$54,840. Several communities have substantially lower median incomes than both Santa Barbara County and their respective planning area, including the cities of Guadalupe, Santa Maria, and Lompoc, as well as Isla Vista. Other communities have notably higher median incomes compared to the county, including Orcutt, Eastern Goleta Valley, the City of Goleta, Vandenberg Village, Mission Hills, Buellton, Santa Ynez, Ballard, and Los Olivos. While no data are available for longer-term trends (e.g., to 2050), median household income countywide is projected to increase by 18 percent to \$86,878 by 2024 (U.S. Census Bureau 2021).

**4.1.3 Environmental Justice and Social Vulnerability**

Social vulnerability and environmental justice considerations are included in the update of this plan to identify areas across Santa Barbara County that might be more vulnerable to hazard impacts based on several factors. To assist with these updates, a social vulnerability index (SoVI) was developed by the Center for Disease Control's (CDC's) Agency for Toxic Substances and Disease Registry (ATSDR) and their Geospatial Research, Analysis & Services Program teams, as a way to portray communities' capacities to prepare for and respond to natural and man-made disasters. The SoVI does this by providing insight into particularly vulnerable populations to assist emergency response planners and public health officials in identifying communities more likely to require additional support before, during, and after a hazardous event. The CDC's SoVI creates county- and state-level maps to show relative vulnerability and provide socially and spatially relevant information on communities' populations; further, these maps compare the SoVI based on Census Tracts. The overall social vulnerability based on SoVI data is shown for Santa Barbara County by

Census Tracts in Figure 4-3, based on statewide ranking. This overall index combines four main themes of vulnerability: socioeconomic status; household composition and disability; minority status and language; and housing and transportation, which in turn are comprised of subcategories for a total of 15 variables accounting for various vulnerability factors (CDC/ATSDR 2021). Based on these data, the areas with the highest level of social vulnerability in the county are the cities of Santa Maria and Guadalupe (and surrounding communities) and the Cuyama Valley (see Figure 4-3).

In addition, the County identified 22 different “frontline” populations and communities in the unincorporated county as part of the Climate Change Vulnerability Assessment (CCVA) prepared in 2021. Frontline populations and communities are people who experience the impacts of climate change earlier and/or to a disproportionately severe degree than others in the unincorporated county and are the least able to access resources. The CCVA used U.S. Census data for 15 frontline community indicators in each census block group of the county such as age, income, educational attainment, housing type, and access to a vehicle. As a result, several additional unincorporated communities were identified as vulnerable to hazards exacerbated by climate change, including Isla Vista, Eastern Goleta Valley, El Sueno (a neighborhood in Eastern Goleta Valley), and western Carpinteria in the South Coast, southern Santa Ynez Valley, and areas northwest of Santa Maria (near the City of Guadalupe).

#### **4.1.4 Economy**

Santa Barbara County’s economy supports a wide range of industries, including agriculture, hospitality, construction, government, and professional services. Between 2010 and 2018 the fastest growing sectors for jobs within the county were wholesale trade, leisure and hospitality, and farming (UC Santa Barbara Economic Forecast Project 2018).

Economically, Santa Barbara County is generally divided into three regions: the agriculture and military-based north county, the technology, education, and tourist-based south county, and the Santa Ynez Valley, which is based on agriculture, primarily wineries and vineyards. Each region has unique social and environmental features that influence the economics of the area, such as demographics, proximity to irrigable farmland or Los Angeles tourist markets, full-service airports, and location of technology/industry centers.

The north county is part of the central California coastal region and is defined by the Santa Maria and Lompoc Valleys with multiple larger unincorporated communities, as well as Vandenberg SFB. The presence of the base in the area has generated a variety of business opportunities, causing the region to evolve away from a strictly agriculture-based economy into one that is more diverse with hospitality, retail, and financial services. Alan Hancock College supports higher education in this region.

The Central County and Santa Ynez Valley regions are known primarily for their vineyards, horse ranches, bed-and-breakfasts, and Cachuma Lake. Visitors come to the Los Padres National Forest and Lake Cachuma for a variety of outdoor activities, including camping, boating, fishing, hiking, and rock climbing. The City of Solvang, with its Danish-inspired design, also attracts tourists to the region throughout the year.

Currently, seven personnel are available 24 hours, 7 days a week out of Station one. Station Two houses three or four personnel 24 hours a day (Montecito Fire Protection District 2021).

**Toro Canyon**

Toro Canyon is located between Summerland and the City of Carpinteria, approximately two miles northwest of the City. Major access roads into Toro Canyon include Highway 101, Via Real, and SR 192 (East Valley Road/Foothill Road). Land use in Toro Canyon is determined by the Toro Canyon Community Plan, which designates mixed rural and semi-rural, agricultural, and low-density residential uses of approximately 5,950 acres and accommodating 1,598 residents (U.S. Census Bureau 2021). Toro Canyon's existing land uses include large expanses of agriculture, a few concentrated and many scattered residential developments, two small commercial areas, recreation, and undeveloped open space. Toro Canyon includes approximately 1,000 parcels and the following approximate square footage for each land use: 850 residential units; 61,665 square feet of commercial and industrial space; 5,236,132 square feet of greenhouses and related development; 88,545 square feet of institutional/educational development; and 130,399 square feet of other non-residential development.

Santa Claus Lane and Via Real at the eastern Padaro Lane/Highway 101 interchange are the only commercial areas in Toro Canyon. Residential development is scattered throughout Toro Canyon, generally with larger parcels to the north and smaller parcels to the south. Several neighborhoods with parcel sizes between 7,000 square feet to one acre exist in southern Toro Canyon, including beachfront properties along Padaro Lane and Rural Neighborhoods (RNs) surrounded by agricultural and rural land. Upper Toro Canyon (generally north of East Valley Road and Paredon Ridge) residential development is characterized by parcel sizes of five acres or greater and is generally associated with either agricultural uses or large estates.

