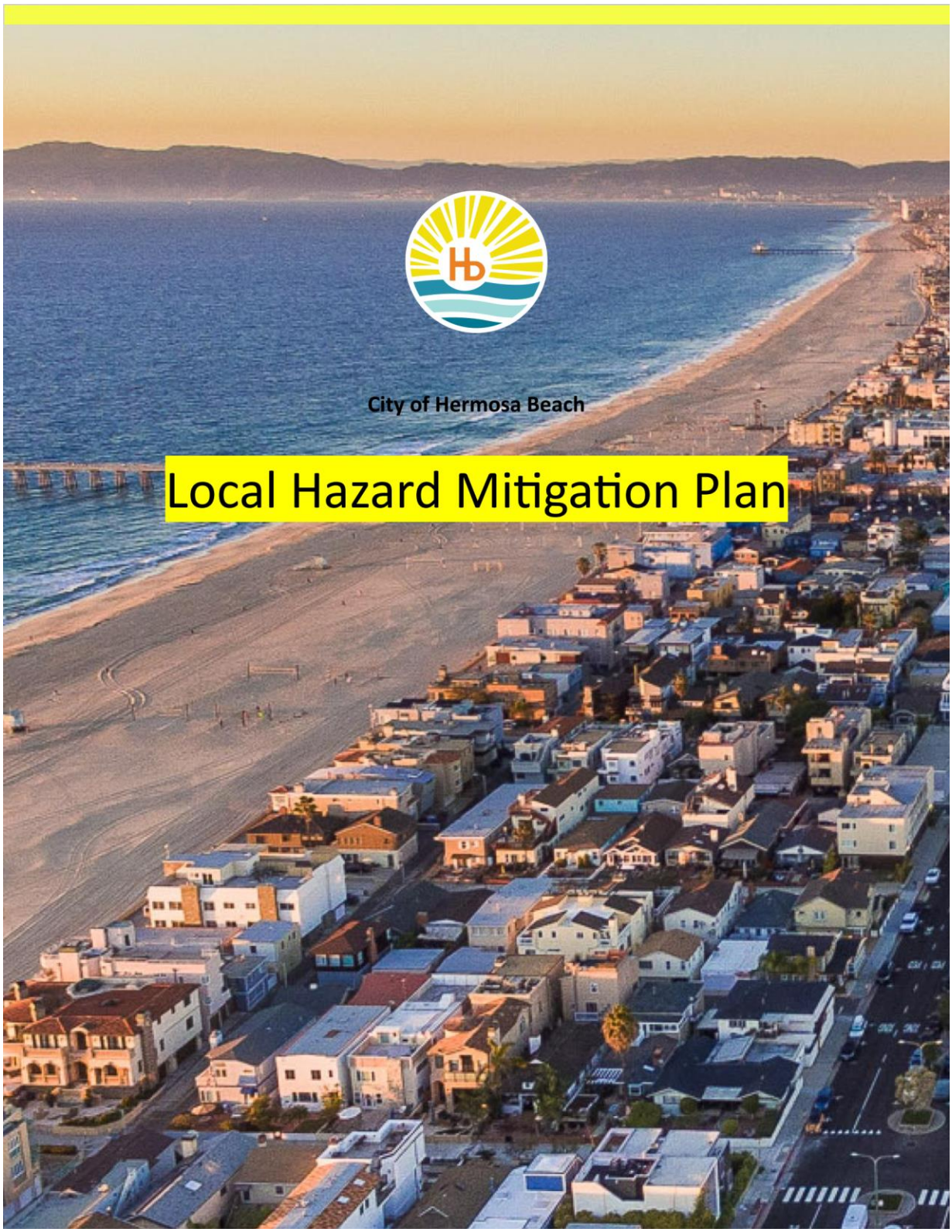

Second Draft Plan 1.16.2024

Credits

Q&A | ELEMENT A: PLANNING PROCESS | A1-a.
Q: Does the plan document how the plan was prepared, including the schedule or time frame and activities that made up the plan's development, as well as who was involved? (Requirement 44 CFR § 201.6(c)(1)) **A:** See **Hazard Mitigation Planning Team** below.

Hazard Mitigation Planning Team:

Name	*Department*	*Position*
City of Hermosa Beach		
Angela Crespi, Chair	City Manager's Office	Deputy City Manager
Margaret Talamantes	City Manager's Office	Senior Management Analyst (Former)
Israel Estrada	City Manager's Office	Emergency Management Coordinator (Former)
Doug Krauss	City Manager's Office	Environmental Programs Manager
Alexandria Hildebrand	City Manager's Office	GIS/IT Analyst
Sara Russo	City Manager's Office	Senior Management Analyst
Guillermo Hobelman	Community Development Department	Building & Code Enforcement Official
Joanne Loeza	Police Department	Management Analyst
Lucho Rodriguez	Public Works Department	City Engineer
John Cordova	Public Works Department	Public Works Superintendent
Ana Tenorio	Public Works Department	Assistant Public Works Superintendent
County of Los Angeles		
Brian Bennett	County of Los Angeles Fire Department	Assistant Fire Chief
Brandy Villanueva	County of Los Angeles	Disaster Management Area G Coordinator
Emergency Planning Consultants		
Carolyn J. Harshman	Emergency Planning Consultants	Principal Planner

Acknowledgements

City of Hermosa Beach

- ✓ Justin Massey, Mayor
- ✓ Dean Francois, Mayor Pro Tem
- ✓ Rob Saemann, Council Member
- ✓ Michael Detoy, Council Member
- ✓ Ray Jackson, Council Member

Point of Contact

To request information or provide comments regarding this mitigation plan, please contact:

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Email	acrespi@hermosabeach.gov
Mailing Address	1315 Valley Drive, Hermosa Beach, CA 90254
Telephone Number	310-318-0201

Consulting Services

Emergency Planning Consultants

- ✓ Principal Planner: Carolyn J. Harshman, MPA, CEM
- ✓ Research and Mapping Analyst: Jill Caputi, MS, CEM

3665 Ethan Allen Avenue
San Diego, California 92117
Phone: 858-922-6964
epc@pacbell.net
www.carolynharshman.com

Mapping

The maps in this plan were provided by the City of Hermosa Beach, County of Los Angeles, Federal Emergency Management Agency (FEMA), or were acquired from public Internet sources. Care was taken in the creation of the maps contained in this plan, however they are provided "as is". The City of Hermosa Beach cannot accept any responsibility for any errors, omissions or positional accuracy, and therefore, there are no warranties that accompany these products (the maps). Although information from land surveys may have been used in the creation of these products, in no way does this product represent or constitute a land survey. Users are cautioned to field verify information on this product before making any decisions.

Mandated Content

In an effort to assist the readers and reviewers of this document, the jurisdiction has inserted "markers" emphasizing mandated content as identified in the Disaster Mitigation Act of 2000 (Public Law – 390). Following is a sample marker:

EXAMPLE

Q&A | ELEMENT A: PLANNING PROCESS | A1-a.
Q Does the plan document how the plan was prepared, including the schedule or time frame and activities that made up the plan's development, as well as who was involved? (Requirement 44 CFR § 201.6(c)(1)) **A:**

Table of Contents

Part I: PLANNING PROCESS

Introduction

Q&A | ELEMENT A: PLANNING PROCESS | A1-b.

Q: Does the plan list the jurisdiction(s) participating in the plan that seek approval, and describe how they participated in the planning process? (Requirement 44 CFR § 201.6(c)(1))
A: See **Introduction** below.

The Hazard Mitigation Plan (Mitigation Plan) was prepared in response to the Disaster Mitigation Act of 2000 (DMA 2000). DMA 2000 (also known as Public Law 106-390) since 2005 has required state and local governments (including special districts and joint powers authorities) to prepare mitigation plans to document their mitigation planning process, and identify hazards, potential losses, mitigation needs, goals, and strategies. This type of planning supplements the City's comprehensive land use planning and emergency management planning programs. The City's last Hazard Mitigation Plan was approved by FEMA on April 17, 2018.

Since the five years of eligibility will lapse before this plan is approved, this Hazard Mitigation Plan is considered "new" by FEMA and Cal OES. Once the new plan is adopted by the City Council and approved by FEMA, the City will regain its eligibility for Hazard Mitigation Grant Program (HMGP) and other mitigation-related funding for a period of five years.

DMA 2000 was designed to establish a national program for pre-disaster mitigation, streamline disaster relief at the federal and state levels, and control federal disaster assistance costs. Congress believed these requirements would produce the following benefits:

- ✓ Reduce loss of life and property, human suffering, economic disruption, and disaster costs.
- ✓ Prioritize hazard mitigation at the local level with increased emphasis on planning and public involvement, assessing risks, implementing loss reduction measures, and ensuring critical facilities/services survive a disaster.
- ✓ Promote education and economic incentives to form community-based partnerships and leverage non-federal resources to commit to and implement long-term hazard mitigation activities.

The following FEMA definitions are used throughout this plan (Source: FEMA, 2002, *Getting Started, Building Support for Mitigation Planning*, FEMA 386-1):

Hazard Mitigation – "Any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards".

Planning – "The act or process of making or carrying out plans; specifically, the establishment of goals, policies, and procedures for a social or economic unit."

Planning Approach

The four-step planning approach outlined in the FEMA publication, *Developing the Mitigation Plan: Identifying Mitigation Actions and Implementing Strategies* (FEMA 386-3) was used to develop this plan:

- ✓ **Develop mitigation goals and objectives -** The risk assessment (hazard characteristics, inventory, and findings), along with municipal policy documents, were utilized to develop mitigation goals and objectives.
- ✓ **Identify and prioritize mitigation actions -** Based on the risk assessment, goals and objectives, existing literature/resources, and input from participating entities, mitigation activities were identified for each hazard.
- ✓ **Prepare implementation strategy -** Generally, high priority activities are recommended for implementation first. However, based on organizational needs and goals, project costs, and available funding, some medium or low priority activities may be implemented before some high priority items.
- ✓ **Document mitigation planning process -** The mitigation planning process is documented throughout this plan.

Q&A | ELEMENT A: PLANNING PROCESS | A2-a.
Q: Does the plan identify all stakeholders involved or given an opportunity to be involved in the planning process, and how each stakeholder was presented with this opportunity? (Requirement 44 CFR § 201.6(b)(2)) **A:** See **Stakeholder Involvement** below.

Stakeholder Involvement

A Hazard Mitigation Planning Team (Planning Team) consisting of the City of Hermosa Beach staff, worked with Emergency Planning Consultants to create the new hazard mitigation plan. Internal input was also gathered from the City's Leadership Team, Planning Commission, and Public Works Commission. **The Planning Team represented the City as the primary stakeholders throughout the planning process.**

As required by DMA 2000, the Planning Team involved "the public" in the planning process. The general public and external organizations were invited to contribute to the plan during the plan writing phase. The external organizations included entities providing services to disadvantaged communities and socially vulnerable populations. The First Draft Plan was produced by the consultant based on research and information gathered through Planning Team meetings. On November 15, 2023, the Planning Team reviewed the First Draft Plan and corrections/amendments were added to create a revised First Draft Plan which was shared with the City's Leadership Team on December 26, 2023. Input gathered from the Leadership Team was incorporated into a Second Draft Plan along with the results of the Mitigation Plan Survey which was announced in the City's monthly E-Newsletter on December 1, 2023. The Survey posting ran from December 1-18, 2023, and included a link to the 2018 HMP. The Survey questions covered perceptions about a range of hazards as well as other disaster-related information. (See Attachments: Survey). The web posting of the Second Draft Plan included a video of an overview of the concepts of hazard mitigation, a review of the significant hazards, the planning process, and a sampling of mitigation action items.

The Second Draft Plan's availability was announced through a variety of mechanisms including the E-Newsletter, posting on the City's website, and social media including X, Facebook, and Instagram. External organizations were emailed information about the availability of the plan on _____. The distribution to external organizations included Houses of Worship and entities providing services to disadvantaged communities and socially vulnerable populations. Also, the Second Draft Plan was presented to the City's Public Works Commission on January 17, 2024. Comments gathered on the Second Draft Plan are all included in the Stakeholder Input List in **Attachments**.

The general public and external organizations served as secondary stakeholders with an opportunity to contribute to the plan during the Plan Writing Phase of the planning process.

Q&A | ELEMENT C: Mitigation Strategy | C2-a.
Q: Does the plan contain a narrative description or a table/list of their participation activities? (Requirement 44 CFR § 201.6(c)(3)(ii))
A: See the **National Flood Insurance Program** below.

National Flood Insurance Program

Established in 1968, the NFIP provides federally backed flood insurance to homeowners, renters, and businesses in communities that adopt and enforce floodplain management ordinances to reduce future flood damage. The City of Hermosa Beach adopted a floodplain management ordinance and has Flood Insurance Rate Maps (FIRM) that show floodways, 100-year flood zones, and 500-year flood zones. The Director of Public Works is designated as floodplain administrator.

NFIP Participation

The City of Hermosa Beach participates in NFIP and the FEMA FIRM maps for the City of Hermosa Beach were last updated April 21, 2021. These studies and maps represent flood risk at the point in time when FEMA completed the studies and does not incorporate planning for floodplain changes in the future due to new development. Although FEMA is considering changing that policy, it is optional for local communities. According to the FEMA FIRM map, the beach portion of the City of Hermosa Beach is designated a Special Flood Hazard Area (SFHA) Zone VE which indicates immediate danger from flooding caused by coastal flooding and storms waves. The remainder of Hermosa Beach is in Zone X. See Flood Hazard section for additional details.

Q&A | ELEMENT B: RISK ASSESSMENT | B2-c.
Q: Does the Plan address NFIP-insured structures within each jurisdiction that have been repetitively damaged by floods? (Requirement 44 CFR § 201.6(c)(2)(ii))
A: See **Repetitive Loss Properties** below.

Repetitive Loss Properties

Repetitive Loss Properties (RLPs) are most susceptible to flood damages; therefore, they have been the focus of flood hazard mitigation programs. Unlike a Countywide program, the Floodplain Management Plan (FMP) for repetitive loss properties involves highly diversified property profiles,

drainage issues, and property owner's interest. It also requires public involvement processes unique to each RLP area. The objective of an FMP is to provide specific potential mitigation measures and activities to best address the problems and needs of communities with repetitive loss properties. A repetitive loss property is one for which two or more claims of $1,000 or more have been paid by the National Flood Insurance Program (NFIP) within any given ten-year period. According to FEMA resources, none of the properties within the City of Hermosa Beach are designated as Repetitive Loss Property (RLPs).

Planning Process

Throughout the project, the Planning Team served as the primary stakeholders while also making a concerted effort to gather information from the general public and external agencies. The hazard mitigation strategies contained in this plan were developed through an extensive planning process involving the City of Hermosa Beach staff, general public, and external agencies.

Following review and input by the Planning Team to the First Draft Plan, a revised First Draft Plan was shared with the City's Leadership Team. Next (still during the Plan Writing Phase), the Leadership Team's input was incorporated into the Second Draft Plan which was shared with the general public and external organizations. The general public and external organizations served as the secondary stakeholders. Also, the Second Draft Plan was presented to and discussed by the City's Planning Commission, Public Works Commission, and Emergency Preparedness Advisory Board. All input gathered on the Second Draft Plan was incorporated into a Third Draft Plan which was submitted to Cal OES and FEMA along with a request for a determination of "approvable pending adoption".

Next, the Planning Team completed amendments to the Plan to reflect mandated input by Cal OES and FEMA. The Final Draft Plan was then posted in advance of the Hermosa Beach City Council public meeting. Any comments gathered were included in the staff report to the City Council. Following adoption by the City Council, proof of adoption was forwarded to FEMA with a request for approval. The FEMA Letter of Approval is included in **Attachments**. The planning process described above is portrayed below in a progression:

Q&A | ELEMENT A: PLANNING PROCESS | A1-a.
Q: Does the plan document how the plan was prepared, including the schedule or time frame and activities that made up the plan's development, as well as who was involved? (Requirement 44 CFR § 201.6(c)(1)) **A:** See **Plan Methodology and Planning Phases Progression** below.
Q&A | ELEMENT A: PLANNING PROCESS | A2-a.
Q: Does the plan identify all stakeholders involved or given an opportunity to be involved in the planning process, and how each stakeholder was presented with this opportunity? (Requirement 44 CFR § 201.6(b)(2)) **A:** See **Planning Phases Progression** below.

Figure: Planning Phases Progression

PLANNING PHASES PROGRESSION				
Plan Writing Phase (First & Second Draft Plan)	**Plan Review Phase (Third Draft Plan)**	**Plan Adoption Phase (Final Draft Plan)**	**Plan Approval Phase (Final Plan)**	**Plan Implementation Phase**
• Planning Team input – research, meetings, writing, review of First Draft Plan • Incorporate input from the Planning Team into a revised First Draft Plan • Post Survey via the City's E-Newsletter and posted on the City's website • Presented to and discussed by the City's Leadership Team • Post web-based Hazard Mitigation Overview and Second Draft Plan on City's website • Invite public and external organizations via email/mail and web posting to provide input to the Second Draft Plan • Presented Second Draft to Planning Commission, Public Works Commission, and Emergency Preparedness Advisory Board • Incorporated all input into the Third Draft Plan	• Third Draft Plan sent to Cal OES and FEMA for review and input • Address any mandated revisions identified by Cal OES and FEMA into Final Draft Plan • FEMA issues Approvable Pending Adoption	• Post public notice of City Council meeting along with the Final Draft Plan • Final Draft Plan distributed to City Council in advance of meeting • Present Final Draft Plan to City Council for adoption • City Council adopts Plan	• Submit proof of adoption to FEMA with request for final approval • Receive FEMA Letter of Approval • Incorporate FEMA approval and City Council adoption resolution into the Final Plan	• Conduct annual Planning Team meeting • Integrate mitigation action items into budget and other funding and strategic documents

Plan Methodology

The Planning Team discussed knowledge of hazards and past historical events, as well as building codes and facilities maintenance plans.

The rest of this section describes the mitigation planning process including 1) Planning Team involvement, 2) general public and external agency involvement; and 3) integration of existing data and plans.

Q&A | ELEMENT A: PLANNING PROCESS | A1-a.

Q: Does the plan document how the plan was prepared, including the schedule or time frame and activities that made up the plan's development, as well as who was involved? (Requirement 44 CFR § 201.6(c)(1))

A: See **Planning Team Involvement** below.

Planning Team Involvement

The Planning Team consisted of representatives from different City departments with a role in hazard mitigation processes. The Planning Team served as the primary stakeholders throughout the planning process. The general public and external agencies served as secondary stakeholders in the planning process. The Planning Team was responsible for the following tasks:

- ✓ Develop planning goals,
- ✓ Prepare timeline,
- ✓ Ensure plan meets DMA 2000 requirements,
- ✓ Organize and solicit involvement of public and external agencies,
- ✓ Analyze existing resources including data, maps, and reports,
- ✓ Research hazard information,
- ✓ Review information on socially vulnerable populations and disadvantaged communities,
- ✓ Review HAZUS loss projection estimates,
- ✓ Develop mitigation action items,
- ✓ Participate in Planning Team, Community Forums, and City Council meetings.

The Planning Team, with assistance from Emergency Planning Consultants, identified and profiled hazards; determined hazard rankings; estimated potential exposure or losses; evaluated development trends and specific risks; and developed mitigation goals and action items.

Table: Planning Team and Leadership Team Level of Participation

Name	Research and Writing of Plan	Planning Team Meeting 1: September 7, 2023	Planning Team Meeting 2: October 12, 2023	Planning Team Meeting 3: October 18, 2023	Planning Team Meeting 4: November 15, 2023	Planning Team Commented on First Draft Plan	Outreach Strategy Meeting: November 30, 2023	Post Survey via E-Newsletter and on Website	City Leadership Team Reviewed First Draft Plan	Community Forum: Public Works Commission	Post Hazard Mitigation Overview and Second Draft Plan on Website	Distribute Invitation to General Public and External Organizations	Incorporate Input from Public, and External Agencies into the Third Draft Plan	Submit Third Draft Plan to Cal OES/FEMA for Approvable Pending Adoption	Post Final Draft Plan in Advance of City Council Meeting	Present Final Draft Plan to City Council at Public Meeting for Plan Adoption	Submit Proof of Adoption to FEMA for Final Approval	Incorporate FEMA Approval into Final Plan
Hermosa Beach Planning Team																		
Angela Crespi, Chair*					X	X	X		X	X								
Margaret Talamantes					X	X	X	X										
Brian Bennett					X	X												
John Cordova*	X	X							X									

Name	Research and Writing of Plan	Planning Team Meeting 1: September 7, 2023	Planning Team Meeting 2: October 12, 2023	Planning Team Meeting 3: October 18, 2023	Planning Team Meeting 4: November 15, 2023	Planning Team Commented on First Draft Plan	Outreach Strategy Meeting: November 30, 2023	Post Survey via E-Newsletter and on Website	City Leadership Team Reviewed First Draft Plan	Community Forum: Public Works Commission	Post Hazard Mitigation Overview and Second Draft Plan on Website	Distribute Invitation to General Public and External Organizations	Incorporate Input from Public, and External Agencies into the Third Draft Plan	Submit Third Draft Plan to Cal OES/FEMA for Approvable Pending Adoption	Post Final Draft Plan in Advance of City Council Meeting	Present Final Draft Plan to City Council at Public Meeting for Plan Adoption	Submit Proof of Adoption to FEMA for Final Approval	Incorporate FEMA Approval into Final Plan
Israel Estrada	X	X	X	X	X	X												
Alexandria Hildebrand*	X	X	X	X	X	X			X									
Guillermo Hobelman	X	X		X	X	X												
Doug Krauss*			X	X	X	X			X									
Joanne Loeza	X	X		X		X												
Lucho Rodriguez*	X	X	X		X	X			X	X								
Sara Russo*					X	X	X		X									
Brandy Villanueva	X	X			X	X												
Ana Tenorio					X	X												
* Indicates Planning Team members who are also on the Hermosa Beach Leadership.																		
Hermosa Beach Leadership Team																		
Ann Yang									X									
Brian Sousa									X									
Carrie Tai									X									
Mick Gaglia									X									
Joseph San Clemente									X	X								
Landon Phillips									X									
Laura MeCoy									X									
Leo Zalyan									X									
Lisa Nichols									X									
Myra Maravilla									X									

Name	Research and Writing of Plan	Planning Team Meeting 1: September 7, 2023	Planning Team Meeting 2: October 12, 2023	Planning Team Meeting 3: October 18, 2023	Planning Team Meeting 4: November 15, 2023	Planning Team Commented on First Draft Plan	Outreach Strategy Meeting: November 30, 2023	Post Survey via E-Newsletter and on Website	City Leadership Team Reviewed First Draft Plan	Community Forum: Public Works Commission	Post Hazard Mitigation Overview and Second Draft Plan on Website	Distribute Invitation to General Public and External Organizations	Incorporate Input from Public, and External Agencies into the Third Draft Plan	Submit Third Draft Plan to Cal OES/FEMA for Approvable Pending Adoption	Post Final Draft Plan in Advance of City Council Meeting	Present Final Draft Plan to City Council at Public Meeting for Plan Adoption	Submit Proof of Adoption to FEMA for Final Approval	Incorporate FEMA Approval into Final Plan
Nick Shattuck									X									
Patrick Donegan									X									
Paul LeBaron									X									
Reanna Guzman									X									
Ryan Walker									X									
Suja Lowenthal									X									
Vanessa Godinez									X									
Viki Copeland									X									
Emergency Planning Consultants																		
Carolyn Harshman	X	X	X	X	X		X			X								
Jill Caputi	X																	

Table: Planning Team Timeline

Tasks	September 2023	October	November	December	January 2024	February	March	April	May	June
Planning/Development Process and Organize Resources										
First Draft, Second Draft, Third Draft, Final Draft, Final	X	X	X	X	X	X	X	X	X	X
Planning Team Meeting #1 LHMP Overview and Initial Hazard Briefing	X									
Planning Team Meeting #2 HAZUS and Status of 2018 Mitigation Action Items		X								
Planning Team Meeting #3 Future Mitigation Action Items		X								
Planning Team Meeting #4 Review First Draft Plan			X							
Planning Team provides input to the First Draft Plan			X							
Outreach Strategy Meeting			X							
Encourage Public Participation in Household and Business Mitigation Activities (Social Media)				X						
Present Revised First Draft to City's Leadership Team				X						
Solicit General Public and External Organization input to Second Draft Plan					X					
Posting of Hazard Mitigation Overview on Website					X					
Community Forum - Public Works Commission					X					
Risk Assessment										
Conduct Risk and Vulnerability Assessment	X									
Prepare HAZUS and Critical Asset Maps	X									
Prepare Capability Assessment	X									
Hazard Mitigation Strategy										
Update Mitigation Actions	X	X								
Prepare New Mitigation Actions	X	X								
Include Monitoring, Evaluating and Updating the Plan	X	X								
Plan Maintenance Process										
Submit Third Draft Plan to Cal OES/FEMA. Complete Mandated Revisions.						X	X	X	X	
Receive FEMA's Approvable Pending Adoption									X	
Post and Conduct City Council Meeting to Adopt the Final Draft Plan										X
Submit Proof of Adoption to FEMA										X
Receive FEMA Final Approval										X
Incorporate FEMA Final Approval into Final Plan										X

Q&A | ELEMENT C. MITIGATION STRATEGY | C1-a.

Q: Does the plan describe how the existing capabilities of each participant are available to support the mitigation strategy? Does this include a discussion of the existing building codes and land use and development ordinances or regulations? (Requirement 44 CFR § 201.6(c)(3))

A: See **Capability Assessment – Existing Processes and Programs** below.

Capability Assessment – Existing Processes and Programs

The City of Hermosa Beach will incorporate mitigation planning as an integral component of daily operations. This will be accomplished by the Planning Team working with their respective departments to integrate mitigation strategies into the planning documents and the City of Hermosa Beach's operational guidelines.

The Capability Assessment below includes a full range of the City of Hermosa Beach's policies, programs, practices, and procedures that could be created or modified to address mitigation activities. In addition, the Assessment lists the "community lifelines" that are critical in supporting the City's day-to-day operations. No doubt, several of the City's capabilities are also considered community lifelines (e.g., Safety and Security includes law enforcement, fire services, search and rescue, government services, and community safety). FEMA defines Community Lifelines as:

- The most fundamental services in the community that, when stabilized, enable all other aspects of society to function.
- Lifelines are the integrated network of assets, services, and capabilities that are used day-to-day to support the recurring needs of the community.
- When disrupted, decisive intervention (e.g., rapid service re-establishment or employment of contingency response solutions) is required to stabilize the incident.

As indicated above, the Community Lifelines are:

- Safety and Security
- Food, Water, and Shelter
- Health and Medical
- Energy (Power and Fuel)
- Communications
- Transportation
- Hazardous Materials

Capabilities

The City will incorporate mitigation planning as an integral component of daily operations. This will be accomplished by the Planning Team members with their respective departments to integrate mitigation strategies into their planning documents and operational guidelines. FEMA identifies four types of capabilities: Planning and Regulatory, Administrative and Technical,

Financial, and Education and Outreach. Following are explanations drawn from "Beyond The Basics" a website developed as part of a multi-year research study funded by the U.S. Department of Homeland Security, Coastal Resilience Center and led by the Center for Sustainable Community Design within the Institute for the Environment at the University of North Carolina at Chapel Hill and the Institute for Sustainable Coastal Communities at Texas A&M University. This excellent resource ties FEMA regulations together with best practices in hazard mitigation.

Planning and Regulatory

Planning and regulatory capabilities are based on the implementation of ordinances, policies, local laws and State statutes, and plans and programs that relate to guiding and managing growth and development. Examples of planning capabilities that can either enable or inhibit mitigation include comprehensive land use plans, capital improvements programs, transportation plans, small area development plans, disaster recovery and reconstruction plans, and emergency preparedness and response plans. Plans describe specific actions or policies that support community goals and drive decisions. Likewise, examples of regulatory capabilities include the enforcement of zoning ordinances, subdivision regulations, and building codes that regulate how and where land is developed and structures are built. Planning and regulatory capabilities refer not only to the current plans and regulations, but also to the community's ability to change and improve those plans and regulations as needed.

