City of Solvang
Local Hazard Mitigation Plan

An Annex to the Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan

February 2023

The City of SOLVANG Danish Capital of America

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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 City of Solvang (City) recognizes the consequences of disasters and the need to reduce the impacts of all hazards, natural and human-caused. This annex was prepared in 2022 as part of the update to the County of Santa Barbara (County) Multi-Jurisdictional Hazard Mitigation Plan (MJHMP). This annex serves as the Local Hazard Mitigation Plan (LHMP) for the City. The LHMP was last comprehensively updated in 2017 as an annex to the 2017 MJHMP. Since 2017, the City has:

- Incorporated the LHMP goals, objectives, and mitigation actions into its local plans and processes, including the General Plan Safety Element by reference and specific hazard planning efforts (e.g., Stormwater Management Program).
- Used the LHMP's assessment of capabilities, hazards, and vulnerabilities to inform planning, capital improvements, programs, decision-makers, and the public.
- Implemented mitigation actions through the City's general plan, capital improvement program, maintenance programs, grant programming, community outreach, and budget process.
- Reviewed and evaluated mitigation actions before and after disasters, including the Alisal Fire.

This update to the LHMP builds on and refines the MJHMP's assessment of hazards and vulnerabilities countywide to develop a mitigation plan for the City. The City participated in the 2022 MJHMP Mitigation Advisory Committee (MAC) and Local Planning Team (LPT), reviewed all portions of the MJHMP pertaining to the City, and incorporated relevant components into this annex. It contains updated capability assessment information, a current vulnerability assessment, and an updated/revised mitigation strategy. The methodology and process for developing this annex build on approaches employed in the 2022 MJHMP and are explained throughout the following sections.

The 2022 MJHMP update was prepared 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 and this LHMP included over a year of coordination with representatives from all participating agencies within the County and County representatives who comprised the MAC (described further in Section 3.0 below). The City is a participating agency in the County's MJHMP update.

The City's LHMP is used by local emergency management teams, decision-makers, and agency staff to implement needed mitigation to address known hazards. The MJHMP and this annex can also be used as a tool for all stakeholders to increase community awareness of local hazards and risks 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 hazards that could impact the City. Vulnerability assessments summarize the identified hazards' impact on the City. 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 Section 7.0, *Mitigation Strategy*).

2.0 PLAN PURPOSE AND AUTHORITY

Federal legislation 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 (FEMA) Hazard Mitigation Grant Program (HMGP) funds. The 2022 MJHMP meets 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 risk to 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 mitigation actions and 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 at 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 Handbook and Guide were consulted to ensure thoroughness, diligence, and compliance with the DMA 2000 planning requirements.

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.

This LHMP was prepared as an annex to the County's MJHMP in compliance with DMA 2000 and applicable FEMA guidance. The following pages show the resolutions that adopt the City's 2022 LHMP.

[INSERT CITY RESOLUTION(S) ADOPTING PLAN UPDATE]

[INSERT CITY RESOLUTION(S) ADOPTING PLAN UPDATE]

3.0 PLANNING PROCESS

3.1 OVERVIEW

The planning process implemented for the County's 2022 MJHMP update, including the City's LHMP update, utilized two different planning teams to review progress, inform and guide the update, and directly review and prepare portions of the plan, including each jurisdictional annex. The first team is the Mitigation Advisory Committee (MAC) and the second is the Local Planning Team (LPT).

All eight incorporated cities and the six special districts joined the County as participating agencies in the preparation of the MJHMP update, including 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), Goleta Water District (GWD), Montecito Fire Protection District (MFPD), Montecito Water District (MWD), and Santa Maria Valley Water Conservation District (SMVWCD). Each of the participating agencies had representation on the MAC and was responsible for the administration of their own LPT. In addition, the MAC included representatives from other state and local agencies with an interest in hazard mitigation in Santa Barbara County, including local non-profit organizations, special districts, and state and federal agencies. This composition ensures diverse input from an array of voices representing all communities within Santa Barbara County.

Both the MAC and the LPTs focused on these underlining philosophies, adopted from the FEMA Local Mitigation Plan Review Guide:

- **Focus on the mitigation strategy**

  The mitigation strategy is the plan's primary purpose. All other sections contribute to and inform the mitigation strategy and specific hazard mitigation actions.

- **Process is as important as the plan itself**

  In mitigation planning, as with most other planning efforts, the plan is only as good as the process and people involved in its development. The plan should also serve as the written record, or documentation, of the planning process.

- **This is the community's plan**

  To have value; the plan must represent the current needs and values of the community and be useful for local officials and stakeholders. Develop the mitigation plan in a way that best serves your community's purpose and people.

- **Intent is as important as Compliance**

  Plan reviews will focus on whether the mitigation plan meets the intent of the law and regulation; and ultimately that the plan will make the community safer from hazards.

As a result, the planning process incorporated the following steps:

- **Plan Preparation**

- Form/validate planning team members
- Establish common project goals
- Set expectations and timelines

- **Plan Development**
  - Validate and revise the existing conditions/situation within the planning area;
  - Develop and review the risk to hazards (exposure and vulnerability) within the planning area;
  - Review and identify mitigation actions and projects within the planning area;

- **Finalize the Plan**
  - Review and revise the plan
  - Approve the plan locally and with state and federal reviewers
  - Adopt and disseminate the plan

3.2 MITIGATION ADVISORY COMMITTEE (MAC)

The City participated as a MAC member to prepare this LHMP as an annex to the 2022 MJHMP. The City was represented by Xenia Bradford, City Manager, and David Packard, Assistant to the City Manager, on the MAC.

The MAC meetings were designed to discuss each component of the MJHMP with MAC members and coordinate annex updates. Table 3-1 below provides a list and the main purpose and topics of each MAC meeting.

Table 3-1. Mitigation Advisory Committee (MAC) Meetings Summary

Date	Purpose
March 2021	**MAC Meeting #1 (virtual)** Provided an overview of the project and why the plan is being revised Reviewed FEMA guidance and processes Discussed roles and responsibilities of the participating jurisdictions
September 2021	**MAC Meeting #2 (virtual)** Reviewed goals of the project, role of the MAC Summarized public outreach results Presented hazards assessment and displayed select draft hazard maps Conducted interactive exercise to rank hazards
October 2021	**MAC Meeting #3 (virtual)** Provided results of hazard ranking methodology Presented vulnerabilities assessment Discussed mitigation goals, objectives, and strategies Reviewed County goals from 2017 and compared them to new goals Conducted interactive exercise on potential mitigation goals and strategies
October 2021	**MAC Meeting #4 (virtual)**

Date	Purpose
	Collected feedback on 2017 mitigation strategies Conducted interactive exercise on mitigation strategies for key hazards unaddressed in previous MJHMP Discussed annex updates
January 2022	**MAC Meeting #5 (virtual)** Presented draft plan Discussed key MAC/LPT review needs and key issues Discussed annex updates to dovetail with plan update
March 2022	**MAC Meeting #6 (virtual)** Review and discuss public comments received on the draft plan Recommend a revised draft plan for review and approval Review annex updates for review and approval

3.3 LOCAL PLANNING TEAM (LPT)

Table 3-2 lists the City's LPT. These individuals collaborated to identify the City's critical facilities, provide relevant plans, report on the progress of City mitigation actions, and provide suggestions for new mitigation actions.

Table 3-2. City of Solvang Local Planning Team 2022

Department	Name	Title
City Administration	Xenia Bradford	City Manager
City Administration	David Packard	Assistant to the City Manager
Emergency Preparedness Program	Matt van der Linden	Public Works Director

The Solvang LPT members worked directly with the Santa Barbara County Office of Emergency Management (OEM), the consultant team, and each other to provide data, recommended changes, and continually work on the MJHMP and LHMP updates throughout the planning process. The City LPT met virtually as needed during the planning process to discuss data needs and organize data collection. Table 3-3 below outlines a timeline of the LPT's activities throughout the planning process.

Table 3-3. Local Planning Team Activity Summary

Meeting Dates	Summary of Activity
February 2020	LPT kickoff meeting to discuss stakeholder and public involvement and refine the scope of hazard analysis
April 2021 to January 2022	Collated data to share with hazard mitigation planning team, including hazard identification, refreshed data layers for maps, and geographic settings. Completed Plan Update Guides to directly inform hazard priorities and mitigation capabilities Met with County OEM and consultant staff (1/19/22) to discuss LHMP priorities and mitigation approaches.
January and May 2022	Reviewed new maps and local vulnerabilities.

Meeting Dates	Summary of Activity
	Provided input on the status of 2017 LHMP mitigation strategies. Reviewed draft mitigation strategies and provide feedback. Reviewed and finalized 2022 LHMP

3.4 PUBLIC OUTREACH AND ENGAGEMENT

As a participating agency in the 2022 MJHMP update, the City was directly involved in the outreach program undertaken by the County for the 2022 MJHMP update, which involved extensive outreach during 2021 and early 2022. The City's MAC and LPT members participated in public outreach efforts for the MJHMP and LHMP update planning process by distributing notices for the 6-month-long community hazards survey (refer to Section 3.4.1 of the 2022 MJHMP) and three public workshops (refer to Section 3.4.4 of the MJHMP). The Public Outreach Plan (POP) employed a diversity of tools to maximize notification and participation. The POP was responsive to limitations presented by the Coronavirus (COVID-19) pandemic and focused on direct bilingual outreach using a variety of digital tools, including a fact sheet, social media posts, emails, and press releases. Multiple platforms and tools were used to publicize opportunities to participate. All public and stakeholder meetings were hosted virtually through Microsoft Teams, and all outreach completed for the project was conducted via electronic communications. Many of the meetings used an interactive tool called Slido to collect feedback during meetings. Slido allows audience members to answer questions during presentations, helping the County collect direct detailed feedback and facilitate discussion. All written notices were made available in English and Spanish.

Emergency preparedness information is also regularly distributed to the residents and businesses via the City's website.

In May 2022, the draft LHMP was completed and submitted for review by FEMA and CalOES as part of the MJHMP. The City's draft LHMP was published on the City website, as well as hard copies were available for review at City Hall. The opportunity for the community to be heard was permitted during the City Council meeting before the adoption of this plan.

4.0 CAPABILITY ASSESSMENT

The City identified current capabilities and mechanisms available for implementing hazard mitigation activities. This section presents a discussion of the roles of key departments, administrative and technical capacity, fiscal resources, and summaries of relevant planning mechanisms, codes, and ordinances.

4.1 DEVELOPMENT TRENDS AND DEMOGRAPHICS

The City of Solvang encompasses 2.43 square miles, located approximately 2 miles east of the City of Buellton within the Santa Ynez Valley. Solvang was founded in 1911 by a group of Danish teachers. Danish for "Sunny Fields", Solvang is now a popular tourist destination. The City is home to a variety of Danish festivals, the Hans Christian Andersen Park, Danish pastries, and Danish-themed shops. Solvang was incorporated as a city on May 1, 1985. The City lies at an elevation of

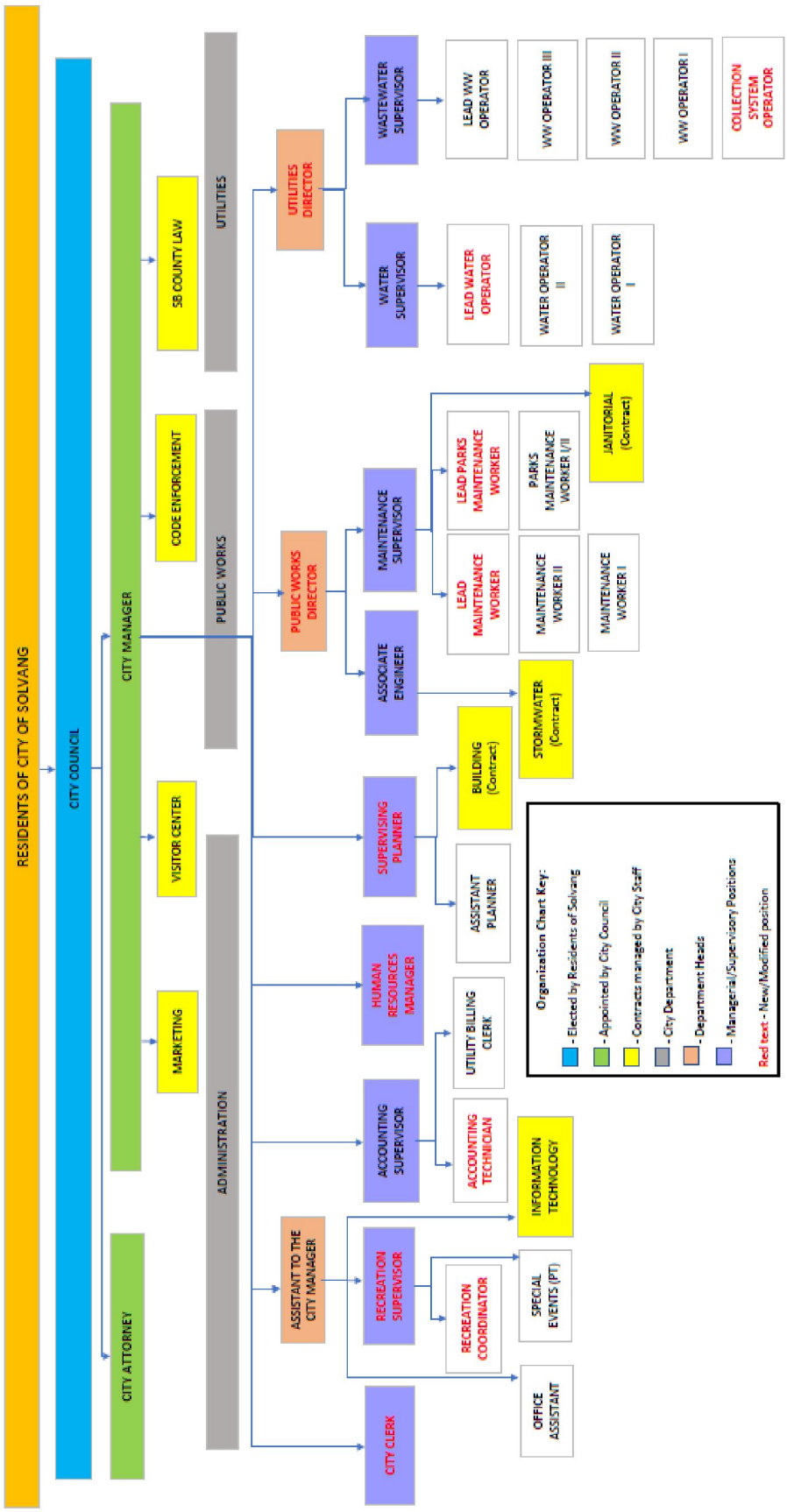
roughly 500 feet. Solvang, like the rest of the Santa Ynez Valley, continues to experience growth as people migrate from the coastal areas looking for affordable real estate within commuting distance to the more populous areas of the County, however, unlike the rest of the Valley, Solvang is close to full build-out with very few vacant, developable parcels remaining. Solvang enjoys a Mediterranean coastal climate with mild to hot, dry summers and cool winters.

According to the 2020 U.S. Census Bureau data, the City is home to 5,761 residents. This population is projected to grow to 6,298 residents by 2050 (SBCAG 2018). The average household size in the City is 2.39 and the median household income is $71,952. Approximately 71.4 percent of City of Solvang residents identify as White, 10.2 percent identify as Hispanic, and 18.4 percent identify as Asian, Black, Mixed, or Other (US Census Bureau 2019)

4.2 KEY DEPARTMENTS

Solvang utilizes the Council-Manager form of local governance, which includes both elected officials and an appointed City Manager. Solvang has five council members, which includes an elected mayor with a two-year term and a mayor pro-tem, who is appointed each calendar year to represent Solvang.

The City Council is Solvang's legislative body, setting policy, approving budgets, and setting tax rates. Members also hire the City Manager, who is responsible for the day-to-day administration of Solvang and serves as the Council's chief advisor. The City Manager prepares a recommended budget, recruits and hires most of the City's staff, and carries out the council's policies. While the City Manager may recommend policy decisions, the City Manager is ultimately bound by the actions of the Council. The Council appoints the City Attorney. Solvang's organizational chart is shown below.