**Mission Canyon**

Mission Canyon is located in the foothills of the Santa Ynez Mountains, north of and adjacent to the City of Santa Barbara. Foothill Road/SR 192 lines the southern border of the community. Land use in this area is determined by the County's Mission Canyon Community Plan. Mission Canyon's 1,114 acres contain 1,138 parcels and support residential development, agriculture, and open space. There is no commercial or industrial development. Residential development occurs throughout the area, generally with larger parcels to the north and smaller parcels to the south. Residential parcels range from under 7,000 square feet to over 40 acres. The South Foothill sub-area falls to the south of Foothill Road and comprises approximately 143 acres with 258 parcels that average 0.5 acres in size. The Mission Canyon Heights sub-area contains approximately 550 parcels within its 160 acres of steeply sloped terrain and averages about 0.5 acres per parcel. The Upper Mission Canyon sub-area comprises approximately 817 acres of terrain occupied by low-density residential and open space. Several popular hiking trailheads are located in this sub-area. Mission Canyon is home to 2,344 residents (U.S. Census Bureau 2021).

**Eastern Goleta Valley**

Eastern Goleta Valley is located between the City of Santa Barbara and the City of Goleta. The community is laterally bisected by Highway 101 and Hollister Avenue. The unincorporated coastal plain and foothills reaching from Camino Cielo Road on the north to the Pacific Ocean on the south

cover approximately 23,300 acres. Land use is determined by the County's Eastern Goleta Valley Community Plan. Of this area, about 15,300 acres lie within the designated Rural Area, and about 7,900 acres lie within the designated Urban Area where the majority of the approximately 30,071 residents of Eastern Goleta Valley live (U.S. Census Bureau 2021). Eastern Goleta Valley is largely suburban residential in character, providing a range of residential types, including single-family, condominium, apartment, and mobile home types in the Urban Area, with ranchette neighborhoods in the peripheral areas of Hope Ranch and the foothills. There are approximately 10,222 residential units in the area. There is a total of approximately 3,187,463 square feet of commercial development in Eastern Goleta Valley, most of it concentrated along the Hollister Avenue – State Street corridor. The mid to higher elevations of Eastern Goleta Valley are designated as mountainous areas and are characterized by rugged terrain, habitat areas, headwaters of local watershed sub-basins, and clusters of rural residential neighborhoods. Much of the mountainous area lies within the boundaries of the Los Padres National Forest. The foothills of Eastern Goleta Valley support rural agriculture, typified by orchards, large parcel crop productions, and grazing land.

**Isla Vista**

Isla Vista is located nine miles west of the City of Santa Barbara adjacent to UC Santa Barbara and the City of Goleta. It is located on a coastal bluff overlooking the Pacific Ocean. Land use in Isla Vista is determined by the County's Goleta Community Plan (1993). Isla Vista is accessed by Storke Road and Mesa Road from Highway 101. The current population of Isla Vista is approximately 24,696 residing within approximately 2 square miles (U.S. Census Bureau 2021). Isla Vista is home to many students living in dense housing and dormitories. Much of Isla Vista is a densely populated residential community, with one of the highest concentrations of people in the state (62.5 people per acre). Isla Vista's downtown area is located on the eastern edge of the community adjacent to the UC Santa Barbara Main Campus and contains approximately 134,000 square feet of commercial development along loop-shaped Embarcadero del Mar linking to Embarcadero del Norte.

**Gaviota Coast**

The Gaviota Coast is a 158-square-mile (101,199 acres) unincorporated area of coastal plains and foothills west of the City of Goleta that contains 968 parcels with an average size of 110 acres. The area is bounded by Vandenberg SFB to the northwest, the Pacific Ocean on the south and west, the crest of the Santa Ynez Mountains on the north, and the City of Goleta to the east. Highway 101 runs along the coast, while Highway 1 provides access to the Lompoc Valley. Land use is determined by the County's Gaviota Coast Area Plan. Agriculture is the predominant land use designation with approximately 77,820 acres, followed by approximately 26,051 acres of Mountainous Area, approximately 5,562 acres of recreation/open space, and other miscellaneous designations for the balance of about 2,266 acres. Much of the agricultural land includes the Los Padres National Forest in the inland portions of the Gaviota Coast. Cattle grazing is the primary agricultural use, in addition to orchards and other agricultural operations. The Los Padres National Forest covers 15,634 acres on the Gaviota Coast. Three major State parks and one County park exist within the Gaviota Coast: Gaviota State Park, El Capitan State Beach, Refugio State Beach, and Jalama Beach County Park. Industrial land uses in the Gaviota Coast are limited to

*COUNTY OF SANTA BARBARA  
Evacuation Traffic Modeling Study*



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**ACRONYM LIST**

**Table AL-1. Acronym List**

<b>ACRONYM</b>	<b>DEFINITION</b>
AADT	Average Annual Daily Traffic
AB	Assembly Bill
ACS	American Community Survey
AFN	Access and Functional Needs
BLS	Basic Life Support
BTS	Bureau of Transportation Statistics
CA	California
CAL FIRE	California Department of Forestry and Fire Protection
DHV	Design Hour Volume
DK	Don't Know
DTA	Dynamic Traffic Assignment
DTRAD	Dynamic Traffic Assignment and Distribution
DYNEV	Dynamic Network Evacuation
EAG	Evacuation Advisory Group
ES	Executive Summary
ESRI	The Environmental Systems Research Institute's
ETE	Evacuation Time Estimates
EVAN	EVacuation ANimator
FEMA	Federal Emergency Management Agency
FFS	Free Flow Speed
FHSZ	Fire Hazard Severity Zones
FRAP	Fire and Resources Assessment Program
GC	Government Code
GHG	Greenhouse Gasses
GIS	Geographic Information Systems
HCM	Highway Capacity Manual
LCI	Land Use and Climate Innovation's
LEHD	Longitudinal Employer-Household Dynamics
LOS	Level of Service
LRA	Local Responsibility Area
MMI	Modified Mercalli Intensity
MOE	Measures of Effectiveness
MTD	Metropolitan Transit District
NFHL	National Flood Hazard Layer
NRC	US Nuclear Regulatory Commission
NUREG	Nuclear Regulatory Commission
O-D	Origin-Destination