Administrative and Technical

Administrative and technical capability refers to the community's staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions. It also refers to the ability to access and coordinate these resources effectively. Think about the types of personnel employed by each jurisdiction, the public and private sector resources that may be accessed to implement mitigation activities in your community, and the level of knowledge and technical expertise from all of these sources. These include engineers, planners, emergency managers, GIS analysts, building inspectors, grant writers, floodplain managers, and more. For jurisdictions with limited staff resources, capacity should also be considered; while staff members may have specific skills, they may not have the time to devote to additional work tasks.

The planning team can identify resources available through other government entities, such as counties or special districts, which may be able to provide technical assistance to communities with limited resources. For example, a small town may turn to county planners, engineers, or a regional planning agency to support its mitigation planning efforts and provide assistance. For large jurisdictions, reviewing administrative and technical capabilities may involve targeting specific staff in various departments that have the expertise and are available to support hazard mitigation initiatives. The degree of intergovernmental coordination among departments also affects administrative capability.

Financial

Financial capabilities are the resources that a jurisdiction has access to or is eligible to use to fund mitigation actions. The costs associated with implementing mitigation activities vary. Some mitigation actions, such as building assessment or outreach efforts, require little to no costs other than staff time and existing operating budgets. Other actions, such as the acquisition of flood-prone properties, could require a substantial monetary commitment from local, state, and federal funding sources. Some local governments may have access to a recurring source of revenue beyond property, sales, and income taxes, such as stormwater utility or development impact fees. These communities may be able to use the funds to support local mitigation efforts independently or as the local match or cost-share often required for grant funding.

Education and Outreach
This type of 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 fire safety programs that the Fire Department delivers to students at local schools; and participation in community programs, such as Firewise and StormReady.

The table below includes a broad range of capabilities within the City of Hermosa Beach to successfully accomplish mitigation.

Table: Capability Assessment - Existing Processes and Programs
(Source: City of Hermosa Beach Website, 2023)

Capability Type				Capability Name	Capability Description and Ability to Support Mitigation
Planning and Regulatory	Administrative and Technical	Financial	Education and Outreach		
City of Hermosa Beach Departments					
X	X			City Attorney	Appointed by the Hermosa Beach City Council, the City Attorney functions as legal counsel for civil matters, providing legal advice to the City Council and operating departments. The City of Hermosa Beach contracts with the law firm of Best, Best & Krieger for City Attorney legal services
X	X			City Prosecutor	The City Prosecutor prosecutes criminal misdemeanor cases occurring within the city limits of Hermosa Beach and interacts with the Police Department regarding potential cases.
X	X		X	City Clerk	The City Clerk administers Federal, State, and Local procedures through which local government representatives are selected. Assists candidates in meeting their legal responsibilities before, during, and after an election. From election pre-planning to certification of election results and filing of final campaign disclosure documents, the Clerk manages the process, which forms the foundation of our democratic system of government. Additionally, the Clerk prepares the legislative agenda, verifies legal notices have been posted or published, and completes the necessary arrangements to ensure an effective meeting. The Clerk is entrusted with the responsibility of recording the decisions of the legislative body. The Clerk also oversees the preservation of the public record.
X	X	X	X	City Manager	The City Manager is appointed by the City Council and is the Chief Executive of City operations. Key responsibilities are to manage all municipal activities, advise the City Council on the City's financial and capital improvement needs, enforce all laws and ordinances, manage the City's properties, appoint department heads and classified civil service employees, represent management in employer employee relations, and coordinate intergovernmental relations.
X	X			City Treasurer	The City Treasurer administers the City's investment portfolio, currently $36.1 million dollars, including investment of idle funds and

Capability Type				Capability Name	Capability Description and Ability to Support Mitigation
Planning and Regulatory	Administrative and Technical	Financial	Education and Outreach		
					bond proceeds, in compliance with the City's Investment Policy which is adopted by the City Council, and places emphasis on safety and liquidity.
X	X		X	Community Development	The Community Development Department is comprised of the Building & Safety Division, Code Enforcement, and the Planning Division. The Department administrators regulations relating to property development, land use, and property maintenance, to ensure community safety and well-being.
	X		X	Community Resources - Parks and Recreation	It is the mission of the Community Resources Department to be the steward of parks, open space and natural resource lands and waterways which are designated for the use and enjoyment of the public for recreation and leisure activities; to provide recreational resources, programs, and activities throughout the City of Hermosa Beach and promote preservation and interpretation of historical, cultural resources, the natural environment and human resources.
X	X	X	X	Public Works	The Public Works Department Administration and Engineering Division is based at City Hall and is responsible for engineering and oversight of the City's Capital Improvement Program, public counter services including plan check and permit issuance, inspection of construction in the public right of way, contracts and work order management, grant management, special event coordination and other services. Staff also supports the City's Public Works Commission.
	X	X	X	Finance	The Finance Business Unit is responsible for managing the City's financial operations in accordance with generally accepted accounting principles, laws and established policies and plans. The department consists of two divisions to accomplish its objectives: Finance Cashier, Finance Administration
X	X		X	GIS/IT Analyst	GIS and IT services are managed by the GIS/IT Analyst assigned to the City Manager's Office.
	X			Human Resources	The Human Resources Department is responsible for the recruitment of City employees, the maintenance of employee benefits, and labor relations. Along with supporting the City's Civil Service Board, the Human Resources Department also administers the Risk Management program for the City. The Risk Management function includes public liability and workers' compensation claims administration.
X	X		X	Police	The men and women of the Hermosa Beach Police Department proudly serve the City of Hermosa Beach and are committed to provide excellent service with every contact. The Police Department's mission statement, "We exist so Hermosa Beach can be the safest

Capability Type				Capability Name	Capability Description and Ability to Support Mitigation
Planning and Regulatory	Administrative and Technical	Financial	Education and Outreach		
					little beach city through partnerships, integrity and excellent service" is highlighted in the Police Department web page. The Police Department looks forward to partnering with the community to keep Hermosa Beach safe.
X	X		X	Office of Emergency Management	The purpose of the Office of Emergency Management is to prepare city staff, residents, businesses and visitors in emergency preparedness to decrease the impacts of potential disasters in the community. The Office of Emergency Management is managed by the full-time Emergency Services Coordinator who reports directly to the City Manager.
City of Hermosa Beach Commissions					
X	X		X	Planning Commission	The Planning Commission performs duties as prescribed by applicable state and local laws. The primary purpose of the Commission is to maintain and enhance the environment of the community, which entails advance or long-range planning (updating of the General Plan and specific elements), current planning (short-range projects), and land use controls (administering to the code and review of all subdivisions and zoning petitions). The Commission serves as an advisory board to the City Council on all matters pertaining to zoning, conditional use permit process, etc. The Planning Commission is staffed by the Community Development Department.
X	X	X		Public Works Commission	The Public Works Commission reviews and makes recommendations to the City Council on all capital improvement projects, assists in the development and updating of design guidelines for public improvements, and addresses other matters referred to the Commission by the City Council. Five members are appointed by the City Council to staggered four-year terms. Members must be qualified electors of the City. The Commission is staffed by the Public Works Department.
X	X		X	Parks, Recreation & Community Resources Advisory Commission	The Parks, Recreation and Community Resources Advisory Commission: • Serves in an advisory capacity to the City Council in all matters pertaining to the Community Resources Department; • Cooperates with other governmental agencies and civic groups on the advancement of sound leisure, cultural, social services and educational programming; • Provides guidance and approvals for certain special events held within the City; and

Capability Type				Capability Name	Capability Description and Ability to Support Mitigation
Planning and Regulatory	Administrative and Technical	Financial	Education and Outreach		
					• Formulates policies on the services, programs and lease agreements of the Department, subject to approval of the City Council.
X	X		X	Emergency Preparedness Advisory Board	Work with City to take whole community approach to community emergency preparedness. Promote community readiness (e.g., shelter-in-place/evacuation procedures, preparation of emergency preparedness kits/go-bags, networking for households with elderly or disabled individuals and/or pets, and training/involvement opportunities - First Aid/CPR, Hermosa Beach Community Emergency Response Team, etc.).
X	X		X	Civil Service Board	The Civil Service Board functions as the City's Review Board pertaining to personnel functions and Civil Service Rules and Regulations in conjunction with N.S. 211 (People's Ordinance). Duties include review and/or approval of City job specifications and eligibility lists. Five members are appointed by the City Council to staggered four-year terms.
City of Hermosa Beach Plans and Policies					
X	X	X		Capital Improvement Program	The Capital Improvement Program (CIP) is the City's comprehensive plan to develop and maintain the City's capital facilities and infrastructure. Capital projects are usually of high cost, take a year or more to complete, and result in the creation of a capital asset. Included in the budget document is the detailed 2023-24 Capital Improvement Program, along with the high-level Five-Year Capital Improvement Program.
	X	X	X	Annual Budget	The Annual Budget and its associated review, update, and approval process provide a plethora of opportunities to explain detailed tasks, priorities, and spending allocations for the projects, programs, and equipment supporting the efforts of the city. Many of the ongoing mitigation items in the plan are supported through the Annual Budget.
X	X			Municipal Code	The Municipal Code is a complete set of City local regulations ranging from streets to police to parks to private development.
X	X			Zoning Ordinance	The Zoning Ordinance includes zoning laws and land use permits processes.
X	X		X	General Plan (PLAN Hermosa)	The General Plan serves as the blueprint for planning and development in the City and indicates the community's vision for the future. Of particular importance to the HMP is the Public Safety Element which outlines the hazards posing significant threats as well as goals and policies to manage the threats. PLAN Hermosa also includes the Housing Element, which contains policies for meeting the

Capability Type				Capability Name	Capability Description and Ability to Support Mitigation
Planning and Regulatory	Administrative and Technical	Financial	Education and Outreach		
					City's housing needs including permanent homes, group homes, and emergency shelters.
X	X		X	Emergency Operations Plan	The City of Hermosa Beach has updated its Emergency Operations Plan (EOP) to ensure the most effective and economical allocation of resources for the maximum benefit and protection of life, property, and the environment during an emergency
City of Hermosa Beach Community Lifelines (External)					
X			X	Beach Cities Transit	Beach Cities Transit provides fixed route and dial-a-ride transit service in the South Bay. BCT Line 109 connects Riviera Village, Hermosa, Manhattan, El Segundo, Green Line Stations, and the LAX Bus Center.
X			X	Torrance Transit	Torrance Transit operates one bus route through Hermosa Beach. Torrance Transit Line 13 operates between Redondo Beach Pier and Artesia A (Blue) Line Station, serving major destinations that include Hermosa Beach Pier, South Bay Galleria, Harbor Gateway Transit Center, Dignity Health Sports Park, and California State University, Dominguez Hills.
X			X	LADOT Commuter Express	LA Commuter Express shuttles provide one-way limited stop transit service to job centers during commute hours through Commuter Express Line 438.
X			X	LA Metro	LA Metro provides local and regional rail and bus services to the Los Angeles region.
X			X	Caltrans	Caltrans manages more than 50,000 miles of California's highway and freeway lanes, provides inter-city rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies. Caltrans carries out its mission with six primary programs: Aeronautics, Highway Transportation, Mass Transportation, Transportation Planning, Administration, and the Equipment Service Center.
X	X		X	Waste Collection – Athens Service	Contracted provider of residential and commercial waste collection and recycling services.
X	X	X	X	Los Angeles County	Provides a range of county-wide services including public health, transportation, animal control, courts, public records, property assessments, flood control, etc.
X	X	X	X	Adjoining Jurisdictions	Los Angeles County City of Redondo Beach City of Manhattan Beach
			X	School Districts	Hermosa Beach City School District (K-8) Redondo Beach Unified School District Manhattan Beach Unified School District

Capability Type				Capability Name	Capability Description and Ability to Support Mitigation
Planning and Regulatory	Administrative and Technical	Financial	Education and Outreach		
	X		X	American Red Cross	American Red Cross volunteers and staff work to deliver vital services – from providing relief and support to those in crisis, to helping others be prepared to respond in emergencies.
X	X		X	Southern California Edison	Provides the power grid to the Los Angeles region including generation systems, transmission systems, and distribution systems. Also, has power to initiate a Public Safety Power Shutoff.
	X		X	Southern California Gas Company	Southern California Gas Company is the natural gas provider for the area
	X		X	California Water Service	California Water Service is the water provider for the area.
				Safety and Security	
X	X		X	Los Angeles County Fire Department	Los Angeles County Fire Department provides contracted fire and emergency medical services (EMS) to the City of Hermosa Beach. Other services include business inspections and fire life and safety plan check assistance coordinated with the Community Development Department; special event inspections and film permit review coordinated with the Community Resources Department; and community and school event participation.
X	X		X	McCormick Ambulance Services	The City of Hermosa Beach has contracted with McCormick Ambulance, which works in partnership with Los Angeles County Fire Department to provide quick, efficient and effective emergency medical transportation services
				Food, Water Shelter	
				Food (Commercial Food Distribution, Commercial Food Supply Chain, Food Distribution Programs (e.g., Food Banks)	None
				Agriculture (Animals and Agriculture)	None
	X		X	Water (Drinking Water Utilities (intake, treatment, storage, and distribution), Wastewater Systems, Commercial Water Supply Chain)	See California Water Service and Public Works
			X	Shelter (Housing (e.g., homes, shelters), Commercial Facilities (e.g., hotels)	Housing – See General Plan above Commercial (Hotels): Holiday Inn Express & Suites Hermosa Beach 125 CA-1, Hermosa Beach (310) 798-9898 Sea Sprite Hotel 1016 The Strand, Hermosa Beach (310) 376-6933

Capability Type				Capability Name	Capability Description and Ability to Support Mitigation
Planning and Regulatory	Administrative and Technical	Financial	Education and Outreach		
					SW Beach Hotel 66 11th St, Hermosa Beach (310) 921-8637 ITS Surf City Hostel Hermosa Beach 26 Pier Ave, Hermosa Beach (310) 798-2323 Beach House 1300 The Strand, Hermosa Beach (310) 374-3001 Grandview Inn 55 14th St, Hermosa Beach (310) 374-8981 H2O Hermosa 1429 Hermosa Ave, Hermosa Beach (310) 442-2370 Hampton Inn and Suites Hermosa Beach 1530 Pacific Coast Hwy, Hermosa Beach (310) 318-7800 Quality Inn & Suites Hermosa Beach 901 Aviation Blvd, Hermosa Beach (310) 374-2666 Hotel Hermosa 2515 CA-1, Hermosa Beach (310) 318-6000
				Health and Medical	
X	X		X	Medical Care (Hospitals, Dialysis, Pharmacies, Long-Term Care Facilities, VA Health System, Veterinary Services, Home Care)	Veterinary Services: VCA Hermosa Animal Hospital 560 Pacific Coast Hwy, Hermosa Beach (310) 376-8819 VCA Coast Animal Hospital 1560 CA-1, Hermosa Beach (310) 372-8881 Home Health Care: A Precious Elder Home Care 2447 Pacific Coast Hwy #222, Hermosa Beach (310) 571-5852 1Heart Caregiver Services 2447 Pacific Coast Hwy 2nd Floor, Hermosa Beach (310) 773-7207 Bright Horizons Home Health 1601 CA-1 #290, Hermosa Beach (800) 655-3666 Home Care Assistance Hermosa Beach 950-F, Aviation Blvd, Hermosa Beach (310) 857-4586

Capability Type				Capability Name	Capability Description and Ability to Support Mitigation
Planning and Regulatory	Administrative and Technical	Financial	Education and Outreach		
					Assisted Living: Sunrise of Hermosa Beach 1837 East Pacific Coast Highway, CA-1, Hermosa Beach
X	X		X	Patient Movement (Emergency Medical Services)	See Los Angeles County Fire Department and McCormick Ambulance Services
				Fatality Management (Mortuary and Post-Mortuary Services)	
X	X		X	Public Health (Epidemiological Surveillance, Laboratory, Clinical Guidance, Assessment / Interventions / Treatments, Human Services, Behavior Health)	Public Health – see Los Angeles County above.
	X		X	Medical Supply Chain (Blood / Blood Products, Manufacturing of pharmaceutical, device, medical gases, Distribution, Critical Clinical Research, Sterilization, Raw Materials)	Blood / Blood Products – See American Red Cross above.
				Energy	
X	X		X	Power Grid (Generation Systems, Transmission Systems, Distribution Systems)	Power Grid – See Southern California Edison above.
				Communications	
				Alerts, Warnings, and Messages (Local Alert, Warning Ability, Access to IPAWS including WEA, EAS, NWR, and NAWAS Terminals)	ALERT South Bay (local) and FEMA IPAWS (regional / state)
				911 and Dispatch (Public Safety Answering Points, Dispatch)	See Police above
				Transportation	
				Highway / Roadway / Motor Vehicle (Roads, Bridges)	See Caltrans above See Los Angeles County above

Capability Type				Capability Name	Capability Description and Ability to Support Mitigation
Planning and Regulatory	Administrative and Technical	Financial	Education and Outreach		
				Mass Transit (Bus, Rail, Ferry)	See Beach Cities Transit, Torrance Transit, LADOT Commuter Express above
				Railway (Freight, Passenger)	None

Expanding and Improving on Capabilities

Planning and Regulatory Capabilities – The City builds and maintains its own buildings and infrastructure and regulates all construction within the community as per the International Building Code. Development areas are identified in the General Plan Development Protocols, such as development review, are in place that ensure future development projects satisfy "substantial conformance" requirements with the General Plan and Zoning Ordinance.

The City also has a Capital Improvement Program for public improvements. Some of the funding of future construction relies on successful bond measures where plans and justifications are shared with the public.

Administrative and Technical –

Existing capabilities are typical for a medium-sized local government. The City already has grant writing and GIS capabilities along with mutual aid agreements, and a warning/notification system. Grant writing capabilities will continue to be especially important once the mitigation plan is approved by FEMA. That approval will trigger eligibility for a range of federal and state grants. Also, the City Council could task a sub-committee dedicated to land use matters and mitigation plan implementation. The Plan's opportunities for success will be increased by the Council's involvement.

Finance -

All local governments have a broad range of funding sources. Taxation, impact fees, bonds, grants, in-kind donations, and philanthropic donations are included in the spectrum. As such, the City needs to keep these resources in mind for future mitigation activities.

Education and Outreach –

Utilize existing community groups, local citizen groups, and non-profit organizations to support and encourage mitigation as well as home and business mitigation. Enlist the City Manager and Public Information Officer in learning and talking about the Hazard Mitigation Plan.

Q&A | ELEMENT A: PLANNING PROCESS | A4-a.

Q: Does the plan document what existing plans, studies, reports, and technical information were reviewed for the development of the plan, as well as how they were incorporated into the document? (Requirement 44 CFR § 201.6(b)(3))
A: See **Use of Existing Data** below.

Use of Existing Data

The Planning Team gathered and reviewed existing data and plans during plan writing and specifically noted as "sources". Numerous electronic and hard copy documents were used to support the planning process:

City of Hermosa Beach Website
https://www.hermosabeach.gov/home
Applicable Incorporation: Department Information for Capability Assessment, City Profile, Budget

City of Hermosa Beach Hazard Mitigation Plan (2018)
https://www.hermosabeach.gov/home/showpublisheddocument/10608/637001018228830000
Applicable Incorporation: Information contributed to the City Profile and Hazard-Specific Sections

City of Hermosa Beach PLAN Hermosa (2017)
https://www.hermosabeach.gov/our-government/community-development/plan-hermosa
Applicable Incorporation: Information about hazards contributed to the City Profile, and Hazard-Specific Sections.

Los Angeles County General Plan (2015)
http://planning.lacounty.gov/assets/upl/project/gp_final-general-plan.pdf
Applicable Incorporation: Information about the planning area and geography.

County of Los Angeles All-Hazards Mitigation Plan (2019)
http://file.lacounty.gov/SDSInter/lac/1062614_AHMPPublicDraft_Oct1.pdf
Applicable Incorporation: Information about hazards in the County contributed to the hazard-specific sections.

Los Angeles County Public Health – Acute Communicable Disease Control
http://publichealth.lacounty.gov/acd/WNVData.htm
Applicable Incorporation: Information about health hazards in the county contributed to the hazard-specific section - Diseases

State of California Hazard Mitigation Plan (2018)
https://www.caloes.ca.gov/wp-content/uploads/002-2018-SHMP_FINAL_ENTIRE-PLAN.pdf
Applicable Incorporation: Risk Assessment – Hazard Identification.

HAZUS Maps and Reports
Created by Emergency Planning Consultants
Applicable Incorporation: Numerous HAZUS maps and reports have been included in the hazard-specific sections.

National Flood Insurance Program
www.fema.gov/national-flood-insurance-program
Applicable Incorporation: Community status used in the flood section.

Local Flood Insurance Rate Maps
https://msc.fema.gov/portal/home
Applicable Incorporation: Used in the Flood hazard section.

California Department of Conservation
www.conservation.ca.gov/cgs
Applicable Incorporation: Seismic hazards mapping used in earthquake hazard section.

U.S. Geological Survey (USGS)
www.usgs.gov
Applicable Incorporation: Earthquake records and statistics used in earthquake hazard section..

Southern California Earthquake Data Center
https://scedc.caltech.edu/index.html
Applicable Incorporation: Earthquake records

Using HAZUS for Mitigation Planning (2018)
https://www.fema.gov/sites/default/files/documents/fema_using-hazus-mitigation-planning.pdf
Applicable Incorporation: Used in Risk Assessment in HAZUS Information.

California's Fourth Climate Change Assessment: Los Angeles Region Report (2019)
https://www.ioes.ucla.edu/project/los-angeles-regional-climate-assessment/
Applicable Incorporation: Used in Community Profile - Climate Information.

Weather Spark
https://weatherspark.com/
Applicable Incorporation: Weather information used in Community Profile.

Part II: RISK ASSESSMENT

City Profile

According to the City's website, the first official land survey was made in the year 1901 for the boardwalk on the Strand, Hermosa Avenue and Santa Fe Avenue; work on these projects commenced soon after. The boardwalk on the Strand was constructed of planks. The walk extended the entire length of the two-mile Strand. High tides sometimes washed away portions of this walkway. In 1914 part of it was replaced with cement. The remaining two thousand feet on the north end was finally completed with cement in 1926.

In 1904 the first pier was built. It was constructed entirely of wood even to the pilings and it extended five hundred feet out into the ocean. The pier was constructed by the Hermosa Beach Land and Water Company. In 1913 this old pier was partly washed away and later torn down and a new one built to replace it.

The first city election for city officers was held on December 24, 1906. The town incorporated and its charter was obtained from the state on January 14, 1907. At this time the City acquired ownership of its two mile stretch of ocean frontage. This was included in an original deed to the City from the Hermosa Beach Land and Water Company but did not include the two hundred and ten feet on each side of the pier. The deed stated that it was to be held in perpetuity as a beach playground, free from commerce, and for the benefit of not only the residents of Hermosa, but also for the sea lovers of Southern California. Hermosa Beach's original ideals are still reflected along the Strand and beach with ample public space for bike riding and beach play.

Location and Environment

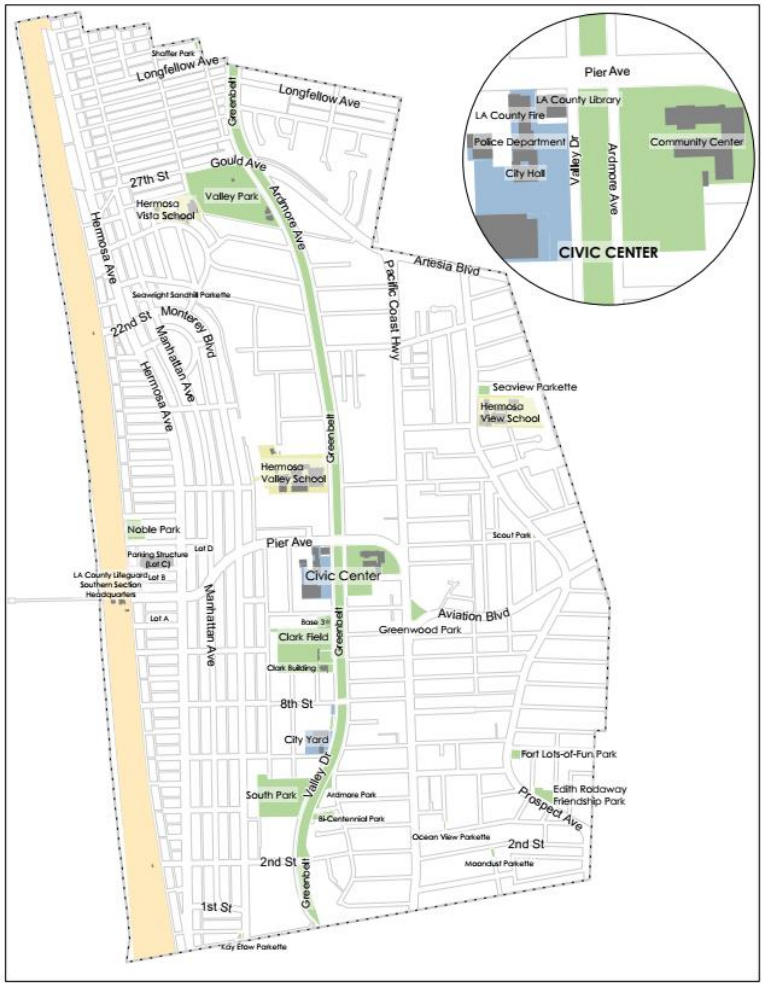
Hermosa Beach is located along the southern end of Santa Monica Bay in Los Angeles County. Regional topographic features including the Santa Monica Bay and Mountains and the Palos Verdes Peninsula, serve as the backdrop to Hermosa Beach. The Pacific Ocean serves as the western city boundary, while the city is bordered by Manhattan Beach to the north, and Redondo Beach to the south and east. Hermosa Beach is located approximately 17 miles southwest of downtown Los Angeles and 14 miles northwest of Long Beach. Hermosa Beach covers an area of 1.4 square miles with a population of approximately 19,616. Hermosa Beach includes nearly two miles of shoreline and varies in width between one-half mile and approximately one mile inland.

According to PLAN Hermosa (2017), the City is primarily a residential community, with 67% of its land zoned for single and multiple family housing uses. Approximately 43% of the total land area in Hermosa Beach is located within the Coastal Zone, the boundaries of which are defined by the Coastal Act. The coastal zone in Hermosa Beach spans the entire length of the city from north to south and extends from the mean high tide line inland to Ardmore Avenue with two exclusions: the area from Hermosa Avenue to Valley Drive between Longfellow Avenue and 31st Place; and the area east of Park Avenue or Loma Drive between 25th Street and 16th Street.

Major business sectors include Leisure, Education, Professional, Retail, Finance, public, construction, wholesale, transportation, information and manufacturing. (Source: Profile of the City of Hermosa Beach – SCAG, 2019; and PLAN Hermosa)

Housing assistance programs in the City include residential critical maintenance, rental rehabilitation, and first-time homebuyer programs. The City supports the South Bay Regional Housing Trust Fund and makes County and regional housing assistance resources known. In most cases, public/private partnerships are formed. Also, housing assistance programs are managed by Los Angeles County and available to eligible City residents.

Map: City of Hermosa Beach
(Source: Hermosa Beach Website, 2023)



City Facts

According to the Hermosa Beach website, this is a summary of City Facts:
Airports - Los Angeles International Airport (LAX), 6 miles north of Hermosa Beach, Torrance Municipal Airport (TOA), 7 miles southeast of Hermosa Beach

Area covered - 1.43 square miles

Assessed valuation of the City - $7.5 billion

Average rainfall - 12.1 inches per year

Average temperature - summer - 74 degrees / winter - 55 degrees

Average water temperature - 60 degrees (summer - 68 degrees / winter - 50 degrees)

Beach - 1.8 miles of frontage; 36.5 acres total

Bus lines - Beach Cities Transit - Line 109, LA Metro - Lines 130 & 232, LA DOT Commuter Express - Line 438

Churches - six

City budget - General Fund operating expenditures $40.0 million, capital improvements $20.1 million - Fiscal Year 2019-20

City date of incorporation - January 14, 1907

Elevation - 0 to 200 feet above sea level

Form of government - Council-City Manager

Hermosa Pier - 1,228 feet long with year round fishing

Hotels/motels - six and one youth hostel

Housing units - 10,026 (55.3% renter occupied, 44.7% owner occupied)

Library - Hermosa Library - Los Angeles County branch library

Location - 17 miles southwest of Los Angeles on southern end of Santa Monica Bay

Median age - 39.5

Median home value - $1,650,000

Median household income - $124,849 as of 2018 (source: Southern California Association of Governments)

Newspapers - Beach Reporter (weekly), Daily Breeze, Easy Reader (weekly), Los Angeles Times

Parking meters - 1,599

Parks - twenty including the 19.5 acre Hermosa Greenbelt

Population estimates - 19,847 as of 1/1/19 (source: California Department of Finance); 19,506 per 2010 U.S. Census.