Departments involved in activities related to Hazard Mitigation include:

- **Fire Protection Services** (Solvang is part of the Santa Barbara County Fire District).
  - Administration: Develop, implement and monitor policies, procedures, budgets, fees, automatic aid agreements, mutual aid agreements, and liaison with other City departments and outside agencies.
  - Fire Prevention Bureau: Coordinate adoption of codes and ordinances, review site and building plans for fire code compliance, and develop and present public education programs.
  - Emergency Medical Services: Manage the department's paramedic and EMT programs, respond to medical emergencies and other calls for service, and participate with other community and regional health care providers to reduce public illness and injury.
  - Suppression Division: Maintain the department's personnel, apparatus, equipment, and fire stations in a state of readiness to respond to the community's needs, develop and implement standard operating procedures for various types of emergency responses, respond to all types of emergencies, and train and interact with neighboring jurisdictions and regional agencies.
- **Building & Safety Division** (Solvang contracts with a private company for issuance of building permits and for Building & Safety services related to plan check and inspection)
  - Coordinate adoption of building, plumbing, electrical, and mechanical codes. Develop building ordinances.
  - Review site and building plans for compliance with building codes and ordinances. Conduct inspections of building permit-related construction projects.
  - Conduct health and safety inspections relating to violations of the building, electrical, plumbing, and mechanical codes.
  - Damage assessment of structures from multiple causes to facilitate the repair and future occupancy.
- **Solvang City Manager/Planning Department**
  - Emergency Management: Coordinate Solvang's Disaster Preparedness Program, liaison with all City departments and divisions, as well as other public and private organizations, develop, coordinate and implement the EOP, and maintain the operational readiness of Solvang's Emergency Management Team, the E.O.C., and other key elements.
  - Develop and maintain Solvang's general plan, zoning ordinances, and development standards.
  - Oversee Solvang's development process assuring compliance with zoning and general plan, including environmental impact reports, design review, historic preservation, landscape review, habitat conservation, floodway prohibitions, and post-construction stormwater development standards.

- Through the Code Enforcement position, manage Solvang's weed abatement program along with County Fire.

- **Solvang Public Works Department**
  - Maintains Solvang's infrastructure (assets) ranging from streets to parks to buildings, vehicle fleet, and water and wastewater infrastructure.
  - Responds to Solvang's emergencies, including EOC response in disasters and assisting police and fire departments with hazardous materials clean up, debris removal, traffic, and perimeter control efforts, traffic accident clean up, and evacuation routing.
  - Reviews engineering on private and public grading, floodways, retention basins, and infrastructure to assure compliance with Federal, State, and local ordinances.
  - Develops engineering ordinances, policies, and standards that help protect and preserve Solvang's infrastructure.
  - Evaluates all circulation elements for projected traffic impacts.
  - Coordinates other response agencies assisting with damage assessment and assists with cost estimates for damage assessment.

- **Solvang Utilities Department**
  - Determines needed infrastructure improvements, water system, and water/wastewater treatment capabilities.
  - Provides response personnel for evaluation of damaged infrastructure.
  - Operates, maintains, and enhances both the water treatment/distribution and wastewater collection/treatment systems within Solvang.
  - Provides support as necessary to Solvang's EOC Team.
  - Responsible for planning and implementation associated with the following plans:
    - Bradbury Dam Emergency Action Plan
    - Water Quality Emergency Notification Plan
    - Water Division Emergency Response Plan
    - Wastewater Overflow Response & Prevention Plan
    - Wastewater Treatment Plant Operations Plan
    - Stormwater Management Plan

- **Police Department** (Solvang contracts with Santa Barbara County Sheriff's Department for Police Services).
  - Responds to safety concerns involving threats and/or damage to life or property. Acts as the enforcement entity for violations of State and local laws and ordinances.
  - Primary emergency responders to acts of civil disobedience and public disorders and terrorism. Support personnel for emergency rescue and management.

- Investigative services for criminal acts that result in personal injury/death and the destruction of property.
- Develops and implements emergency response plans and policies, focusing on evacuation procedures and traffic control.
- Primary responders to acts of terrorism, focusing on suspect intervention and facility and staff protection.

4.3 ADMINISTRATIVE AND TECHNICAL CAPACITY

The administrative and technical capabilities of the City, as shown in Table 4-1, include staff, personnel, and department resources available to implement the actions identified in Section 7.0, *Mitigation Plan* of this LHMP. Specific resources reviewed include those involving technical personnel such as planners/engineers with knowledge of land development and land management practices, engineers trained in construction practices related to building and infrastructure, planners and engineers with an understanding of natural or manmade hazards, and floodplain managers. The City's department heads multitask in many areas because of budgetary constraints. The City Manager oversees all factors of Emergency Management within the City.

Table 4-1. City of Solvang Administrative and Technical Capacity

Personnel Resources	Yes/No	Department/Position
Planner/engineer with knowledge of land development/land management practices	Yes	Planning Director, Public Works Director / City Engineer
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Public Works Director / City Engineer
Planner/engineer/scientist with an understanding of natural hazards	Yes	Contract City Planner, City Engineer
Personnel skilled in GIS	Yes	Public Works Staff, Consultants
Full-time building official	Yes	Contract Building Inspector and Building Official
Floodplain manager	Yes	Public Works Director / City Engineer
Emergency manager	Yes	City Manager
Grant writer	Yes	City staff
Other personnel	Yes	City staff
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Public Works Director

Personnel Resources	Yes/No	Department/Position
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	City Manager
Other	N/A	City staff

4.4 LEGAL AND REGULATORY CAPABILITIES

The legal and regulatory capabilities of the City are shown in Table 4-2, including existing ordinances and codes that affect the physical or built environment of Solvang. Examples of legal and/or regulatory capabilities can include the City's building codes, zoning ordinances, subdivision ordinances, special purpose ordinances, growth management ordinances, site plan review, general plans, capital improvement plans, economic development plans, emergency response plans, and real estate disclosure plans. Note that the City's General Plan is currently undergoing a comprehensive update with an estimated completion date in spring 2023. Also, fire services in Solvang are provided by the Santa Barbara County Fire District.

Table 4-2. City of Solvang: Legal and Regulatory Capability

Regulatory Tool (ordinances, codes, plans)	Yes/No
General Plan	Yes
Zoning ordinance	Yes
Subdivision ordinance	Yes
Growth management ordinance	Yes
Floodplain ordinance	Yes
Other special-purpose ordinances (stormwater, steep slope, wildfire)	Yes
Building code	Yes
Fire code	Yes
Fire department ISO rating	Yes
Erosion or sediment control program	Yes
Stormwater management program	Yes
Site plan review requirements	Yes
Capital improvements plan	Yes
Economic development plan	Yes
Local emergency operations plan	Yes
Other special plans	Yes
Flood insurance study or other engineering studies for streams	No
Elevation certificates (for floodplain development)	Yes

4.5 GIS, COMPUTER AND COMMUNICATION TECHNOLOGY

The City has a basic GIS system used by the Public Works and Planning Departments. Currently, parcels, zoning and flood hazards have been mapped including water, sewer, and storm drain systems. Hazard layers created for this plan can be incorporated into that system for future planning and updates. In the event it is needed, the GIS system is fully functional and can be used to provide the State of California Office of Emergency Services with preliminary damage assessments.

Through the Santa Barbara County Sheriff's Department, Solvang has a fully functional 911 emergency telephone system, dispatch capabilities, and a reverse 911 system to issue warnings in advance of disasters.

Solvang is fully functional on the internet and has its own website which will be used to assist with communication necessary for implementation and future updates of this plan. Emergency Alerts can be added to the City of Solvang website home page to provide essential information to residents.

Solvang also has a satellite phone for emergency communications.

4.6 FINANCIAL RESOURCES

Solvang's financial worth continues to grow. The General Fund balance is an important element that can show Solvang's financial strengths or weaknesses. For Fiscal Year 2021-2022 (FY 21-22), Solvang's General Fund operating budget is approximately $9.5M. The revenue budget for Solvang contains several funding sources, each governed by a distinct set of conditions particular to that revenue source. The largest General Fund revenue source for the City is Transient Occupancy Tax.

The largest revenue factor and the core of the resource base that enables Solvang's provision of community services is the local revenue portion of Solvang's General Fund. Solvang's revenue base is determined by different community conditions such as the current population, employment and income, economic activity within Solvang, the growth of invested value from residential and commercial construction, business investment in plant and equipment, and demand for local real property. National, State, and regional economic conditions can also affect Solvang's revenue base by creating demand for community goods and services produced within Solvang. The primary revenue sources for the City are transient occupancy tax, sales tax, and property tax. The majority of expenditures are for operation and maintenance, water, and employee salaries and benefits.

Solvang's major economic drivers for its revenue base are transient occupancy tax sales tax, population growth, employment, construction, property values, and commercial activities. Solvang will begin to see a deceleration of population growth and construction over the next seven years based on the fact that Solvang is nearly built out.

Over the last two years, California's budget has diminished rapidly due to decreased tax revenues from an economic recession caused by the COVID-19 pandemic. The overall health of California's economy has a significant influence on local cities and counties, as local government appropriations are usually the first to have their appropriations diminished due to downturns in the economy.

Solvang's long-term financial and programmatic policies to be achieved over the next few years demonstrate its dedication to protecting the life and property of Solvang residents and businesses include:

- Continued development of the storm water management system and continued qualitative drainage measures.
- Provide support in public safety to maintain current response time and professionalism, to limit injury, loss of life, and property.
- Funding of emergency preparedness training, including CERT.

Overall, Solvang has indirectly referenced mitigation and hazard reduction principles throughout many of the aforementioned documents, plans, and policies. Integrating more direct language referencing mitigation and hazard reduction will help to reinforce Solvang's commitment to these principles. The indirect references can also indicate that the responsibility for hazard reduction is shared among numerous departments within Solvang, making it a challenge to identify a particular department to take the lead in these efforts.

Table 4-3 shows specific financial and budgetary tools available to the City such as community development block grants; capital improvements project funding; authority to levy taxes for specific purposes; fees for water, sewer, gas, or electric services; ability to incur debt through general obligations bonds; and withholding spending in hazard-prone areas.

Table 4-3. City of Solvang Fiscal Capability

Financial Resources	Accessible or Eligible to Use (Yes/No)	Has This Been Used for Mitigation in the Past?	Comments
Community Development Block Grants (CDBG)	Yes	No	
Capital improvements	Yes	Yes	
Authority to levy taxes for specific purposes	Yes – Vote required	No	
Fees for water and sewer service	Yes	Yes	
Incur debt through general obligation bonds	Yes	No	
Incur debt through special tax bonds	Yes – Vote required	No	
Incur debt through private	No	No	

Financial Resources	Accessible or Eligible to Use (Yes/No)	Has This Been Used for Mitigation in the Past?	Comments
Federal Grant Programs (Hazard Mitigation Grant Program)	No	No	

4.7 EDUCATION AND OUTREACH CAPABILITIES

This type of local capability refers to education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information. Examples include natural disaster or safety-related school programs; participation in community programs such as Firewise or StormReady; and activities conducted as part of hazard awareness campaigns such as an Earthquake Awareness Month (February each year), National Preparedness Month (September), or the Great California ShakeOut (a statewide earthquake drill that happens annually on the third Thursday of October). The City can capitalize on its existing educational capacities, even non-hazard related such as school partnerships, and build new capabilities to educate the larger community on hazard risk and mitigation options.

In addition to the countywide resources described in Section 4.2.5, *County Education and Outreach Capabilities*, this section describes several existing outreach programs that are used to promote community awareness and readiness for natural disasters and hazards in the City.

The City provides educational materials through the City website, social media, distribution of print materials at special events, and staff members periodic presentations to the community. The City Maintains an Emergency Management Plan and works closely with the County of Santa Barbara to ensure emergency communication channels are available and ready for the Solvang community.

4.8 RELEVANT PLANS, POLICIES, AND ORDINANCES

Solvang has a range of guidance documents and plans for each of its departments. These include a General Plan, Public Works Water/Sewer Plans, Capital Improvement Plans, Storm Water Management Program, Parks & Recreation Master Plan, and Standardized Emergency Management Plan. Solvang adopts building codes, zoning ordinances, subdivision ordinances, and various planning strategies to address how and where development occurs. One of the essential ways Solvang guides its future is through policies laid out in the General Plan.

4.8.1 City of Solvang General Plan

Land Use Element

The majority of land within the City boundaries has been developed, with a bulk of the land zoned for residential use. Solvang is separated from neighboring communities by a greenbelt of agricultural and open space areas. The Santa Ynez River, Alamo Pintado Creek, Alisal Creek, and Adobe Creek are sources of flooding concern for the City of Solvang. The land surrounding these water bodies will be held as riparian and publicly owned open spaces. The City provides water and wastewater services and also designs and manages roadway and pedestrian facilities to

minimize conflicts between automobiles, pedestrians, and bicyclists. To ensure that the demand for public facilities and services does not exceed the City's ability to provide these facilities and services, the City periodically reviews projected municipal service and public facility demands. Before approving the new development, Solvang determines that public services and resources are available to serve the new development. Public safety services are provided through a contract with the County of Santa Barbara's Fire and Sheriff's departments.

Since the last update of the City's LHMP in 2017, land use and population in the City have not substantially changed. In 2020 the City adopted an Urban Growth Boundary which consists of the existing City limits. As such, modest development has occurred consistent with the adopted Land Use Element and has primarily comprised infill development and redevelopment within the City limits. There has been no expansion of the City boundary or its Sphere of Influence (SOI) and no comprehensive changes to the Land Use Element that would result in substantial densification. Further, City population has not substantially changed. As a result, the City's level of vulnerability to hazards analyzed in Section 6.0, *Vulnerability Assessment*, has not substantially changed due to land use, development, or population growth since the last update of the LHMP.

Housing Element

Conserving and improving existing housing and residential neighborhoods in Solvang is regarded as an important goal. Forty percent of the City's housing stock is 30 years or older. The City will support and encourage neighborhood preservation and upgrading through participation in the CDBG Urban County Partnership (County and cities of Buellton, Carpinteria, Lompoc, and Solvang) and the HOME Consortium (Urban County members plus Goleta and Santa Maria). These partnerships receive federal affordable housing and community development funding under three programs administered by the U.S. Department of Housing and Urban Development (HUD):

- Community Development Block Grant (CDBG)
- HOME Investment Partnerships Program (HOME)
- Emergency Solutions Grant (ESG)

The City's participation is to pursue funds for housing repair assistance and residential rehabilitation assistance. The City also operates a code enforcement program. Code enforcement is a means to ensure that the character and quality of neighborhoods are enhanced and maintained. Code enforcement efforts in Solvang will focus on bringing substandard units into compliance with current building and development codes. The development review process is another important tool in ensuring that new housing meets safety codes and zoning regulations can be served by all necessary utilities and infrastructure before a development permit is issued.

Development in the City of Solvang is subject to the Zoning Ordinance and the California Building Code that establishes minimum standards for all classes of construction.

Safety Element

The Safety Element identifies existing conditions and issues involving potential hazards and public safety considerations relevant to Solvang. It sets forth goals, objectives, and policies to provide for public health, safety, and welfare. The key issues that affect Solvang are hazards associated with seismicity, slope stability, flooding, structural fires, and wildfires. By identifying the nature and location of potential hazards, Solvang has adopted a land use plan that reflects such hazards and

has been able to establish appropriate programs to prevent or minimize death, injuries, damage to property, and economic and social dislocation resulting from public safety hazards. The LHMP is incorporated by reference in the Safety Element.

Physical constraints affect potential land development in Solvang. Development along the Santa Ynez River, Alamo Pintado Creek, and Adobe Creek is constrained due to flood hazards and biological resource considerations. Similarly, steep slopes and other areas of potential geologic hazards limit the extent of development in hillside areas within and around the City. Development that is mapped in flood-prone areas is subject to FEMA requirements and any new development must minimize flood problems that are identified by the National Flood Insurance Rate Program. To prevent dam inundation, evacuations plans should be in place.