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OEM	Office of Emergency Management
PC	Passenger Car
QDF	Queue Discharge Flow
SB	Senate Bill
SBBG	The Santa Barbara Botanic Gardens
SBCAG	Santa Barbara County Association of Governments
SBCC	Santa Barbara City College
SEN	Single Egress Neighborhoods
SMS	Short Message Service
SR	State Route
SRA	State Responsibility Area
SV	Service Volume
TAZ	Traffic Analysis Zone
TCP	Traffic Control Point
TD	Trip Distribution
TDD	Telecommunications Device
TEP	Temporary Evacuation Point
TTY	Teletypewriter
UNITES	UNified Transportation Engineering System
VHFHSZ	Very High Fire Hazard Severity Zones
vph	vehicles per hour
WEA	Wireless Emergency Alert

## EXECUTIVE SUMMARY

**“The best evacuation is moving the smallest number of people the least distance, ensuring safety with the least disruption”. -unknown**

The County of Santa Barbara (County), known for its diverse landscapes including coastline, rugged mountains, and large open spaces, faces a range of natural and climate-related hazards, including earthquakes, wildfires, flooding, landslides, and debris flows that can cause local emergencies and associated evacuations. The County retained a consultant, KLD, to complete this Evacuation Traffic Modeling Study (Study) as part of the Evacuation Modeling and Planning Project (Project). The Study aims to 1) identify existing evacuation concerns, 2) evaluate methods to increase the community’s preparedness for incidents that require evacuation, and 3) enhance community safety in the unincorporated county. This Study is intended to offer recommendations on how the County and its partners can address potential vulnerabilities and improve various aspects of evacuation based on lessons learned from the spatial analysis and traffic simulations.

### ES-1 Study Purpose

The County’s Planning and Development Department (P&D) is responsible for updating the County’s Comprehensive Plan, including its Safety Element, which describes the County’s natural hazards and the goals, policies, and measures to avoid and mitigate them from a land use perspective.

P&D’s primary purpose for undertaking the Study is to update the County’s Safety Element consistent with the requirements of recently passed legislation:

- Assembly Bill (AB) 747 (Levine, 2019) (Government Code (GC) Section 65302.15) requires jurisdictions to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios.
- Senate Bill (SB) 99 (Nielsen, 2019) (GC 65302(g)(5)) requires each jurisdiction to include information identifying residential developments in hazard areas that do not have at least two emergency evacuation routes.
- AB 1409 (Levine, 2021) (GC 65302.15) requires the safety element to be reviewed and updated to identify evacuation locations.

P&D worked with the County’s Office of Emergency Management (OEM) to pursue and obtain a grant to fulfill these new statutory requirements and better understand existing conditions and opportunities for improvement.

### ES-2 California Fire Safe Council Evacuation Route Grant

In 2022, the County was awarded a CALFIRE Evacuation Route Planning and Development Grant by the California Fire Safe Council to fund this Study and associated public outreach and data

products. One goal of the grant-funded project was to map evacuation routes and understand the needs and constraints of people with special transportation needs [e.g. those with Access and Functional Needs (AFN), and those without a personal vehicle]. The Study also seeks to identify evacuation issues, such as bottlenecks at intersections and proposes recommendations to address these issues, whether they be through improvements to infrastructure, emergency operations, or education and outreach.

The Project also evaluated the County's preliminary set of evacuation routes as required by the legislative requirements for the Safety Element and grant objectives. Criteria for these preliminary routes were defined by P&D staff and a group of public safety representatives from the County and fire districts prior to the commencement of the Study. These routes were then vetted by the Study's modeling and can be viewed on the County's Safety Element Map as "Draft Evacuation Route Considerations." The evacuation routes are mapped for planning purposes and general awareness only. During an emergency, the public should consult [www.ReadySBC.org](http://www.ReadySBC.org), ReadySBC Alerts, and the County's social media pages for information specific to a given incident.

In addition to this Study, the Project incorporates information and tools to raise the community's evacuation awareness and preparedness.

The products of P&D's Project include:

1. The Evacuation Route Modeling and Planning Study (this Study)
2. The spatial data layers that were developed as part of the Study
3. Community Hazard Awareness and Emergency Preparedness Interactive Map - The public is encouraged to use this map to become familiar with the threats and hazards in their communities and inform their personal evacuation planning.<sup>1</sup>
4. Public Outreach Infographics – to help educate and inform communities throughout the county to "Know Your Way Out" of their neighborhood, identify community landmarks, define evacuation terminology, describe types and locations of resources generally available during an evacuation, and provide a planning template on personal utility providers (Appendix G, *Public Education and Outreach Materials*).<sup>2</sup>
5. Social Media Posts –The Project team posted a four-part social media series in December 2024 describing the steps the public should take to prepare for an emergency (Appendix G, *Public Education and Outreach Materials*).