School enrollment (public) - 1,361 (2017-18)

Schools - Hermosa Beach City School District - Hermosa View (TK-1), Hermosa Vista (2-4), and Hermosa Valley (5-8).

High schools - serviced by two out-of-city schools in Redondo Beach (Redondo Union) and Manhattan Beach (Mira Costa).

Private schools - Our Lady of Guadalupe Catholic school (pre-school to grade 8) and Fusion Academy (middle and high school students).

Sanitary sewers - 40.4 miles

Storm drains - 2.2 miles

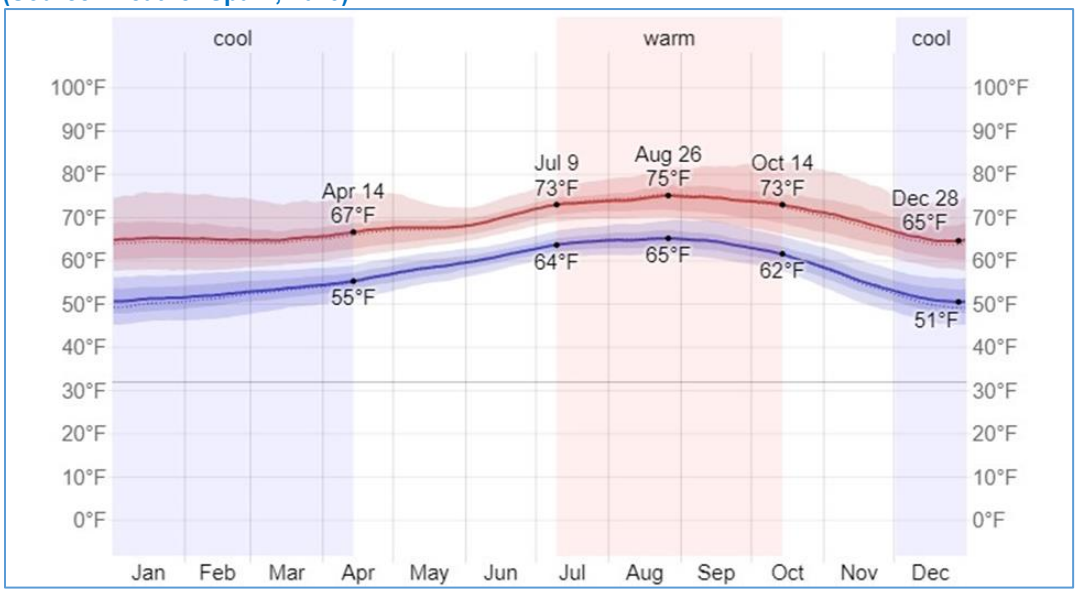
Streetlights - 400 City-owned, 904 utility-owned

Streets - 40 miles

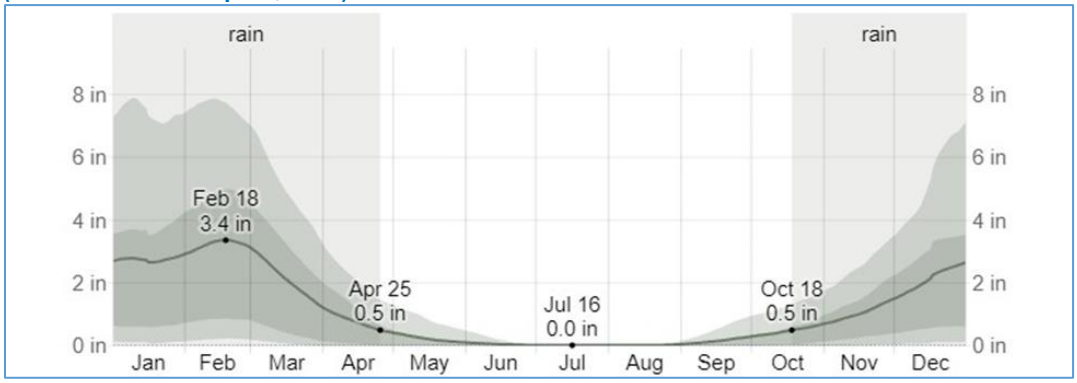
Climate

According to the National Weather Service, the area's climate is Mediterranean, like the rest of the Southern California region, with moderate temperatures, rainy winters and dry summers, supporting a wide range of imported vegetation.

Graph: Average High and Low Temperature for the City of Hermosa Beach (Source: Weather Spark, 2023)



Graph: Average Monthly Rainfall for the City of Hermosa Beach (Source: Weather Spark, 2023)



Transportation

Beach Cities Transit
Beach Cities Transit provides fixed route and dial-a-ride transit service in the South Bay. BCT Line 109 connects Riviera Village, Hermosa Beach, Manhattan Beach, El Segundo, Green Line Stations, and the LAX Bus Center.

Torrance Transit
Torrance Transit operates one bus route through Hermosa Beach. Torrance Transit Line 13 operates between Redondo Beach Pier and Artesia A (Blue) Line Station, serving major destinations that include Hermosa Beach Pier, South Bay Galleria, Harbor Gateway Transit Center, Dignity Health Sports Park, and California State University, Dominguez Hills.

LA Metro
LA Metro Bus Lines 130 & 232, and Metrolink.

LADOT Commuter Express
LA Commuter Express shuttles provide one-way limited stop transit service to job centers during commute hours through Commuter Express Line 438.

Senior and Disabled Transit Paratransit Service - Dial A Ride, Access Services, and Taxi Vouchers
Paratransit service, door-to-door service, is available to senior citizens and disabled persons. The City operates a voucher service for local paratransit service (within the City jurisdiction) for residents who are 62 years or older and/or disabled.

Annual Community Events

As identified in the Annual Budget and the City website, each year Hermosa Beach delivers a variety of recreational and leisure time activities to promote the well-being and enjoyment of life for its residents, as well as to light the way for more understanding among residents of its community's multitude of rich cultures. The following is a sampling of such events.

National Night Out – The event is an annual community-building campaign that promotes police-community partnerships and neighborhood camaraderie to make neighborhoods safer, more caring places to live. National Night Out enhances the relationship between neighbors and law enforcement while bringing back a true sense of community. Furthermore, it provides a great opportunity to bring police and neighbors together under positive circumstances.

Hermosa Beach Concert Series – The event provides free entertainment to the community in September, on the two Sundays following Labor Day, on the beach**.**

State of the City – The State of the City address allows city leaders update the residents on the progress for the city. This event is held in September.

Locale 90254: Oktober Fest – This event celebrates food, beer, entertainment and traditions. This event is held at the end of September/Beginning of October.

Hermosa for the Holidays – This event celebrates the start of the holiday season with a Tree Lighting Ceremony, family-fun activities, and a holiday open house. This event takes place in November.

Best of Hermosa – This event honors citizens, local businesses, new businesses, Chamber members, and non-profit organizations within the city. Nominations for awards are made for each category based on a number of criteria. This event takes place in February.

Sidewalk Sale – This event celebrates local businesses and brings families together through shopping, live music, and food. This event takes place in August.

Saint Patrick's Day Parade – This event celebrates Irish heritage and takes place in February.

Fiesta Hermosa - The Hermosa Beach Chamber of Commerce produces Fiesta Hermosa featuring food, crafts, entertainment and more and has been a fixture in the region for decades, welcoming thousands of visitors annually. The event takes place on Memorial Day (May).

Q&A | ELEMENT B: RISK ASSESSMENT | B-1-e.

Q: Does the plan include the probability of future events for each identified hazard? Does the plan describe the effects of future conditions, including climate change (e.g., long-term weather patterns, average temperature and sea levels), on the type, location and range of anticipated intensities of identified hazards?

A: See **Climate Change Vulnerability and Adaptation, Environmental Justice** below.

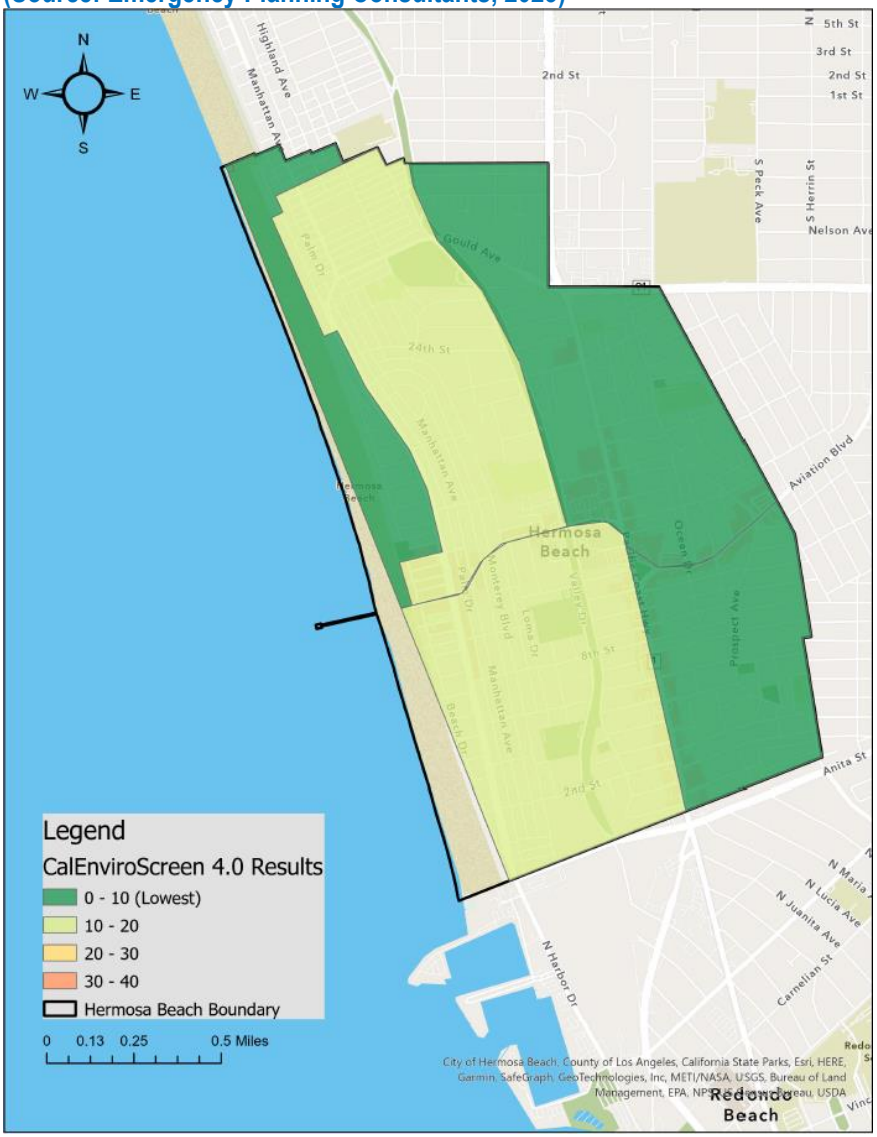
Government Code § 65302 requires the City to identify disadvantaged communities within its planning area. Should a disadvantaged community exist, the City must adopt an environmental justice element or integrate related environmental justice goals, policies, and objectives into other elements of the general plan. Health and Safety Code § 39711 requires the California Environmental Protection Agency to identify disadvantaged communities based upon geographic, socioeconomic, public health, and environmental hazard criteria. They may include, without limitation, areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation; and areas with concentrations of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment.

The California Environmental Protection Agency uses CalEnviroScreen to identify disadvantaged communities throughout California. CalEnviroScreen uses a variety of statewide indicators to characterize pollution burden (the average of exposures and environmental effects) and population characteristics (the average of sensitive populations and socioeconomic factors). The model scores each of the indicators using percentiles and combines the scores to determine a CalEnviroScreen score for a given census tract relative to others in the state. Designated disadvantaged communities are those communities that scored within the highest 25 percent of census tracts across California (CalEnviroScreen percentile scores of 75 or higher), in addition to other parameters relating to income status.

Map: Census Tracts in Hermosa Beach
(Source: Emergency Planning Consultants, 2023)

The City of Hermosa Beach is comprised of five census tracts as depicted on. There are no designated disadvantaged communities within the City.

Map: CalEnviroScreen 4.0 Percentile Hermosa Beach
(Source: Emergency Planning Consultants, 2023)

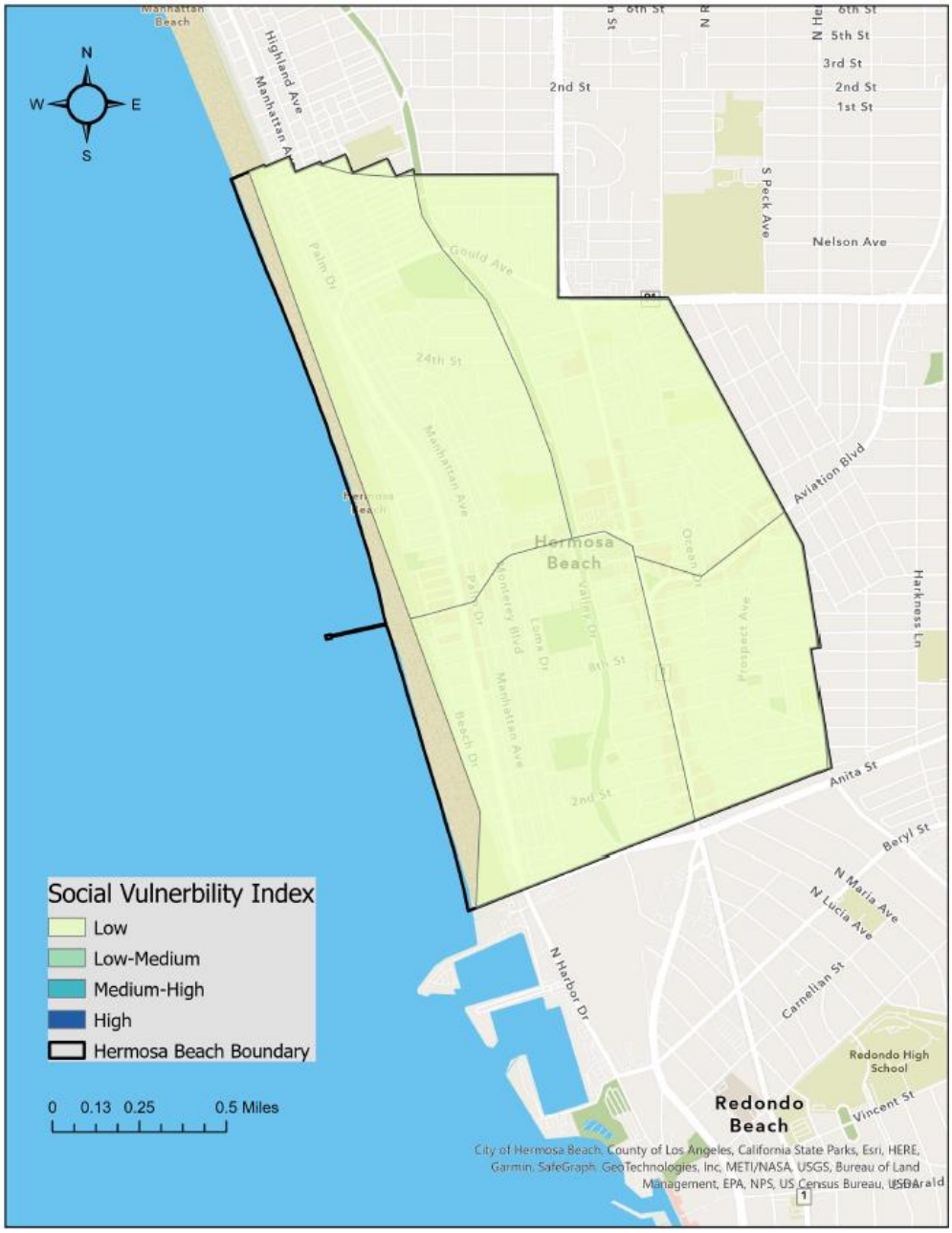


Social Vulnerability

Social vulnerability considerations were included in this plan to identify populations across the City that might be more vulnerable to hazards. Social Vulnerability refers to a community's capacity to prepare for and respond to the stress of hazardous events ranging from natural disasters such as tornadoes or disease outbreaks, to human caused threats such as toxic chemical spills (CDC/ATSDR, 2020). To better assist emergency planners, the CDC Agency for Toxic Substances and Disease Registry (CDC/ATSDR) developed the Social Vulnerability Index (SVI) as a way to depict the social vulnerability of communities, as the census tract level within a specified county. Tracts with a higher SVI will likely need support before, during and after a hazardous event. The SVI can help public health officials and local planners better prepare for and respond to emergency events by displaying what areas of the jurisdiction has a high vulnerability ranking to low vulnerability ranking.

Map: Social Vulnerability Index for Hermosa Beach depicts the dispersion of socially vulnerable populations within the City of Hermosa Beach. The 4 census tracts within the City Boundary have a low SVI as indicated by the light green shading.

Map: Social Vulnerability Index for Hermosa Beach
(Source: Emergency Planning Consultants, 2023)

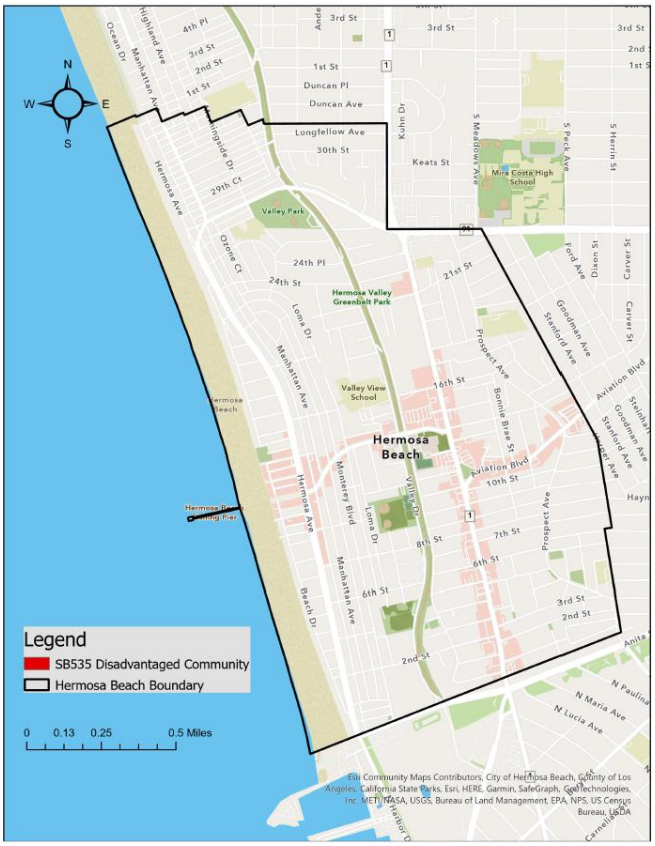


Identification of Disadvantaged Communities

Senate Bill 1000 defines “disadvantaged communities” as areas identified by the California Environmental Protection Agency pursuant to Section 39711 of the Health and Safety Code or as an area that is low-income that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation. To assist in identifying disadvantaged communities, the State has provided a mapping tool called “CalEnviroScreen.” CalEnviroScreen uses several factors, called “indicators” that have been shown to determine whether a community is disadvantaged and disproportionately affected by pollution. Pollution burden indicators measure different types of pollution that residents may be exposed to, and the proximity of environmental hazards to a community. Population characteristics represent characteristics of the community that can make them more susceptible to environmental hazards.

CalEnviroScreen provides an overall percentile score determined by combining weighted individual scores for all the individual indicators analyzed. SB 1000 considers a 75 percent or higher score in this category to be a qualifier for consideration as a disadvantaged community. The overall scores are represented in a statewide map, with red representing the highest percentile range and green representing the lowest. Areas with higher scores generally experience higher pollution burdens and fare less well on a range of health and socioeconomic indicators than areas with low scores. Census tracts in Hermosa Beach score between 0 and 20 percent overall for pollution.

The City of Hermosa Beach is not considered a disadvantaged community based on the CalEnviroScreen scores.



Climate Vulnerability Assessment

According to “California’s Fourth Climate Change Assessment” developed by the State of California, continued climate change will have a severe impact on California. Increased temperatures, drought, wildfires, and sea level rise are several of the main concerns related to climate change in the Southwest. Other impacts anticipated from climate change include food insecurity, increases in vector-borne diseases, degradation of air quality, reduced ability to enjoy outdoors, and potential economic impacts due to uncertainty and changing conditions.

Climate change disproportionately affects those with existing disadvantages. Low-income communities and communities of color often live in areas with conditions that expose them to more severe hazards, such as higher temperatures and worse air quality. These communities also have fewer financial resources to adapt to these hazards. For instance, low-income populations may reduce air conditioning usage out of concerns about cost. Outdoor workers, individuals with mobility constraints, and sensitive populations such as the very young, elderly, and poor, as well as those with chronic health conditions, are particularly at risk from climate change hazards.

To understand how climate change might affect the City of Hermosa Beach, the Cal-Adapt tool was used to analyze data. “Cal-Adapt provides a way to explore peer-revied data that portrays how climate change might affect California at the state and local level” (cal-adapt.com). Below is a summary of the data reviewed for the City of Hermosa Beach.

Increased Temperature: Annual temperatures in the City are expected to rise steadily through the end of the century. The City’s historical average maximum temperature is based on data from 1961-1990, is 70.6°F. Under the medium emissions scenario, the average annual maximum temperature is projected to increase to 73.5°F. The annual average maximum temperature under the high-emission scenario is projected to increase to 77.3°F between 2070 and 2099.

More Extreme Heat Days: Extreme Heat Days occur when the maximum temperature is above 100.5°F. Historically Hermosa Beach has experienced an average of 2 extreme heat days per year. By mid-century, 2025-2064, the annual number of extreme heat days is expected to rise to 5 under medium emission scenarios and 6 under high emission scenarios. By the end of the centuries, 2070 and 2099, the number of extreme heat days is expected to rise to 6 days under the medium emission scenarios and 14 days under the high emissions scenarios.

Slight Increase Annual Precipitation: Historically the City has experienced an annual average of 13.0 inches of precipitation. Annual precipitation is expected to slightly increase during the mid-century. Under both the medium emissions scenario and high emissions scenario, it is expected that the annual precipitation will remain steady at 12.8 inches. By the end of the century annual precipitation is expected to remain steady at 13.1 inches under the medium emissions scenario and 12.8 inches under the high emissions scenario.

Longer and More Extreme Droughts: the City can expect to see a 9.4% increase in average temperature and a 20.9% decrease in precipitation during drought conditions. This will lead to longer, more extreme droughts by mid-century.

Steady Wildfire Threat: Based on historical data from 1961–1990, Los Angeles County experiences a decadal average loss of 4,436.1 hectares to wildfire. The probability that a wildfire will occur in any one year over a10-year period, known as the decadal probability, is projected to remain constant through 2099 under both high-emissions and low emissions scenarios. Under

the low-emissions scenario, the decadal average loss to wildfire is expected to increase to 5,719.2 hectares by mid-century and 5662.9 hectares by 2099. Under the high-emissions scenario, the decadal average loss to wildfire is projected to rise to 5,579.7 hectares by 2065 and 5,275.4 hectares by the end of the century.

Risk Assessment

What is a Risk Assessment?

Conducting a risk assessment can provide information regarding: the location of hazards; the value of existing land and property in hazard locations; and an analysis of risk to life, property, and the environment that may result from natural hazard events. Specifically, the five levels of a risk assessment are as follows:

1. *Hazard Identification*
2. *Profiling Hazard Events*
3. *Vulnerability Assessment/Inventory of Existing Assets*
4. *Risk Analysis*
5. *Assessing Vulnerability/Analyzing Development Trends*

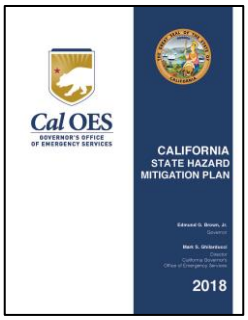
Q&A | ELEMENT B: RISK ASSESSMENT | B1-a.

Q: Does the plan describe all natural hazards that can affect the jurisdiction(s) in the planning area, and does it provide the rationale if omitting any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area? (Requirement 44 CFR § 201.6(c)(2)(i))

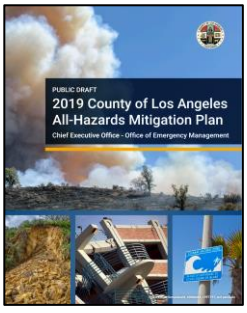
A: See **Hazard Identification** below.

1) Hazard Identification

This section is the description of the geographic extent, potential intensity, and the probability of occurrence of a given hazard. Maps are used in this plan to display hazard identification data. To determine the hazard with significant potential to impact the Planning Team examined three resources: California's 2018 State Hazard Mitigation Plan, 2019 County of Los Angeles All-Hazards Mitigation Plan, and the City's General Plan (2017).



The 2018 State HMP identified hazards posing a threat to communities within the state boundaries. Those hazards include Earthquakes, Floods, Levee Failures, Wildfires, Landslides and Earth Movements, Tsunami, Climate-Related Hazards, Volcanoes, and Other Hazards.



The 2019 County of Los Angeles AHMP identified hazards posing a threat to communities within the county's boundary. Those hazards include Earthquake, Climate Change, Flood, Dam Failure, Drought, Landslide, Tsunami, and Wildfire.

The City's General Plan (2017) identified hazards posing a threat to neighborhoods and communities within the city boundaries. State law requires every Safety Element to consider the following: a) the identification, mapping, and appraisal of seismic hazards that should be of concern to planning and future development, including areas subject to liquefaction, ground-shaking, surface rupture or seismic sea waves (Government Code Section 65302(f)); b) an appraisal of mudslides, landslides, and slope stability that might occur as a result of seismic disturbance (Government Code Section 65302(f)); and c) the identification of the potential for fires and other natural and manmade disasters and measures designed to reduce the loss of life, injury, and damage to property (Government Code Section 65302(i)). The natural hazards discussed in the City's Public Safety

Element include: Severe Weather, Flooding and Coastal Flooding, Geologic and Seismic, Tsunamis, Shoreline Erosion, Fire, and Climate Change.

Next, the Planning Team reviewed a range of documents to determine which of the hazards posed the most significant threat to the project area and its ability to deliver services. In other words, which hazard would likely result in a local declaration of emergency.

The geographic extent of each of the identified hazards was identified by the Planning Team utilizing maps and data contained in the 2019 County of Los Angeles All-Hazards Mitigation Plan and the 2017 General Plan - Public Safety Element.

The following hazards identified in the AHMP that have been omitted from inclusion in Hermosa Beach's HMP:

- ✓ Dam Failure – Given Hermosa Beach's distance from a dam or significant reservoir, the Planning Team determined there was no need to address dam failure as a hazard.
- ✓ Wildfire – Given the distance from any wildland fire interface areas, the Planning Team determined the risk was ranked as low and therefore not profiled.

The following hazards identified in the 2019 County of Los Angeles AHMP have been reorganized in the 2023 Hermosa Beach HMP:

- ✓ Climate Change – Rather than a standalone hazard, the Planning Team chose to address climate change in each of the Hazard- Specific Sections.
- ✓ Drought – Rather than a standalone hazard, the Planning Team chose to include drought in a new Weather Hazards Section.