Flooding

Areas potentially subject to inundation by 100-year floods should be limited to land uses that do not interfere with the capacity of the drainage course and that minimize hazards posed to people and property. Thus, agricultural and recreation/open space land uses are considered the most appropriate land uses for the 100-year flood zone. The only area in Solvang where development has occurred within a 100-year flood zone is along Alamo Pintado Creek near State Route 246, and portions of the Alisal Golf Course. No new urban development should be permitted within any 100-year flood zone unless it can be demonstrated that building pads will be located above the 100-year flood level and/or floodproofing measures are incorporated into project design. Information prepared by a civil or hydrological engineer that certifies compliance with development standards must be submitted to the City before construction. To minimize the adverse effects of urbanization on drainage and flood control facilities, the City will require the implementation of adequate erosion control measures for development projects. Solvang will maintain its open space preserves and require developers to provide adequate open space to minimize impermeable surfaces throughout the city which can promote flooding. Urban land uses may be permitted within the 500-year floodplain with the understanding that some degree of risk is assumed for potential damage resulting from infrequent and typically shallow flooding. The only area in Solvang where development has occurred within a 500- year flood zone is the eastern portion of the Creekside neighborhood along Alamo Pintado Creek.

Seismic/Geologic Hazards

The suitability of land for development is influenced strongly by the presence of certain geologic and seismic hazards. These hazards range from the direct and indirect effects associated with earthquakes to problems associated with slope stability and soil conditions that are not conducive to development. To ensure that geologic hazards in areas for human use or habitation are mitigated properly or avoided before development, the City will require geotechnical investigations by an engineering geologist and civil engineer for all grading and construction proposed within any area of potential slope instability and/or areas subject to severe seismic hazards. All construction will be required to be in conformance with the California Building Code as it provides regulations for earthquake-resistant design and excavation and grading and with the City's adopted hillside development ordinance. The development of critical facilities is restricted in areas determined to be high-risk geologic hazard zones.

Fire

The Solvang Municipal Code includes the adoption of the Uniform Fire Code which contains specific development regulations for areas of high and severe fire hazard. Site plans for any development proposed in high hazard areas are subject to the review of the Fire Marshal during the City's site plan review process. Such plans must show that the site provides adequate emergency access, has adequate water supply and pressure to meet fire flow needs, and provides an adequate fuel break or buffer zone to prevent the spread of structural fires to wild land areas. Further, strict enforcement of building codes will minimize potential fire hazards resulting from inappropriate building materials or structural design. The City will enforce an ordinance that establishes criteria for land development in hillside areas with an emphasis on fire-retardant construction materials, access for fire-fighting personnel and equipment, and removal of combustible vegetation. Fire prevention and control measures include the removal or reduction of vegetation that constitutes fuel for fires in or near developed areas, controlled burning, and the development of a network of firebreaks that reduce the potential spread of wildfires.

Maintaining adequate emergency response capabilities is also necessary to ensure that fires are controlled. The Solvang Fire Department should be provided with sufficient financial resources to maintain its facilities, equipment, and personnel at a level appropriate to the needs identified by the City's Emergency Services Coordinator. City and County roads to access high fire hazard areas should remain unobstructed and in adequate condition so that emergency vehicles will continue to have access to these areas.

Hazardous Materials and Aircraft Hazards

Aside from natural hazards, the Safety Element identifies hazardous material incidents and aircraft hazards as man-made hazards. Aircraft hazards do not seem to pose a serious threat to the City because Solvang is located outside the Santa Ynez Valley Airport's area of influence. Therefore, no special planning measures are documented in the General Plan to manage potential aircraft hazards. Goals, policies, and mitigation measures to reduce the negative effects of hazardous material incidents are described in detail in the Safety Element.

Hazardous materials, such as household products, asbestos, lead-based paint, and aerially-deposited lead, can be found in the City. To reduce the negative effects of household products, Solvang participates in a quarterly Household Hazardous Waste and Electronics Collection and Recycling Day, when such materials are accepted free of charge. Santa Barbara County also has a hazardous waste management plan.

Solvang will respond to the unlikely event of a contaminant release from all City water treatment facilities per the City's emergency response procedures.

Disaster Preparedness

Disaster preparedness involves the development of response procedures, identification of evacuation routes, design and installation of warning systems, purchase of emergency equipment, and training of emergency personnel. Mitigation programs are akin to preparedness actions in that they are measures to reduce or eliminate the adverse effects of future hazard events. The principal forms of mitigation are land use controls to prevent or limit the location of development and populations in areas that are susceptible to hazard events, enforcement of building codes, and the

installation of structural barriers, such as dams and levees, to shield people and development from harm. The City of Solvang's Director of Emergency Services is responsible for overseeing the City's disaster preparedness program. Key aspects of Solvang's local emergency management program involve disaster evacuation and the operation of emergency shelters.

Public Facilities and Services

A shortage of critical materials, such as a clean water supply, is a hazard that jurisdictions strive to avoid. In Solvang, water is supplied by the City of Solvang Water Division. Potable water sources in Solvang include local groundwater wells and State water. The City's Water Master Plan and EIR indicate that the City has adequate water and sewer capacity to meet expected build-out needs. The water and sewer infrastructure varies in age. Both water and sewer facilities undergo regular maintenance activities to ensure the systems are operational.

Another hazard that jurisdictions strive to avoid is a utility mishap. All new development is required to underground all utilities. The undergrounding of utility cables can prevent a power/utility service outage in Solvang during flooding, high winds, and earthquakes.

Fire and police protection is also a concern of Solvang, as ensuring the capabilities of these departments helps aid hazard mitigation. The City of Solvang contracts with the Santa Barbara County Sheriff's Department for law enforcement services. The Sheriff's department responds to growth by assigning additional deputies to an area in direct proportion to its increase in population. To provide an adequate level of police protection throughout the City, a minimum of one full-time police officer per every 1,500 residents is required.

4.8.2 Zoning and Subdivision Ordinances

The State of California has empowered all cities and counties to adopt zoning ordinances. Solvang's original Zoning Ordinance was adopted on July 22, 1993, and has been amended several times. It is codified in Title 11 of the Municipal Code. Solvang adopted a Subdivision Ordinance on April 17, 1966, reference Solvang Municipal Code Title 12. Local land use controls include the Zoning Ordinance, which shapes the form and intensity of land use and residential development. Consistent with the General Plan, the City's Zoning Ordinance allows a range of zones and dwelling unit densities. Zoning ordinance regulations related to hazard mitigation relate to the risk assessment for hazards within the City, including flooding.

Solvang has a five-member Planning Commission, which is an advisory body to the City Council. The Commission was established under State law to provide relief in special cases where the exact application of the terms of the ordinance would be unduly restrictive and cause hardship, in addition to generally reviewing zoning and subdivision proposals. The Planning Commission hears and decides upon the interpretation and the application of the provisions of the Zoning and Subdivision Ordinances. Although the Commission has certain discretionary powers in making its decisions, the Commission must always abide by and comply with the powers granted to it by the local Zoning and Subdivision Ordinances and the State's enabling acts. Additionally, the Planning Commission may recommend actions to the City Council and the Planning Commission's actions may be appealed to the City Council.

4.8.3 Building Codes

The State of California has adopted the most recent California Building Codes, which have been adopted and are enforced in Solvang. Reference Title 10 of the Municipal Code.

Solvang contracts with a private company for permit processing, plan check and inspection services. The Building Division is principally responsible for enforcing State, City, and County Codes for building residential and commercial structures and enforcing environmental codes and guidelines for maintaining existing structures.

4.8.4 Floodplain Management Ordinance

The City participates in the National Flood Insurance Program (NFIP) and maintains Floodplain Management Ordinance No. 93-140 which was updated in August of 1995 and July of 2015. It is codified in Title 13 of the Municipal Code. The City contracts with the County for a Joint Exercise of Powers Agreement for flood control. When a project is proposed within the City of Solvang and lies within a FEMA-defined Special Flood Hazard Area (SFHA), the project review is contracted out to the Santa Barbara County Flood Control District and recommendations are given back to the City of Solvang.

When reviewing projects for new construction within an SFHA, the County Flood Control District will establish the Base Flood Elevation (BFE) and recommend that the lowest finished floor of the building be elevated to two feet above the BFE for a habitable structure. For those structures that are not habitable, (i.e. storage, detached garage, etc.) Flood Control recommends that those structures be floodproofed according to FEMA standards. The County Flood Control District reviews plans according to the Santa Barbara County Code Chapter 15A "Floodplain Management".

Additionally, floodplain districts identified in the FIRMs include the following flood hazard zones and definitions:

- **Zone A** is the flood insurance rate zone that corresponds to the 100-year floodplains that are determined in the Flood Insurance Study (FIS) by approximate methods. Because detailed hydraulic analysis is not performed for such areas, no Base Flood Elevations or flood hazard factors are determined.
- **Zone AO** is the flood insurance rate zone that corresponds to areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
- **Zone A1-A30** is the flood insurance rate zone that corresponds to areas of 100-year flood; base flood elevations and flood hazard factors are determined.
- **Zone B** is the flood insurance rate zone that corresponds to areas between limits of the 100-year flood and 500-year flood, or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood.
- **Zone C** is the flood insurance rate zone that corresponds to areas of minimal flooding.

4.8.5 Repetitive Loss (RL) Properties

Repetitive Loss Properties are defined as property that is insured under the NFIP that has filed two or more claims above $1,000 each within any consecutive 10-year period since 1978. There are no Repetitive Loss Properties within the City of Solvang.

4.8.6 City of Solvang Storm Water Management Program

In California, the State Water Resources Control Board (SWRCB) has determined that urban runoff is a leading cause of pollution through the state, with impacts on both human health and aquatic ecosystems. The SWRCB identified the City of Solvang as a small municipal separate system requiring coverage under the National Pollutant Discharge Elimination System (NPDES) *General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s)*, Water Quality Order No. 2003-0005-DWQ (General Permit). A requirement of the General Permit is the development of a Storm Water Management Program (SWMP) to reduce the discharge of pollutants.

The General Permit also requires the development and implementation of Best Management Practices (BMPs) to address six Minimum Control Measures (MCMs). This includes the following:

1. Public Education and Outreach on Storm Water Impacts;
2. Public Involvement and Participation;
3. Illicit Discharge Detection and Elimination;
4. Construction Site Storm Water Runoff Control;
5. Post-Construction Storm Water Management in New Development and Redevelopment; and
6. Pollution Prevention/Good Housekeeping for Municipal Operations.

The Storm Water Management Plan has been prepared by the City of Solvang and describes the City's program necessary to comply with the General Permit. It also serves as a framework for identifying, assigning and implementing control measures and BMPs intended to reduce the discharge of pollutants and protect downstream water quality.

Its purpose is to serve as a planning and guidance document to be used by the City's regulatory body; to define techniques and measurable goals for measuring BMP effectiveness, and to define a five-year schedule for SWMP implementation to comply with the General Permit requirements.

Following a description of the City of Solvang, the document comprehensively describes the Minimum Control Measures. They comprise the most substantive section of the Storm Water Management Program:

1. Public Outreach and Education

This measure is intended to ensure greater public support and compliance for the storm water management program. Specifically, they teach the public the importance of protecting stormwater quality. The City has already begun and will continue to partner with other local municipalities, such as the County of Santa Barbara and the Cities of Lompoc, Santa Maria, Buellton, Goleta, Santa Barbara, and Carpinteria to develop materials and host civic events.

The City also implements BMPs, including the use of 1) Brochures; 2) Web Pages; 3) Events; 4) Educational programs for children; 5) Storm Drain Markings; 6) Stormwater Hotlines; 7) Direct Mail/Media campaigns; 8) Business outreach programs; 9) Botanical garden exhibits; 10) Public surveys; and 11) Ongoing assessments of social marketing strategies. The SWMP also includes effectiveness measures and measurable goals for each respective BMP.

2. Public Participation and Involvement

The goal is to foster active community support for the SWMP. The City implements BMPs, including 1) Regular public meetings; 2) Regular coordination efforts among local agencies/stakeholders; 3) Community clean-ups; 4) Water quality hotlines; 5) and Lists of interested parties. The SWMP also includes effectiveness measures and measurable goals for each respective BMP. Its purpose is to assure that the program will be supported by City residents and will provide input to guide the development of the program in the future.

3. Illicit Discharge Detection and Elimination

The City will enhance its current system to identify and eliminate illicit discharges throughout the permit area. A map identifying "trouble spots and potential illegal dumping areas" in the City has been developed and will be updated as needed.

The City implements BMPs, including 1) Maps of the storm drain system; 2) Storm water ordinances; 3) Education and outreach programs; 4) Education/Training of municipal employees; 5) Identification and elimination of illicit discharge sources; 6) Drain filters for commercial connections; 7) Wastewater programs; and 8) Pet waste disposal program. The city intends to maintain ongoing efforts to control illicit discharge at current levels by implementing these BMPs. The SWMP also includes effectiveness measures and measurable goals for each respective practice.

4. Construction Site Runoff Control

The purpose of construction site runoff controls is to prevent soil and construction waste from entering the storm water. The City will review its current Excavation and Grading Code and standard practices for compliance with the minimum requirements – according to the USEPA. It will also require all construction projects to collect construction waste and materials on-site and dispose of them legally and properly.

The City implements BMPs, including 1) Construction Site Enforcement, Inspections; 2) Development of construction site inspection and enforcement procedures; 3) Development of procedures for review of grading/erosion control/construction site plans; 4) Discretionary projects – conditions of approval; 5) Staff training; 6) Construction workshop; 7) Construction site stormwater control ordinance; and 8) Procedures for receipt and consideration of information from the public. The SWMP also includes effectiveness measures and measurable goals for each respective BMP.

5. Post-Construction Runoff Control

This minimum control measure focuses on site planning and design considerations, which are most effective when addressed in the early stages of project development. The goal of the program is to integrate basic and practical storm water management techniques into new development to protect water quality.

The City adopted and is implementing/applying water quality protection policies related to hydromodification control criteria (post-construction requirements – PCRs) to new development and redevelopment projects. The City has adopted/developed guidance for PCRs, including design, monitoring, maintenance, and inspection requirements and guidance to assist developers in the selection, design, and maintenance of hydromodification control measures.

The City implements BMPs, including 1) Review of regulations; 2) Staff training; 3) Plan review; 4) inspection of post-construction stormwater BMPs; 5) Long-term monitoring of post-construction stormwater BMPs; 6) Master drainage plan; 7) Long-term watershed protection and plan; 8) Use of low impact development in project design; 9) Adoption of hydromodification control criteria; and10) Education and outreach efforts. The SWMP also includes effective measurable goals for each respective practice.

6. Pollution Prevention Control and Good Housekeeping for Municipal Operations

The purpose of this minimum control measure for Municipal Operations/Good Housekeeping Practices is to assure that the City's delivery of public services occurs in a manner protective of storm water quality to the maximum extent practical and protect overall water quality. In this way, the City may serve as a model to the community.

The City implements BMPs, including 1) Training of employees on stormwater pollution prevention; 2) Street sweeping; 3) Storm drain cleaning; and 4) Trash, green waste, and recycling. Data collected for each measurable goal will be compiled, reviewed, and summarized as a part annual report to the Regional Water Quality Control Board (RWQCB).

Monitoring and Reporting Requirements. The purpose of monitoring and reporting is to document the successful implementation of the SWMP and determine the program's effectiveness at reducing pollutants to the MEP and protecting water quality. The General Permit requires that annual reports be submitted annually upon approval of the City's SWMP. The City intends these annual reports to cover the fiscal year immediately before the reporting period.

4.8.7 City of Solvang Wastewater Treatment Plant

The City of Solvang is located in northern Santa Barbara County and operates a publicly owned treatment works facility whose discharge influences the Santa Ynez River. In recognition of this important asset, the city has developed an examination to determine the true operating capacity of the existing wastewater treatment plant and to plan for the future. Its scope includes a forecast of demographic and planning development through General Plan build-out and an estimation of the respective wastewater flow characteristics.

4.8.8 City of Solvang Emergency Operations Plan

The 2014 Emergency Operations Plan (EOP) for the City of Solvang addresses the planned response to emergencies associated with natural disasters, technological incidents, and national security emergencies that occur within or affect the City. The plan does not address normal day-to-day emergencies. The Plan:

- Establishes the emergency management organization required to respond to and mitigate any significant emergency or disaster affecting the City;

- Identifies the policies, responsibilities, and procedures required to protect the health and safety of the city community, public and private property, and the environmental effects of natural and technological emergencies and disasters; and
- Establishes the operational concepts and procedures associated with field response to emergencies, the City's Emergency Operations Center (EOC) activities, and the recovery process.