### ES-3 Project Outreach – Evacuation Advisory Group

To support the Project, the Project Team convened a group that represent agencies and organizations with knowledge of issues related to evacuation and/or who are involved in managing the transportation network, wildfire response and mitigation, and emergency management. The

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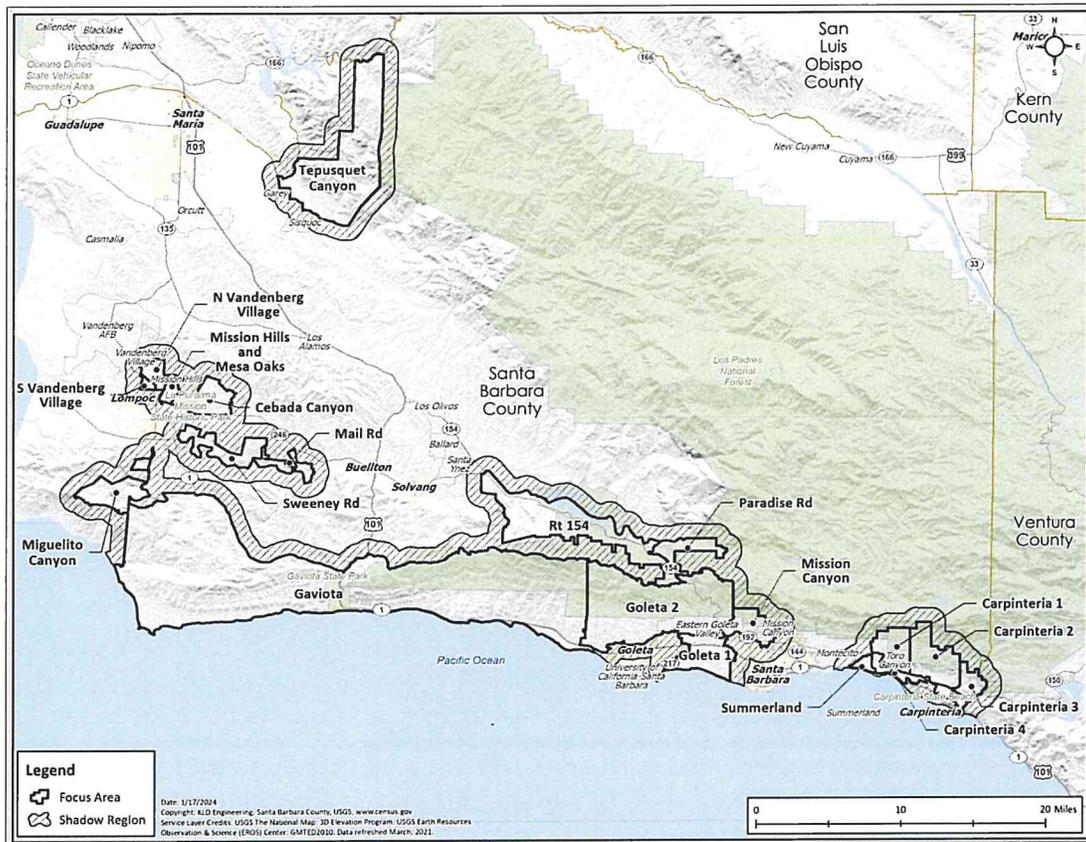
<sup>1</sup> <https://www.readysbc.org/196/Maps>

<sup>2</sup> The Project's infographics will undergo further refinement by the County Office of Emergency Management and will be made available to the public once ready.

Evacuation Advisory Group (EAG) is composed of representatives from various County departments and external agencies and organizations (See Table 1-1 for a full list of participating organizations). The EAG was convened seven times throughout the Project to advise the development of the Project, provide insights on data and assumptions, assist with the development of evacuation scenarios of interest, review work products, and develop recommendations. Each representative had the opportunity to provide their knowledge and input based on their role and experience with various components of evacuation in the county. The EAG was critical to making the Study robust by connecting the team with the right data sources, developing modeling scenarios based on past and current experience, and drawing on this experience and the modeling results to develop realistic recommendations.

#### ES-4 Background and Approach

- Many of the assumptions used to model the evacuating population were informed by the demographic survey conducted at the beginning of the Study (Appendix D, *Demographics Survey*). Meaning, the population's actual demographic information, specific to a geographic area, and their responses to questions about what they would do during an Evacuation Order were incorporated into the model's assumptions. For example, the mobilization time to evacuate was informed by whether people said they would wait for members of their household to return before evacuating.
- Evacuation simulation models were developed only for the Focus Areas (Figure ES-1). These same models were used for the sensitivity studies [Section 11, *Sensitivity Analyses (What-if Scenarios)*]. The remainder of the unincorporated county is evaluated by the Single Egress Neighborhood (SEN) analysis (Section 7, *Single Egress Neighborhoods*) and Baseline Analysis (Section 9, *Baseline Analysis of the Unincorporated County*).
- Emergency response officials order evacuations on the smallest possible area that keep those who are not in harm's way off roads and prompt those in danger to safely evacuate without substantial roadway congestion. The modeled evacuation areas for this study examine evacuation areas that are typically larger than those that have historically occurred or are larger than those that would be ordered all at once. This was done for several reasons: 1) a desire to include as many areas of the unincorporated county as possible, 2) a desire to understand what would happen when large scale evacuations were modeled in our highest wildfire risk areas, and 3) cost limitations of the study.



**Figure ES-1. Study Area Location**

## ES-5 Study Sections

The following is a list of Study sections and a brief summary of each section. Sections are also organized into three primary groups: 1) Methods and Assumptions, 2) Results, and 3) Transit, Sensitivity Studies, and Recommendations.

### Methods and Assumptions (Sections 1-6)

- 1 Section 1, Introduction - An overview of the Study process and methods including KLD's field surveys of the highway network, demographic survey, model description, baseline analysis, and public outreach.
- 2 Section 2, Study Estimates and Assumptions - Assumptions made for the modeling, analysis, and layout of the evacuation scenarios, including the direction evacuees are forced and temporal conditions for each scenario.
- 3 Section 3, Roadway Demand Estimation – Describes the people and vehicles using the roads, and their behavior during an evacuation, and overall roadway demand. This includes but is not limited to permanent residents, tourists, employees, and the Shadow Population and how and when they are likely to travel during an evacuation.
- 4 Section 4, Highway Capacity Estimation – Describes the methods to accurately define the road network's capacity in the modeled areas to inform the results that show areas of congestion.
- 5 Section 5, Trip Generation Estimation - Describes the methods to estimate the mobilization time of the population (e.g. the time it takes to prepare to evacuate and get in their vehicles or other modes of transportation).
- 6 Section 6, Evacuation Cases – A description of the geographic areas, the temporal conditions that were modeled, and a discussion of when and to what extent each population group evacuates under each Evacuation Case.