Based on the reasoning above and discussion by the Planning Team, the following hazards were identified for research and analysis:

Earthquake – Flood – Tsunami – Weather – Disease

Next, the Planning Team utilized FEMA's Calculated Priority Risk Index (CPRI) ranking technique to quantify the probability, maximum strength, during, and warning time for each of the hazards. The hazard ranking system is described in **Table: Calculated Priority Risk Index**, while the actual ranking is shown in **Table: Calculated Priority Risk Index Ranking for the City of Hermosa Beach.**

Table: Calculated Priority Risk Index
(Source: Federal Emergency Management Agency)

CPRI Category	Degree of Risk			Assigned Weighting Factor
	Level ID	Description	Index Value	
Probability	Unlikely	Extremely rare with no documented history of occurrences or events. Annual probability of less than 1 in 1,000 years.	1	45%
	Possibly	Rare occurrences. Annual probability of between 1 in 100 years and 1 in 1,000 years.	2	
	Likely	Occasional occurrences with at least 2 or more documented historic events. Annual probability of between 1 in 10 years and 1 in 100 years.	3	
	Highly Likely	Frequent events with a well-documented history of occurrence. Annual probability of greater than 1 every year.	4	
Magnitude/ Severity	Negligible	Negligible property damage (less than 5% of critical and non-critical facilities and infrastructure. Injuries or illnesses are treatable with first aid and there are no deaths. Negligible loss of quality of life. Shut down of critical public facilities for less than 24 hours.	1	30%
	Limited	Slight property damage (greater than 5% and less than 25% of critical and non-critical facilities and infrastructure). Injuries or illnesses do not result in permanent disability, and there are no deaths. Moderate loss of quality of life. Shut down of critical public facilities for more than 1 day and less than 1 week.	2	
	Critical	Moderate property damage (greater than 25% and less than 50% of critical and non-critical facilities and infrastructure). Injuries or illnesses result in permanent disability and at least 1 death. Shut down of critical public facilities for more than 1 week and less than 1 month.	3	
	Catastrophic	Severe property damage (greater than 50% of critical and non-critical facilities and infrastructure). Injuries and illnesses result in permanent disability and multiple deaths. Shut down of critical public facilities for more than 1 month.	4	
Warning Time	> 24 hours	Population will receive greater than 24 hours of warning.	1	15%
	12–24 hours	Population will receive between 12-24 hours of warning.	2	
	6-12 hours	Population will receive between 6-12 hours of warning.	3	
	< 6 hours	Population will receive less than 6 hours of warning.	4	
Duration	< 6 hours	Disaster event will last less than 6 hours.	1	10%
	< 24 hours	Disaster event will last less than 6-24 hours.	2	
	< 1 week	Disaster event will last between 24 hours and 1 week.	3	
	> 1 week	Disaster event will last more than 1 week.	4	

Table: Calculated Priority Risk Index Ranking for the City of Hermosa Beach (Source: City of Hermosa Beach Planning Team)

Hazard	Probability	Weighted 45% (x.45)	Magnitude Severity	Weighted 30% (x.3)	Warning Time	Weighted 15% (x.15)	Duration	Weighted 10% (x.1)	CPRI Total	Hazard Priority Ranking (H-High, M-Medium, L-Low) *
Earthquake	3	1.35	4	1.20	4	.60	1	.10	3.25	**H**
Flood	2	.90	3	.90	3	.45	2	.20	2.45	**M**
Tsunami	2	.90	3	.90	3	.45	2	.20	2.45	**M**
Weather	2	.90	3	.90	3	.45	2	.20	2.45	**M**
Disease	2	.90	3	.90	3	.45	2	.20	2.45	**M**
Wildfire	1	.45	2	.60	3	.45	2	.20	1.70	**L**

***Hazard Priority Ranking**
High=CPRI score for probability + magnitude/severity (impact) = 6 or higher
Medium=CPRI score for probability + magnitude/severity (impact) = 5
Low=CPRI score for probability + magnitude/severity (impact) = 3 or 4
N/A=CPRI score for probability + magnitude/severity (impact) = 2

2) Profiling Hazard Events

This process describes the causes and characteristics of each hazard and what part of the City of Hermosa Beach facilities, infrastructure, and environment may be vulnerable to each specific hazard. Although FEMA regulations require profiling of only the hazards prioritized as "high", the Planning Team chose to also profile the hazards ranked as "medium" in the CPRI. The profiled hazards are discussed in detail in its own hazard-specific analysis contained later in the **Risk Assessment**. **Table: Hazard Profile of Location, Extent, Probability, Occurrence for the City of Hermosa Beach** indicates a generalized perspective of the community's vulnerability of the various hazards according to extent (or degree), location, and probability.

Q&A | ELEMENT B: RISK ASSESSMENT | B1-a.

Q: Does the plan describe all natural hazards that can affect the jurisdiction(s) in the planning area, and does it provide the rationale if omitting any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area? (Requirement 44 CFR § 201.6(c)(2)(i))

A: See **Table: Hazard Profile of Location, Extent, Probability, Occurrence for the City of Hermosa Beach** below.

Q&A | ELEMENT B: RISK ASSESSMENT | B1-b.

Q: Does the plan include information on the location of each identified hazard? (Requirement 44 CFR § 201.6(c)(2)(i))

A: See **Table: Hazard Profile of Location, Extent, Probability, Occurrence for the City of Hermosa Beach** below.

Q&A | ELEMENT B: RISK ASSESSMENT | B1-c.

Q: Does the plan describe the extent for each identified hazard? (Requirement 44 CFR § 201.6(c)(2)(i))
A: See **Table: Hazard Profile of Location, Extent, Probability, Occurrence for the City of Hermosa Beach** below.

Q&A | ELEMENT B: RISK ASSESSMENT | B1-d.

Q: Does the plan include the history of **previous** hazard events for each identified hazard? (Requirement 44 CFR § 201.6(c)(2)(i))
A: See **Table: Hazard Profile of Location, Extent, Probability, Occurrence for the City Hermosa Beach** below.

Q&A | ELEMENT B: RISK ASSESSMENT | B1-e.

Q: Does the plan include the probability of future events for each identified hazard? Does the plan describe the effects of future conditions, including climate change (e.g., long-term weather patterns, average temperature and sea levels), on the type, location and range of anticipated intensities of identified hazards? (Requirement 44 CFR § 201.6(c)(2)(i))
A: See **Table: Hazard Profile of Location, Extent, Probability, Occurrence for the City of Hermosa Beach** below.

Table: Hazard Profile of Location, Extent, and Probability for the City of Hermosa Beach (Source: General Plan 2040, Planning Team)

Hazard	Location (Where)	Extent (How Big)	Probability (How Often) *	Previous Occurrence (Recent Significant Damage)
Earthquake	Citywide	The Southern California Earthquake Center (SCEC) in 2007 concluded that there is a 99.7 % probability that an earthquake of M6.7 or greater will hit California within 30 years. Earthquake would most likely originate from the San Andreas fault.	Likely	The most recent damaging earthquake was the M6.7 Northridge Earthquake in 1994.
Flood	Citywide	Storm surge from tropical systems could result in coastal flooding. During extreme rain events combined with blocked storm drains could result in urban flooding.	Possible	2017 Los Angeles County Proclamation seeking FEMA Public Assistance.
Tsunami	Coastline and parcels along Hermosa Avenue		Possible	No recent tsunami of significance
Weather	Citywide	Hermosa Beach is subject to heavy precipitation, thunderstorms, hailstorms, and tropical systems. Seasonal events include La Nina and El Niño.	Possible	On August 21, 2023, Tropical Storm Hilary brought heavy rainfall and tropical storm conditions to Southern California.
Disease	Citywide		Possible	2020 COVID-19 Pandemic caused severe local and global impacts. Locally, Los

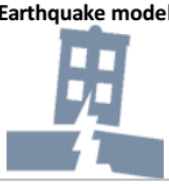
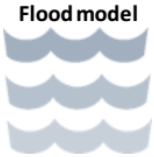
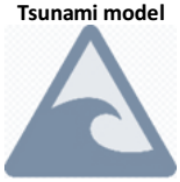
Hazard	Location (Where)	Extent (How Big)	Probability (How Often) *	Previous Occurrence (Recent Significant Damage)
				Angeles County had 3,603,982 cases and 34,947 deaths related to COVID-19.
* Probability is defined as: Unlikely = 1:1,000 years, Possibly = 1:100-1:1,000 years, Likely = 1:10-1:100 years, Highly Likely = 1:1 year				
[1] Uniform California Earthquake Rupture Forecast				

HAZUS-MH

The hazard maps in the Mitigation Plan were generated by Emergency Planning Consultants using FEMA's Hazards United States – Multi Hazard (HAZUS-MH) software program. Please see **Attachments – HAZUS** for complete reports. Once the location and size of a hypothetical earthquake are identified, HAZUS-MH estimates the intensity of the ground shaking, the number of buildings damaged, the number of casualties, the amount of damage to transportation systems and utilities, the number of people displaced from their homes, and the estimated cost of repair and clean up. It's important to note that the "project are" is based on Census Tracts not jurisdictional boundaries.

As per FEMA's HAZUS Guidebook, HAZUS is a GIS-based software that can be used to estimate potential damage, economic loss, and social impacts from earthquakes, flooding, tsunami and hurricane wind hazards. The HAZUS software includes nationwide general GIS datasets, and a model for the four natural disasters below. The model results can support the risk assessment piece of mitigation planning.

Graphic: Model Results to Support Risk Assessment for Mitigation Planning
(Source: Using HAZUS for Mitigation Planning, Federal Emergency Management Agency, 2018)

Earthquake model 	Estimates damages and losses to buildings, essential facilities, transportation, and utility lifelines from a single scenario or probabilistic earthquake analysis. There are also tools that allow the user to integrate earthquake hazard data generated outside of Hazus into the earthquake model. This model estimates debris generation, shelter requirements, casualties, and fire following an earthquake disaster.
Flood model 	Generates flood hazard data using nationwide hydrological datasets. There are also tools that allow the user to integrate flood hazard data generated outside of Hazus software into the flood model. This model estimates the expected levels of damage to infrastructure and buildings. Debris generation and shelter requirements, as well as agricultural losses, can be calculated with this model.
Tsunami model 	Can produce analyses that have several pre-tsunami and/or post-tsunami applications. Use of the methodology will generate an estimate of the consequences to a county or region of a "scenario tsunami," i.e., a tsunami with a specified inundation depth, velocity, and location. The resulting "loss estimate" generally will describe the scale and extent of damage and disruption that may result from the scenario tsunami.
Hurricane wind model 	Can create the wind hazard data from a historical or real-time event, probabilistic event, or from a user-defined scenario. Estimates of potential damage and economic loss to buildings can then be calculated. The storm surge analysis combines the wind and coastal flood model to simulate storm surge for historical, and manual hurricanes. The model combines the wind and flood losses.

HAZUS is packaged with datasets that include building inventories and infrastructure for the entire United States. Because HAZUS is currently built on GIS technology, the inventory and infrastructure datasets can be mapped and intersected with the hazard information created from the four models.
Following the intersection, HAZUS determines the effects of wind, ground shaking, and water depths on buildings and infrastructure to calculate losses and damages. The outputs and estimates can be used in hazard mitigation planning, emergency response, and planning for recovery and reconstruction.

Losses estimated in HAZUS are based on the accuracy of input data. Basic analysis can be developed using the default data and parameter data provided within HAZUS. Users can conduct more advanced analysis using more accurate data that is specific to the region, hazard, population, etc. User-supplied data improves the accuracy of inventories and/or parameters.

Advanced-level analyses may also incorporate data from third-party studies. The user must determine the appropriate level of analysis to meet the user's needs and resources.

HAZUS analysis can be performed at three different levels:

• A Level 1 basic analysis can be performed simply using the default data provided. This level of analysis is very coarse, and because the results will be subject to a much higher level of uncertainty, this should serve primarily as a baseline for further study. The user will still be able to produce basic maps and results. Limited additional data will be required to complete the flood analysis. Site specific input data produces more accuracy in vulnerability identification and loss estimation amounts. If the data is available, it is highly

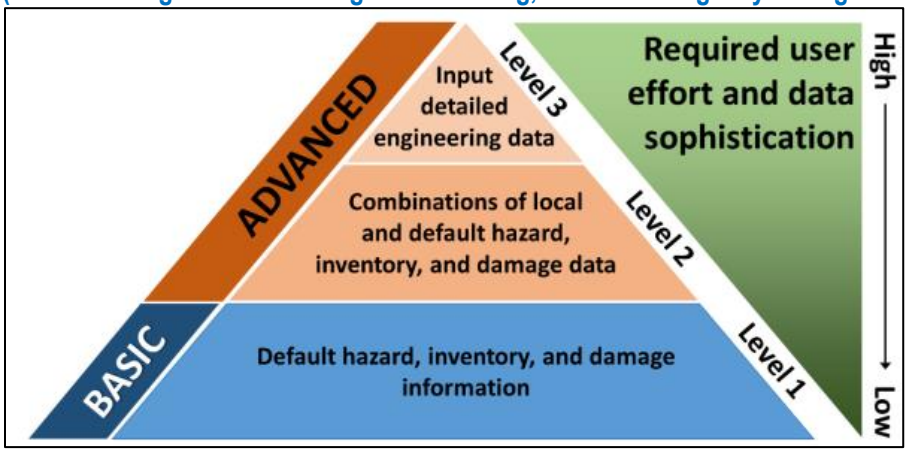
recommended that a user integrate site specific data to reduce uncertainty associated with the results of default data. Using a user defined depth grid, in the flood model, against default state data is classified as a level 1 analysis and is the recommendation of HAZUS Program.

• A Level 2 advanced analysis increases the accuracy and precision of an analysis by incorporating user-supplied data relevant to a given hazard. While the data included with the HAZUS software can be utilized to run a basic level one analysis, level two inputs are supplied by local sources and contain a higher level of detail. This can include datasets that model the hazards in more detail, or datasets that increase the accuracy of the inventory information. Incorporating more detailed data will improve the quality of the results. Level 2 is broadly defined as the incorporation of user-defined hazard and updated GBS or site-specific data.

• A Level 3 advanced analysis achieves the highest degree of precision and involves modifying or substituting the model parameters and/or equations, relevant to a given hazard. Users can modify inputs depending on the time and resources available. Keeping track of the data used is suggested so that any relationships between input and results is documented. It is usually done by advanced users experienced with both the hazard and the HAZUS software.

FEMA's Natural Hazard Risk Assessment Program (NHRAP) encourages users to conduct Level 2 or 3 analyses to improve the accuracy of results and recommends the use of user defined data (e.g., depth grids for all flood analysis) for mitigation planning.

Graphic: HAZUS Analysis Levels
(Source: Using HAZUS for Mitigation Planning, Federal Emergency Management Agency, 2018)



HAZUS creates credible estimates for losses and damages; datasets created on the local level typically provide greater detail than the datasets that are packaged with HAZUS (Level 1). Incorporating local datasets into the analysis will improve the results.

HAZUS Outputs

The user plays a major role in selecting the scope and nature of the output of a HAZUS analysis. A variety of maps can be generated for visualizing the extent of the losses. Numerical results may be examined at the level of the census block or tract or may be aggregated by county or

region. There are three main categories of HAZUS outputs: direct physical damage, induced damage, and direct losses. Direct physical damage includes general building stock (GBS), essential facilities, high potential loss facilities, transportation systems, utility systems, and user defined facilities. Induced damage includes building debris, tree debris generation and fire following disaster occurrence. Direct losses include losses for buildings, contents, inventory, income, crop damage, vehicle loss, injuries, casualties, sheltering needs and displaced households.

Graphic: HAZUS Outputs
(Source: Using HAZUS for Mitigation Planning, Federal Emergency Management Agency, 2018)

Hazus Capabilities	**Earthquake** Ground Shaking Ground Failure	**Flood** Frequency | Depth Riverine | Coastal Surge	**Hurricane** Wind | Surge	**Tsunami** Depth | Momentum Flux | Runup | Velocity
Inputs				
Historic	✓		✓	
Deterministic	✓	✓	✓	✓
Probabilistic	✓	✓	✓	
User-supplied	✓	✓	✓	✓
Other supported inputs	Real-time & scenario USGS ShakeMaps	Risk MAP, User-supplied depth grids (ArcGRID, GeoTIFF, IMAGINE), HEC-RAS (.FLT)	Hurrevac, User-supplied wind files (.dat)	NOAA PMEL SIFT, State models
Direct Damage				
General Building Stock	✓	✓	✓	✓
Essential Facilities	✓	✓	✓	
Transportation Systems	✓	✓		
Utility Systems	✓	✓		
User-Defined Facilities	✓	✓	✓	✓
Induced Damage				
Fire Following	✓			
Debris Generation	✓	✓	✓	
Direct Losses				
Cost of Repair	✓	✓	✓	✓
Income Loss	✓	✓	✓	✓
Agricultural		✓		
Casualties	✓			✓
Shelter and/or Evacuation Needs	✓	✓	✓	✓
Average Annualized Loss (AAL)	✓	✓	✓	

3) Vulnerability Assessment/Inventory of Existing Assets

A Vulnerability Assessment in its simplest form is a simultaneous look at the geographical location of hazards and an inventory of the underlying land uses (populations, structures, etc.). Facilities that provide critical and essential services following a major emergency are of particular concern because these locations house staff and equipment necessary to provide important public safety, emergency response, and/or disaster recovery functions.

Q&A | ELEMENT B: RISK ASSESSMENT | B2-a.

Q: Does the plan provide an overall summary of each jurisdiction's vulnerability to the identified hazards? (Requirement 44 CFR § 201.6(c)(2)(ii))

A: See **Hazard Proximity to Critical Facilities** below.

Critical Facilities

FEMA separates critical buildings and facilities into the five categories shown below based on their loss potential. All of the following elements are considered critical facilities:

Essential Facilities are essential to the health and welfare of the whole population and are especially important following hazard events. Essential facilities include hospitals and other medical facilities, police and fire stations, emergency operations centers and evacuation shelters, and schools.

Transportation Systems include airways – airports, heliports; highways – bridges, tunnels, roadbeds, overpasses, transfer centers; railways – trackage, tunnels, bridges, rail yards, depots; and waterways – canals, locks, seaports, ferries, harbors, drydocks, piers.

Lifeline Utility Systems such as potable water, wastewater, oil, natural gas, electric power and communication systems.

High Potential Loss Facilities are facilities that would have a high loss associated with them, such as nuclear power plants, dams, and military installations.

Hazardous Material Facilities include facilities housing industrial/hazardous materials, such as corrosives, explosives, flammable materials, radioactive materials, and toxins.

Table: Hazard Proximity to Critical Facilities below illustrates the hazards with potential to impact critical facilities owned by or providing services to the City of Hermosa Beach.

Table: Hazard Proximity to Critical Facilities
(Source: Planning Team, Emergency Planning Consultants, 2023)
(Note: "X" indicates affirmative to vulnerability. Weather determinations were based on input from the Planning Team, Flood determinations were based on FEMA FIRM maps, Tsunami determination was based on tsunami inundation maps.)

Critical Facilities	Earthquake	Weather	Flood	Tsunami	Disease
CITY OF HERMOSA BEACH					
City Hall Complex (City Hall and Police Department) Address: 1315 Valley Drive and 540 Pier Avenue # of Buildings: 2 Staff: 113 Structure Value: $10,807,285 Content Value: $868,060	X	X			X
Hermosa Beach Police Department **(Community Services Building)** Address: 1035 Valley Drive # of Buildings: 1 Staff: 17 Structure Value: $884,992 Content Value: $116,268	X	X			X
Hermosa Beach Public Works Yard Address: 555 6th Street # of Buildings: 5 Staff: 15 Structure Value: $2,048,801 Content Value: $555,378	X	X			X
Hermosa Beach Community Center & Emergency Operations Center Address: 710 Pier Avenue # of Buildings: 3 Staff: 9 full-time (28 part-time staff) Structure Value: $15,864,380 Content Value: $912,084	X	X			X
Clark Building Address: 861 Valley Drive # of Buildings: 2 Staff: 0 Structure Value: $1,644,684 Content Value: $14,675	X	X			X
South Park Building Address: 425 Valley Drive # of Buildings: 1 Staff: 0 Structure Value: $1,523,902 Content Value: $0	X	X			X

Critical Facilities	Earthquake	Weather	Flood	Tsunami	Disease
Los Angeles County Fire Station 100 (City owned) Address: 540 Pier Avenue, Hermosa Beach # of Buildings: 1 Staff: 5 Structure Value: $1,739,505 Content Value: Property of Los Angeles County Fire Department	X	X			X

Q&A | ELEMENT D: PLAN UPDATE | E1-a.

Q: Does the plan describe the changes in development that have occurred in hazard-prone areas that have increased or decreased each community's vulnerability since the previous plan was approved? (Requirement 44 CFR § 201.6(d)(3))

A: See **Changes in Development** below.

Changes in Development

According to the 2017 General Plan (PLAN Hermosa) Land Use Element, many land use changes are in store for the City over the years to come. There are no changes to locations allowing development. However, the City must continue to plan for all existing areas that may be vulnerable to hazards.

Earthquake Hazards

Hazard Definition

An earthquake is a sudden motion or trembling that is caused by a release of strain accumulated within or along the edge of the Earth's tectonic plates. The effects of an earthquake can be felt far beyond the site of its occurrence. They usually occur without warning and, after just a few seconds, can cause massive damage and extensive casualties. Common effects of earthquakes are ground motion and shaking, surface fault ruptures, and ground failure.

One tool used to describe earthquake intensity is the Magnitude Scale. The Magnitude Scale is sometimes referred to as the Richter Scale. The two are similar but not exactly the same. The Magnitude Scale was devised as a means of rating earthquake strength and is an indirect measure of seismic energy released. The Scale is logarithmic with each one-point increase corresponding to a 10-fold increase in the amplitude of the seismic shock waves generated by the earthquake. In terms of actual energy released, however, each one-point increase on the Richter scale corresponds to about a 32-fold increase in energy released. Therefore, a Magnitude 7 (M7) earthquake is 100 times (10 X 10) more powerful than a M5 earthquake and releases 1,024 times (32 X 32) the energy.

Table: Mercalli Scale and Peak Ground Acceleration Comparison (Source: USGS)

Modified Mercalli Scale	Perceived Shaking	Potential Structure Damage		Estimated PGA[a] (%g)
		Resistant Buildings	Vulnerable Buildings	
I	Not Felt	None	None	<0.17%
II-III	Weak	None	None	0.17% - 1.4%
IV	Light	None	None	1.4% - 3.9%
V	Moderate	Very Light	Light	3.9% - 9.2%
VI	Strong	Light	Moderate	9.2% - 18%
VII	Very Strong	Moderate	Moderate/Heavy	18% - 34%
VIII	Severe	Moderate/Heavy	Heavy	34% - 65%
IX	Violent	Heavy	Very Heavy	65% - 124%
X – XII	Extreme	Very Heavy	Very Heavy	>124%

a. PGA = peak ground acceleration. Measured in percent of g, where g is the acceleration of gravity

Sources: USGS, 2008; USGS, 2010

Q&A | ELEMENT B: RISK ASSESSMENT | B1-d.

Q: Does the plan include the history of previous hazard events for each identified hazard? (Requirement 44 CFR § 201.6(c)(2)(i))

A: See **Previous Occurrences of Earthquakes in the City of Hermosa Beach** below.

Previous Occurrences of Earthquakes in the City of Hermosa Beach

According to the General Plan – Safety Element, the City has experienced ground shaking form a number of seismic events over the last century and a half. The most recent earthquake event that caused damage to the City was the Northridge Earthquake in 1994. Damage to City-owned facilities was minimal.

Previous Occurrences of Earthquakes in Los Angeles County

According to the County of Los Angeles All-Hazards Mitigation Plan (2019), significant earthquakes in the county over the past 50 years included the following:

Table: Previous Earthquakes in Los Angeles County
(Source: 2019 County of Los Angeles HMP)

Date	Location	Impact
July 6, 2019	Ridgecrest (M 7.1)	Fires reported as a result of gas leaks. No reported major injuries, deaths or major building damage.
March 28, 2014	La Habra (M 5.1)	Few injuries and $10 million in damages.
July 29, 2008	Chino Hills (M 5.5)	8 injuries and limited damages.
January 17, 1994	Northridge (M 6.7)	57 deaths, 8,700 injuries and up to $40 billion in damages.
June 28, 1991	Sierra Madre (M 5.6)	1 death, 100+ injuries and up to $40 million in damages.
February 28, 1990	Upland (M 5.7)	30 injuries and $12.7 million in damages.
October 1, 1987	Whitter (M 5.9)	8 deaths, 200 injuries and $358 million in damages.
February 9, 1971	San Fernando (M 6.6)	58 – 65 deaths, 200 – 2,000 injuries and up to $553 million in damages.

Q&A | ELEMENT B: RISK ASSESSMENT | B1-a.

Q: Does the plan describe all natural hazards that can affect the jurisdiction(s) in the planning area, and does it provide the rationale if omitting any natural hazards that are commonly recognized the jurisdiction(s) in the planning area? (Requirement 44 CFR § 201.6(c)(2)(i))

A: See **Local Conditions** below.

Q&A | ELEMENT B: RISK ASSESSMENT | B1-b.

Q: Does the plan include information on the location of each identified hazard? (Requirement 44 CFR § 201.6(c)(2)(i))

A: See **Local Conditions** below.

Local Conditions

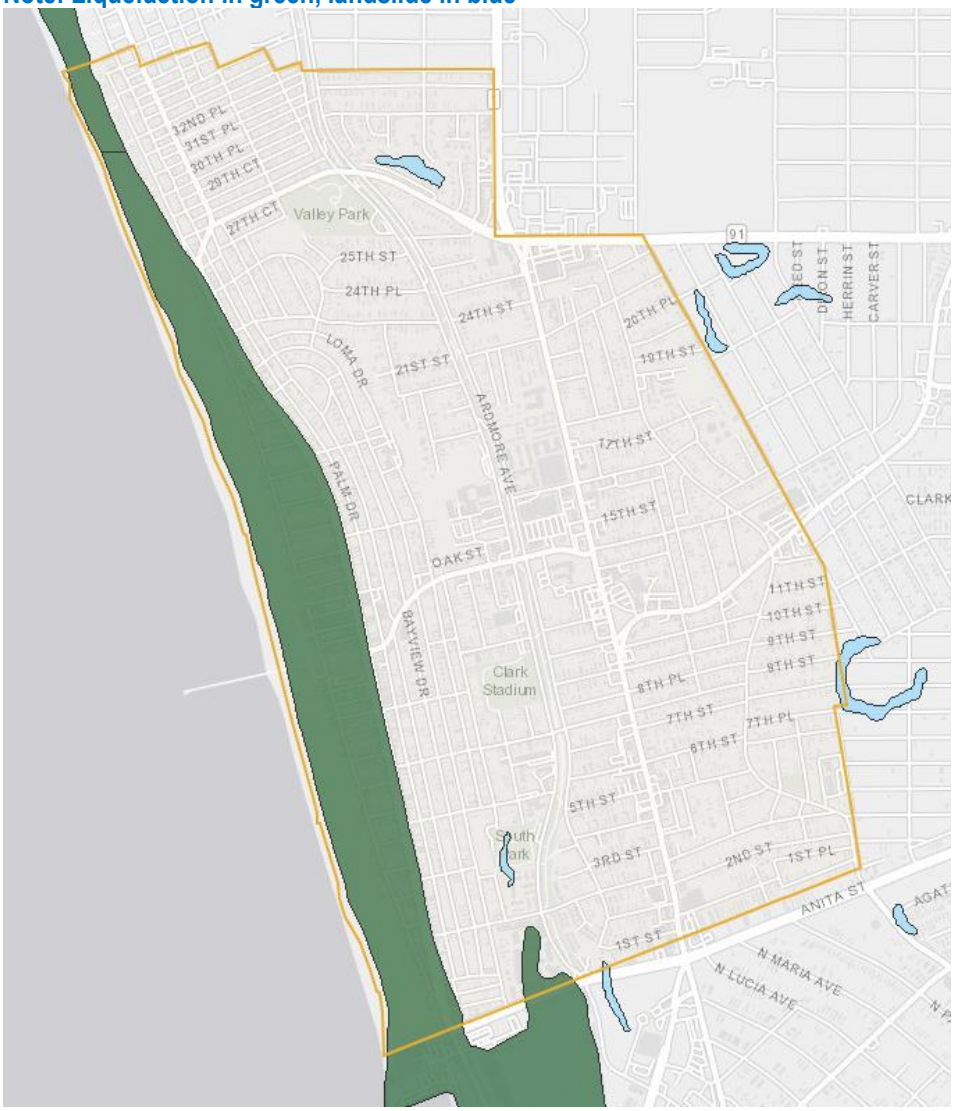
According to the General Plan – Safety Element, Hermosa Beach is located in a seismically active region; however, there are no known active faults the run through the city and the city is not susceptible to fault rupture. There are three active faults near the City that can cause ground shaking in Hermosa Beach. These faults include Newport-Inglewood, Palos Verdes, and Redondo Canyon faults.