It establishes the framework for implementation of the California Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS) in the City of Solvang. The document is a concept of operations guide, intended to facilitate multi-agency and multi-jurisdictional coordination in emergency operations, particularly between the City of Solvang, Special Districts, and the Santa Barbara County Operational Area.

The scope presented in the EOP applies to all elements of the City's Emergency Organization during all phases of emergency management. Its primary audience is intended for emergency management staff from the city and other interested parties (e.g. the Federal government, other State or local governments, and volunteer agencies).

The EOP is organized into three sections.

- **Part One - Basic Plan**. The overall organizational and operational concepts relative to response and recovery are described in this section. Its intended audience is the Emergency Operations Center (EOC) Management Team.
- **Part Two - Emergency Organization Functions**. It is a description of the emergency response organization and emergency action checklists. The intended audience is EOC staff.
- **Part Three – Supporting documents to the City's Emergency Operations Plan**. These documents identify both SEMS and NIMS compliance information.

Hazard mitigation is discussed in *Part One- Basic Plan* and includes a series of programs and best management practices to efficiently minimize the risks to natural hazards. They are:

1. Enhance public awareness and understanding;
2. Create a decision tool for management;
3. Promote compliance with State and Federal program requirements;
4. Enhance local policies for hazard mitigation capability;
5. Provide inter-jurisdictional coordination of mitigation-related programming;
6. Achieve regulatory compliance.

There are three emergency management goals outlined in the Emergency Operations Plan, which include:

- Provide effective life safety measures, reduce property loss, and protect the environment
- Provide for the rapid resumption of impacted businesses and community services
- Provide accurate documentation and records required for cost recovery efforts.

4.8.9 SEMS Multi-Hazard Functional Plan

In early July 2008, Solvang adopted its first Emergency Operations Plan including the integration of the Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS) Multi-Hazard Functional Plan into the Emergency Management System. The Plan discusses mitigation in the form of training and exercises, which are essential at all levels of government to make emergency operations personnel operationally ready. All emergency plans should include provisions for training. The objective is to train and educate public officials, emergency response personnel, and the public. The best method for training staff to manage emergency operations is through exercises. Exercises are conducted regularly to maintain the readiness of operational procedures. Exercises provide personnel with an opportunity to become thoroughly familiar with the procedures, facilities, and systems that will be used in emergencies. There are several forms of exercises:

- Tabletop exercises provide a convenient and low-cost method designed to evaluate policy, plans, and procedures and resolve coordination and responsibilities. Such exercises are a good way to see if policies and procedures exist to handle certain issues.
- Functional exercises are designed to test and evaluate the capability of an individual function such as evacuation, medical, communications, or public information.
- Full-scale exercises simulate an actual emergency. They typically involve complete emergency management staff and are designed to evaluate the operational capability of the emergency management system.

The SEMS Multi-Hazard Functional Plan will be updated to reflect the current hazard risk assessment and mitigation activities identified in this hazard mitigation plan annex.

4.9 OPPORTUNITIES FOR MITIGATION CAPABILITY IMPROVEMENTS

The City continuously strives to mitigate the adverse effects of potential hazards through its existing capabilities while also evaluating the opportunities for improvements. Based on the capability assessment, the City has existing regulatory, administrative/technical, education/outreach, and fiscal mechanisms in place that help to mitigate hazards. In addition to these existing capabilities, there are opportunities for the City to expand or improve on these policies and programs to further protect the community:

- **Regulatory Opportunities**: As part of this update, the City will comply with AB 2140 by amending its Safety Element to incorporate the LHMP by reference. The City will consider the LHMP in policy, land use plans, and programs, including coastal hazard and sea level rise planning. The City's top priorities for improvements are public safety, public education, and reducing the potential economic impacts of disasters. The City will create defensible space around high fire areas by strategically managing vegetation to decrease the fuel available for fires adjacent to the structures. This is relatively inexpensive, accomplished quickly, and is effective as long as the vegetation is managed.

- **Administrative/Technical Opportunities:** The City aims to improve its resilience to ensure emergency response operations are sustained during a hazardous event, including upgrades to critical facilities. The City aims to reduce wildfire hazards with vegetation management Further, continued community outreach, emergency notifications, and trainings would further enhance the City's capabilities to respond to and recover from hazards. The City will develop and maintain a disaster warehouse or additional CERT trailers for the storage of emergency supplies. The City is also in process of developing a plan to fully equip the Veteran's Hall with a generator and solar capabilities. The Veteran's Hall Building has been identified as priority shelter and critical facility for the Santa Ynez Valley.
- **Outreach Opportunities:** Enhanced community outreach, emergency notifications, and trainings would further enhance the City's capabilities to respond to and recover from hazards. The City will conduct community outreach and will provide training including Community Emergency Response Team Training (CERT) and early warning & evacuation plans. The City could expand outreach through digital tools such as social media, participate in the Great California ShakeOut, and increase FireWise outreach events and media coverage.
- **Fiscal Opportunities:** The City can update its CIP to include hazard mitigation actions from the LHMP. The City will continue to seek grants (e.g., HMGP, BRIC) to fund these CIP projects and related projects in the City's mitigation strategy. The City can seek opportunities to partner with the County and/or other stakeholder agencies in grant applications to address regional hazards more effectively. The City could also consider expanding its fiscal capabilities through its annual budget process and other revenue measures (e.g., raising taxes, property assessments, bonds).

5.0 HAZARD ASSESSMENT

5.1 OVERVIEW

The purpose of this section is to review, update, and/or validate the hazards identified for the 2022 City of Solvang LHMP. The intent is to confirm and update the description, location and extent, and history of hazards facing the City now and in the future. This assessment also considers the potential exacerbating effects of climate change. The City of Solvang is not located along the coast so sea level rise associated with climate change would not occur. However, storms with increased severity could exacerbate flooding impacts within the City as well as increase fire hazards. Drought is also associated with climate change; however, drought does not pose a threat to the operation of the City's critical facilities. The importance of this review is to ensure that decisions and mitigating actions are based on the most up-to-date information available.

Another purpose of this section is to screen the hazards to determine their relative probability and severity to inform the risk posed to various communities and resources. This assessment will provide an understanding of the significance by ranking hazards by their priority in the City.

In 2021, the MAC reviewed and revised 1) the list of hazards by community or geographic area; 2) the information and material presented for each hazard; and 3) the prioritization of the hazards.

The City LPT refined the list of hazards applicable to the City and confirmed the hazard prioritization. The following sections provide the results of this effort.

5.2 HAZARD SCREENING/PRIORITIZATION

The Hazard Assessment presented here reflects the City's 2022 review and modifications to the updated risk assessment presented in Chapter 5.0, *Hazard Assessment,* and Chapter 6.0, *Vulnerability Assessment* of the 2022 MJHMP. Applicable hazard information from the City's 2017 LHMP was incorporated during the development of this section. A comprehensive treatment of hazards and their descriptions may be found in Chapter 5.0 of the Santa Barbara County 2022 MJHMP.

The potential extent, probability, frequency, and magnitude of future occurrences were all used to identify and prioritize the list of hazards most relevant in the City. The City LPT completed the Plan Update Guide to rank the hazards and identify key hazards to help inform this assessment (Appendix A). As summarized in Table 5-1, the local priority hazards in the City are based on the screening of frequency/probability of occurrence, geographic extent, potential magnitude/severity of the hazard, and overall significance. Local experience, MAC/LPT input, and community feedback also informed the assessment of local priority hazards. After reviewing the localized hazard maps and exposure/loss assessment provided in the 2022 MJHMP, the following hazards were identified by the Solvang LPT as their top priorities (Appendix A). A brief rationale for each hazard is included below. This assessment and description of key hazards in the City are provided in addition to the 2022 MJHMP's comprehensive assessment of regional hazards that may affect the City.

Table 5-1. City of Solvang Local Priority Hazards

Hazard Type and Ranking	Score	Planning Consideration Based on Hazard Level
Drought/Water Shortage	12	Significant
Wildfire	10	Significant
Extreme Heat & Severe Weather	10	Significant
Flooding	9	Moderate
Earthquake	9	Moderate
Cyber Threat	9	Moderate
Energy Shortage & Resilience	8	Moderate
Pandemic/Public Health Emergency	8	Moderate
Dam/Levee Failure	7	Moderate

To continue compliance with the DMA of 2000, the City accepts the County's natural hazard profiles presented in Chapter 5.0, *Hazard Assessment* with the following notes and refinements or elaborations provided specifically for the City in subsections below. The City of Solvang LPT acknowledged the following hazards are either not a threat, are highly unlikely within the City limits, or are adequately addressed by the 2022 MJHMP and do not require additional information to be relevant to the City's hazard setting; therefore, these hazards are not addressed further in

the City's LHMP: mudflow/debris flows, coastal hazards, landslides, geologic hazards, tsunamis, invasive species/agricultural pests, aircraft/ train accidents, terrorism, natural gas pipeline rupture, and storage facility incidents, oil spills, and radiological incidents.

5.3 DROUGHT & WATER STORAGE

The City of Solvang has four water supply sources. These include State Water, Upland Wells, River Wells, and the Santa Ynez Water District (ID #1). The Department of Water Resources (DWR) operates the State Water Project. The City holds entitlement to 1,500 acre-feet per year (AFY) of State Water. However, based on the rainfall, Sierra snow-pack, and State reservoir levels each year the percentage allocation of State Water varies. That is what percentage of the 1,500 AFY the City receives. In recent years, the allocation of State Water has varied from 0% (during drought) to as much as 85%.

As of May 2021, Governor Gavin Newsom has declared a drought emergency in 41 California counties in northern and central California (CalMatters 2021). Currently, Santa Barbara County has been in a state-declared drought since July 8, 2021 when Governor Gavin Newsom proclaimed a drought emergency, which included 50 of the 58 counties in California. On July 13, 2021, the County Board of Supervisors passed a resolution proclaiming a Local Emergency caused by Drought Conditions. The County resolution cites Newsom's drought declaration, as well as below-average rainfall, received last winter, reduced storage in reservoirs, and reduced State Water Project supply. Further, low rainfall from 2020 to 2021 has resulted in Classification D3 – Extreme Drought conditions in over 99 percent of the county as identified by the U.S. Drought Monitor (USDM). The City will continue to identify ways to enhance water security and conservation.

In August 2021, the City declared a stage two drought condition after the California State Water Resources Control Board reduced the city's allocation of state water. In stage two, City code calls for a mandatory reduction of all water usage by 20%. Previously in April 2021, the Council declared a stage one drought condition, which called for a voluntary 15% reduction in water use citywide, kicked in a variety of mandated water restrictions, and authorized the purchase of up to $400,000 in supplemental water. City code also places several mandates in place during the drought stages.

5.4 WILDFIRE

The threat of a wildland fire affecting Solvang is high due to the presence of dense, flammable vegetative fuels on land surrounding the City adjacent to the City's wildland-urban interface and especially in the hills surrounding the north and northwest portions of the City. The wildland-urban interface is where structures and other human development meet or intermingle with wildland or vegetative fuels. The threat is particularly significant during dry summer months and when there are strong Santa Ana winds. The fire season extends approximately 5 to 6 months, from late spring through fall.

Solvang is part of the Santa Barbara County Fire District. Fire Station No. 30 is located at the City's Municipal Center. Response times within the City are 3 to 5 minutes. All high fire zones within Solvang are mapped. The Fire Department, as well as the California Building Code, requires that all new

habitable development install indoor sprinklers and use fire-resistant building materials. Within the City Limits, the Solvang Code Enforcement Officer and County Fire undertake a weed abatement program in the Spring.

5.5 EXTREME TEMPERATURES AND SEVERE WEATHER

The City is susceptible to the same weather patterns as other parts of Central and Southern California. While most of the time, the climate is mild, significant wind, rain, and temperature extremes can and do occur. As planetary warming continues, the severity of storms and weather extremes are predicted to occur. The impacts on the community mostly manifest as stress on the power grid and impacts on persons otherwise not protected from the elements in resilient structures. Impacts traditionally are limited requiring very few evacuations and limited casualties. The number of casualties may increase as the dependency on electricity continues to increase for home oxygen concentrators and other independent living assistive devices.

Extreme temperatures, particularly heat, pose the greatest danger for the City's outdoor laborers who support the county's agriculture economy. Exertional heat illness occurs across a wide age range and in numerous industries and occupations, including the following: agriculture, construction, firefighting, warehousing, delivery, and service work. Outdoor laborers are exposed to extreme temperatures and at higher risk of heat-related illnesses than other populations of the county. The elderly, children, people with certain medical conditions, and the houseless are also vulnerable to exposure. However, any populations working or recreating outdoors during periods of extreme cold or heat are exposed, including otherwise young and healthy adults and houseless populations. Adults and young people are commonly out in temperatures of extreme heat, whether due to commuting for work or school, conducting property maintenance such as lawn care, or for recreational reasons.

Windstorms, especially sundowner winds, could have a considerable impact on the population, built environment, lifeline infrastructure, and the economy of the City. Severe winds can directly impact the City by damaging or destroying buildings, knocking over trees, and damaging power lines and electrical equipment. Secondary impacts of damage caused by wind events often result from damage to communication, transportation, or medical infrastructure. High winds can lead to Public Safety Power Shutdowns (PSPS) that can impact the local economic drivers and key services. During severe wind events, electricity transmission lines can be damaged or turned off by Pacific Gas and Electric Company (PG&E), causing widespread power outages and hardships for City residents. Downed power and communications transmission lines, coupled with disruptions to transportation, create difficulties in reporting and responding to emergencies. These indirect impacts of a wind event put tremendous strain on a community. In the immediate aftermath, the focus is on emergency services. Vulnerable groups are especially exposed to the indirect impacts of high winds, particularly the loss of electrical power. These populations include the elderly or disabled, especially those with medical needs and treatments dependent on electricity. Nursing homes, community-based residential facilities, and other special needs housing facilities are also vulnerable if electrical outages are prolonged since backup power generally operates only minimal functions for a short period.

5.6 FLOOD

In Solvang, hazardous flooding events are most commonly associated with the Santa Ynez River, Adobe Canyon Creek, Alisal Creek, and Alamo Pintado Creek.

Per Title 13 of the Municipal Code (Flood Plain Management), when a project is proposed within the City of Solvang and lies within a FEMA defined Special Flood Hazard Area (SFHA), the project review is contracted out to the Santa Barbara County Flood Control District and recommendations are given back to the City of Solvang.

When reviewing projects for new construction within a Special Flood Hazard Area, the County Flood Control District will establish the Base Flood Elevation (BFE) and recommend that the lowest finished floor of the building be elevated to two feet above the BFE for a habitable structure. For those structures that are not habitable, (i.e., storage, detached garage, etc.) Flood Control recommends that those structures be floodproofed according to FEMA standards. The County Flood Control District reviews plans according to the Santa Barbara County Code Chapter 15A "Floodplain Management".

5.7 EARTHQUAKE & LIQUEFACTION

A more complete description of the earthquake and liquefaction hazards is found in Chapter 5.0, *Hazard Assessment* of the 2022 MJHMP.

The City is located in the Santa Ynez Valley, a wedge-shaped topographic depression bounded by the Santa Ynez Mountains on the south, the San Rafael Mountains to the east and north, and the Purisima Hills on the west. It is a down-dropped structural block between two major faults. On the south, the east-west trending Santa Ynez Fault forms the base of the uplifted Santa Ynez Mountains and extends from Ventura County across the entire width of Santa Barbara County.

The City and its planning area are located in Seismic Zone 4, which is the highest potential status for earthquake activity in the state of California. Solvang's fault lines and liquefaction zones are mapped (see Section 5.0, *Hazard Assessment* of the MJHMP). The City previously examined all structures within the City limits and all un-reinforced masonry buildings located within Solvang have received seismic retrofitting.

Title 10, Chapter 1 of the Solvang Municipal Code (Building Codes) regulates construction activities within the City to protect the health, safety, and general welfare of the public and natural environment. All construction is required to be in conformance with the California Building Code (CBC), specifically Chapter 23 as it proves for earthquake-resistant design, Chapter 70 as it provides for excavation and grading, and with the City's adopted hillside development ordinance.