### Results (Sections 7-9)

- 7 Section 7, Single Egress Neighborhoods – Defines the methods and describes the results used to identify neighborhoods with only one evacuation route out.
- 8 Section 8, Evacuation Time Estimates – Evacuation Time Estimates (ETEs) are the total time it takes the population of a modeled area to evacuate. This section provides the primary results of the Study, which include ETEs and congestion patterns (as applicable).
- 9 Section 9, Baseline Analysis of the Unincorporated County - Assesses the capacity, safety, and viability for roads in the unincorporated county (outside of the Focus Areas) using existing spatial data (no modeling). This section describes how each of these factors was assessed, the data sources used, and the results for each roadway.

### Transit, What-If Scenarios, and Recommendations (Sections 10-12)

- 10 Section 10, Transit-Dependent Population Bus Routes – Describes bus routes to evacuate special facilities and transit-dependent populations.

- 11 Section 11, Evacuation Sensitivity Studies (What-If Scenarios) – Describe specific scenarios modeled, their results, and lessons learned. Scenarios were developed in coordination with the Project Team, the EAG, and KLD to investigate the efficacy of a particular evacuation tool or procedure or the results and lessons learned around a particular event or aspect of evacuation.
- 12 Section 12, Recommendations – KLD, the Project Team, and the EAG reviewed the Study’s results and analysis and, using their professional knowledge and experience, developed the Study’s recommendations.

## ES-6 Results and Discussion

There are four main sets of analyses in the Study that are described below, they include:

1. Single Egress Neighborhoods (Section 7),
2. Evacuation Modeling in the Focus Areas (Section 8 contains the results),
3. Baseline Analysis (Section 9), and
4. Sensitivity Studies (Section 11).

### ES-6.1 Single Egress Neighborhoods

California Government Code Section 65302(g)(5), as set forth in Senate Bill 99 (Nielsen, 2019), requires that the safety element identify residential neighborhoods with fewer than two evacuation routes because these neighborhoods are at higher risk during an evacuation. County P&D undertook its own effort to identify Single Egress Residential Neighborhoods that began prior to the grant award and initiation of this Study. This effort involved convening personnel from the County Office of Emergency Management Department, Public Works Department, the County’s three fire districts, and the Sheriff’s Office to agree on mapping criteria and to vet the mapping of these neighborhoods after mapping was completed. The identification and mapping of these Single Egress Residential Neighborhoods were adopted as part of Safety Element amendments in 2023.

The grant funded KLD to complete a similar analysis using their professional expertise and a slightly different approach to map SENs. KLD’s results include more parcels than the mapping undertaken by the County because of some differences in methodology (*See Section 2.4 Single Egress Neighborhood Assumptions*). The County used a minimum of 30 parcels to qualify as a “neighborhood”, while KLD’s mapping had no minimum parcel count, and they included cul-de-sacs as SENs. The County’s criteria for identifying areas subject to hazards did not include earthquakes; KLD did include earthquakes, consequently, the SEN results in this Study encompass the entire County. Finally, KLD’s methodology includes designating both primary and secondary SENs, while the County’s does not.

The SEN analysis for this Study was conducted for the entire County, including cities but excluding Federal lands. Although the focus of this Study is evacuations associated with wildfire hazards, SENs were mapped in areas subject to a larger group of hazard areas, including coastal and alluvial flood hazard zones. Primary SENs were designated if a residential parcel occurs within a mapped hazard zone and has one roadway out. Secondary SENs include residential parcels that have more than one way out, but one or more paths include a narrow and/or winding road. These neighborhoods may be at increased risk during an evacuation. The full results and discussion associated with the SENs mapped as part of this Study are available in Section 7, *Single Egress Neighborhoods*.

### ES-6.2 Evacuation Modeling in the Focus Areas

Section 8, *Evacuation Time Estimates* contains the results of the evacuation modeling that was conducted for the Study's 19 Focus Areas. These areas were selected for their higher wildfire risks and (generally) higher population densities, which also tend to correspond with higher populations with special transportation needs. Montecito was not selected as a Focus Area since a detailed evacuation study was completed for the community in 2022 through the Montecito Fire Protection District Emergency Evacuation Study.<sup>3</sup>

### ES-6.3 Baseline Analysis

The Baseline analysis used existing data to produce the information required by recent state legislation that pertains to the Safety Element and does not require the Project's evacuation simulation model [i.e., Dynamic Evacuation Simulation Model (DYNEV-II)]. The goal of this analysis was to evaluate the capacity, safety, and viability of the portions of the roadway network that were not assessed using the evacuation simulation model. These same factors were evaluated using the evacuation simulation models in the Focus Areas.