Landslide and liquefaction are the other hazards related to earthquakes. A landslide is the downhill movement of masses of earth material under the force of gravity. Factors contributing to landslide potential include steep slopes, unstable terrain, and proximity to earthquake faults. In Hermosa Beach, landslide hazards are limited to an area along the eastern city limit between 7th Place and 8th Street, an area above Gould Terrace, part of South Park, and properties located south of the park on Culper Court in the Coastal Zone.

Liquefaction is a phenomenon where soil behaves as a liquid during an earthquake. Liquefaction occurs primarily in saturated and loose, fine to medium-grained soils, in areas where the groundwater table lies within 50 feet of the ground surface. Much of the area west of Hermosa Avenue and an area along 2nd Street between Monterey Boulevard and Valley Drive are located atop soils susceptible to liquefaction, all within the Coastal Zone. Because liquefaction potential is related to groundwater depth, the number and size of areas subject to potential liquefaction

could become larger as sea level rises and causes groundwater tables to rise. (See Map: Liquefaction below).

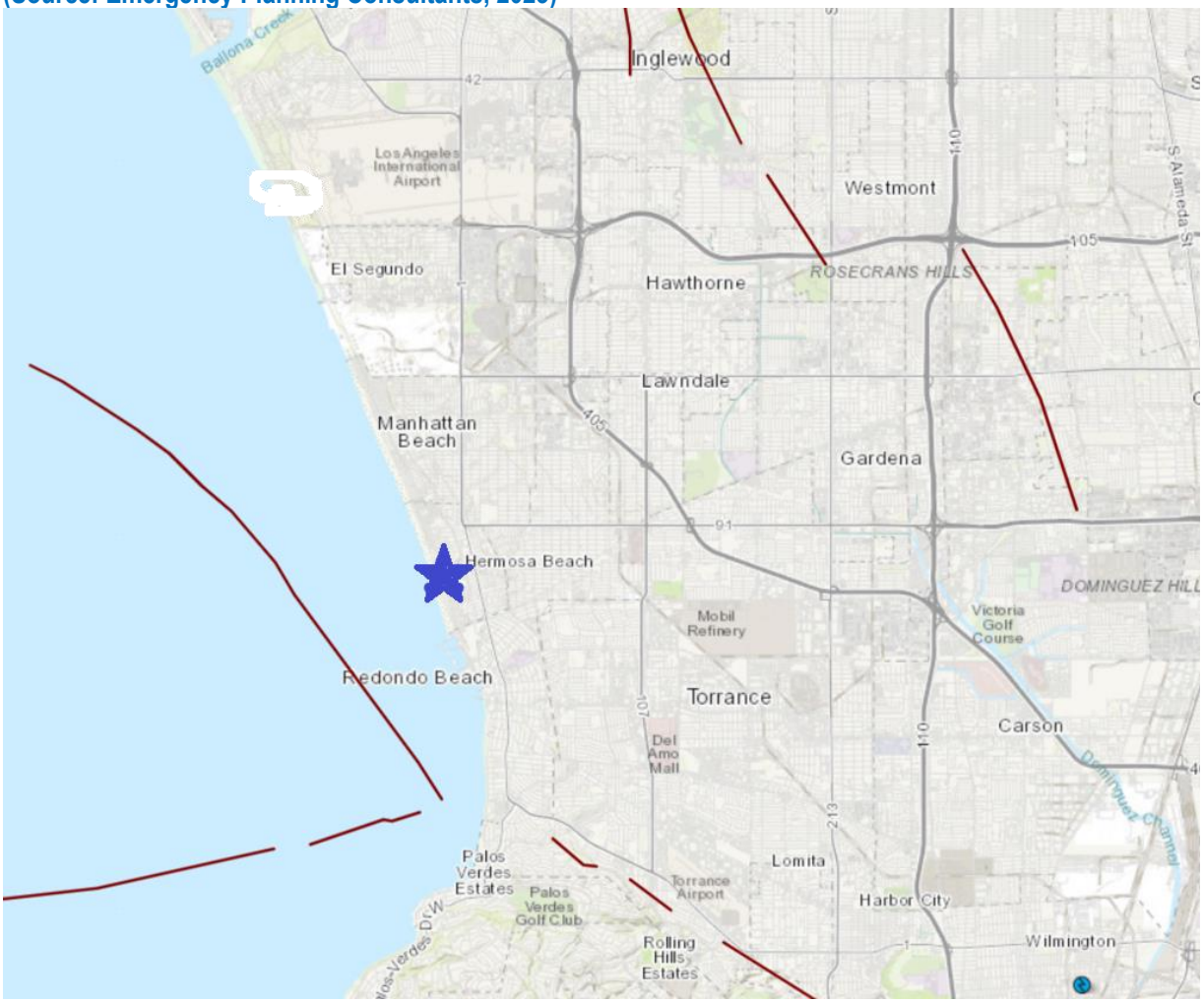
Map: Liquefaction and Landslide Areas
(Source: MyPlan Cal OES, 2023)
Note: Liquefaction in green, landslide in blue



Additional geologic conditions within the Coastal Zone include expansive soils, corrosive soils, and subsidence. Soils and bedrock throughout Southern California have varying degrees of sulfate and corrosion potential. Corrosion of infrastructure can result in weakening of metal and resultant leaks to the environment. Expansive, collapsible, and corrosive soils are known to occur within Hermosa Beach.

According to the Southern California Earthquake Data Center, the region has several active faults and therefore is subject to the risks and hazards associated with earthquakes. **Map: Earthquake Faults** shows the geographic relationship of the City to surrounding active and potentially active faults. No active faults have been identified at the ground surface within City limits, nor have any Alquist-Priolo Earthquake Fault zones been designated.

Map: Earthquake Faults
(Source: Emergency Planning Consultants, 2023)

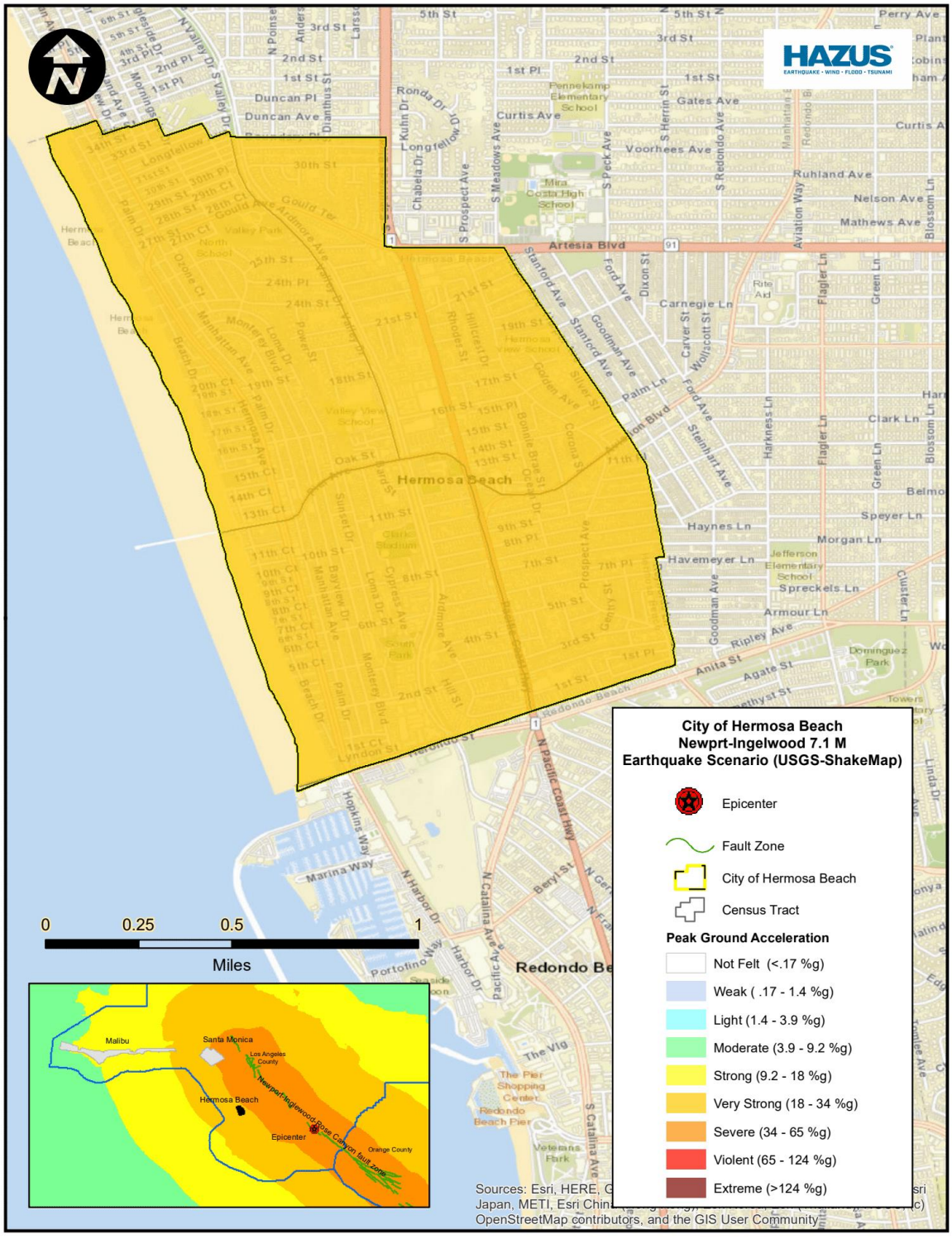


The faults in the Los Angeles Basin are very active and have the potential to cause massive destruction if the City is unprepared. After 1993, building codes were changed to ensure that new construction would be safer in the event of an earthquake. The older buildings in the City have a higher risk of being damaged in an earthquake since they were built prior to the new codes.

Newport-Inglewood Fault

The Newport-Inglewood Fault runs about 75 km (46 mi) near the communities of Culver City, Inglewood, Gardena, Compton, Signal Hill, Long Beach, Seal Beach, Huntington Beach, Newport Beach, Costa Mesa. This fault is responsible for the 1933 Long Beach Earthquake. The Long beach earthquake was a magnitude 6.4 and resulted in 120 deaths and over $50 million in property damage.

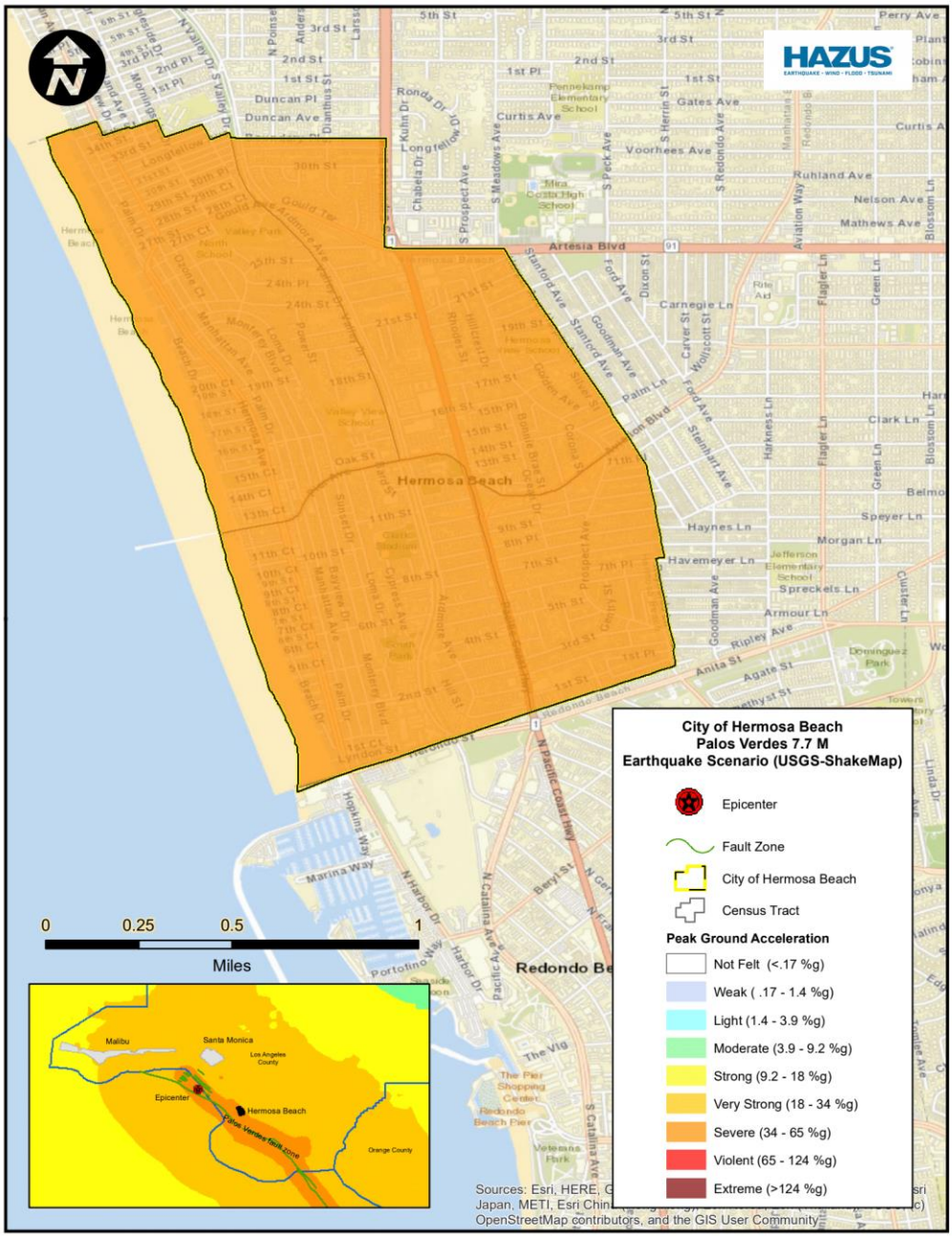
Map: HAZUS – Newport-Inglewood 7.1M
(Source: Emergency Planning Consultants, 2023)



Palos Verdes Fault

The Palos Verdes Fault runs about 80 km (50 mi) near the communities of San Pedro, Palos Verdes Estates, Torrance, and Redondo Beach. This fault has a slip rate between 0.1 and 3.0 mm/year. It is estimated that this fault could generate a quake of Mw6.0–7.0 on the moment magnitude scale. This fault spits into a second branch heading southward offshore as the Palos-Coronado Bank Fault.

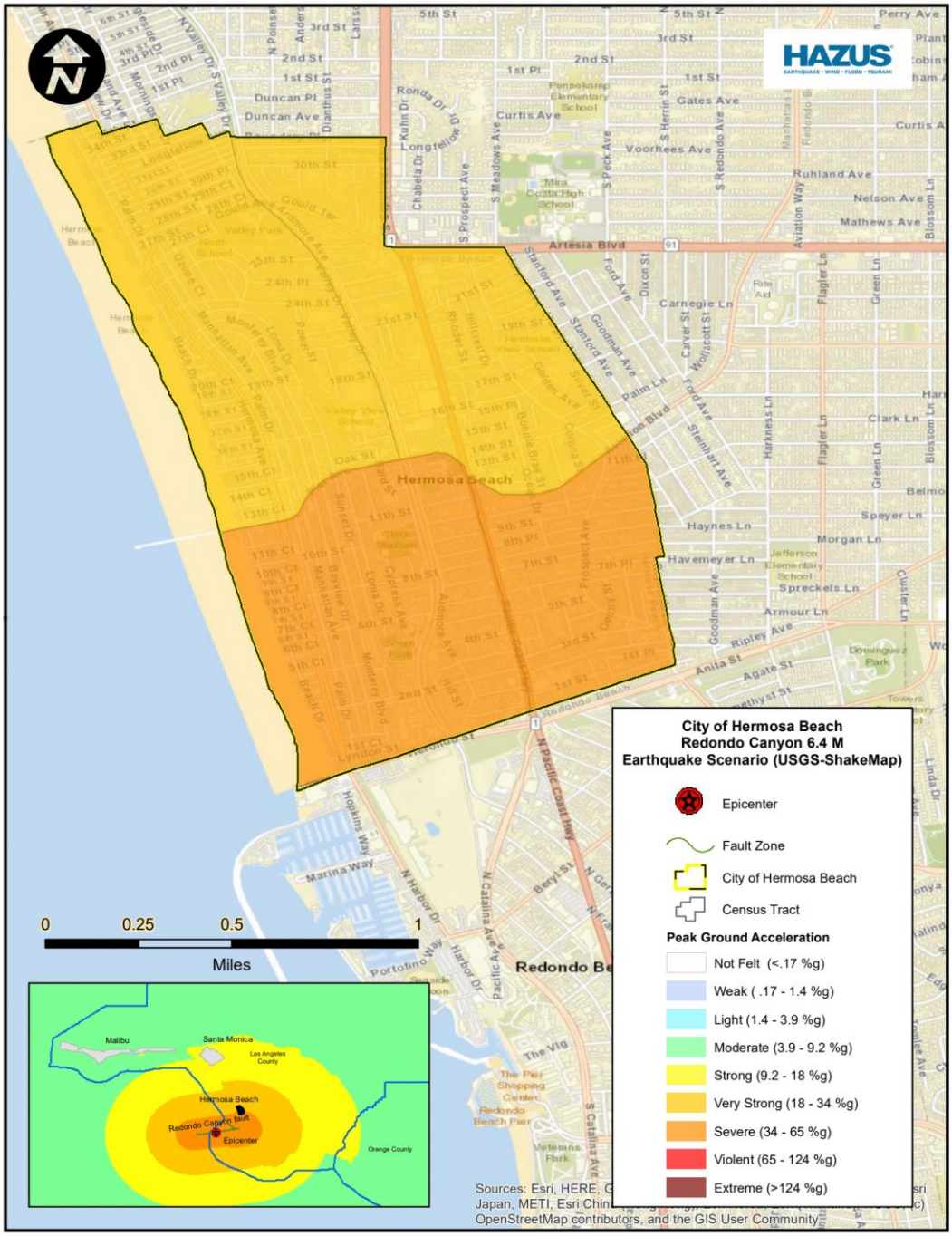
Map: HAZUS – Palos Verdes M7.7
(Source: Emergency Planning Consultants, 2023)



Redondo Canyon Fault

The Redondo Canyon is a 11-kilometer (7 mi) right-reverse fault that runs near the communities of Palos Verdes Estates, Redondo Beach. The fault has an unknown slip rate. It is estimated that this fault could generate a quake of Mw5.8–6.5 on the moment magnitude scale.

Map: HAZUS – Redondo Canyon M6.4
(Source: Emergency Planning Consultants, 2023)



Earthquake Related Hazards

Ground shaking, landslides, and liquefaction are the specific hazards associated with earthquakes. The severity of these hazards depends on several factors, including soil and slope conditions, proximity to the fault, earthquake magnitude, and the type of earthquake.

Ground Shaking

Ground shaking is the motion felt on the earth's surface caused by seismic waves generated by the earthquake. It is the primary cause of earthquake damage. The strength of ground shaking depends on the magnitude of the earthquake, the type of fault, and distance from the epicenter (where the earthquake originates). Buildings on poorly consolidated and thick soils will typically see more damage than buildings on consolidated soils and bedrock.

Liquefaction

Liquefaction is a phenomenon in which the strength and stiffness of a soil is reduced by earthquake shaking or other events. Liquefaction occurs in saturated soils, which are soils in which the space between individual soil particles is completely filled with water. This water exerts a pressure on the soil particles that influences how tightly the particles themselves are pressed together. Prior to an earthquake, the water pressure is relatively low, however, earthquake shaking can cause the water pressure to increase to the point where the soil particles can readily move with respect to each other. Because liquefaction only occurs in saturated soil, its effects are most commonly observed in low lying areas. Typically, liquefaction is associated with shallow groundwater, which is less than 50 feet beneath the earth's surface.

Q&A | ELEMENT B: RISK ASSESSMENT | B2-b.
Q: For each participating jurisdiction, does the plan describe the potential impacts of each of the identified hazards on each participating jurisdiction? (Requirement 44 CFR § 201.6(c)(2)(ii)) **A:** See **Impacts from Earthquakes in Hermosa Beach** below.

Impact of Earthquakes to Hermosa Beach

Based on the risk assessment, it is evident that earthquakes will continue to have potentially devastating economic impacts to the City of Hermosa Beach. Impacts that are not quantified, but can be anticipated in future events, include:

- ✓ Injury and loss of life,
- ✓ Commercial and residential structural damage,
- ✓ Disruption of and damage to public infrastructure,
- ✓ Secondary health hazards e.g., mold and mildew,
- ✓ Damage to roads/bridges resulting in loss of mobility,
- ✓ Significant economic impact (jobs, sales, tax revenue) upon the community,
- ✓ Negative impact on commercial and residential property values, and
- ✓ Significant disruption to citizens as temporary facilities and relocations would likely be needed.

Issues Relating to Earthquakes

Important issues associated with an earthquake include the following:

- ✓ A significant portion of the community is prone to liquefaction.
- ✓ Structures on these soils may experience significant structural damage.
- ✓ It is estimated by the Los Angeles County Assessor's Office that nearly 60% of the planning area's building stock was built prior to 1975, when seismic provisions became uniformly applied through building code applications. Many structures may need seismic retrofits in order to withstand a moderate earthquake. Residential retrofit programs, such as Earthquake Brace+Bolt, may be able to assist in the costs of these efforts.
- ✓ Due to limitations in current modeling abilities, the risk to critical facilities in the planning area from the earthquake hazard is likely understated. A more thorough review of the age of critical facilities, codes they were built to, and location on liquefiable soils should be conducted.
- ✓ Damage to electrical systems and grids is likely following a strong seismic event.
- ✓ Damage to transportation systems in the planning area after an earthquake has the potential to significantly disrupt response and recovery efforts and lead to isolation of populations.
- ✓ Earthquakes can cause fires in wooden homes and the collapse of essential buildings such as fire stations.
- ✓ Landslides and tsunamis are major secondary hazards that could have a widespread effect on the county.
- ✓ Citizens are expected to be self-sufficient up to two weeks after a major earthquake without government response agencies, utilities, private-sector services, and infrastructure components. Education programs are currently in place to facilitate development of individual, family, neighborhood, and business earthquake preparedness. It takes individuals, families, and communities working in concert with one another to be prepared for disaster.
- ✓ After a major seismic event, the planning area is likely to experience disruptions in the flow of goods and services resulting from the destruction of major transportation infrastructure across the broader region.
- ✓ A seismic event can damage communication systems, complicating efforts to coordinate response to the event.

Q&A | ELEMENT B: RISK ASSESSMENT | B2-a.

Q: Does the plan provide an overall summary of each jurisdiction's vulnerability to the identified hazards? (Requirement 44 CFR § 201.6(c)(2)(ii))

A: See **Summary of Vulnerability to Earthquakes** below.

Summary of Vulnerability to Earthquakes

The following is a summary of vulnerability to earthquakes. All of Hermosa Beach's staff would be impacted by an earthquake. In addition, all of the City-owned facilities would be impacted by an earthquake including City Hall Complex, Police Department, Public Works Yard, Community Center and Emergency Operations Center, Clark Field and Clark Building, Prospect Avenue Building, and the Fire Station. Altogether, this includes a total of approximately 15 buildings, and structure/contents valued at $36,980,010. These estimates are based on 2023.

The combination of plate tectonics and associated geology generates earthquakes as a result of the periodic release of tectonic stresses. Los Angeles County's terrain lies in the center of the North American and Pacific tectonic plate activity. There have been earthquakes as a result of this activity in the historic past, and there will continue to be earthquakes in the future of California. Fault ruptures themselves contribute very little to damage unless the structure or system element crosses the active fault; however, liquefaction can occur further from the source of the earthquake. In general, newer construction is more earthquake resistant than older construction due to enforcement of improved building codes. Manufactured buildings are very susceptible to damage because their foundation systems are rarely braced for earthquake motions. Locally generated earthquake motions and associated liquefaction, even from very moderate events, tend to be more damaging to smaller buildings, especially those constructed of unreinforced masonry (URM) and soft story buildings.

Impacts from earthquakes in Hermosa Beach will vary depending on the fault that the earthquake occurs on, the depth of the earthquake strike, and the intensity of shaking. Should ground shaking be intense, City facilities and critical infrastructure could be damaged or destroyed. Of greater risk than the building is the students and staff who occupy those buildings; injury or loss of life could occur during a significant event. In addition to earthquakes causing structural damage, the City has multiple non-structural components that may be damaged during earthquake shaking. Non-structural components include furnishings and equipment, electrical and mechanical fixtures, and architectural features such as suspended ceilings, partitions, cabinets, and shelves. In general, nonstructural components and building contents become hazards when they slide, break, fall, or tip over during an earthquake. Securing the nonstructural components and building contents will improve safety and security of the facility.

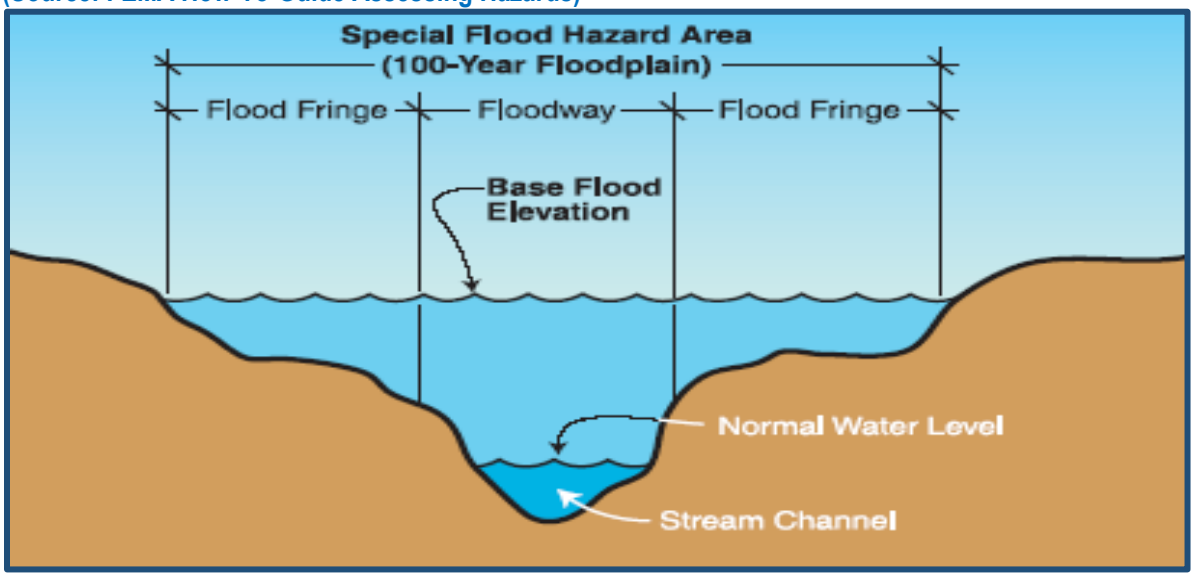
In California, Senate Bill 99 requires that any that any vulnerable residential neighborhoods have two evacuation routes. In the case of the coastal residential neighborhoods, the closest evacuation routes would be to the north and south. Both of these alternatives could very well be inaccessible due to liquefaction and other earthquake-related damages.