5.8 CYBER THREAT

Cyber-attacks can and have occurred in every location regardless of geography, demographics, and security posture. Incidents may involve a single location or multiple geographic areas. A disruption can have far-reaching effects beyond the location of the targeted system; disruptions that occur far outside the state can still impact people, businesses, and institutions within the county. Between 2012 and 2015, 50 million records of Californians were breached, and the majority of

these breaches resulted from security failures, with malware and hacking; physical breaches constituted three-quarters of all events. As the use of digital information expands, Californians will increasingly become more vulnerable to the slow-moving, potential technological hazard of cyber damage (Cal OES 2018). The Santa Barbara County Grand Jury determined in 2020 that cyber-attacks and related threats are an ongoing security issue for all public entities within the county, which requires prompt and aggressive actions to prevent significant disruption (Santa Barbara County Grand Jury 2020).

The City of Solvang faces the same vulnerability to cybercrime as any modern municipality. Under a cyberattack, economic impacts on the banking, financial, and retail sectors could be significant. Some life necessary systems are currently vulnerable in the City (not connected to the internet). Continued security audits and additional attention to this emerging threat are warranted. This hazard can occur anywhere within the City; however, cyber threats are generally targeted towards larger corporations or the government. While there have been several smaller cyber threats and hacking, none have reached a level of significance within the City.

5.9 ENERGY SHORTAGE & RESILIENCE

Energy access is one of the key impacts of disasters that mitigation actions can have a significant influence on resiliency. Any event that disrupts power for more than a day, can cause significant social disruption, energy, and potential deaths. The current reliance on relatively few power production stations with a power distribution grid spreading over thousands of miles of terrain with the myriad of threats and hazards that the distribution system is subject to makes the normal operation of the system seem miraculous. The City of Solvang receives all of its commercial power from Central Coast Community Energy (3CE) and Pacific Gas and Electric (PG&E).

The City has limited ability to affect resiliency in the power distribution system. It actively participates in reducing its power usage and partners with PG&E, the State of California, and Federal energy conservation programs.

5.10 PANDEMIC/PUBLIC HEALTH EMERGENCY

The City, as well as the county, state, nation, and the entire world, is vulnerable to outbreaks, epidemics, and pandemics caused by either newly emerging or existing diseases spread person to person, through a vector such as a mosquito, or both. A significant public health emergency can have a considerable impact on the population, the economy, and essential public services (e.g., fire and police protection, medical services, etc.). Populations identified by the county as especially vulnerable to human health hazards include undocumented persons, senior citizens, senior citizens living alone, persons with existing chronic health conditions, persons experiencing houselessness, overcrowded households and neighborhoods, low-resourced ethnic minorities people of color, households in poverty, communities with a high-pollution burden, and those without health insurance. Undocumented or non-English speaking individuals may be less able to understand such pandemic-related instructions or receptive to responding to government outreach, while lower-income households may lack the means to comply with the direction. Trends of the COVID-19 pandemic further revealed vulnerable groups within Santa Barbara County population, including residents of Solvang.

Residents' health care needs are met by medical resources in Solvang, and regionally in the City of Santa Maria and the City of Santa Barbara. As demonstrated by the COVID-19 pandemic, health care resources were strained throughout the county. Further, hospitality, retail, tourism, and hospitality industries have been adversely affected economically through reduced activity and a limited workforce, including business in the City. The City relies on the Federal, State, and County Health and Human Services systems to monitor and mitigate potential catastrophic disease outbreaks.

5.11 DAM/LEVEE FAILURE

Solvang lies downstream of Bradbury Dam (Lake Cachuma) and Gibraltar Dam and reservoir. Flooding associated with dam failure on one of the local or upstream dams has a low probability for occurrence. Solvang could experience flooding via the Santa Ynez River. A significant seismic retrofit of Bradbury Dam was completed in 2006 which brought the dam up to federal standards for seismic safety.

6.0 VULNERABILITY ASSESSMENT

The vulnerability assessment builds on the hazard assessment provided in Section 5.0 to estimate losses where data is available and consider a specific list of critical facilities identified within the City of Solvang. The City identified 34 critical facilities to be included in the Vulnerability Assessment portion of the LHMP. These facilities primarily included utilities, wastewater treatment facilities, and government structures. Of the available data, it was shown that these buildings are worth approximately $15,453,685 in total value (Table 6-1).

Table 6-1. Critical Facilities in the City of Solvang

Type	Name	Address	Total Building Value
Communications	Solvang -48V		-
Utilities	Alisal Heights Reservoir	720 Alisal	$1,339,060
Utilities	Alisal Ranch Reservoir	1054 Alisal	$535,623
Utilities	Fjord Lift Station	1411 Fjord Drive	$321,375
Utilities	Alisal Lift Station	120 S Alisal Rd.	$132,664
Utilities	Water Switch Gear Bldg	Fjord Drive and Glen Way	$45,313
Utilities	Well 22	891 Kolding Ave.	-
Utilities	Sewer Force Main	West End Fjord Drive and River	-
Utilities	Well 3	1692 Fjord Dr.	-
Utilities	Hans Christian Andersen (HCA) South Well	637 Atterdag Rd.	-
Utilities	Well 7A	150 Alisal Rd.	-
Utilities	State Pump	175 Alisal Rd.	-
Utilities	Well 4	367 First St.	-
Wastewater Treatment Plant	WWTP /tanks/pumps/blowers	101 S. Alisal Rd.	$3,145,693

Type	Name	Address	Total Building Value
Wastewater Treatment Plant	WasteWater Treatment Plant/Op	101 S. Alisal Rd.	$682,662
Wastewater Treatment Plant	WWTP/Digester/equipment	101 S. Alisal Rd.	$237,641
Wastewater Treatment Plant	WWTP/Pump/Gen. Bldg.	101 S. Alisal Rd.	$253,175
Wastewater Treatment Plant	WWTP/Bultler Bldg.	101 S. Alisal Rd.	$79,215
Wastewater Treatment Plant	WasteWater Awnings/Belt Press	101 S. Alisal Rd.	$367,876
Clinic	Santa Ynez Valley Recovery Residence	636 Atterdag Road	-
Clinic	Santa Ynez Valley Cottage Hospital	2050 Viborg Road	-
Clinic	Sansum Clinic- Solvang	2027 Village Lane	-
Clinic	Atterdag Village	636 Atterdag Road	-
Clinic	PHD COMM HLTH CLINIC & PHP	545 ALISAL ROAD	$12,065
EMS Station	SANTA BARBARA COUNTY FIRE DEPARTMENT STATION 30	1644 OAK STREET	-
Nursing Home	ATTERDAG VILLAGE OF SOLVANG	636 N ATTERDAG ROAD	-
Veteran Services	Veteran's Memorial Bldg.	1745 Mission Dr.	$2,415,921
Education	Solvang School/upper&lower	565 Atterdag Rd.	-
Fire Station	County Fire Station 30 (Solvang)	1644 Oak Street	$225,767
Government	Municipal Center/City Hall	1644 Oak Street	$2,820,301
Government	GOVERNMENTAL COMMUNITY SERVICES BUILDING	1745 MISSION DR.	$2,839,334
Sheriff	Santa Barbara Co Sheriffs Dept.	1745 Mission Dr.	-
Bridge - Non Scour Poor Condition	Bridge	'ALISAL ROAD' / 'SANTA YNEZ RIVER'	-
Bridge - Scour Fair Condition	Bridge	'STATE ROUTE 246' / 'ALAMO PINTADO CREEK'	-

Using GIS and the mapped extents of the hazards affecting the City, it was determined which critical facilities are exposed to which hazards depending on whether they fall within the mapped hazard area. The results of the exposure analysis are included in this section. A further description of the threats and methodologies used in this analysis is provided in Chapter 6.0, *Vulnerability Assessment* of the 2022 MJHMP. As the City continues to assess its vulnerability, the collection of better and more complete data will help to improve the risk assessment process to direct planning and mitigation decisions.

Table 6-2. Summary of Potential Impacts on Critical Facilities

Hazard Type	Specific Risk	Count	% of Critical Facilities Impacted	Exposure ($)
Flood	FEMA 1% Chance Flood Zone	2	6%	$-

Hazard Type	Specific Risk	Count	% of Critical Facilities Impacted	Exposure ($)
	FEMA 0.2% Chance Flood Zone	1	3%	$-
Dam Inundation/Levee Failure	Bradbury Dam Failure	14	41%	$5,801,237
Wildfire	Low Wildfire Threat	2	6%	$-
	High Wildfire Threat	1	3%	$535,623
Earthquake	Low Liquefaction Potential	14	41%	$8,313,388
	Moderate Liquefaction Potential	2	6%	$1,874,683
	High Liquefaction Potential	18	53%	$5,265,614
	Regional Ground Shaking	34	100%	$94,509,416
Landslide	Class 5, 7, or 9 Landslide Hazard Zone	7	21%	$1,705,748

6.1 WILDFIRE

The county has extensive areas within mapped Fire Hazard Severity Zones and Wildland-Urban Interface (WUI) areas. These hazard areas generate vulnerability for life and structures, including critical facilities, throughout the county, but most severely within rural foothills areas where dry vegetation, steep slopes, and difficult access combine to create a high probability of wildfire. The City is surrounded by wildland vegetation and the eastern slopes of the Santa Ynez Mountains. The entire City of Solvang is within the Wildland Urban Interface area and has therefore been designated as a WUI community at risk. Based on these maps, the City has 46 acres (3.0 percent) within Very High Wildfire Threat areas, 127 acres (8.1 percent) within High Fire Wildfire Threat areas, 99 acres (6.4 percent) within Moderate Wildfire Threat areas, and 181 acres (11.6 percent) within Low Wildfire Threat areas. Most of these areas are residential with limited vulnerabilities in industrial areas.

Based on the GIS analysis conducted for the 2022 MJHMP, in Solvang, 264 improved properties with a total value of $223 million are vulnerable to wildfire. In Solvang, approximately 612 residents live in high, moderate, or low wildfire threat areas. This information is summarized in Table 6-3 below.

Table 6-3. City of Solvang at Risk to Wildfire Threat

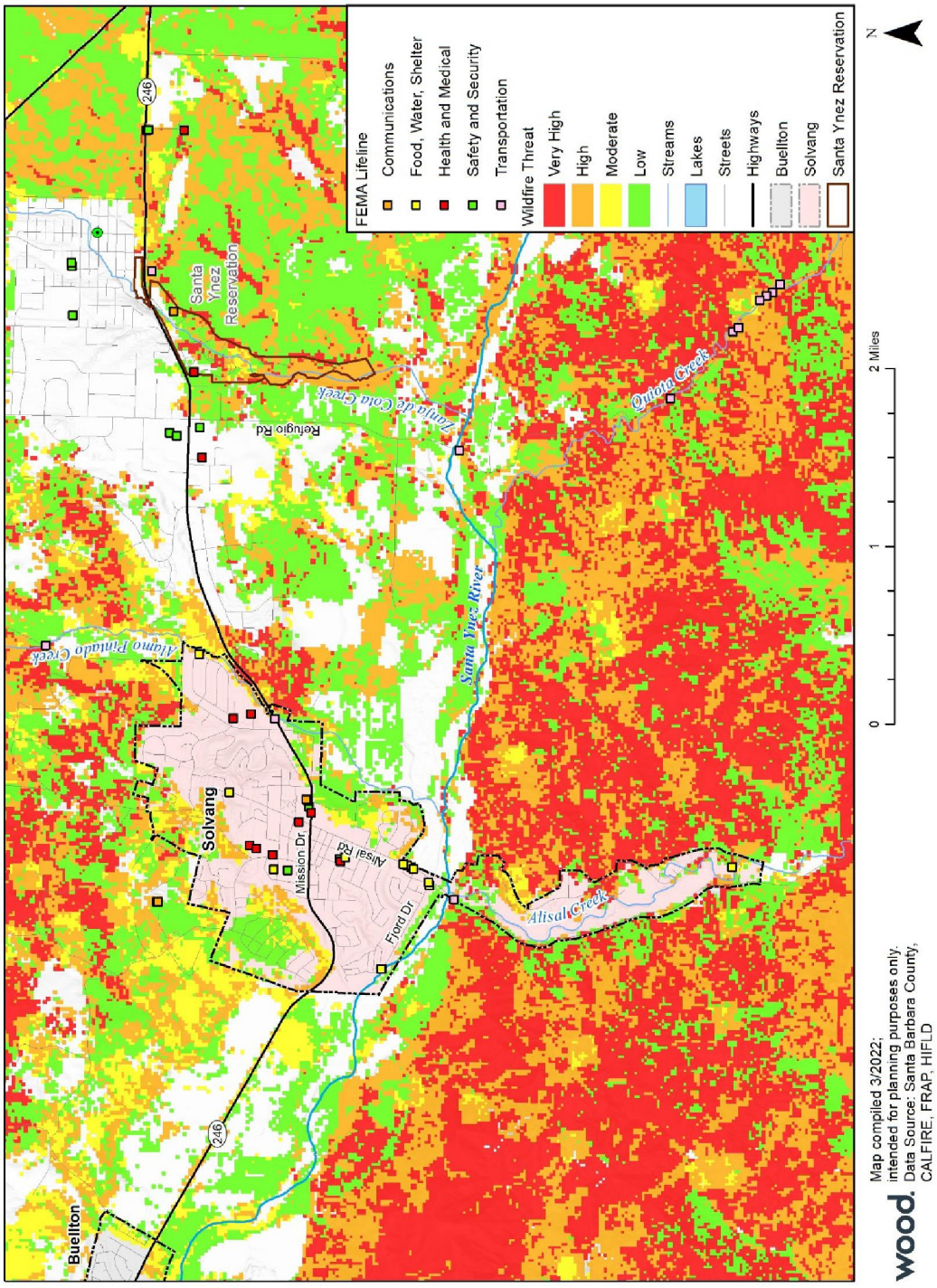
Property Type	Improved Parcel Count by Wildfire Threat Level						Total Value	Population
	Extreme	Very High	High	Moderate	Low	Total		
Agricultural	0	0	0	0	0	0	$0	
Commercial	0	0	0	2	1	3	$184,772	
Exempt	0	0	0	1	1	2	$5,250,202	
Industrial	0	0	0	0	0	0	$0	
Mixed Use	0	0	0	0	0	0	$0	0
Residential	0	0	55	62	139	256	$217,296,242	612
Improved Vacant	0	0	1	1	1	3	$482,770	
Total	**0**	**0**	**56**	**66**	**142**	**264**	**$223,213,986**	**612**

Three of the City's critical facilities fall within high or low wildfire threat areas, as listed in Table 6-4 (see also, Section 6.3.1, *Wildfire* of the 2022 MJHMP).

Table 6-4. City of Solvang Critical Facilities Vulnerable to Wildfire

Type	Critical Facility	Hazard Source/Type	Total Building Value
Utilities	Alisal Ranch Reservoir	High	$535,623
Bridge - Non Scour Poor Condition	Bridge	Low	-
Bridge - Scour Fair Condition	Bridge	Low	-

Figure 6-1. City of Solvang Critical Facilities within Wildfire Threat Zones



6.1 FLOOD

The geographical location, climate, and topography of the Santa Ynez Valley make some areas of the City prone to flooding particularly related to the seasonal flows of the Santa Ynez River. Flooding presents a hazard to development in floodplains. In addition to the damage to properties, flooding can also cut off access to utilities, emergency services, transportation, and may impact the overall economic well-being of an area. Emergency response can be interrupted by damaged roads and infrastructure. Fire can break out as a result of dysfunctional electrical equipment. Hazardous materials can also get into floodways, causing health concerns and polluted water supplies. During a flood, the drinking water supply can be contaminated. Climate change is expected to increase the frequency and intensity of heavy rainstorms that cause riverine flooding.

Based on the GIS analysis conducted for the 2022 MJHMP, the City has 35 improved parcels valued at over $19 million in the 1-percent annual chance floodplain. Based on this analysis, which accounts for residents only and not workers, 65 residents are living in the 1-percent annual chance floodplain throughout the City. An additional 107 improved parcels and over $71 million in value fall within the 0.2-percent annual chance floodplain. Areas of the City vulnerable to the 0.2-percent annual chance riverine flood are home to 244 residents. Development in the 0.2-percent annual chance floodplain is typically not regulated, thus a large flood event could be extremely damaging in the City. This information is summarized in Table 6-5 below.