Section 9, *Baseline Analysis of the Unincorporated County* includes a more in-depth discussion of the Baseline Analysis and figures that illustrate the safety, capacity, and viability analysis of the roadway network outside of the Study's Focus Areas. Appendix F also contains a table with streets in the County and their safety, vulnerability, capacity, and viability score by roadway name. For a closer look at these layers, please visit the [County of Santa Barbara's Safety Element Map](#).<sup>1</sup>

## Capacity

The Office of Land Use and Climate Innovation's (LCI) Evacuation Planning Technical Advisory defines the capacity of a roadway as the "ability of transportation infrastructure and resources to support evacuees and responders during emergency scenarios."<sup>4</sup> Section 4, *Highway Capacity System* details the use of the 2022 Highway Capacity Manual to compute capacity within the

<sup>3</sup> *Emergency Evacuation Study*. (2022). Montecito Fire Protection District. <https://www.montecitofire.com/>

<sup>4</sup> State of California Governors Office of Planning and Research. (2022, August). *Fire Hazard Planning Technical Advisory*. [https://lci.ca.gov/docs/20220817-Fire\\_Hazard\\_Planning\\_TA.pdf](https://lci.ca.gov/docs/20220817-Fire_Hazard_Planning_TA.pdf)

Study's Focus Areas where the evacuation model was run. Similar methods were employed to estimate the capacity of the roadways outside of the Focus Areas.

The capacity of many of the roadways within the county is limited, especially in the unincorporated area. Many of the roadways are two-lane roads and have a capacity of 1,700<sup>5</sup> vehicles per hour or less. Roadways with an average capacity of more than 1,700 vehicles per hour (e.g. US Highway 101, SR- 154, SR-246) make up only a small percentage of roadways within the unincorporated county.

### Safety

There are several considerations when determining the safety of a roadway. Accident history can be a good indication of how well a roadway was designed. Roadways can also be less safe in rainy or other severe weather, or it may be subject to various natural hazards that can compromise its safety.

The Study evaluates the locations of roadway fatalities and the following hazard areas: flood, landslide, earthquake, tsunami, dam inundation, and fire hazard, and accounts for the condition of bridges and tunnels, narrow roadways, and winding roadways. A vulnerability analysis and score were also developed from demographic information in the area where a particular road is located, including poverty, constrained income, vehicle availability, and disability.

### Viability

The LCI Evacuation Route Technical Advisory defines evacuation route viability as “whether current transportation infrastructure and services can reasonably enable populations to leave an area at risk and/or reach temporary areas of refuge under a range of emergency scenarios, with respective time constraints.”<sup>6</sup>

Within the Focus Areas, viability can be determined from the ETE and the SEN modeling. The Study further analyzed roadway viability by analyzing four factors outside the Focus Areas: roadway connectivity, serviceability, accessibility, and congestion. Connectivity is assessed using the number of roadway connections a road has that delivers evacuees to safety. Serviceability evaluates the necessary commodities or services along a particular roadway, such as gas stations and electric vehicle charging stations. Accessibility evaluates the number of connections and intersections or ramp junctions of a roadway. This factor would account for a freeway that has a high capacity but may have few on-ramps that are far apart, which may diminish its viability as an evacuation route. Roadway congestion determines if the population demand that is expected to use an evacuation route will exceed the roadway capacity.

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<sup>5</sup> This number (1,700 vehicles per hour) is the maximum capacity of a single-lane roadway. See Section 4, *Highway Capacity Estimation*.

<sup>6</sup> A range of evacuation scenarios for the Focus Areas are presented as “what-if” scenarios in Section 11. Time of day, week and year scenarios are presented the ETE results in Section 8.

While the safety, capacity, and viability vary within individual street segments on a particular roadway, the following evacuation routes are the safest, have the highest capacity, and are the most viable across the length of the roadway:

- U.S. Highway 101 and some of its on/off ramps
- State Route 150
- Patterson Avenue
- Rincon Road/State Route 150
- Harris Grade Road
- State Route Hwy 246/Ocean Avenue
- State Route 135
- Highway 1/Guadalupe Street
- Purisima Road
- W Mission Street
- Betteravia Road
- State Route 154

In contrast, the following major evacuation routes are the least safe, have the lowest capacity, and are the least viable across the length of the roadway:

- State Route 192/E Mountain Drive/Stanwood Drive
- Foothill Road
- Coyote Road
- Guadalupe Street
- Cliff Drive
- E Main Street
- Sycamore Canyon Road
- Las Positas Road
- E Ocean Avenue
- Several on/off ramps to U.S. Highway 101

Notably, the Urban Area may face risks associated with higher levels of congestion during an evacuation. Conversely, rural roads often face very little congestion; however, as demonstrated by the safety and viability analysis, there are risks in relying on rural roads for evacuation as they are more likely to be subject to physical hazards, be narrow and windy, and be less connected, accessible, and in proximity to services.

### **Evacuation Locations**

Evacuation locations are opened to receive evacuees leaving evacuation zones and will differ in the resources and services they provide. Since each evacuation incident is unique with its own location and set of circumstances, please refer to [www.ReadySBC.org](http://www.ReadySBC.org), ReadySBC Alerts, and the County's social media to learn which evacuation locations are open to the public in any given incident. Table 9-1 describes the different types of evacuation locations and the resources and support they provide.

**Table 9-1. Community Evacuation Location Types and Resources**

	TEMPORARY EVACUATION POINT	EVACUATION CENTER	EVACUATION SHELTER
	A temporary safe location for people to gather and get information and direction for the next steps to safety.	Activated during an emergency to provide people a safe place to go. Staff on site can provide incident updates and linkages to available support and resources.	Serves the same purpose as an Evacuation Center plus provides overnight sleeping accommodations for evacuees.
Electrical Outlets		●	●
Official Incident Information from Public Safety Staff	●	●	●
Water and snacks		●	●
Safe Place to Wait During the Day	●	●	
Designed to provide overnight sleeping or dormitory services.			●
May serve as a resilience hub*	●	●	●

\*Resilience Hubs are community spaces that can support residents, coordinate communication, and distribute a variety of resources on a day-to-day basis and during emergencies. This community-centered model aims to empower residents to address local climate impacts and enhance communities' capacity to adapt.