Flood Hazards

Hazard Definition

A floodplain is a land area adjacent to a river, stream, lake, estuary, or other water body that is subject to flooding. This area, if left undisturbed, acts to store excess flood water. The floodplain is made up of two sections: the floodway and the flood fringe. The 100-year flooding event is the flood having a one percent chance of being equaled or exceeded in magnitude in any given year. Contrary to popular belief, it is not a flood occurring once every 100 years. The 100-year floodplain is the area adjoining a river, stream, or watercourse covered by water in the event of a 100-year flood. Schematic: Floodplain and Floodway shows the relationship of the floodplain and the floodway.

Schematic: Floodplain and Floodway
(Source: FEMA How-To-Guide Assessing Hazards)



Types of Flooding

Two types of flooding primarily affect the region: slow-rise or flash flooding. Slow-rise floods may be preceded by a warning period of hours or days. Evacuation and sandbagging for slow-rise floods have often effectively lessened flood related damage. Conversely, flash floods are most difficult to prepare for, due to extremely limited, if any, advance warning and preparation time.

Q&A | ELEMENT B: RISK ASSESSMENT | B1-d.
Q: Does the plan include the history of previous hazard events for each identified hazard? (Requirement 44 CFR § 201.6(c)(2)(i))
A: See **Previous Occurrences of Flooding in the City of Hermosa Beach** below.

Previous Occurrences of Flooding in the City of Hermosa Beach

The City of Hermosa Beach is susceptible to localized flooding from severe storms, urban run-off and storm surge.

Historic Flooding in Southern California

According to the 2019 County of Los Angeles All-Hazard Mitigation Plan, historic flooding records in Los Angeles County show that since 1811, the Los Angeles River has flooded 30 times, on average once every 6.1 years. But averages are deceiving, for the Los Angeles basin goes through periods of drought and then periods of above average rainfall. Between 1889 and 1891, the river flooded every year, from 1941 to 1945, the river flooded 5 times. Conversely, from 1896 to 1914, and again from 1944 to 1969, a period of 25 years, the river did not have serious floods.

Average annual precipitation in Los Angeles County ranges from 13 inches on the coast to approximately 40 inches on the highest point of the Peninsular Mountain Range that transects the county. Several factors determine the severity of floods, including rainfall intensity and duration. A large amount of rainfall over a short time span can result in flash flood conditions. A sudden thunderstorm or heavy rain, dam failure, or sudden spills can cause flash flooding. The National Weather Service's definition of a flash flood is a flood occurring in a watershed where the time of travel of the peak of flow from one end of the watershed to the other is less than six hours.

The towering mountains that give the Los Angeles region its spectacular views also bring a great deal of rain out of the storm clouds that pass through. Because the mountains are so steep, the rainwater moves rapidly down the slopes and across the coastal plains on its way to the ocean.

"The Santa Monica, Santa Susana and Verdugo Mountains, which surround three sides of the valley, seldom reach heights above three thousand feet. The western San Gabriel Mountains, in contrast, have elevations of more than seven thousand feet. These higher ridges often trap eastern-moving winter storms. Although downtown Los Angeles averages just fifteen inches of rain a year, some peaks in the San Gabriel Mountains receive more than forty inches of precipitation annually, as much as many locations in the humid eastern United States" (Source: The Los Angeles River: It's Life, Death, and Possible Rebirth, Gumprecht 2001).

Naturally, this rainfall moves rapidly downstream, often with severe consequences for anything in its path. In extreme cases, flood-generated debris flows will roar down a canyon at speeds near 40 miles per hour with a wall of mud, debris and water, tens of feet high. Flooding occurs when climate, geology, and hydrology combine to create conditions where water flows outside of its usual course.

Q&A | ELEMENT B: RISK ASSESSMENT | B1-a.
Q: Does the plan describe all natural hazards that can affect the jurisdiction(s) in the planning area, and does it provide the rationale if omitting any natural hazards that are commonly recognized the jurisdiction(s) in the planning area? (Requirement 44 CFR § 201.6(c)(2)(i)) **A:** See **Local Conditions** below.
Q&A | ELEMENT B: RISK ASSESSMENT | B1-b.
Q: Does the plan include information on the location of each identified hazard? (Requirement 44 CFR § 201.6(c)(2)(i)) **A:** See **Local Conditions** below.

Local Conditions

According to the 2017 General Plan-Safety Element, coastal flooding poses a threat to life and safety, and can cause severe damage to public and private property. Large portions of the Hermosa Beach beachfront development is less than 15 feet above sea level. Normally, the very wide beach buffers these areas from the high surf. However, during heavy storm seasons, this beach can be eroded to such an extent that these properties are subject to wave run-up. This has occurred during past El Niño events and during astronomical high tides. The resulting damage has been primarily to private property.

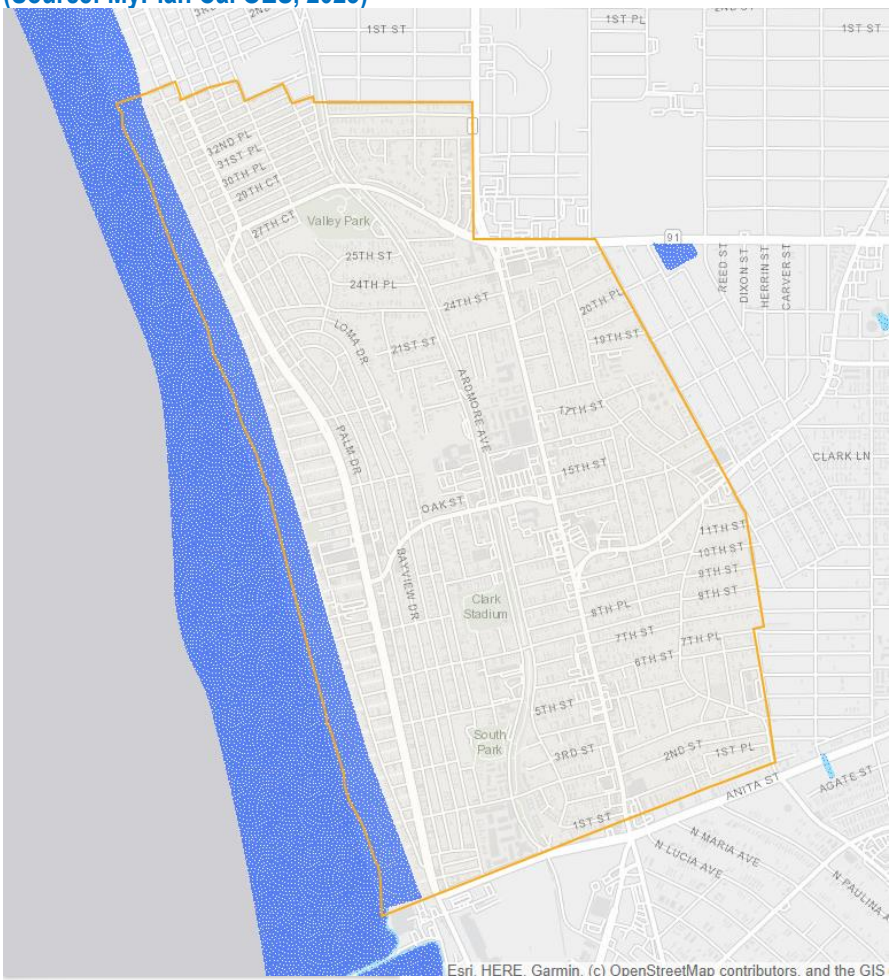
The entirety of the sandy beach extending inland to The Strand is located within the 100-year flood zone. As sea levels rise, the risk and degree of coastal flooding and other coastal hazards increase.

As land is converted from fields or woodlands to roads and parking lots, it loses its ability to absorb rainfall. Urbanization of a watershed changes the hydrologic systems of the basin. Heavy rainfall collects and flows faster on impervious concrete and asphalt surfaces. The water moves from the clouds, to the ground, and into streams at a much faster rate in urban areas. Adding these elements to the hydrological systems can result in flood waters that rise very rapidly and peak with violent force.

According to the Planning Team, almost 43 percent of the area in Hermosa Beach has a high concentration of impermeable surfaces that either collect water or concentrate the flow of water in unnatural channels. During periods of urban flooding, streets can become swift moving rivers and low-lying structures can fill with water. Storm drains often back up with vegetative debris causing additional, localized flooding.

Below is **Map: MyPlan City of Hermosa Beach** showing the areas at risk of flooding.

Map: MyPlan City of Hermosa Beach
(Source: MyPlan Cal OES, 2023)



100-Year Floodplains

FEMA/DWR Awareness/Regional Studies /USACE Comprehensive Study

200-Year Floodplains

USACE Comprehensive Study

500-Year Floodplains

FEMA/Regional Studies/USACE Comprehensive Study

Definitions of FEMA Flood Zone Designations

Flood zones are geographic areas that the FEMA has defined according to varying levels of flood risk. These zones are depicted on a community's Flood Insurance Rate Map (FIRM) or Flood Hazard Boundary Map. Each zone reflects the severity or type of flooding in the area.

Moderate to Low Risk Areas

In communities that participate in the NFIP, flood insurance is available to all property owners and renters in these zones:

ZONE	DESCRIPTION
B and X (shaded)	Area of moderate flood hazard, usually the area between the limits of the 100-year and 500-year floods. B Zones are also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.
C and X (unshaded)	Area of minimal flood hazard usually depicted on FIRMs as above the 500-year flood level. Zone C may have ponding and local drainage problems that do not warrant a detailed study or designation as base floodplain. Zone X is the area determined to be outside the 500-year flood and protected by levee from 100-year flood.

High Risk Areas

In communities that participate in the NFIP, mandatory flood insurance purchase requirements apply to all of these zones:

ZONE	DESCRIPTION
A	Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.
AE	The base floodplain where base flood elevations are provided. AE Zones are now used on new format FIRMs instead of A1-A30 Zones.
A1-30	These are known as numbered A Zones (e.g., A7 or A14). This is the base floodplain where the FIRM shows a BFE (old format).
AH	Areas with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
AO	River or stream flood hazard areas, and areas with a 1% or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Average flood depths derived from detailed analyses are shown within these zones.
AR	Areas with a temporarily increased flood risk due to the building or restoration of a flood control system (such as a levee or a dam). Mandatory flood insurance purchase requirements will apply, but rates will not exceed the rates for unnumbered A zones if the structure is built or restored in compliance with Zone AR floodplain management regulations.

ZONE	DESCRIPTION
A99	Areas with a 1% annual chance of flooding that will be protected by a Federal flood control system where construction has reached specified legal requirements. No depths or base flood elevations are shown within these zones.

Undetermined Risk Areas

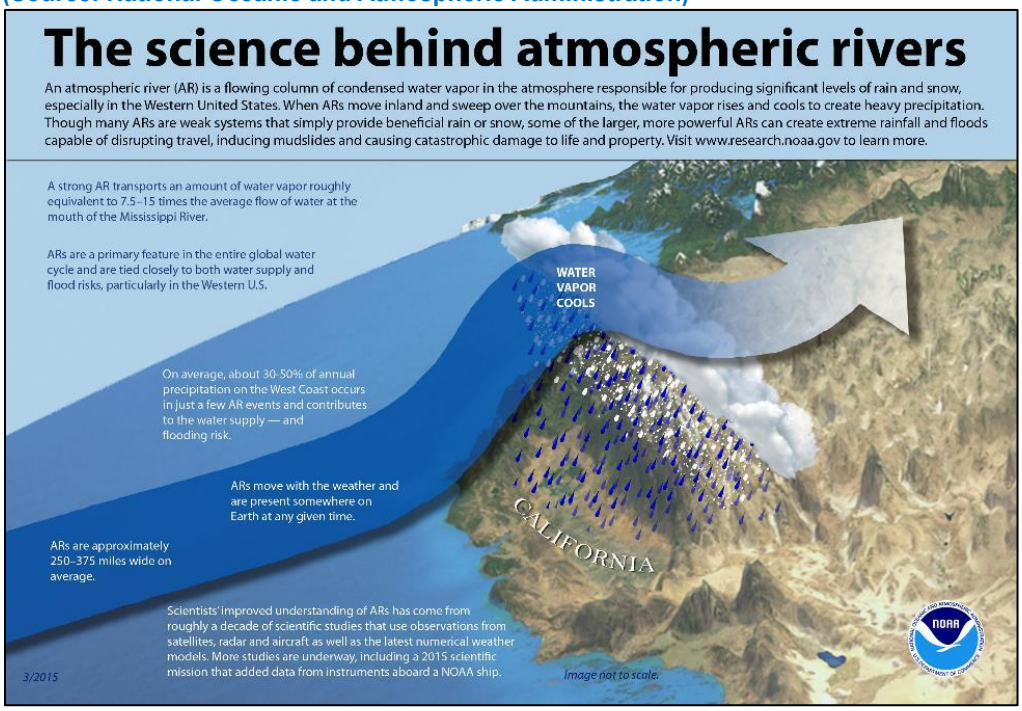
ZONE	DESCRIPTION
D	Areas with possible but undetermined flood hazards. No flood hazard analysis has been conducted. Flood insurance rates are commensurate with the uncertainty of the flood risk.

Atmospheric Rivers

According to the National Oceanic and Atmospheric Administration (NOAA), atmospheric rivers are relatively long, narrow regions in the atmosphere – like rivers in the sky – that transport most of the water vapor outside of the tropics. These columns of vapor move with the weather, carrying an amount of water vapor roughly equivalent to the average flow of water at the mouth of the Mississippi River. When the atmospheric rivers make landfall, they often release this water vapor in the form of rain or snow.

Although atmospheric rivers come in many shapes and sizes, those that contain the largest amounts of water vapor and the strongest winds can create extreme rainfall and floods, often by stalling over watersheds vulnerable to flooding. These events can disrupt travel, induce mudslides, and cause catastrophic damage to life and property. A well-known example is the "Pineapple Express," a strong atmospheric river that can bring moisture from the tropics near Hawaii over to the U.S. West Coast.

Graphic: Atmospheric Rivers
(Source: National Oceanic and Atmospheric Administration)



While atmospheric rivers are responsible for great quantities of rain that can produce flooding, they also contribute to beneficial increases in snowpack. A series of atmospheric rivers fueled the strong winter storms that battered the U.S. West Coast from western Washington to southern California from December 10–22, 2010, producing 11 to 25 inches of rain in certain areas. These rivers also contributed to the snowpack in the Sierras, which received 75 percent of its annual snow by December 22, the first full day of winter.

NOAA research (e.g., NOAA Hydrometeorological Testbed and Cal Water) uses satellite, radar, aircraft and other observations, as well as major numerical weather model improvements, to better understand atmospheric rivers and their importance to both weather and climate.

Q&A | ELEMENT B: RISK ASSESSMENT | B2-b.
Q: For each participating jurisdiction, does the plan describe the potential impacts of each of the identified hazards on each participating jurisdiction? (Requirement 44 CFR § 201.6(c)(2)(ii))
A: See **Impacts of Flooding in Hermosa Beach** below.

Impact of Flooding in Hermosa Beach

Floods and their impacts vary by location and severity of any given flood event, and likely only affect certain areas of the region during specific times. Based on the risk assessment, it is evident that dam inundation and urban floods will continue to have potential economic impacts to the City of Hermosa Beach. Impacts that are not quantified, but anticipated in future events, include:

- ✓ Injury and loss of life,
- ✓ Commercial and residential structural damage,

- ✓ Disruption of and damage to public infrastructure,
- ✓ Secondary health hazards e.g., mold and mildew,
- ✓ Damage to roads/bridges resulting in loss of mobility,
- ✓ Significant economic impact to jobs, sales, and tax revenue to the community,
- ✓ Negative impact on commercial and residential property values, and
- ✓ Significant disruption to citizens as temporary facilities and relocations would likely be needed.

Issues Relating to Flooding

- ✓ Structures in the planning area built before any regulations existed on floodplain development may be particularly vulnerable to the flood hazard.
- ✓ The accuracy of the existing flood hazard mapping produced by FEMA in reflecting the true flood risk within the planning area is questionable.
- ✓ The extent of the flood-protection currently provided by flood control facilities (dams, etc.) is not known due to the lack of an established national policy on flood protection standards.
- ✓ The risk associated with the flood hazard overlaps the risk associated with other hazards such as earthquake, landslide, and severe weather. This provides an opportunity to seek mitigation alternatives with multiple objectives that can reduce risks from multiple hazards.
- ✓ There is no area-wide degree of consistency in land-use and floodplain management practices.
- ✓ There needs to be a sustained effort to gather historical damage data, such as high-water marks on structures and damage reports, to measure the cost-effectiveness of future mitigation projects.
- ✓ Ongoing flood hazard mitigation will require funding from multiple sources.
- ✓ Coordinated hazard mitigation efforts among jurisdictions affected by flood hazards in the county are recommended.
- ✓ Residents and businesses near coastal inundation areas and urban flooding should continue to be educated about flood preparedness and the resources available during and after floods.
- ✓ The concept of residual risk should be considered in the design of future capital flood control projects and should be communicated with residents living in the floodplain.
- ✓ The promotion of flood insurance as a means of protecting private property owners from the economic impacts of frequent flood events should continue.

Q&A | ELEMENT B: RISK ASSESSMENT | B2-a.

Q: Does the plan provide an overall summary of each jurisdiction's vulnerability to the identified hazards? (Requirement 44 CFR § 201.6(c)(2)(ii))

A: See **Summary of Vulnerability to Flooding** below.

Summary of Vulnerability to Flooding

The following is a summary of vulnerability to flooding. Many of Hermosa Beach's staff could be impacted by flooding – particularly those with field assignments. None of the City-owned facilities are prone to flooding.

Although City-owned facilities are not near the flood zone, excessive rain and blocked or insufficient storm drains can result in damage to buildings and infrastructure. Structures can also be damaged from trees falling as a result of water-saturated soil. Electrical power outages happen, and the interruption of power causes major problems. Loss of power is usually a precursor to closure of schools. The City could be required to reroute traffic or even close access to impacted neighborhoods.

Another concern associated with stormwater flooding includes impacts to infrastructure that provides a means of ingress and egress throughout the City. Ground saturation can result in instability, collapse, or other damage to trees, structures, roadways, and other critical infrastructure. Standing water can cause damage to roads and can also damage building foundations.

Disease Hazards

Hazard Definition

According to the California State Hazard Mitigation Plan (2018), the California Department of Public Health has identified epidemics, pandemics, and vector-borne diseases as specific hazards that would have a significant impact throughout the State.

According to the Centers for Disease Control (CDC), an epidemic refers to an increase, often sudden, in the number of cases of a disease above what is normally expected in that population area. A pandemic refers to an epidemic that has spread over several countries or continents, usually affecting a large number of people. Vector-borne diseases are human illnesses caused by parasites, viruses and bacteria that are transmitted by vectors – living organisms that can transmit infectious pathogens between humans, or from animals to humans.

Seasonal Influenza

Seasonal influenza, also known as the flu, is a disease that attacks the respiratory system (nose, throat, and lungs) in humans. Seasonal influenza occurs every year. In the U.S., the influenza season typically occurs from October through May, peaking in January or February with yearly epidemics of varying severity. Although mild cases may be similar to a viral "cold," influenza is typically much more severe. Influenza usually comes on suddenly; may include fever, headache, tiredness (which may be extreme), dry cough, sore throat, nasal congestion, and body aches; and can result in complications such as pneumonia. Persons aged 65 and older, those with chronic health conditions, pregnant women, and young children are at the highest risk for serious complications, including death.

Pandemic Influenza

Pandemic influenza occurs when a new influenza virus, for which there is little or no human immunity, emerges and spreads on a worldwide scale, infecting a large proportion of the human population. The 20th century saw three such pandemics. The most notable pandemic was the 1918 Spanish influenza pandemic that was responsible for 20 million to 40 million deaths throughout the world. There have been two pandemics in the 21st century; H1N1 in 2009, and the most recent COVID-19 outbreak in 2019. As demonstrated historically and currently, pandemic influenza has the potential to cause serious illness and death among people of all age groups and have a major impact on society. These societal impacts include significant economic

disruption that can occur due to death, loss of employee work time, and costs of treating or preventing the spread of influenza.

H1N1 Influenza

In 2009 a pandemic of H1N1 influenza, popularly referred to as the swine flu, resulted in many hospitalizations and deaths. Pandemic H1N1 influenza is spread in the same way as seasonal influenza, from person to person through coughing or sneezing by infected people. In April 2009, two kids living more than 100 miles apart in Southern California came down with the flu. By mid-April, their illnesses had been diagnosed as being caused by a new strain of H1N1 influenza. Persons infected with H1N1 experienced fever and mild respiratory symptoms, such as coughing, runny nose, and congestion. In some cases, symptoms were severe and included diarrhea, chills, and vomiting, and in rare cases respiratory failure occurred. The H1N1 virus caused relatively few deaths in humans. In the United States, for example, it caused fewer deaths (between 8,870 and 18,300) than seasonal influenza, which, based on data for the years 2014–2019, causes an average of about 40,000 deaths each year. The H1N1 virus was most lethal in individuals affected by chronic disease or other underlying health conditions.

COVID-19

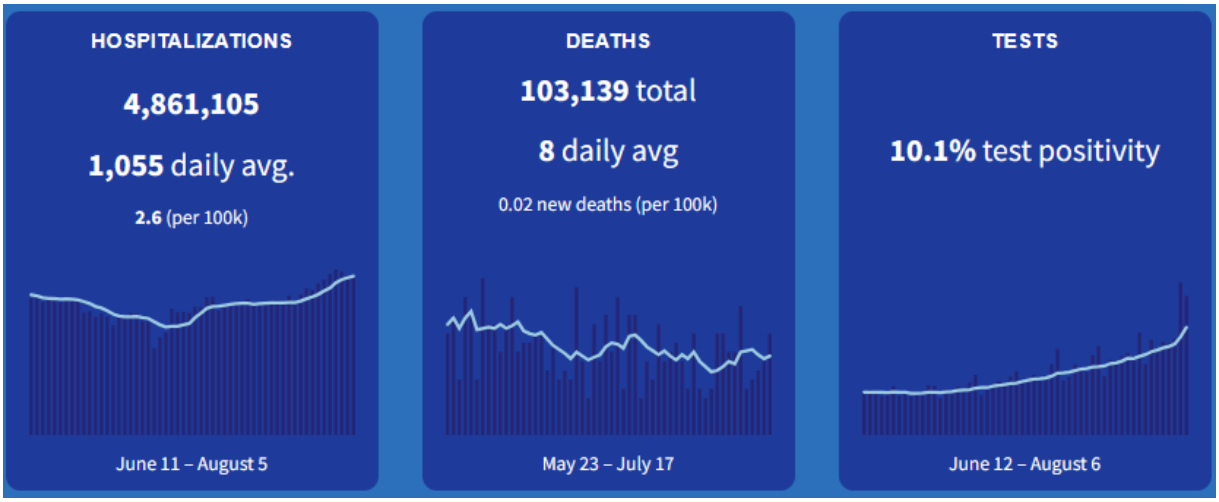
As of 2020, the CDC has responded to a pandemic of respiratory disease spreading from person to person caused by a novel (new) coronavirus. The disease was named “Coronavirus Disease 2019” (abbreviated “COVID-19”). Coronaviruses are a large family of viruses that are common in people and many different species of animals, including camels, cattle, cats, and bats. Rarely, animal coronaviruses can infect people and then spread between people such as with Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS).

According to the CDC, many of the patients at the epicenter of the outbreak in Wuhan, Hubei Province, China had some link to a large seafood and live animal market, suggesting animal-to-person spread. Later, a growing number of patients reportedly did not have exposure to animal markets, indicating person-to-person spread. Person-to-person spread was subsequently reported outside Hubei and in countries outside China, including in the United States. Most international destinations now have ongoing community spread with the virus that causes COVID-19, as does the United States.

On March 4, 2020, Governor Newsom proclaimed a state of emergency in California’s response to the COVID-19 outbreak. On March 19, 2020, Governor Newsom issued an executive order directing all residents immediately to heed current State public health directives to stay home, except as needed to maintain continuity of operations of essential critical infrastructure sectors.

According to the California Department of Public Health, as of June 1, 2023, California has suffered 104,047 COVID-related deaths.

Figure: Tracking COVID-19
(Source: California Department of Public Health, 2023)



Avian Influenza

Avian Influenza, commonly referred to as "Bird Flu," remains a looming pandemic threat. Avian Influenza primarily spreads from birds to birds and rarely to humans. Public health experts continue to be alert to the possibility that an avian virus may mutate or change so that it can be passed from birds to humans, potentially causing a pandemic in humans. Some strains of the Avian Influenza could arise from Asia or other continents where people have very close contact with infected birds. This disease could have spread from poultry farmers or visitors to live poultry markets who had been in very close contact with infected birds and contracted fatal strains of Avian Influenza. Thus far, Avian Influenza viruses have not mutated and have not demonstrated easy transmission from person to person. However, if Avian Influenza viruses were to mutate into a highly virulent form and become easily transmissible from person to person, the public health community would be very concerned about the potential for an influenza pandemic. Such a pandemic could disrupt all aspects of society and severely affect the economy.

Vector-Borne Diseases

Vector-borne diseases are human illnesses caused by parasites, viruses and bacteria that are transmitted by vectors. Every year there are more than 700,000 deaths from diseases such as malaria, dengue, schistosomiasis, human African trypanosomiasis, leishmaniasis, Chagas disease, yellow fever, Japanese encephalitis and onchocerciasis. Vectors are living organisms that can transmit infectious pathogens between humans, or from animals to humans. Many of these vectors are bloodsucking insects, which ingest disease-producing microorganisms during a blood meal from an infected host (human or animal) and later transmit it into a new host, after the pathogen has replicated. Often, once a vector becomes infectious, they can transmit the pathogen for the rest of their life during each subsequent bite/blood meal.

Mosquito-Borne Viruses

Mosquito-borne viruses belong to a group of viruses commonly referred to as arboviruses (for arthropod-borne). Although 12 mosquito-borne viruses are known to occur in California, only West Nile virus (WNV), western equine encephalomyelitis virus (WEE), and St. Louis encephalitis virus (SLE) are significant causes of human disease. WNV continues to seriously affect the health of humans, horses, and wild birds throughout the state. Since 2003, there have been over 6,000 WNV human cases with 248 deaths, and over 1,200 equine cases.

WNV first appeared in the United States in 1999 in New York and rapidly spread across the country to California in subsequent years. California has historically maintained a comprehensive mosquito-borne disease surveillance and control program including the Mosquito-borne Virus Surveillance and Response Plan, which is updated annually in consultation with local vector control agencies.

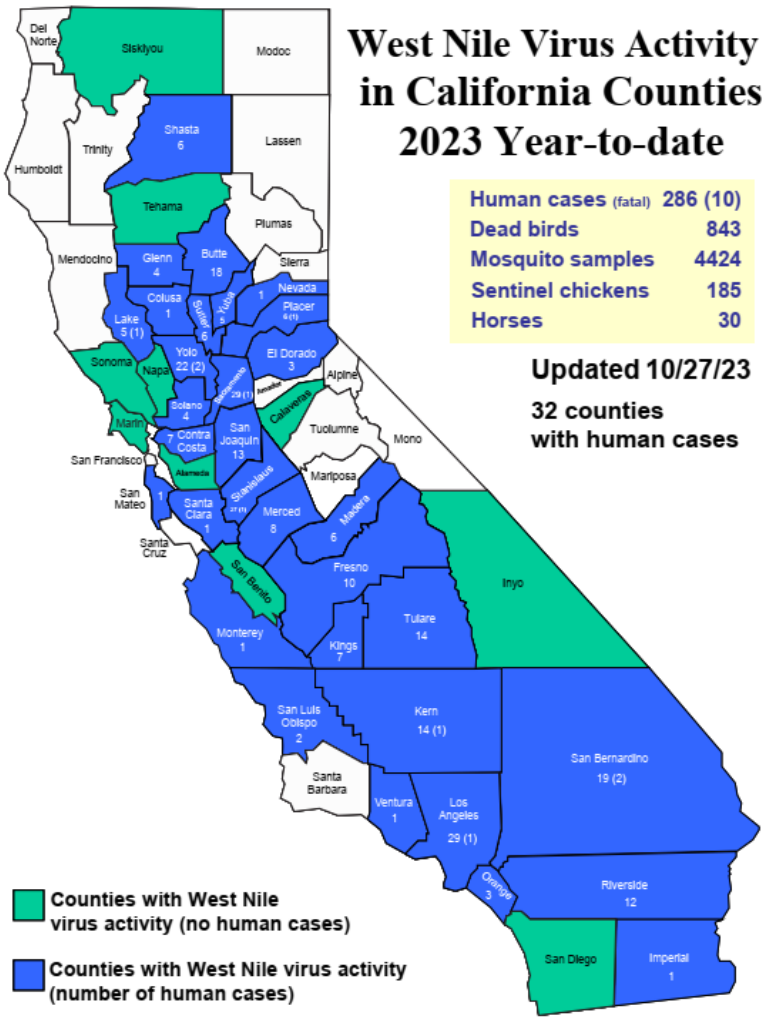
Climate change will likely affect vector-borne disease transmission patterns. Changes in temperature and precipitation can influence seasonality, distribution, and prevalence of vector-borne diseases. A changing climate may also create conditions favorable for the establishment of invasive mosquito vectors in California.