Table 6-5. City of Solvang FEMA Floodplain Exposure and Loss

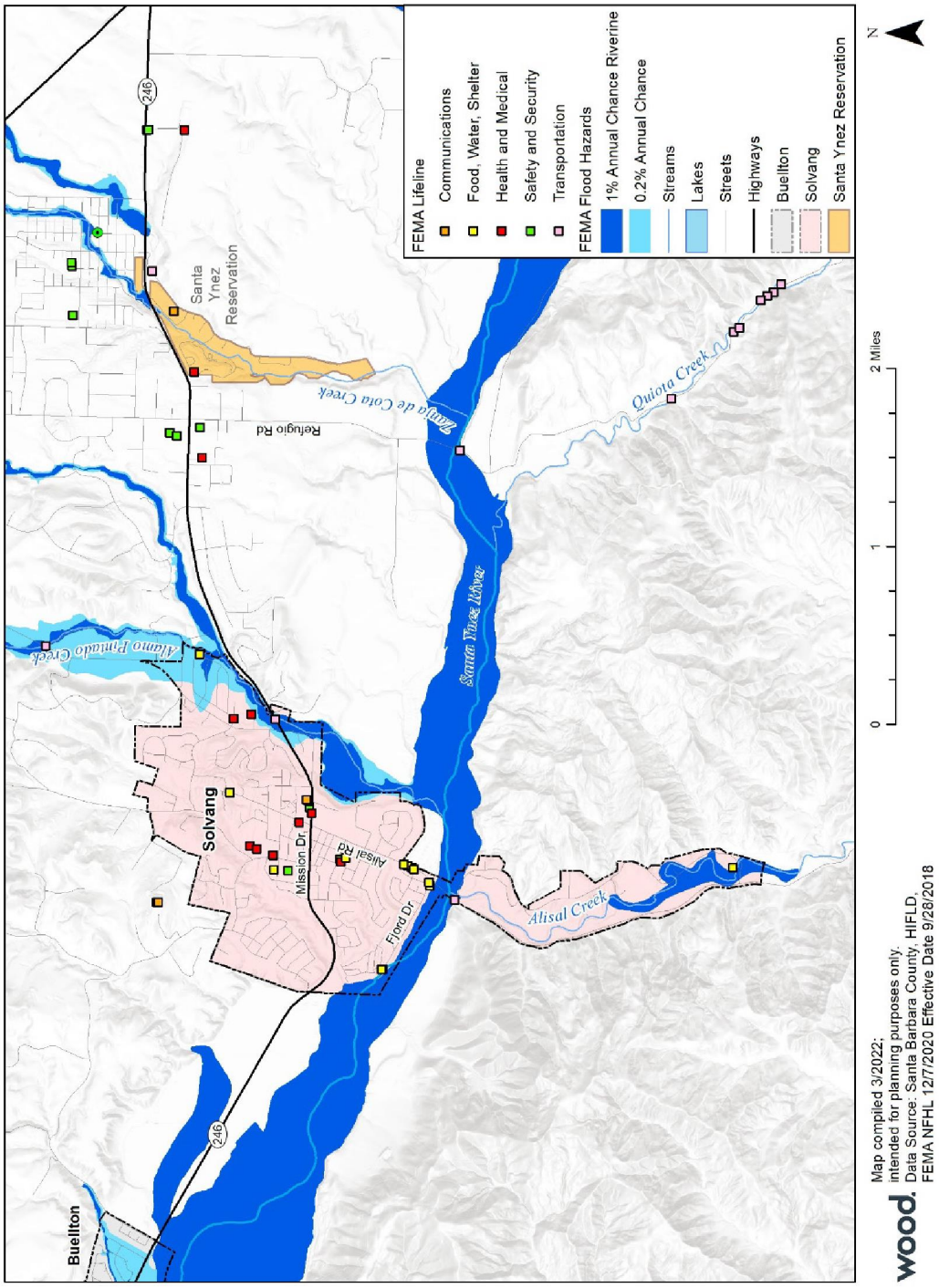
Property Type	Improved Parcel Count	Total Value	Estimated Loss	Population
Riverine 1% Annual Chance Floodplain Exposure and Loss				
Commercial	8	$7,523,092	$1,880,773	
Residential	27	$11,568,881	$2,892,220	
Total	**35**	**$19,091,973**	**$4,772,993**	65
Riverine 0.2% Annual Chance Floodplain Exposure and Loss				
Commercial	5	$26,695,246	$6,673,812	
Residential	102	$44,981,879	$11,245,470	
Total	**107**	**$71,677,125**	**$17,919,281**	244

As listed in Table 6-6, 3 critical facilities in the City with an unknown total value would be vulnerable to damage or destruction from 1-percent or 0.2-percent annual chance flood (Figure 6-2; see also, Section 6.3.3, *Flood* of the 2022 MJHMP).

Table 6-6. City of Solvang Critical Facilities at Risk to Flood Hazard

Type	Critical Facility	FEMA Flood	Total Value
Utilities	Well 22	0.2% Chance	$-
Bridge - Non Scour Poor Condition	Bridge	1% Chance	$-
Bridge - Scour Fair Condition	Bridge	1% Chance	$-

Figure 6-2. City of Solvang Critical Facilities in FEMA Flood Hazard Zones



6.2 EARTHQUAKE & LIQUEFACTION

Chapter 6.0, *Vulnerabilities Assessment* of the 2022 MJHMP addresses regional seismicity under two scenarios that include the City of Solvang. The 2,500-year scenario considers general seismicity from multiple faults in the region and a 7.0 magnitude event. The methodology utilizes probabilistic seismic hazard contour maps developed by the U.S. Geological Survey (USGS) for the 2018 update of the National Seismic Hazard Maps that are included with Hazus-MH. A deterministic scenario was also prepared to predict the outcome of a specific earthquake event. The deterministic scenarios used USGS provided ShakeMap datasets to model a Magnitude 7.2 earthquake of the San Luis Range would generate in terms of damages and losses for the chosen area of interest (i.e., northern Santa Barbara County, including the City). Figure 6-3 is the ShakeMap produced for this scenario.

As described in the MJHMP, regional losses to people and property would include the City. As shown in the San Luis Range ShakeMap scenario, the north and central parts of the county would perceive much stronger shaking and would likely receive the most severe damage when compared to the rest of the county. The entire City would perceive severe to extreme shaking and would likely receive moderate/heavy to very heavy damage. Direct effects of ground shaking could damage buildings and create dangerous debris and unstable structures. Displaced residents would likely seek shelter in the City, including residents from outside the City. Further, fires often occur after an earthquake. Because of the number of fires and the lack of water to fight the fires, they can often burn out of control.

Unreinforced masonry building type structures consist of buildings made of unreinforced concrete and brick, hollow concrete blocks, clay tiles, and adobe. Buildings constructed of these materials are heavy and brittle and typically provide little earthquake resistance. In small earthquakes, unreinforced buildings can crack, and in strong earthquakes, they tend to collapse. The City does not have any known unreinforced masonry buildings.

The City lies in an area with low, moderate, and high liquefaction severity classes. Regional earthquakes could cause liquefaction in the City, which could damage buildings and utilities when soils become unstable. Based on the GIS analysis conducted for the 2022 MJHMP, the City has 42,038 improved parcels valued at over $1.3 billion in the liquefaction severity zones. Based on this analysis, which accounts for residents only and not workers, 4,312 residents are living in this hazard zone within the City. While liquefaction would not likely affect all areas uniformly during an earthquake, this analysis indicates the extent and scale of vulnerabilities to liquefaction during a large earthquake.

Table 6-7. City of Solvang at Risk to the Liquefaction Hazard by Property Type

Property Type	Improved Parcel Count	Total Value	Population
High Liquefaction Hazard			
Agricultural	0	$0	
Commercial	54	$56,988,078	
Exempt	1	$33,171,012	
Industrial	2	$3,867,400	

Property Type	Improved Parcel Count	Total Value	Population
Mixed Use	0	$0	0
Residential	295	$120,641,139	705
Improved Vacant	0	$0	
Total High Liquefaction	**352**	**$214,667,629**	**705**
Moderate Liquefaction Hazard			
Agricultural	0	$0	
Commercial	5	$1,990,218	
Exempt	0	$0	
Industrial	0	$0	
Mixed Use	0	$0	0
Residential	106	$79,814,060	253
Improved Vacant	0	$0	
Total Moderate Liquefaction	**111**	**$81,804,278**	**253**
Low Liquefaction Hazard			
Agricultural	0	$0	
Commercial	149	$168,314,722	
Exempt	13	$56,752,436	
Industrial	0	$0	
Mixed Use	3	$3,144,530	7
Residential	1,400	$810,954,875	3,346
Improved Vacant	10	$1,900,976	
Total Low Liquefaction	**1,575**	**$1,041,067,539**	**3,353**
Total Liquefaction Hazard	**2,038**	**$1,337,539,445**	**4,312**

As listed in Table 6-8, all critical facilities in the City would be vulnerable to damage or destruction from ground shaking and liquefaction during a significant regional earthquake (see also, Section 6.2.1, *Earthquake (Groundshaking)* and Section 6.3.3, *Liquefaction (Earthquake)* of the 2022 MJHMP).

Table 6-8. City of Solvang Critical Facilities Vulnerable to Groundshaking & Liquefaction

Type	Name	Address	Total Building Value
Communications	Solvang -48V		-
Utilities	Alisal Heights Reservoir	720 Alisal	$1,339,060
Utilities	Alisal Ranch Reservoir	1054 Alisal	$535,623
Utilities	Fjord Lift Station	1411 Fjord Drive	$321,375
Utilities	Alisal Lift Station	120 S Alisal Rd.	$132,664
Utilities	Water Switch Gear Bldg	Fjord Drive and Glen Way	$45,313
Utilities	Well 22	891 Kolding Ave.	-
Utilities	Sewer Force Main	West End Fjord Drive and River	-
Utilities	Well 3	1692 Fjord Dr.	-

Type	Name	Address	Total Building Value
Utilities	Hans Christian Andersen (HCA) South Well	637 Atterdag Rd.	-
Utilities	Well 7A	150 Alisal Rd.	-
Utilities	State Pump	175 Alisal Rd.	-
Utilities	Well 4	367 First St.	-
Wastewater Treatment Plant	WWTP /tanks/pumps/blowers	101 S. Alisal Rd.	$3,145,693
Wastewater Treatment Plant	WasteWater Treatment Plant/Op	101 S. Alisal Rd.	$682,662
Wastewater Treatment Plant	WWTP/Digester/equipment	101 S. Alisal Rd.	$237,641
Wastewater Treatment Plant	WWTP/Pump/Gen. Bldg.	101 S. Alisal Rd.	$253,175
Wastewater Treatment Plant	WWTP/Bultler Bldg.	101 S. Alisal Rd.	$79,215
Wastewater Treatment Plant	WasteWater Awnings/Belt Press	101 S. Alisal Rd.	$367,876
Clinic	Santa Ynez Valley Recovery Residence	636 Atterdag Road	-
Clinic	Santa Ynez Valley Cottage Hospital	2050 Viborg Road	-
Clinic	Sansum Clinic- Solvang	2027 Village Lane	-
Clinic	Atterdag Village	636 Atterdag Road	-
Clinic	PHD COMM HLTH CLINIC & PHP	545 ALISAL ROAD	$12,065
EMS Station	SANTA BARBARA COUNTY FIRE DEPARTMENT STATION 30	1644 OAK STREET	-
Nursing Home	ATTERDAG VILLAGE OF SOLVANG	636 N ATTERDAG ROAD	-
Veteran Services	Veteran's Memorial Bldg.	1745 Mission Dr.	$2,415,921
Education	Solvang School/upper&lower	565 Atterdag Rd.	-
Fire Station	County Fire Station 30 (Solvang)	1644 Oak Street	$225,767
Government	Municipal Center/City Hall	1644 Oak Street	$2,820,301
Government	GOVERNMENTAL COMMUNITY SERVICES BUILDING	1745 MISSION DR.	$2,839,334
Sheriff	Santa Barbara Co Sheriffs Dept.	1745 Mission Dr.	-
Bridge - Non Scour Poor Condition	Bridge	'ALISAL ROAD' / 'SANTA YNEZ RIVER'	-
Bridge - Scour Fair Condition	Bridge	'STATE ROUTE 246' / 'ALAMO PINTADO CREEK'	-

Figure 6-3. City of Solvang Critical Facilities and Earthquake Groundshaking Potential (San Luis Range 7.2 Magnitude ShakeMap)