#### ES-6.4 Sensitivity Studies (What-if Scenarios)

A sensitivity study can help determine how robust a traffic model is by examining how changes in factors (e.g. mobilization time, road connections) affect the results. Sensitivity analyses (i.e., what-if scenarios) were run for a range of possible conditions in the unincorporated county that built upon and modified the base traffic models. If only one factor is changed in the sensitivity study, its effect is easily measured by examining the results of the sensitivity study with respect to the base model. Some what-if scenarios attempt to replicate, or are based on, real-world wildfire scenarios to analyze evacuation conditions in a “worst-case scenario” (i.e., the 1990 Painted Cave Fire and 1997 Azalea Fire). Some were conducted to evaluate certain evacuation conditions, evaluate the efficacy of implementing a particular tool or practice (e.g. traffic control at intersections or opening locked gates), or investigate the evacuation conditions for certain vulnerable populations in and near high hazard areas (i.e., schools and low-income senior housing facilities). See Section 11, *Sensitivity Studies (What-if Scenarios)* for additional information.

Eleven what-if scenarios were run, and the results were reviewed by KLD, the Project Team, and the Evacuation Advisory Group (EAG) to determine lessons learned and if any relevant recommendations could be developed. A broader set of recommendations that build on the EAG’s knowledge and experience can be found in Section 12, *Recommendations* of this Study.

#### ES-7 Modeling Results, Takeaways, and Recommendations

This section provides key takeaways from the Study that draw on the results (Sections 7-9), sensitivity studies (Section 11), and recommendations (Section 12). The Study’s recommendations fall within the following categories:

- Wildfire Mitigation;
- Demand-side (when, how, and where the community evacuates);
- Supply-side (Transportation Network/Infrastructure);
- Public Education and Outreach; and
- Capacity Building and Coordination.

The County Board of Supervisors will receive a briefing on this Study and may consider acting on these recommendations. A summary of some of the key takeaways and recommendations from the modeling results are as follows:

**School & Transit Drivers** – The Study results found that the time it takes to evacuate groups who are transit-dependent or reside in special facilities (e.g. schools, medical facilities, correctional facilities, homeless shelters, and group homes) is especially sensitive to the mobilization time of drivers, (i.e., how long it takes to alert drivers, report to the bus depot (if applicable), and drive to where they are needed).

As a result, the Study recommends the County work with public transit and para-transit providers to ensure there are sufficient drivers in the county by working to bolster driver staffing through support coordination and information sharing among providers to ensure capacity challenges are resolved. The County can also support schools in this area, as appropriate.

**Minimizing Unnecessary Vehicles on the Road** – External traffic, or vehicles on the road network that are not involved in the evacuation, can significantly impede the evacuation process. These vehicles reduce available road capacity and contribute to congestion and delays for evacuees.

The Study's recommendations include both re-routing and public messaging strategies to address this issue. These include establishing detours for non-essential traffic, such as on-ramp closures and public messaging during evacuations to stay off the road if you are outside of the Evacuation Order area and do not feel you are in danger.

**Education and Preparedness** – The Study found that during an urgent evacuation when danger is imminent, as with the Mission Canyon and South Vandenberg Urgent Evacuation Sensitivity Study, ETEs significantly decreased when people were able to mobilize within 15 minutes. Furthermore, if people are alert, have a plan, and can get out quickly, the ability to ensure everyone makes it out safely increases.

Educating the community on hazards to be prepared in the event of an evacuation, and to be ready to go to get out quickly is the best way we can prepare the community for evacuations. Educating and empowering community members to be knowledgeable and prepared is one of the best ways to achieve safe and efficient evacuations.

**People with Higher Risks** – People with higher risks during an emergency, including but not limited to, those living in SENs (See Section 7, *Single Egress Neighborhoods*), those with AFN, evacuating large animals, and individuals without personal vehicles, may have longer evacuation times when compared to the general population.

The County and its partners currently employ a variety of strategies and services to address these issues, and the Study's recommendation aim to continue or expand them to better serve these groups. The Study's recommendations also aim to improve education and outreach to these groups and provide additional initiatives to support them during an evacuation (See Section 11, *Recommendations*).

**"Evacuate early, evacuate calmly, and never underestimate the value of preparedness."** – Unknown

## Findings

Live Oak Camp has substantially more attendees than the Santa Barbara Botanic Gardens but the 100<sup>th</sup> percentile evacuation time is only 30 minutes longer. This is likely due to the efficiency of concurrent loading of attendees in personal vehicles at Live Oak Camp. Santa Barbara Botanic Gardens assumes 150 persons would evacuate via bus (including one offsite bus), which requires more time to mobilize and load. Additionally, Live Oak Camp did not consider AFN population evacuation, which requires additional time.

Both scenarios assume cars are fully loaded when leaving the sites; however, this may not occur in an urgent evacuation. For this reason, parking and bus capacity at event venue like this should be greater than the attendee capacity limits of an event. There are trade-offs when considering the safety and expediency of evacuation options in these scenarios that should be carefully considered when developing event requirements. For example, during an urgent mobilization, personal vehicles that carpool provide one wave of evacuation from the site without the need for return trips (as with a shuttle). However, numerous personal vehicles cause a bottleneck at the site. Conversely, shuttles tend to require a longer mobilization time as compared with personal vehicles (to load more people and may include travel time if they are coming from offsite), but greatly reduce congestion onsite and on roads adjacent to the site. The best and safest option, but also likely the most costly, is to require shuttles located onsite that can evacuate everyone in a single wave.

## Recommendations

1. Recommend permitting process for large events in high-risk areas limit the number of vehicles at an event through the use of vehicle passes, shuttling, and encouraging carpooling.
2. Require permitted large events in high-risk areas to cancel their events during red flag conditions or other identified public safety hazards if determined necessary by the County Fire Marshall, Sheriff, or other public health and safety agency, including at County-owned and/or managed sites.
3. Explore a requirement for all large events to have an approved offsite evacuation plan in the event of an urgent evacuation, including County-owned and/or managed sites.