For most Californians, WNV poses the greatest mosquito-borne disease threat. Above-normal temperatures are among the most consistent factors associated with WNV outbreaks. Mild winters are associated with increased WNV transmission due, in part, to less mosquito and resident bird mortality. Warmer winter and spring seasons may also allow for transmission to start earlier. Such conditions also allow more time for virus amplification in bird-mosquito cycles, increasing the potential for mosquitoes to transmit WNV to people.

The effects of increased temperature are primarily through acceleration of physiological processes within mosquitoes, resulting in faster larval development and shorter generation times, more frequent mosquito biting, and shortening of the incubation period time required for infected mosquitoes to transmit WNV. During periods of drought, especially in urban areas, mosquitoes tend to thrive more due to changes in stormwater management practices. Mosquitoes in urban areas can reach higher abundance due to stagnation of water in underground stormwater systems that would otherwise be flushed by rainfall. Runoff from landscape irrigation systems mixed with organic matter can also create ideal mosquito habitat. Drought conditions may also force birds

to increase their utilization of suburban areas where water is more available, bringing these WNV hosts into contact with urban vectors.

Map: West Nile Virus Activity in California Counties
(Source: California West Nile Virus Website, 2023)

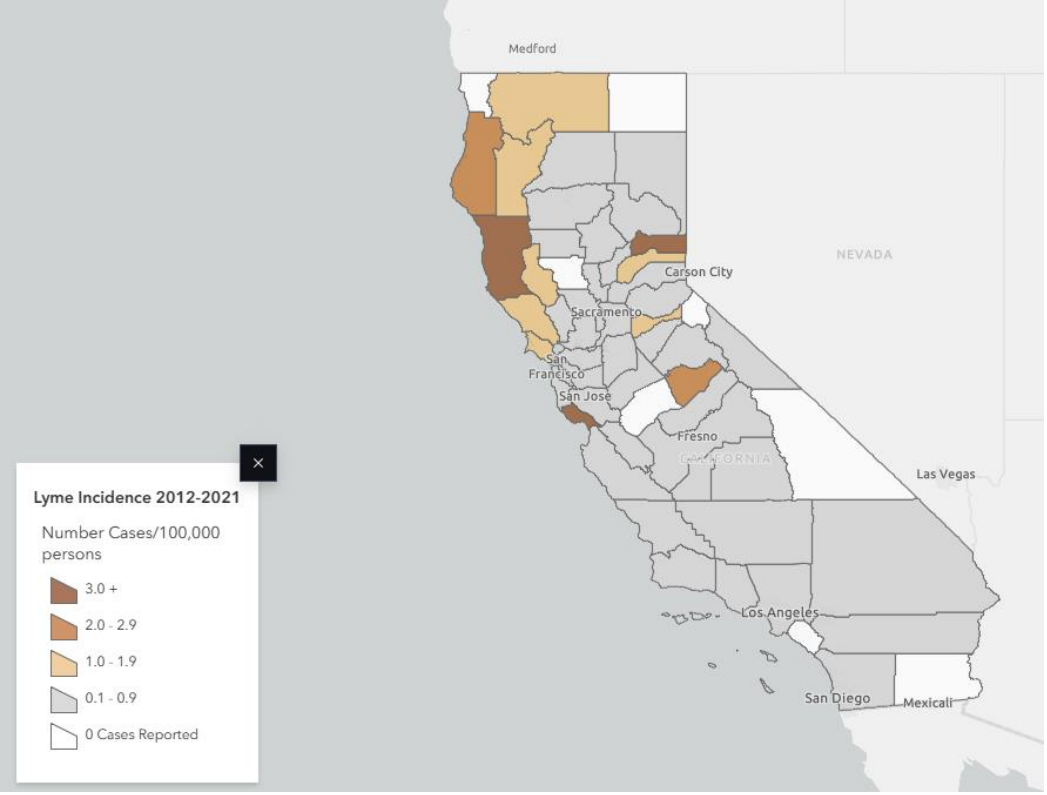


Lyme Disease

Lyme disease is caused by a spirochete (a corkscrew-shaped bacteria) called Borrelia burgdorferi and is transmitted by the Western black-legged tick. Lyme disease was first described in North America in the 1970s in Lyme, Connecticut, the town for which it was then named. Though the tick has been reported from 56 of the 58 counties in California, the highest incidence of disease occurs in the northwest coastal counties and northern Sierra Nevada counties with western-facing slopes. Ticks prefer cool, moist areas and can be found in wild grasses and low vegetation in both urban and rural areas.

The map below shows Western black-legged tick and Lyme disease incidence in California. The Western black-legged tick is commonly found in all green areas shown on the map; dark green areas on the map show where reported Lyme disease cases most often had exposure.

Map: Tick and Lyme Disease Incidence in California (Source: Lyme Disease in California Website, 2023)



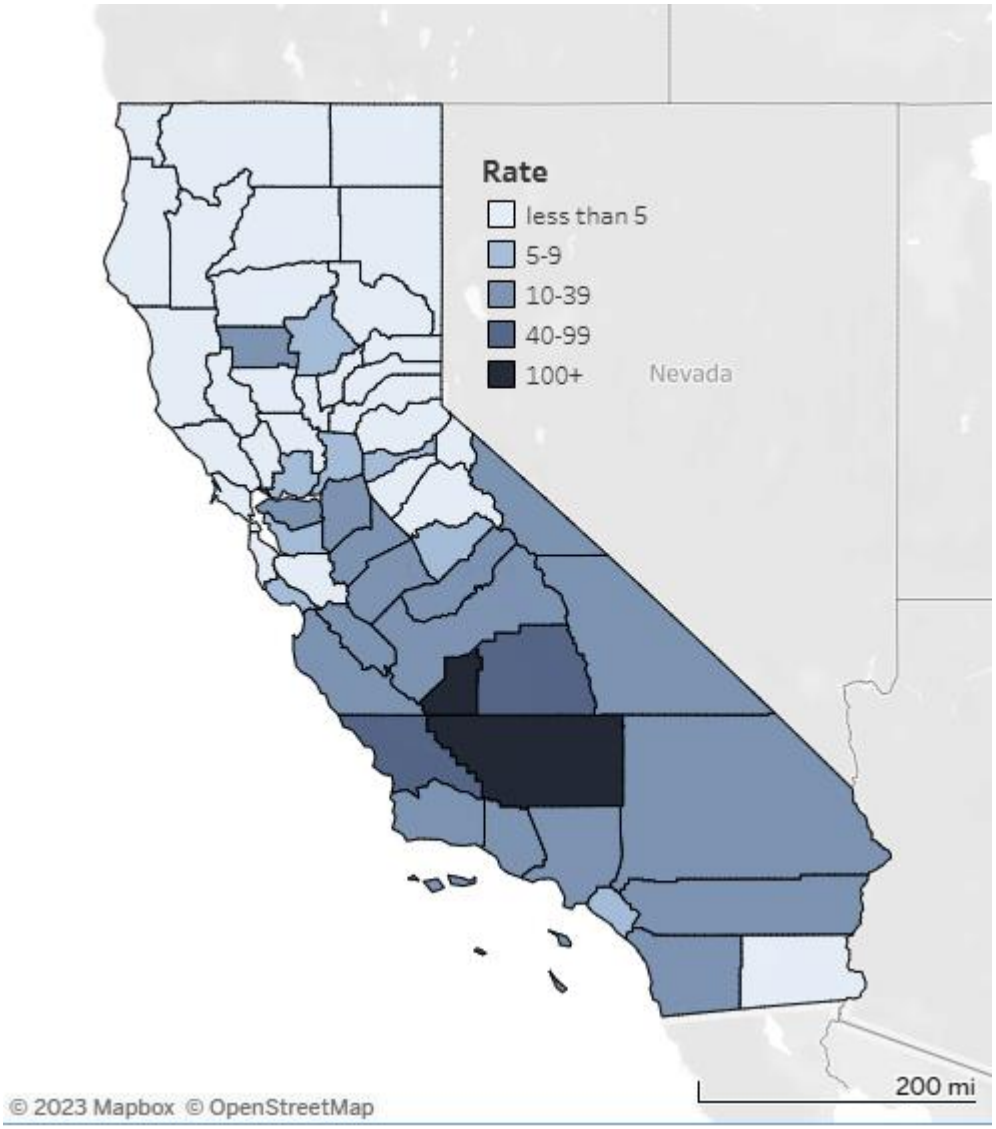
Valley Fever

Valley Fever is caused by Coccidioides, a fungus that lives in the soil in the southwestern United States and parts of Mexico, Central America, and South America. Inhaling the airborne fungal spores can cause an infection called coccidioidomycosis, which is also known as “cocci” or “Valley Fever.”

Most people who are exposed to the fungus do not get sick, but some people develop flu-like symptoms that may last for weeks to months. In a very small proportion of people who get Valley Fever, the infection can spread from the lungs to other parts of the body and cause more severe conditions, such as meningitis or even death. Valley Fever cannot spread from person to person.

Most cases of Valley Fever in the U.S. occur in people who live in or have traveled to the southwestern United States, especially Arizona and California. The map below shows the areas where the fungus that causes Valley Fever is thought to be endemic, or native and common in the environment. The full extent of the current endemic areas is unknown and is a subject for further study.

Map: Valley Fever Average Annual Rates by California County
(Source: California Valley Fever Dashboard, 2023)



Q&A | ELEMENT B: RISK ASSESSMENT | B1-d.
Q: Does the plan include the history of previous hazard events for each identified hazard? (Requirement 44 CFR § 201.6(c)(2)(i))
A: See **Previous Occurrences of Hazard Events in Hermosa Beach** below.

Previous Hazard Events in Hermosa Beach

As a result of Coronavirus, most City offices/facilities and many businesses were closed from March 2020-June 2021. The Hermosa Beach Resiliency Plan for Reopening included numerous protocols to mitigate against spread.

Previous Hazard Events in Los Angeles County

Flu season in Los Angeles County is typically the first week of October through the end of March. However, flu circulates throughout the year. Depending on the season, age, and prior health conditions flu can be serious and/or life-threatening. In Los Angeles County half a million to 2 million cases of flu can happen each season.

West Nile Virus first emerged in Los Angeles County in 2004, and since has caused significant numbers of illnesses, including hospitalizations and deaths. Los Angeles County has experienced increased levels of WNV activity for the past 6 years. Each year, between 150 and 300 people in Los Angeles County are identified with WNV infection.

Q&A | ELEMENT B: RISK ASSESSMENT | B1-a.
Q: Does the plan describe all natural hazards that can affect the jurisdiction(s) in the planning area, and does it provide the rationale if omitting any natural hazards that are commonly recognized the jurisdiction(s) in the planning area? (Requirement 44 CFR § 201.6(c)(2)(i)) **A:** See **Local Conditions** below.
Q&A | ELEMENT B: RISK ASSESSMENT | B1-b.
Q: Does the plan include information on the location of each identified hazard? (Requirement 44 CFR § 201.6(c)(2)(i)) **A:** See **Local Conditions** below.
Q&A | ELEMENT B: RISK ASSESSMENT | B2-b.
Q: For each participating jurisdiction, does the plan describe the potential impacts of each of the identified hazards on each participating jurisdiction? (Requirement 44 CFR § 201.6(c)(2)(ii)) **A:** See **Impact of Disease Hazards in Hermosa Beach** below.

Impact of Disease Hazards in Hermosa Beach

Based on the risk assessment, it is evident that Disease Hazards will continue to have potentially devastating economic impacts to the community. Impacts that are not quantified, but can be anticipated in future events, include:

- ✓ Injury and loss of life,
- ✓ Disruption of public infrastructure
- ✓ Disruption of the educational process
- ✓ Significant economic impact (e.g., jobs, sales, tax revenue) upon the community
- ✓ Negative impact on commercial and residential property values
- ✓ Closure of businesses and public services
- ✓ Deduction of transportation services
- ✓ Significant impacts on law enforcement due to limitations regarding custody

Q&A | ELEMENT B: RISK ASSESSMENT | B2-a.
Q: Does the plan provide an overall summary of each jurisdiction's vulnerability to the identified hazards? (Requirement 44 CFR § 201.6(c)(2)(ii)) **A:** See **Summary of Vulnerability to Disease Hazards** below.

Summary of Vulnerability to Disease Hazards

The following is a summary of vulnerability to severe disease outbreaks (e.g., epidemics, pandemics, vector-borne diseases). It's estimated that nearly all of the Hermosa Beach staff could be impacted by disease-related hazards. All of the City-owned properties could be impacted including, City Hall Complex, Police Department, Public Works Yard, Community Center & Emergency Operations Center, Clark Field & Clark Building, Prospect Avenue Building, and the Fire Station which includes a total of approximately 15 buildings, and structure/contents valued at $36,980,010.

Weather Hazards

Hazard Definition

Severe weather events provide a significant risk to life and property in the City of Hermosa Beach by creating conditions that disrupt essential systems such as public utilities, telecommunications and transportation routes. These extreme weather events include heat waves, storms, and droughts. Severe weather can occasionally cause tornado-like damage to local homes and businesses in and near the community. High winds can have destructive impacts, especially to trees, power lines, and utility services. Extreme temperatures can cause utility outages and threaten the health of city residents.

Drought

Drought is defined as a deficiency of precipitation over an extended period of time, usually a season or more. This deficiency results in a water shortage for some activity, group, or environmental sector. Drought should be considered relative to some long-term average condition of balance between precipitation and evapotranspiration (i.e., evaporation + transpiration) in a particular area, a condition often perceived as "normal". It is also related to the timing (e.g., principal season of occurrence, delays in the start of the rainy season, occurrence of rains in relation to principal crop growth stages) and the effectiveness of the rains (e.g., rainfall intensity, number of rainfall events).

Other climatic factors such as high temperature, high wind, and low relative humidity are often associated with it in many regions of the world and can significantly aggravate its severity. Drought should not be viewed as merely a physical phenomenon or natural event. Its impacts on society result from the interplay between a natural event (less precipitation than expected resulting from natural climatic variability) and the demand people place on water supply. Human beings often exacerbate the impact of drought. Recent droughts in both developing and developed countries and the resulting economic and environmental impacts and personal hardships have underscored the vulnerability of all societies to this natural hazard.

One dry year does not normally constitute a drought in California but serves as a reminder of the need to plan for droughts. California's extensive system of water supply infrastructure — its reservoirs, groundwater basins, and inter-regional conveyance facilities — mitigates the effect of short-term dry periods for most water users. Defining when a drought begins is a function of drought impacts to water users. Hydrologic conditions constituting a drought for water users in one location may not constitute a drought for water users elsewhere, or for water users having a different water supply. Individual water suppliers may use criteria such as rainfall/runoff, amount of water in storage, or expected supply from a water wholesaler to define their water supply conditions.

Drought is a gradual phenomenon. Although droughts are sometimes characterized as emergencies, they differ from typical emergency events. Most natural disasters, such as floods or forest fires, occur relatively rapidly and afford little time for preparing for disaster response. Droughts occur slowly, over a multiyear period. There is no universal definition of when a drought begins or ends. Impacts of drought are typically felt first by those most reliant on annual rainfall -- ranchers engaged in dry land grazing, rural residents relying on wells in low-yield rock formations, or small water systems lacking a reliable source. Criteria used to identify statewide drought conditions do not address these localized impacts. Drought impacts increase with the

length of a drought, as carry-over supplies in reservoirs are depleted and water levels in groundwater basins decline.

There are four different ways that drought can be defined:

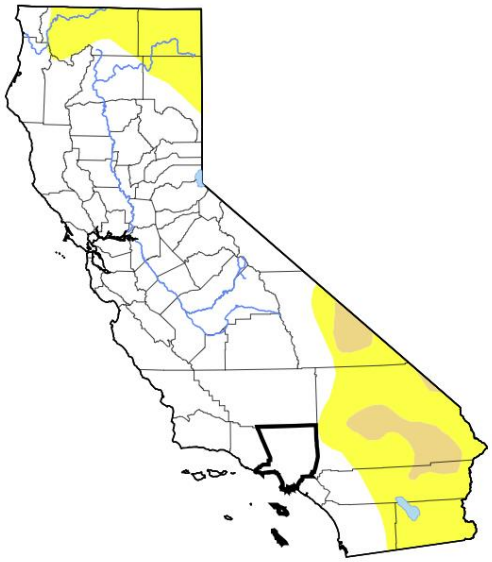
- **Meteorological** - a measure of departure of precipitation from normal. Due to climatic differences, what is considered a drought in one location may not be a drought in another location.
- **Agricultural** - refers to a situation when the amount of moisture in the soil no longer meets the needs of a particular crop.
- **Hydrological** - occurs when surface and subsurface water supplies are below normal.
- **Socioeconomic** - refers to the situation that occurs when physical water shortage begins to affect people.

The U.S. Drought Monitor (USDM) is a map that is updated weekly to show the location and intensity of drought across the country. The USDM uses a five-category system (USDM, 2021):

- D0—Abnormally Dry
  - Short-term dryness slowing planting, growth of crops
  - Some lingering water deficits
  - Pastures or crops not fully recovered
- D1—Moderate Drought
  - Some damage to crops, pastures
  - Some water shortages developing
  - Voluntary water-use restrictions requested
- D2—Severe Drought
  - Crop or pasture loss likely
  - Water shortages common
  - Water restrictions imposed
- D3—Extreme Drought
  - Major crop/pasture losses
  - Widespread water shortages or restrictions
- D4—Exceptional Drought
  - Exceptional and widespread crop/pasture losses
  - Shortages of water creating water emergencies

The USDM categories show experts' assessments of conditions related to drought. These experts check variables including temperature, soil moisture, stream flow, water levels in reservoirs and lakes, snow cover, and meltwater runoff. They also check whether areas are showing drought impacts such as water shortages and business interruptions. Associated statistics show what proportion of various geographic areas are in each category of dryness or drought, and how many people are affected. U.S. Drought Monitor data go back to 2000.

U.S. Drought Monitor – Los Angeles County, California
(Source: Website – U.S. Drought Monitor 6.6.2023)



Map released: Thurs. June 1, 2023

Data valid: May 30, 2023 at 8 a.m. EDT

Intensity

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data

Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
Current	2023-05-30	100.00	0.00	0.00	0.00	0.00	0.00	0
Last Week to Current	2023-05-23	100.00	0.00	0.00	0.00	0.00	0.00	0
3 Months Ago to Current	2023-02-28	10.93	89.07	30.90	0.00	0.00	0.00	120
Start of Calendar Year to Current	2022-12-27	0.00	100.00	100.00	73.04	12.60	0.00	286
Start of Water Year to Current	2022-09-27	0.00	100.00	100.00	96.75	26.28	0.04	323
One Year Ago to Current	2022-05-31	0.00	100.00	100.00	96.75	33.86	0.04	331

Additionally, the long-term effects of climate change on regional water resources are unknown, but global water resources are already stressed without climate change. Current stresses on water resources include:

- Growing populations
- Increased competition for available water
- Poor water quality
- Environmental claims
- Uncertain reserved water rights
- Groundwater overdraft
- Aging urban water infrastructure

With a warmer climate, droughts could become more frequent, more severe, and longer lasting. The drought of the late 1980s showed what the impacts might be if climate change leads to a change in the frequency and intensity of droughts across the United States. From 1987 to 1989,

losses from drought in the United States totaled $39 billion (OTA, 1993). More frequent extreme events such as droughts and floods could end up being more cause for concern than the long-term change in temperature and precipitation averages.

Extreme Heat

While there is no universal definition of extreme heat, California guidance documents define extreme heat as temperatures that are hotter than 98 percent of the historical high temperatures for the area, as measured between April and October of 1961 to 1990. Days that reach this level are called extreme heat days. In Hermosa Beach, the extreme heat threshold is 101.9 degrees Fahrenheit (°F). An event with five extreme heat days in a row is called a heat wave.

Health impacts are the primary concern with this hazard, though economic impacts are also an issue. Extreme heat events are dangerous because people exposed to extreme heat can suffer a number of heat-related illnesses, including heat cramps, heat exhaustion, and (most severely) heat stroke. Very high temperatures can harm plants and animals that are not well adapted to them, including natural ecosystems. Extreme heat can increase the temperature of water in lakes, streams, creeks, and other water bodies, especially during drought events when water levels are lower. Indirectly, extreme heat puts more stress on power lines, causing them to run less efficiently. The heat also causes more demand for electricity (usually to run air conditioning units), and in combination with the stress on the power lines, may lead to brownouts and blackouts.

Hurricanes and Tropical Storms

According to NOAA, a hurricane is a rotating low-pressure weather system that has organized thunderstorms but no fronts (a boundary separating two air masses of different densities). Tropical cyclones with maximum sustained surface winds of less than 39 miles per hour (mph) are called tropical depressions. Those with maximum sustained winds of 39 mph or higher are called tropical storms. When a storm's maximum sustained winds reach 74 mph, it is called a hurricane. The Saffir-Simpson Hurricane Wind Scale is a 1 to 5 rating, or category, based on a hurricane's maximum sustained winds. The higher the category, the greater the hurricane's potential for property damage.

Hurricanes that make landfall in California are relatively rare; however, they can occur. In August of 2023 Hurricane Hilary made landfall in the Baja California peninsula in Mexico and then continued north through San Diego County and Los Angeles County. Prior to landfall, Governor Newsom proclaimed a State of Emergency as Hurricane Hilary approached California. Much of the impact from the storm included flooding and high winds.

Q&A | ELEMENT B: RISK ASSESSMENT | B1-d.
Q: Does the plan include the history of previous hazard events for each identified hazard? (Requirement 44 CFR § 201.6(c)(2)(i))
A: See **Previous Hazard Events in Hermosa Beach** below

Previous Hazard Events in Hermosa Beach

According to the Planning Team, the impacts from Tropical Storm Hilary on August 20, 2023, were minimal.

Previous Hazard Events in Los Angeles County

Since 1995, the Los Angeles County coast has experienced 36 extreme weather events, resulting in 9 fatalities, 41 severe injuries, and damage to private property, as reported to the National Oceanic and Atmosphere Administration (NOAA).

Tropical Storm Hilary was the first such event to hit Southern California in 84 years delivered rainfall records for August 20th during what is typically the region's driest month of the year.

August 20th was the wettest August day ever in downtown Los Angeles with 2.30 inches of rain, breaking the old mark of 2.06 set on August 17, 1977, during Cyclone Doreen. Hilary dropped more than half of an average year's rain on some areas, including Palm Springs, which saw nearly 3.18 inches of rain by Sunday night. Rainfall records were shattered throughout Southern California, including in Burbank (3.56 inches), Long Beach (2.63 inches), Woodland Hills (4.65 inches), Palmdale (3.94 inches) and at LAX (2.55 inches).

Q&A | ELEMENT B: RISK ASSESSMENT | B1-a.
Q: Does the plan describe all natural hazards that can affect the jurisdiction(s) in the planning area, and does it provide the rationale if omitting any natural hazards that are commonly recognized the jurisdiction(s) in the planning area? (Requirement 44 CFR § 201.6(c)(2)(i))
A: See **Local Conditions** below.
Q&A | ELEMENT B: RISK ASSESSMENT | B1-b.
Q: Does the plan include information on the location of each identified hazard? (Requirement 44 CFR § 201.6(c)(2)(i))
A: See **Local Conditions** below.

Local Conditions

According to the General Plan – Public Safety Element, extreme events such as heat waves, severe storms, droughts, and tropical storms will continue to impact the community especially because of increases in both frequency and severity of climate change characteristics. Severe weather events can come in the form of episodic, short-lived events, or as seasonal weather patterns. Seasonal events like an El Niño winter pose a number of hazards to both coastal resources and visitors to those coastal resources.

Q&A | ELEMENT B: RISK ASSESSMENT | B2-b.
Q: For each participating jurisdiction, does the plan describe the potential impacts of each of the identified hazards on each participating jurisdiction? (Requirement 44 CFR § 201.6(c)(2)(ii))
A: See **Impacts of Weather on Hermosa Beach** below.

Impacts of Weather on Hermosa Beach

Weather and their impact vary by location and severity of any given weather event. Based on the risk assessment, it is evident that weather will continue to have potentially devastating economic impacts to Hermosa Beach. Impacts that are not quantified, but anticipated in future events, include:

- ✓ Injury and loss of life

- ✓ Commercial and residential structural damage
- ✓ Disruption of and damage to public infrastructure
- ✓ Secondary health hazards (e.g., mold and mildew)
- ✓ Damage to roads/bridges resulting in loss of mobility
- ✓ Significant economic impacts to jobs, sales, and tax revenue upon the community
- ✓ Negative impact on commercial and residential property values and
- ✓ Significant disruption to citizens as temporary facilities and relocations would likely be needed.

Q&A | ELEMENT B: RISK ASSESSMENT | B2-a.
Q: Does the plan provide an overall summary of each jurisdiction's vulnerability to the identified hazards? (Requirement 44 CFR § 201.6(c)(2)(ii)) **A:** See **Summary of Vulnerability to Weather** below.

Summary of Vulnerability to Weather

The following is a summary of vulnerability to weather events. It's estimated that nearly all of Hermosa Beach's staff could be impacted by severe storms, heat waves, and drought. All of the City-owned properties could be impacted including City Hall Complex, Police Department, Public Works Yard, Community Center & Emergency Operations Center, Clark Field & Clark Building, Prospect Avenue Building, and Fire Station which would total approximately 15 buildings, and structure/contents valued at $36,980,010.