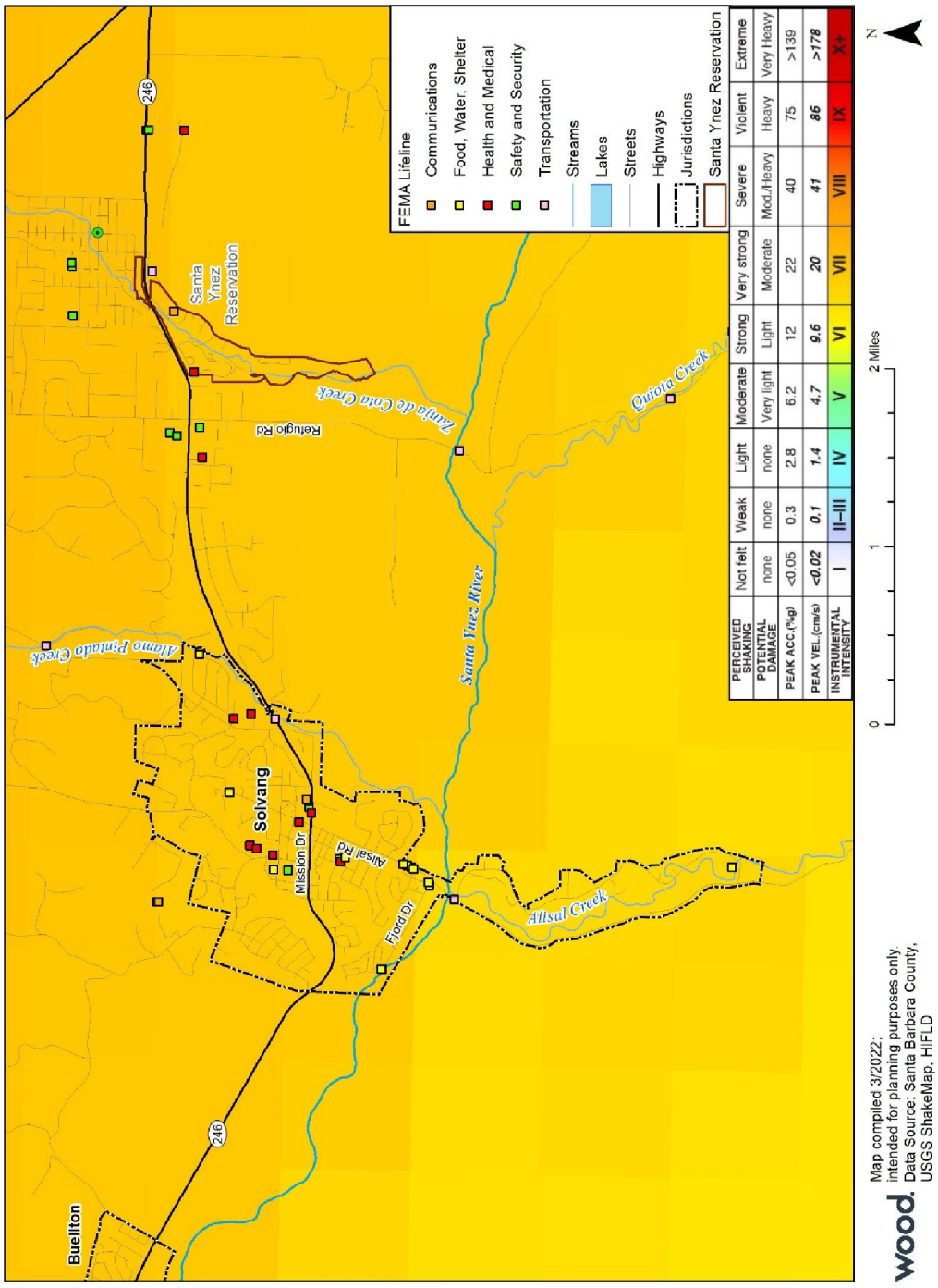
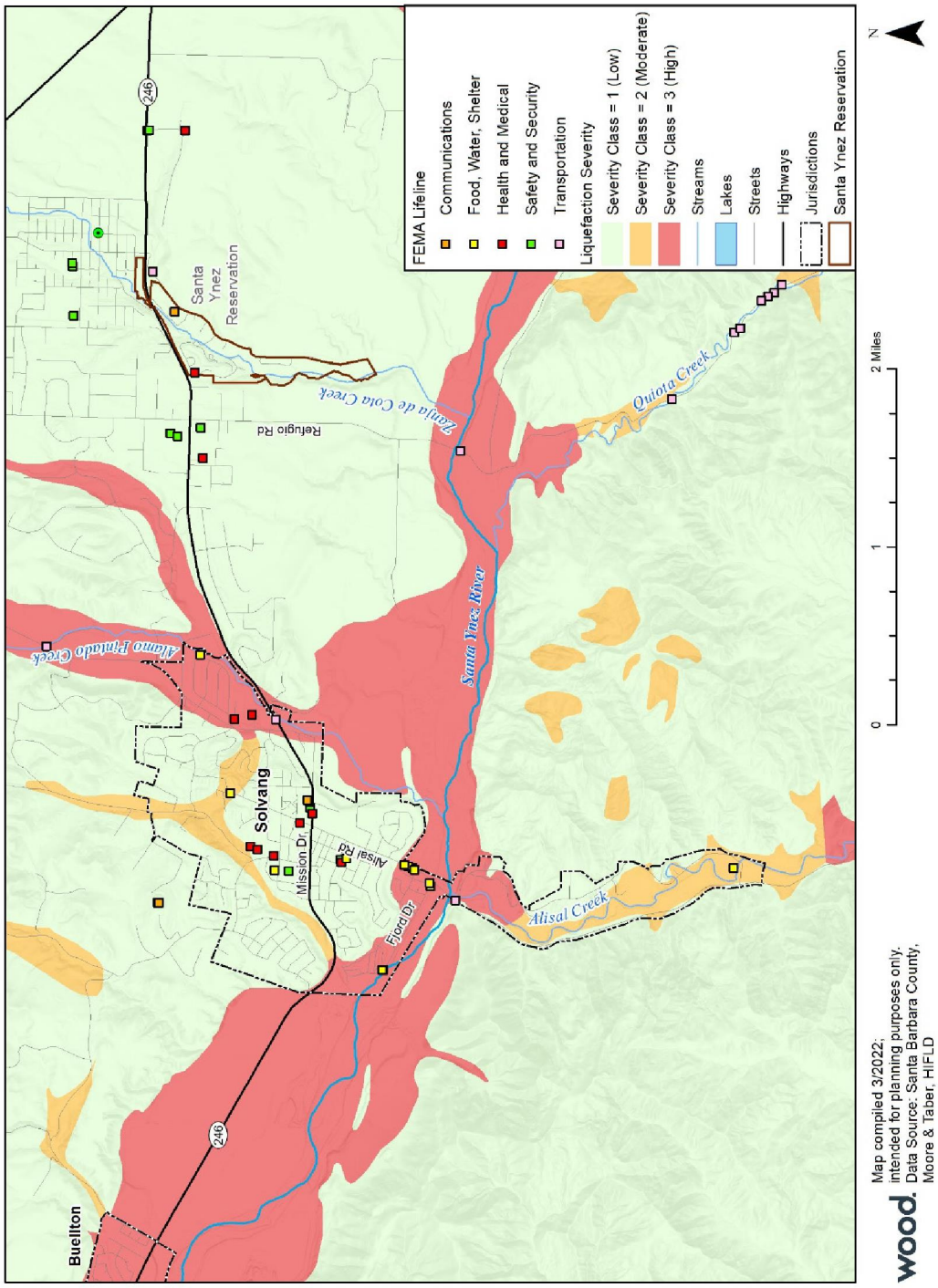


Figure 6-4. City of Solvang Critical Facilities and Liquefaction Potential



6.3 DAM/LEVEE FAILURE

Bradbury Dam is of the largest concern to the City of Solvang. Failure of Bradbury Dam would inundate portions of the cities of Solvang and Buellton with relatively little evacuation time. Based on the GIS analysis conducted for the 2022 MJHMP, in Solvang, 159 properties with a total value of $92 million are vulnerable to the catastrophic flooding that would occur if the Bradbury Dam failed. In Solvang, approximately 356 residents within the inundation zone may need to be evacuated, cared for, and possibly permanently relocated. This information is summarized in Table 6-9 below.

Table 6-9. City of Solvang at Risk to Dam Inundation Hazard

Property Type	Improved Parcel Count	Total Value	Population
Commercial	8	$7,638,980	
Industrial	2	$3,867,400	
Residential	149	$80,568,344	356
Total	**159**	**$92,074,724**	**356**

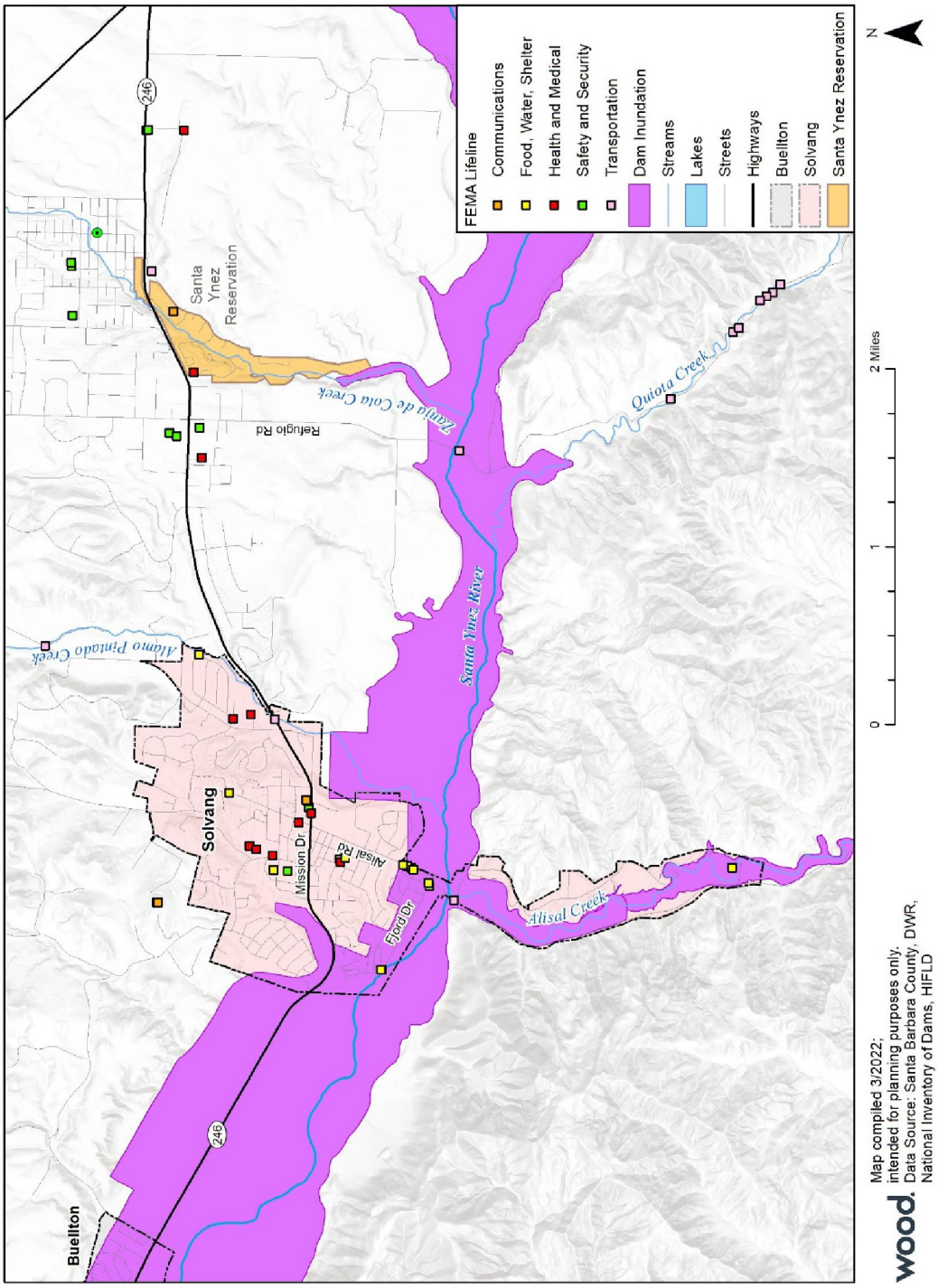
Further, as listed in Table 6-10, 14 critical facilities with a value of $5,801,237 in the City would be vulnerable to damage or destruction from flooding due to dam and levee failure (see also, Section 6.6.3, *Dam Failure* and Section 6.6.8, *Levee Failure* of the 2022 MJHMP).

Table 6-10. City of Solvang Critical Facilities Vulnerable to Inundation from Dam/Levee Failure

Type	Name	Dam Name	Total Value
Utilities	Alisal Ranch Reservoir	Alisal Creek	$535,623
Utilities	Fjord Lift Station	Bradbury	$321,375
Utilities	Alisal Lift Station	Bradbury	$132,664
Utilities	Water Switch Gear Bldg	Bradbury	$45,313
Utilities	Sewer Force Main	Bradbury	-
Utilities	Well 3	Bradbury	-
Utilities	Well 7A	Bradbury	-
Wastewater Treatment Plant	WWTP /tanks/pumps/blowers	Bradbury	$3,145,693
Wastewater Treatment Plant	WasteWater Treatment Plant/Op	Bradbury	$682,662
Wastewater Treatment Plant	WWTP/Digester/equipment	Bradbury	$237,641
Wastewater Treatment Plant	WWTP/Pump/Gen. Bldg.	Bradbury	$253,175
Wastewater Treatment Plant	WWTP/Bultler Bldg.	Bradbury	$79,215

Type	Name	Dam Name	Total Value
Wastewater Treatment Plant	WasteWater Awnings/Belt Press	Bradbury	$367,876
Bridge - Non Scour Poor Condition	Bridge	Bradbury	-

Figure 6-5. City of Solvang Critical Facilities in Dam Inundation Zone



6.4 LANDSLIDE

Several landslides have been mapped in the hillside area east of Alisal Creek which is outside the City limits and Plan area. The City has 848 improved parcels that lie within Class 5, 7, 9, or 10 landslide hazard zones, amounting to $511 million, and home to 1,907 residents. However, the City is a gently sloping area in a riverine flood plain where the risk of landslide is generally low. An increase in risk related to landslides would be man-made through excavation or other soil disturbance. While not a concern for the City, data related to areas within the landslide hazard zone is included to be consistent with the 2022 MJHMP.

Table 6-11. City of Solvang Improved Properties at Risk to Landslide Summary

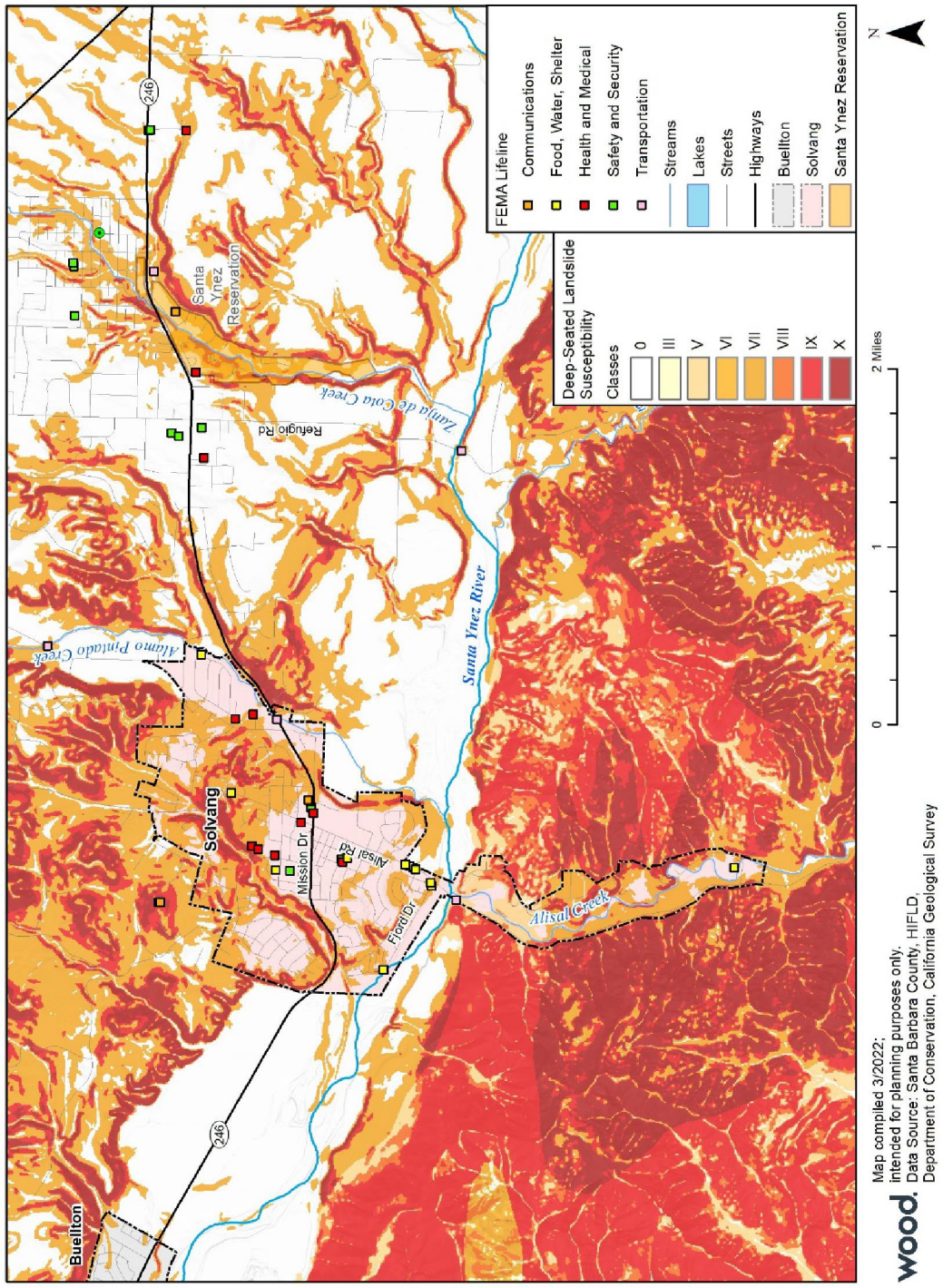
Class 5 Parcel Count	Class 7 Parcel Count	Class 9 Parcel Count	Class 10 Parcel Count	Total Improved Parcel Count	Total Value	Population
13	697	95	43	848	$511,346,700	1,907

Further, as listed in Table 6-12, 7 critical facilities with a value of $1,705,748 in the City would be vulnerable to damage or destruction from landslides (see also, Section 6.3.7, *Landslide* of the 2022 MJHMP).

Table 6-12. City of Solvang Critical Facilities Vulnerable to Landslide

Type	Name	Landslide Class Zone	Total Value
Utilities	Alisal Heights Reservoir	9	$1,339,060
Utilities	Fjord Lift Station	7	$321,375
Utilities	Water Switch Gear Bldg	7	$45,313
Clinic	Santa Ynez Valley Recovery Residence	7	-
Clinic	Santa Ynez Valley Cottage Hospital	7	-
Nursing Home	ATTERDAG VILLAGE OF SOLVANG	7	-
Bridge - Non Scour Poor Condition	Bridge	5	-

Figure 6-6. City of Solvang Critical Facilities within Landslide Susceptibility Zones



7.0 MITIGATION STRATEGY

In preparation for the 2022 LHMP update, the City's LPT made no revisions to the countywide goals and objectives because they continue to reflect the needs of the City; see also, Chapter 7.0, *Mitigation Plan* of the 2022 MJHMP. This section contains the City's updated and most current mitigation strategy as of 2022.