### 11.10 Mass Evacuation of Isla Vista

A what-if scenario was conducted to compute the ETE for a large-scale evacuation of Isla Vista. This evacuation encompasses solely the community of Isla Vista and does not include the University of California Santa Barbara campus. Since Isla Vista was not included as a Focus Area, the ETE could not be completed using DYNEV.<sup>23,24</sup> Instead, a simple division of demand by capacity

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<sup>23</sup> Isla Vista was not included as a Focus Area within this Study because the area has low susceptibility to hazards that would require a large-scale evacuation and there are no single egress neighborhoods.

<sup>24</sup> <https://kldassociates.com/wp-content/uploads/2024/12/DTRAD-DYNEV-1.pdf>

is utilized. Mobilization time and temporal conditions are not considered.<sup>25</sup>

The following equation is utilized to compute the ETE of Isla Vista, “exit capacity is measured in vehicles per hour:<sup>26</sup>

$$Evacuation\ Time\ (hours) = \frac{evacuating\ vehicles\ (veh)}{exit\ capacity\ (vph)}$$

**What-if Scenario Assumptions**

1. There are currently 15,733 residents in Isla Vista (2020 US Census Bureau American Community Survey).
2. The Draft Isla Vista Parking Study identifies 9,245 vehicles in Isla Vista during peak parking times (i.e., school year).<sup>27</sup>
  - a. Due to the urgent nature of the event, the Study conservatively assumes lower levels of carpooling. Therefore, buses would be required to evacuate some residents.
3. 90 SB MTD buses would be used to evacuate students not using personal vehicles.
  - a. Assumes one wave of bus pickup and assumes all buses not in general operation by MTD would be mobilized to evacuate Isla Vista.

Depending on the level of congestion experienced, the total exit capacity of roads out of Isla Vista ranges between 2,903 veh/hr and 3,225 veh/hr. The minimum and maximum road capacities produce the ETE ranges from 2:55 to 3:15 (Table 11-16).

**Table 11-16. Static Evacuation Time Estimates for Mass Evacuation of Isla Vista**

Case	Population	Evacuating Vehicles	Total Exit Capacity	ETE
Uncongested	15,733	9,335 <sup>28</sup>	3,225	2:55
Congested <sup>29</sup>			2,903	3:15

**Findings**

Many intersections along Storke Road and Los Carneros Road are controlled by actuated traffic signals, meaning they employ vehicle detectors to activate a control signal only when a vehicle is present. As mentioned in NUREG/CR-7269 *Enhancing Guidance for Evacuation Time Estimate Studies* dated March 2020, manual traffic control behaves very similarly to actuated signals during evacuations. As such, traffic control would not be beneficial at critical intersections along these

<sup>25</sup> There are AFN populations within Isla Vista, but this ETE calculation does not account for their needs (e.g., paratransit services). AFN persons may require additional time to evacuate.

<sup>26</sup> This *static* method of computing ETE does not consider the movement of individual vehicles, complex interactions like lane changing, merging, and car-following behavior, or traffic control devices. It is considered to be less accurate than using a traffic simulation model.

<sup>27</sup> 2,615 on-street parking spaces, 84 off-street parking low spaces, and 6,546 private off-street spaces.

<sup>28</sup> This includes 9,245 personal vehicles and 90 buses.

<sup>29</sup> Service Volume under congested conditions reduces capacity by 10 percent.

roadways. Mesa Road ultimately leads to a two-lane roundabout with Highway 217. Little can be done at this intersection to improve the throughput during an emergency.

**Initial Recommendations:**

1. In coordination with MTD and other entities, evaluate the development of pre-identified Assembly Points in areas with large transit-dependent populations (e.g., Isla Vista) for evacuees without transportation.
2. Establish regular communication and coordination on evacuation protocols and procedures among UCSB and County agencies for pre-planning efforts in Isla Vista, particularly in preparation for large-scale community events including but not limited to Deltopia.

**11.11 Mission Canyon and South Vandenberg Urgent Evacuation**

The purpose of this what-if scenario is to model a very urgent evacuation of two populated areas that have high levels of wildfire hazards and single-egress neighborhoods. The model incorporated the County’s minor roads and driveways layer to determine the impact to ETE of adding more detail and granularity to the simulation model. All minor roads and driveways were added to the model for the Mission Canyon and South Vandenberg Village Focus Areas.

**What-if Scenario Assumptions**

1. Traffic is directed in any direction taking residents away from wildfire hazard areas towards low-lying urban areas.
2. Very urgent mobilization, 15 minutes following an Evacuation Order.

This case was simulated for a fall, midweek, midday scenario (Scenario 2). The sensitivity study 90<sup>th</sup> and 100<sup>th</sup> percentile ETE for Mission Canyon decreases by 45 minutes and 1 hour and 50 minutes, respectively, when compared to the base model. For South Vandenberg Village, these decreases are even more significant with decreases in the sensitivity study results of 1 hour and 20 minutes and 3 hours at the 90<sup>th</sup> and 100<sup>th</sup> percentile ETE, respectively.

**Table 11-17. Evacuation Time Estimates for Mission Canyon and South Vandenberg Urgent Evacuation**

Region	90 <sup>th</sup> Percentile	100 <sup>th</sup> Percentile
Mission Canyon (Base)	2:20	4:05
Mission Canyon	1:35	2:15
South Vandenberg Village (Base)	2:10	4:05
South Vandenberg Village	0:50	1:05

**Findings**

As discussed in Section 8, *General Population Evacuation Time Estimates*, the 100<sup>th</sup> percentile ETE is dictated by trip mobilization time of 4 hours and not congestion for most focus areas. Hence, when the trip mobilization time is reduced to 15 minutes, the ETE is reduced significantly. Although Mission Canyon and South Vandenberg are in high risk wildfire areas and are, or contain just one