7.1 MITIGATION PRIORITIES

The City of Solvang identified several strengths and weaknesses regarding the implementation of hazard mitigation strategies. The following strengths, weaknesses, and priorities were identified.

7.1.1 General Observations — Strengths

- The City of Solvang has several policies that deal with hazard mitigation elements such as existing development and building code regulations including the Floodplain Ordinance, updated in 2016 and the Zoning Ordinance.
- The General Plan has been consistently updated and contains policies and programs for hazard mitigation. Currently, the City is performing a comprehensive update to the General Plan. The Safety Element of the General Plan was last revised and adopted in 2016.
- The current Housing Element was adopted in 2015. A new revision is currently in process, and will be completed in Spring 2023.
- Existing codes will ensure that new development (including tear-down and rebuild projects) will be built to modern standards. With the current trend of replacing existing substandard buildings with new ones, through attrition a safer community will be constructed.
- Better mapping of floodplains and other hazard areas is now available.
- The Bradbury Dam has been mapped for inundation.
- Area fault lines and liquefaction zones have been mapped.
- All flooding areas have been mapped.
- All high fire areas have been mapped.
- All unreinforced masonry buildings within the City limits have been brought up to code.
- The County Fire Department has a vegetative program whereby all lots are inspected in the spring and property owners are required to cut vegetation by July 1 for unincorporated areas surrounding the City. Solvang's Code Enforcement Program and County Fire handle weed abatement within the City Limits in the Spring.
- The City, in partnership with the Santa Barbara County Fire Department and the City of Buellton, has conducted CERT Training for citizens throughout the Santa Ynez Valley utilizing a shared grant.

7.1.2 General Observations — Weaknesses

- The City of Solvang is located along the Santa Ynez River, downstream from Bradbury Dam, and could sustain substantial flooding in the event of a dam failure.
- Solvang is surrounded by mountains with steep terrain that is covered with brush and trees. During fire season, Solvang is susceptible to wildfire damage.
- Solvang is located in Seismic Zone 4, which is the highest potential status for earthquake activity in the state of California.
- Solvang is a tourist town and sheltering and evacuation of those transient visitors could pose a large problem in case of major flooding or earthquake for major egress and accessing the area. County OES and the Santa Barbara County Sheriff's Department, however, have completed a countywide evacuation plan. Solvang City staff and the Solvang Conference & Visitors Bureau also completed a Crisis Communication Plan.

7.1.3 General Observations — Priorities

During the presentation of findings for the hazard identification and risk assessment and capabilities assessment, the LPT provided preliminary input and ideas for mitigation strategies. In formulating goals, the following priorities were identified:

- Top priorities for Solvang are public safety, public education, and reducing the potential economic impacts of disasters.
- Experiences from past disasters should be built upon.
- Outreach and training should be a major component, including Community Emergency Response Team Training (CERT) and early warning & evacuation plans.
- Create defensible space around high fire areas by strategically managing vegetation to decrease the fuel available for fires adjacent to the structures. This is relatively inexpensive, accomplished quickly, and is effective as long as the vegetation is managed.
- Solvang should develop and maintain a disaster warehouse or additional CERT trailers for the storage of emergency supplies.

7.1.4 Goals and Objectives

The City's LPT accepted and agreed to the following goals and objectives for the 2022 update. These goals and objectives represent a vision of long-term hazard reduction or enhancement of capabilities.

The updated goals and objectives of this plan are:

Goal 1: Ensure future development is resilient to known hazards.

Objective 1.A: Ensure development in known hazardous areas is limited or incorporates hazard-resistant design based on applicable plans, development standards, regulations, and programs.

Objective 1.B: Educate developers and decision-makers on design and construction techniques to minimize damage from hazards.

Goal 2: Protect people and community assets from hazards, including critical facilities, infrastructure, water, and public facilities.

Objective 2.A: Enhance the ability of community assets, particularly critical facilities, to withstand hazards.

Objective 2.B: Use the best available science and technology to better protect life and property.

Objective 2.C: Upgrade and replace aging critical facilities and infrastructure.

Objective 2.D: Ensure mitigation actions encompass vulnerable and disadvantaged communities to promote social equity.

Goal 3: Actively promote understanding, support, and funding for hazard mitigation by participating agencies and the public.

Objective 3.A: Engage, inform, and educate the public on tools and resources to improve community resilience to hazards, reduce vulnerability, and increase awareness and support of hazard mitigation activities.

Objective 3.B: Ensure effective outreach and communications to vulnerable and disadvantaged communities.

Objective 3.C: Increase awareness and encourage the incorporation of hazard mitigation principles and practice among public, private, and nonprofit sectors, including all participating agencies.

Objective 3.D: Ensure interagency coordination and joint partnerships with the County, cities, state, tribal, and federal governments.

Objective 3.E: Continuously improve the County's capability and efficiency at administering pre- and post-disaster mitigation programs, including providing technical support to cities and special districts and providing support for implementing local mitigation plans.

Objective 3.F: Monitor and publicize the effectiveness of mitigation actions implemented countywide.

Objective 3.G: Position the County and participating agencies to apply for and receive grant funding from FEMA and other sources.

Goal 4: Minimize the risks to life and property associated with urban and human-caused hazards.

Objective 4.A: Minimize risks from biological hazards, including disease, invasive species, and agricultural pests.

Objective 4.B: Be prepared and respond to urban hazards, including terrorism, cyber threats, and civil disturbance.

Objective 4.C: Minimize risks from energy production, including hazardous oil and gas activities.

Goal 5: Prepare for, adapt to, and recover from, the impacts of climate change and ensure regional resiliency.

Objective 5.A: Use the best available climate science to implement hazard mitigation strategies in response to climate change.

Objective 5.B: Identify, assess, and prepare for impacts of climate change.

Objective 5.C: Coordinate with the public, private, and nonprofit sectors to implement strategies to address regional hazards exacerbated by climate change.

Objective 5.D: Ensure climate change hazard mitigation addresses vulnerable and disadvantaged communities.

7.2 MITIGATION PROGRESS

Since 2017, the City has incorporated the LHMP goals, objectives, and mitigation actions into its local plans and processes, including the General Plan Safety Element by reference, specific hazard planning efforts (e.g., Emergency Operations Plan), the City's grant pursuits, and capital improvement planning. Ongoing monitoring and evaluation of the LHMP by the City ensured mitigations are implemented and tracked. Key mitigation actions completed since 2017 include the Alisal Bridge Seismic Retrofit and the Second Street/Mission Drive Drainage Improvements projects. The City's LPT reviewed the mitigation actions listed in the 2017 LHMP to determine the status of each action. Once reviewed, deferred projects from 2017 were renumbered to reflect 2022 updates (see Table 7-1).

Table 7-1. Status of City of Solvang Previous Mitigation Actions

Mitigation Action No.	Mitigation Action Description	Status	Comments	In 2022 Update?
2017 LHMP				
2016-1	Continue to implement hazard mitigation training for all residents to include Community Emergency Response Training (CERT)	Ongoing		X
2016-2	Alisal Road Bridge Seismic Retrofit	Completed		
2016-3	Second Street/Mission Drive Drainage Improvements	Completed		
2016-4	Structural Upgrades to the Veterans Memorial Building (Emergency Shelter) and addition of Emergency Generator	Not Started	Included in the 10-Year Capital Improvement Plan	X
2016-5	Alisal Bridge Pier Repair Project	Not Started	Included in the 10-Year Capital Improvement Plan	X

Mitigation Action No.	Mitigation Action Description	Status	Comments	In 2022 Update?
2016-6	Tree Trimming and Weed Abatement in Hans Christian Andersen Park	Ongoing		X

7.3 MITIGATION APPROACH

A simplified Benefit-Cost Review was applied to 2022 mitigation actions to prioritize the mitigation recommendations for implementation. The priority for implementing mitigation recommendations depends upon the overall cost-effectiveness of the recommendation when considering monetary and non-monetary costs and benefits associated with each action. Additionally, the following questions were considered when developing the Benefit-Cost Review:

- How many people will benefit from the action?
- How large an area is impacted?
- How critical are the facilities that benefit from the action?
- Environmentally, does it make sense to do this project for the overall community?

Section *7.4, Implementation Plan* provides a benefit-cost review for each mitigation recommendation, as well as a relative priority rank (High, Medium, and Low) based upon the judgment of the City's LPT. The general category guidelines are listed below:

- High – Benefits are perceived to exceed costs without further study or evaluation
- Medium – Benefits are perceived to exceed costs but may require further study or evaluation before implementation
- Low – Benefits and costs evaluation requires additional evaluation before implementation

Discussion of the rationale for these priorities is included in the mitigation action descriptions below.

7.4 IMPLEMENTATION PLAN

2022-1. CERT Training

Continue to implement hazard mitigation training for all residents to include Community Emergency Response Team (CERT).

Mitigation Priority and Performance	
Priority	High
Hazards Mitigated	Earthquake, Landslides, Wildfire, Flood, Dam Failure, Extreme Temperatures and Severe Weather
Estimated Timeline	Ongoing
Estimated Cost/Funding Source	$15,000 annually/ General Fund, and other Federal and State grants and funds.
Responsible Agency/Department	City Manager
Comments	This project was adapted from 2016-1 included as part of the 2017 LHMP.

2022-2. Upgrades to Emergency Shelter

Structural upgrades to the Veterans Memorial Building to increase the possibility of the building withstanding an earthquake, and the addition of a new emergency generator.

Mitigation Priority and Performance	
Priority	Medium
Hazards Mitigated	Earthquake, Landslides, Wildfire, Flood, Dam Failure, Extreme Temperatures and Severe Weather
Estimated Timeline	2027
Estimated Cost/Funding Source	$1.5 million/ HMP funds, and other Federal and State infrastructure grants and funds, local capital funds.
Responsible Agency/Department	Public Works, with support from City Manager's Office and other City departments
Comments	This project was adapted from 2016-4 included as part of the 2017 LHMP. To be considered for the future. The facility would act as an emergency shelter during any disaster type. The project is included the 10-Year Capital Improvement Program.

2022-3. Alisal Bridge Pier Repair Project

Wrap/repair piers 4, 5, 6 & 7 of Alisal Bridge per recommendations of 2012 Alisal Bridge Structural Evaluation Report.

Mitigation Priority and Performance	
Priority	Medium
Hazards Mitigated	Earthquake, Flood, Dam Failure
Estimated Timeline	2023-24
Estimated Cost/Funding Source	$500,000/ General Fund, Capital funds, PDM funds, and other Federal and State infrastructure grants and funds.
Responsible Agency/Department	Public Works, with support from City Manager's Office and other City departments
Comments	This project was adapted from 2017-5 included as part of the 2017 LHMP. The project is included the 10-Year Capital Improvement Program.

2022-4. Tree Trimming and Weed Abatement at Hans Christian Andersen Park

Tree trimming and weed and poison oak eradication utilizing goats to aid in fire prevention

Mitigation Priority and Performance	
Priority	High
Hazards Mitigated	Wildfire
Estimated Timeline	Ongoing
Estimated Cost/Funding Source	$5,000/ General fund, maintenance budget, CDBG funds, HMP funds, and other Federal and State infrastructure grants and funds.
Responsible Agency/Department	Parks Department
Comments	This project was adapted from 2017-6 included as part of the 2017 LHMP.

8.0 PLAN MAINTENANCE

8.1 MONITORING, EVALUATING, AND UPDATING THE PLAN

Since the last LHMP in 2017, the LPT has monitored, evaluated, and updated the plan on a continuing and as-needed basis. The City was very successful in implementing the 2017 mitigation actions as noted in Table 7-1. The remaining mitigation actions outlined in the 2017 LHMP are ongoing at the time of this 2022 update.

The City of Solvang will be responsible for ensuring that this annex is monitored on an ongoing basis. The City will continue to participate in the countywide MAC and attend the annual meeting organized by the County Office of Emergency Management to discuss items to be updated/added in future revisions of this plan. The MJHMP is evaluated by the MAC annually to determine the effectiveness of programs, and to reflect changes in land development or programs that may affect mitigation priorities. This includes re-evaluation of goals, objectives, and mitigation actions for each jurisdiction by the MAC. The MAC also reviews the goals and mitigation actions to determine their relevance to changing situations in the county, as well as changes in State or Federal regulations and policy. The MAC reviews the risk assessment portion of the MJHMP and its annexes to determine if this information should be updated or modified, given any new available data. The responsible parties for the mitigation actions report on the status of their projects, the success of various implementation processes, difficulties encountered, success of coordination efforts, and which strategies should be revised. Any updates or changes necessary for the City's LHMP will be forwarded to the County Office of Emergency Management for inclusion in further updates to the MJHMP.

Major disasters affecting the City of Solvang's community, legal changes, notices from Santa Barbara County (lead agency for the County-wide Plan), and other significant events may trigger revisions to this plan or the convening of the LPT. The City LPT, in collaboration with the Santa Barbara County Office of Emergency Management, and the other communities of the County, will determine how often and when the plan should be updated.

To remain eligible for mitigation grant funding from FEMA, the City is committed to revising the plan at a minimum of every five years. The City Manager or the City's designee will contact the county four years after this plan is approved to ensure that the county plans to undertake the plan update process. The jurisdictions within Santa Barbara County should continue to work together on updating the multi-jurisdictional plan, including this annex.

8.2 IMPLEMENTATION THROUGH EXISTING PLANS AND PROGRAMS

The City implements the LHMP through existing plans, programs, and procedures, as detailed in Section 4.0, *Capability Assessment*. This LHMP provides a baseline of information on the hazards impacting the City and the existing institutions, plans, policies and ordinances that help to implement the LHMP (e.g., General Plan, building codes, floodplain management ordinance). The General Plan and the LHMP annex are complementary documents that work together to achieve the goal of reducing risk exposure to the City's citizens. An update to a general plan may trigger an update to the hazard mitigation plan. Implementation responsibilities of mitigation actions is integrated into

the operational functions of the responsibility parties identified, including responsibility for seeking funding needed for implementation.

The City incorporates the LHMP by reference into its General Plan Safety Element. Under AB 2140, the City may adopt its current, FEMA-approved LHMP into the Safety Element of the General Plan. This adoption makes the City eligible to be considered for part or all of its local-share costs on eligible Public Assistance funding to be provided by the state through the California Disaster Assistance Act (CDAA) (see Section 2.0, *Plan Purpose and Authority* for the adopting resolutions). The LHMP has also been prepared to support the City's efforts to reduce wildfire risks. The Floodplain Management Ordinance applies in concert with the City's zoning ordinance and building codes to reduce flooding hazards from land use.

The information contained within this LHMP, including results from the Vulnerability Assessment and the Mitigation Strategy, is used by the City to help inform updates and the development of local plans, programs, and policies. The City may utilize the hazard information when developing and implementing the City's capital improvement programs and the Planning and Building Divisions may utilize the hazard information when reviewing a site plan or other type of development applications. Further, the City incorporates the LHMP by reference into its General Plan Safety Element. Under AB 2140, the City may adopt its current, FEMA-approved LHMP into the Safety Element of their General Plans. This adoption makes the City eligible to be considered for part or all of its local-share costs on eligible Public Assistance funding to be provided by the state through the California Disaster Assistance Act (CDAA) (see Section 2.0, *Plan Purpose and Authority* for the adopting resolutions).

8.3 ONGOING PUBLIC OUTREACH AND ENGAGEMENT

The public will continue to be involved whenever the plan is updated and as appropriate during the monitoring and evaluation process. Before the adoption of updates, the City will provide the opportunity for the public to comment on the updates. A public notice will be published before the meeting to announce the comment period and meeting logistics. Moreover, the City will engage stakeholders in community emergency planning. As described in Section 3.4, *Public Outreach and Engagement*, the public outreach strategy used during development of the current update will provide a framework for public engagement through the plan maintenance process. It can be adapted for ongoing public outreach as determined to be feasible by the MAC and the LPT.

8.4 POINT OF CONTACT

Comments or suggestions regarding this plan may be submitted at any time to Brad Vidro, Interim City Manager, using the following information:

Brad Vidro, Interim City Manager
City of Solvang
1644 Oak Street
Solvang, CA 93463
BradV@CityofSolvang.com
(805) 688-5575