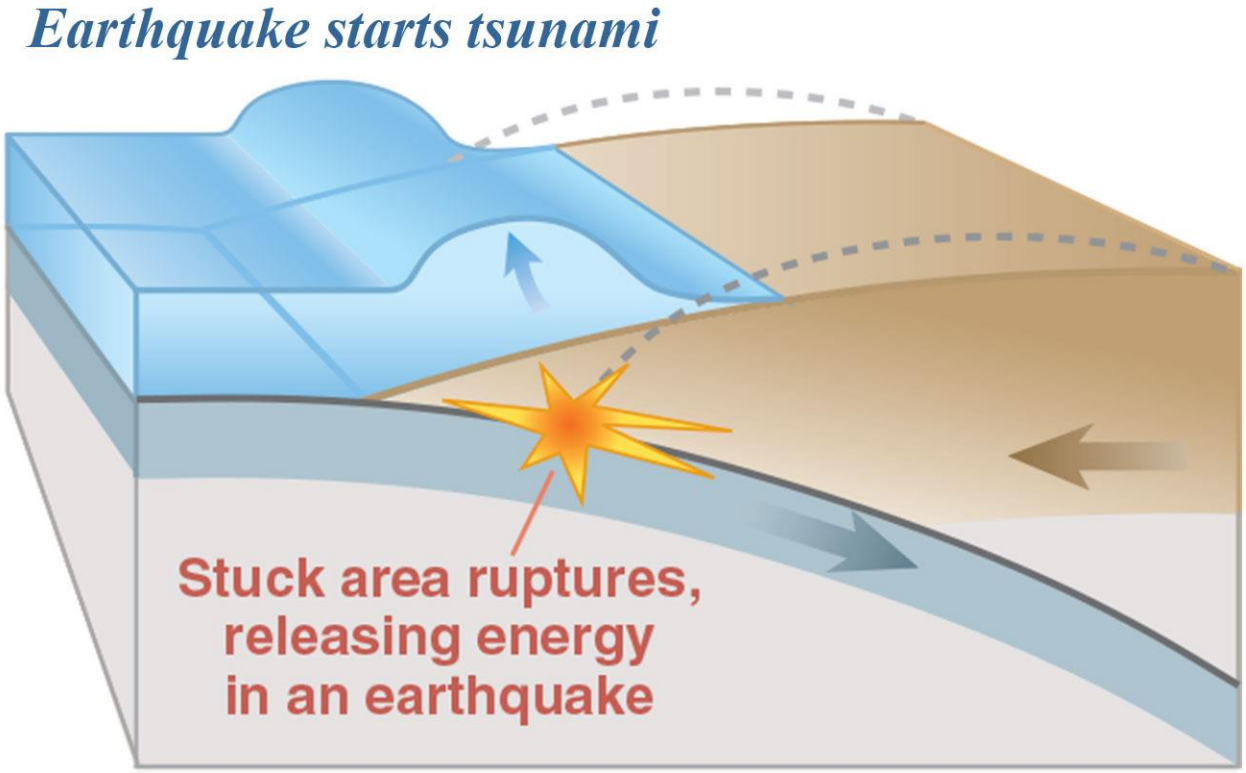
Tsunami Hazards

Hazard Definition

According to the Intergovernmental Oceanographic Commission brochure titled “Tsunami: The Great Waves” (2012), the phenomenon we call “tsunami” (soo-NAH-mee) is a series of traveling ocean waves of extremely long length generated primarily by earthquakes occurring below or near the ocean floor. Underwater volcanic eruptions and landslides can also generate tsunamis. In the deep ocean, the tsunami waves move with a speed exceeding 500 miles per hour, and a wave height of only a few inches. Tsunami waves are distinguished from ordinary ocean waves by their great length between wave crests, often exceeding 60 miles or more in the deep ocean, and by the time between these crests, ranging from 10 minutes to an hour.

As they reach the shallow waters of the coast, the waves slow down and the water can pile up into a wall of destruction up to 30 feet or more in height. The effect can be amplified where a bay, harbor or lagoon funnels the wave as it moves inland. Large tsunamis have been known to rise over 100 feet. Even a tsunami 1-3 feet high can inflict destructive damage and cause many deaths and injuries.

Infographic: Earthquake Starts Tsunami
Source: “Surviving a tsunami: lessons from Chile, Hawaii, and Japan; USGS Circular 1187”



Earthquakes and Tsunamis

An earthquake can be caused by volcanic activity, but most are generated by movements along fault zones associated with the plate boundaries. Most strong earthquakes, representing 80% of

the total energy released worldwide by earthquakes, occur in subduction zones where an oceanic plate slides under a continental plate or another younger oceanic plate.

Not all earthquakes generate tsunamis. To generate a tsunami, the fault where the earthquake occurs must be underneath or near the ocean and cause vertical movement of the sea floor over a large area, hundreds or thousands of square miles. “By far, the most destructive tsunamis are generated from large, shallow earthquakes with an epicenter or fault line near or on the ocean floor.” The amount of vertical and horizontal motion of the sea floor, the area over which it occurs, the simultaneous occurrence of slumping of underwater sediments due to the shaking, and the efficiency with which energy is transferred from the earth’s crust to the ocean water are all part of the tsunami generation mechanism. The sudden vertical displacements over such large areas, disturb the ocean's surface, displace water, and generate destructive tsunami waves.

Photo: Tsunami in Indonesia
Source: Antara Foto, Reuters, The New York Times

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2a.
Q: Does the plan include information on **previous occurrences** of hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))
A: See **Previous Occurrences of Tsunami in the City of Hermosa Beach** below.

Previous Occurrences of Tsunamis in Los Angeles County

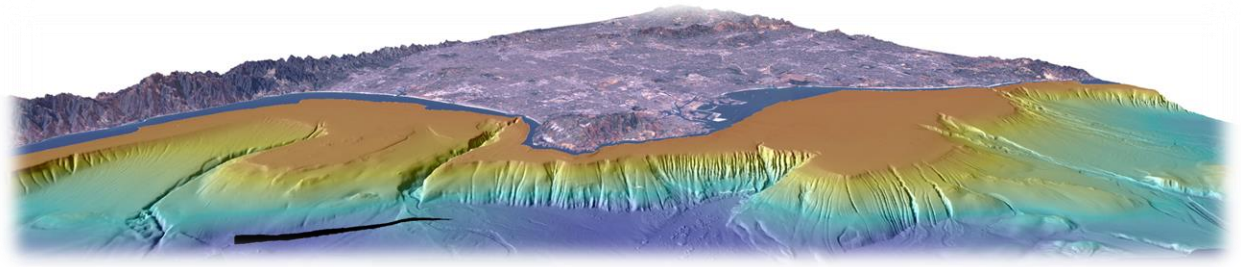
According to the County of Los Angeles All-Hazards Mitigation Plan (2019), eleven major tsunami events have occurred in Los Angeles County in the last century, including:

Table: Los Angeles County Tsunamis
(Source: County of Los Angeles AHMP, 2019)

Date	Locations	Maximum Run up*(m)	Earthquake Magnitude
April 13, 1923	Kamchatka	Unknown	M 7.2
August 30, 1930	Santa Monica	9 to 10 feet	N/A

Date	Locations	Maximum Run up*(m)	Earthquake Magnitude
April 1, 1946	Earthquake near Aleutian Islands affecting Catalina Island, Los Angeles, and Long Beach	1 to 6 feet	M 8.8
November 4, 1952	Earthquake near Kamchatka affecting Santa Monica, Los Angeles, and Long Beach	1 to 2 feet	M 9.0
March 9, 1957	Earthquake near Aleutian Islands affecting Santa Monica, Los Angeles, and Long Beach	1 to 2 feet	M 8.6
May 22, 1960	Earthquake in Chile affecting Catalina Island, Los Angeles, Long Beach, and Santa Monica	2 to 5 feet	M 9.5
March 28, 1964	Earthquake in Alaska affecting Catalina Island, Los Angeles, Long Beach, and Santa Monica	2 to 3 feet	M 9.2
November 29, 1975	Earthquake in Hawaii affecting Catalina Island	3 to 4 feet	M 8.0
September 29, 2009	Earthquake in Samoa affecting Los Angeles	1 to 2 feet	M 8.0
February 27, 2010	Earthquake in Chile affecting Catalina Island, Los Angeles, Long Beach, and Santa Monica	1 to 3 feet	M 8.8
March 11, 2011	Earthquake in Japan affecting Catalina Island, Los Angeles, Long Beach, Redondo Beach, and Santa Monica	2 to 3 feet	M 9.0

3D Illustration: Los Angeles Margin and Basin
Source: Gardner, James V., and Peter Dartnell, 2002. Multibeam Mapping of the Los Angeles, California Margin. U.S. Geological Survey)



Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B1a.

Q: Does the plan include a general **description** of all natural hazards that can affect each jurisdiction? (Requirement §201.6(c)(2)(i))
A: See **Local Conditions** below.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3b.

Q: Is there a description of each identified hazard's overall **vulnerability** (structures, systems, populations, or other community assets defined by the community that are identified as being susceptible to damage and loss from hazard events) for each jurisdiction? (Requirement §201.6(c)(2)(ii))
A: See **Local Conditions** below.

Local Conditions

In Los Angeles County, areas at risk of maximum tsunami run up include the ports of Long Beach and Los Angeles, Catalina Island, and areas in the cities of Los Angeles, Long Beach, Manhattan Beach, Redondo Beach, Hermosa Beach, El Segundo, Palos Verdes, Santa Monica, and Malibu. In the unincorporated areas of Los Angeles County, the five coastal zones (i.e., Marina Del Rey, Santa Catalina Island, Santa Monica Mountains, San Clemente Island, and Ballona Wetlands) are subject to inundation.

In Southern California, an earthquake could trigger an underwater avalanche or submarine landslide in Santa Monica Bay and produce a tsunami that could inundate low-lying areas of Los Angeles County. According to researchers a locally generated tsunami could bring water as high as 5 feet in Marina del Rey, 7 feet in Manhattan Beach and 11 feet in Redondo Beach. Such a tsunami could flood homes and destroy many small boats in nearby harbors, thereby creating dangerous debris.

Based on the history of tsunami run-ups in the region and the history of earthquakes in the Pacific Rim, another tsunami event is likely to occur, although the extent and probability is unknown.

Map: Hermosa Beach Tsunami Inundation Zone shows the maximum considered tsunami runup from several extreme tsunami sources. According to the County of Los Angeles All-Hazards Mitigation Plan (2019), there are 43.35 square miles (0.91%) in Los Angeles County located in this hazard area. In the unincorporated areas of Los Angeles County there are 2.07 square miles (0.07%) at risk of a maximum tsunami runup.

Map: Hermosa Beach Tsunami Inundation Zone
(Source: General Plan – Public Safety Element, 2017)

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3a.

Q: Is there a description of each hazard's **impacts** on each jurisdiction (what happens to structures, infrastructure, people, environment, etc.)? (Requirement §201.6(c)(2)(ii))
A: See **Impacts of Tsunamis on Hermosa Beach** below.

Impacts of Tsunamis on Hermosa Beach

Based on the risk assessment, it is evident that tsunamis will continue to have potentially devastating economic impacts to the City of Hermosa Beach. Impacts that are not quantified, but can be anticipated in future events, include:

- ✓ Injury and loss of life
- ✓ Commercial and residential structural damage
- ✓ Disruption of and damage to public infrastructure
- ✓ Secondary health hazards (e.g., mold and mildew)
- ✓ Minor to major disruption of revenue service on bus and rail
- ✓ Damage to roads/bridges resulting in loss of mobility
- ✓ Significant economic impact on jobs, sales, and tax revenue upon the community
- ✓ Negative impact on commercial and residential property values
- ✓ Significant disruption to citizens as temporary facilities and relocations would likely be needed

✓ **Q&A | ELEMENT B: RISK ASSESSMENT | B2-a.**

✓ **Q:** Does the plan provide an overall summary of each jurisdiction's vulnerability to the identified hazards?
✓ (Requirement 44 CFR § 201.6(c)(2)(ii))
✓ **A:** See **Summary of Vulnerability to Tsunami** below.

Summary of Vulnerability to Tsunami

The following is a summary of vulnerability to tsunami events. It's estimated that nearly all of Hermosa Beach's staff could be impacted by a tsunami. Based on available mapping resources, none of the City-owned properties would be directly impacted by a tsunami.

PART III: MITIGATION STRATEGIES

Mitigation Strategies

Overview of Mitigation Strategy

As the cost of damage from disasters continues to increase nationwide, the City of Hermosa Beach recognizes the importance of identifying effective ways to reduce vulnerability to disasters. Mitigation Plans assist communities in reducing risk from natural hazards by identifying resources, information and strategies for risk reduction, while helping to guide and coordinate mitigation activities at the City of Hermosa Beach facilities.

The plan provides a set of action items to reduce risk from hazards through education and outreach programs, and to foster the development of partnerships. Further, the plan provides for the implementation of preventative activities.

The resources and information within the Mitigation Plan:

1. Establish a basis for coordination and collaboration among agencies and the public in the City of Hermosa Beach.
2. Identify and prioritize future mitigation projects.
3. Assist in meeting the requirements of federal assistance programs.

The Mitigation Plan is integrated with other City plans including the City of Hermosa Beach Emergency Operations Plan, General Plan, Capital Improvement Program, as well as department-specific standard operating procedures.

Mitigation Measure Categories

Following is FEMA's list of mitigation categories. The activities identified by the Planning Team are consistent with the six broad categories of mitigation actions outlined in FEMA publication 386-3 *Developing the Mitigation Plan: Identifying Mitigation Actions and Implementing Strategies*.

- ✓ **Prevention:** Government administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses. Examples include planning and zoning, building codes, capital improvement projects, open space preservation, and storm water management regulations.
- ✓ **Property Protection:** Actions that involve modification of existing buildings or structures to protect them from a hazard, or removal from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- ✓ **Public Education and Awareness:** Actions to inform and educate citizens, property owners, and elected officials about hazards and potential ways to mitigate them.

  Such actions include outreach projects, real estate disclosure, hazard information centers, and school-age and adult education programs.
- ✓ **Natural Resource Protection:** Actions that, in addition to minimizing hazard losses, preserve or restore the functions of natural systems. Examples include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

- ✓ **Emergency Services:** Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and protection of critical facilities.
- ✓ **Structural Projects:** Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, levees, floodwalls, retaining walls, and safe rooms.

Q&A | ELEMENT C. MITIGATION STRATEGY | C3-a.
Q: Does the plan include goals to reduce the risk from the hazards identified in the plan? (Requirement 44 CFR § 201.6(c)(3)(i)) **A:** See **Goals** below.
Q&A | ELEMENT E. PLAN UPDATE | E2-a.
Q: Does the plan describe how it was revised due to changes in community priorities? (Requirement 44 CFR § 201.6(d)(3)) **A:** See **Goals** below.

Ensuring Goals Benefit the Whole Community

The following content was gathered from FEMA's 2023 Local Hazard Mitigation Policy Guidance.

Individuals and groups within your community have differing needs, preferences and strengths. When your most underserved and socially vulnerable residents can participate in and benefit from your plan and your projects, the rest of your community will too. Pick a planning approach in which you set large-scale goals for the entire community, but then use targeted approaches to meet those goals for even the most underserved and socially vulnerable populations.

For example, you could set a goal of making sure that all residents, workers and visitors have the ability to access safe, cool spaces during a heat wave. While the wealthiest residents most likely have access to private homes with air conditioning, lower-income residents may lack such resources. Also, anyone can be affected by storms or other disruptions to cooling systems.

To resolve this disparity and achieve the overarching goal of community resilience to high heat events, your community may decide to create public cooling centers. However, this may not meet the need. These spaces also need to be accessible to those who need them. Consider accessibility to people with disabilities, public transit availability and proximity. Also consider ways to provide travel vouchers, availability of wi-fi and charging stations (including power cords), access to potable water and facilities, and staff cultural or language competencies. It is also important to think about the potential consequences of your plan as it may have unintended impacts on socially vulnerable populations. For instance, while many mitigation measures increase property values and improve neighborhood livability, these effects can contribute to gentrification. Gentrification often displaces low-income residents and disrupts the social fabric of a community. This could decrease the overall resilience of already-at-risk groups. By thinking through potential impacts like these, you can proactively work to address them.

Goals

The Planning Team reviewed the goals from the 2018 LHMP and agreed to maintain the goals as guiding the direction of future activities aimed at reducing risk and preventing loss from natural hazards. Also, the General Plan goals from the Public Safety Element and Infrastructure Element have been added to the LHMP to establish a strong link between the General Plan and Mitigation Plan.

General Plan Goals

Following are the General Plan Goals – Public Safety Element:

Goal 1. Injuries and loss of life are prevented, and property loss and damage are minimized.
Goal 2. The anticipated effects of sea level rise are understood, prepared for, and successfully mitigated.
Goal 3. Hermosa Beach residents, businesses, and coastal resources are protected from hazardous materials.
Goal 4. The community has the capacity and is prepared for unavoidable hazards.
Goal 5. High quality police and fire protection services are provided to residents and visitors.
Goal 6. Hermosa Beach is prepared for, responds to and recovers quickly from natural disasters.
Goal 7. Noise compatibility is considered in the land use planning and design process.
Goal 8. Transportation noise sources are minimized.

Following are the General Plan Goals – Infrastructure Element:
Goal 1. Infrastructure systems are functional, safe, and well maintained.
Goal 2. Roadway infrastructure maintenance supports convenient, attractive, and complete streets and associated amenities.
Goal 3. Adequate water supplies from diverse sources provide for the needs of current and future residents, businesses, and visitors.
Goal 4. The sewer system infrastructure is modernized and resilient.
Goal 5. The stormwater management system is safe, sanitary, and environmentally and fiscally sustainable.
Goal 6. Utility services are reliable, affordable, and renewable.
Goal 7. A reliable and efficient telecommunications network available to every resident, business, and institution.

LHMP Goals

Each LHMP goal is supported by mitigation action items. The Planning Team developed these action items through its knowledge of the local area, risk assessment, review of past efforts, identification of mitigation activities, and qualitative analysis.

The five HMP goals and descriptions are listed below:

Protect Life, Property, and Reduce Potential Injuries from Natural, Technological, and Human-Caused Hazards

Implement activities that assist in protecting lives by making homes, businesses, infrastructure, critical facilities, and other property more resistant to losses from natural, technological, and human-caused hazards.

Promote Disaster Resistance for City's Existing and Future Built Environment

Reduce losses and repetitive damages for chronic hazard events while promoting insurance coverage for catastrophic hazards.

Improve hazard assessment information to make recommendations for avoiding new development in high hazard areas and encouraging preventative measures for existing development in areas vulnerable to natural, human-caused, and technological hazards.

Improve Public Understanding, Support and Need for Hazard Mitigation Measures

Develop and implement education and outreach programs to increase public awareness of the risks associated with natural hazards.

Provide information on tools, partnership opportunities, and funding resources to assist in implementing mitigation activities.

Strengthen Partnerships and Collaboration to Implement Hazard Mitigation Activities

Strengthen communication and coordinate participation among and within public agencies, citizens, non-profit organizations, business, and industry to gain a vested interest in implementation.

Encourage leadership within public and private sector organizations to prioritize and implement local, county, and regional hazard mitigation activities.

Enhance City's ability to effectively and immediately respond to disasters and rapidly initiate disaster recovery actions

Establish policy to ensure mitigation projects for critical facilities, services, and infrastructure.

Strengthen emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, business, and industry.

Coordinate and integrate natural hazard mitigation activities, where appropriate, with emergency operations plans and procedures.

How are the Mitigation Action Items Organized?

The action items are a listing of activities in which City agencies and citizens can be engaged to reduce risk.

The action items are organized within the following Mitigation Actions Matrix, categorized by hazard. Data collection and research and the public participation process resulted in the development of these action items. The Matrix includes the following information for each action item:

Lead Department

The Mitigation Actions Matrix assigns primary responsibility for each of the action items. The hierarchies of the assignments vary – some are positions, departments, or committees. The primary responsibility for implementing the action items falls to the entity shown as the "Lead Department". This department has the regulatory responsibility to address hazards, or is able to organize resources, find appropriate funding, or oversee activity implementation, monitoring, and evaluation.

Timeline

The mitigation plan will be updated every 5 years according to FEMA regulations. However, there are projects and programs in the Mitigation Actions Matrix that will require more than 5 years to complete.

Funding Source

External resources could include a range of FEMA mitigation grants perhaps including HMGP, FMA, and BRIC.

Internal resources could include general fund, capital improvement budgets, impact fees, human capital, in-kind resources, etc.

Plan Goals Addressed

The plan goals addressed by each action item are included as a way to monitor and evaluate how well the mitigation plan is achieving its goals once implementation begins.

The plan goals are organized into the following five areas:

- ✓ Protect Life and Property
- ✓ Enhance Public Awareness
- ✓ Preserve Natural Systems
- ✓ Encourage Partnerships and Implementation
- ✓ Strengthen Emergency Services

Q&A | ELEMENT D: PLAN MAINTENANCE | D3-b.

Q: Does the plan identify the planning mechanisms for each plan participant into which the ideas, information and strategy from the mitigation plan may be integrated? (Requirement 44 CFR § 201.6(c)(4)(ii))

A: See **Planning Mechanism** below.

Planning Mechanism

It's important that each action item be implemented. Perhaps the best way to ensure implementation is through integration with one or many of the City's existing "planning mechanisms" including the "internal resources" including the General Plan, Capital Improvement Projects, General Fund, and "external resources" including Grants. Opportunities for integration will be simple and easy in cases where the action item is already compatible with the content of the planning mechanism. As an example, if the action item calls for the creation of a floodplain ordinance and the same action is already identified in the General Plan's policies, then the General Plan will assist in implementation. On the contrary, if preparation of a floodplain ordinance is not already included in the General Plan policies, then the item will need to be added during the next update to the General Plan.

The Capital Improvement Program is updated annually. The CIP includes infrastructure projects built and owned by the City. As such, the CIP is an excellent medium for funding and implementing action items from the Mitigation Plan. The Mitigation Actions Matrix includes several items from the existing CIP. The authors of the CIP served on the Planning Team and are already looking to funding addition Mitigation Plan action items in future CIPs.

The Annual Budget is the document that guides all of the City's expenditures and is updated on an annual basis. Although primarily a funding mechanism, it also includes descriptions and details associated with tasks and projects.

Grants come from a wide variety of sources – some annually and others triggered by events like disasters. Whatever the source, the City uses the Annual Budget to identify successful grants as funding sources.

Building and Infrastructure

This addresses the issue of whether or not a particular action item results in the reduction of the effects of hazards on new and existing buildings and infrastructure.

Comments

The purpose of the "Comments" is to capture the notes and status of the various action items. Since Planning Team members frequently change between plan updates and annual reviews, the Comments provide a sort of history to help in tracking the progress and status of each action.

Q&A | ELEMENT C. MITIGATION STRATEGY | C5-a.
Q: Does the plan describe the criteria used for prioritizing actions? (Requirement 44 CFR § 201.6(c)(3)(iv))
A: See **Benefit/Cost Ratings** below.

Benefit/Cost Ratings

The benefits of proposed projects were weighed against estimated costs as part of the project prioritization process. The benefit/cost analysis was not of the detailed variety required by FEMA for project grant eligibility under the Hazard Mitigation Grant Program (HMGP) and Building Resilient Infrastructure and Communities (BRIC) grant program. A less formal approach was used because some projects may not be implemented for up to 10 years, and associated costs and benefits could change dramatically in that time. Therefore, a review of the apparent benefits versus the apparent cost of each project will be performed in the future as needed. Parameters were established for assigning subjective ratings (high, medium, and low) to the costs and benefits of these projects.

Cost ratings were defined as follows:

High: Existing funding within the jurisdiction will not cover the cost of the action item so outside sources of revenue would be required.

Medium: The action item could be funded through existing jurisdictional funding but would require budget modifications.

Low: The action item could be funded under existing jurisdictional funding within the assigned lead department.

Benefit ratings were defined as follows:

High: The action item will provide short-term and long-term impacts on the reduction of risk exposure to life and property.

Medium: The action item will have long-term impacts on the reduction of risk exposure to life and property.

Low: The action item will have only short-term impacts on the reduction of risk exposure to life and property.

Q&A | ELEMENT C. MITIGATION STRATEGY | C5-a.

Q: Does the plan describe the criteria used for prioritizing actions? (Requirement 44 CFR § 201.6(c)(3)(iv))
A: See **Priority Rating** below.

Priority Rating

The Planning Team utilized the following rating tool to establish priorities. Designations of "High", "Medium", and "Low" priority have been assigned to all of the action item using the following criteria:

Does the Action:

- ☐ solve the problem?
- ☐ address Vulnerability Assessment?
- ☐ reduce the exposure or vulnerability to the highest priority hazard?
- ☐ address multiple hazards?
- ☐ benefits equal or exceed costs?
- ☐ implement a goal, policy, or project identified in the General Plan or Capital Improvement Project?

Can the Action:

- ☐ be implemented with existing funds?
- ☐ be implemented by existing state or federal grant programs?
- ☐ be completed within the 5-year life cycle of the LHMP?
- ☐ be implemented with currently available technologies?

Will the Action:

- ☐ be accepted by the community?
- ☐ be supported by community leaders?
- ☐ adversely impact segments of the population or neighborhoods?
- ☐ require a change in local ordinances or zoning laws?
- ☐ positive or neutral impact on the environment?
- ☐ comply with all local, state and federal environmental laws and regulations?

Is there:

- ☐ sufficient staffing to undertake the project?
- ☐ existing authority to undertake the project?

As mitigation action items were updated or written the Planning Team, representatives were provided worksheets for each of their assigned action items. Answers to the criteria above determined the priority according to the following scale.

- 1-6 = Low priority
- 7-12 = Medium priority
- 13-18 = High priority

Q&A | ELEMENT C: MITIGATION STRATEGY | C4-a.
Q: Does the plan include an analysis of a comprehensive range of actions/projects that each jurisdiction considered to reduce the impacts of hazards identified in the risk assessment? (Requirement 44 CFR § 201.6(c)(3)(ii)) **A:** See **Mitigation Actions Matrix (Action Items)** below.
Q&A | ELEMENT C: MITIGATION STRATEGY | C4-b.
Q: Does the plan include one or more action(s) per jurisdiction for each of the hazards as identified within the plan's risk assessment? (Requirement 44 CFR § 201.6(c)(3)(ii)) **A:** See **Mitigation Actions Matrix (Action Items)** below.
Q&A | ELEMENT C: MITIGATION STRATEGY | C5-a.
Q: Does the plan describe the criteria used for prioritizing actions? (Requirement 44 CFR § 201.6(c)(3)(ii)) **A:** See **Mitigation Actions Matrix (Priority, Goals)** below.
Q&A | ELEMENT C: MITIGATION STRATEGY | C5-b.
Q: Does the plan identify the position, office, department, or agency responsible for implementing/administering the identified mitigation actions, as well as potential funding sources and expected time frame? (Requirement 44 CFR § 201.6(c)(3)(iii))) **A:** See **Mitigation Actions Matrix (Lead Department/Position, Timeline, Funding Source)** below.
Q&A | ELEMENT D: PLAN MAINTENANCE | D3-a.
Q: Does the plan describe the process the community will follow to integrate the ideas, information and strategy of the mitigation plan into other planning mechanisms? (Requirement 44 CFR § 201.6(c)(4)(ii)) **A:** See **Mitigation Actions Matrix (Planning Mechanism)** below.
Q&A | ELEMENT E: PLAN UPDATE | E2-b.
Q: Does the plan include a status update for all mitigation actions identified in the previous mitigation plan? (Requirement 44 CFR § 201.6(d)(3)) **A:** See **Mitigation Actions Matrix (Comments)** below.
Q&A | ELEMENT E: PLAN UPDATE | E2-c.
Q: Does the plan describe how jurisdictions integrated the mitigation plan, when appropriate, into other planning mechanisms? (Requirement 44 CFR § 201.6(d)(3)) **A:** See **Integration into other Planning Mechanisms (Comments)** below.

Mitigation Actions Matrix

Following is **Table: Mitigation Actions Matrix** which identifies the existing and future mitigation activities developed by the Planning Team.

Key to Leads: CMO – City Manager's Office, CD-Community Development, CMO/EMC-Emergency Management Coordinator CMO/EPM-Environmental Programs Manager, PW-Public Works, FI-Finance

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
MULTI-HAZARD MITIGATION ACTION ITEMS														
MH-1 Maintain an internal Hazard Mitigation Planning Team to develop a sustainable process for implementing, monitoring, and evaluating citywide mitigation activities.	CMO/EMC	Ongoing	X	X	X	X	X	Y	GF	GF	H	L	M	Revised
MH-2 Conduct a backup power resources assessment (e.g., generators, alternative power sources) of critical infrastructure such as fire, police, city hall, public works yard, community center	PW	2026	X		X		X	Y	GF	Gf	H	L	H	Revised

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
complex and EOC and upgrade resources as necessary.														
MH-3 Fund and deploy a community warning system that includes sirens and loudspeakers.	CMO/EMC	Ongoing	X	X	X	X	X	Y	GF, CIP	GF, CIP	M	L	H	Revised
MH-4 Continue to adopt, implement, and enforce the latest editions of the California Building and Fire Codes, with appropriate local amendments based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).	CD	Ongoing	X	X	X			Y	GF	H		L	H	Revised
MH-5 Continue to develop, implement, revise, and maintain emergency plans which shall include, but not be limited to: EOP, COOP, Debris Removal Plan, and the Disaster Recovery and Resiliency Plan.	CMO/EMC, CMO/EPM, PW/PD	Ongoing	X	X	X	X	X	N	GF	GF, HMGP, BRIC	H	H	H	Revised

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
MH-6 Conduct a needs assessment and develop a plan for community sheltering to include populations with disabilities and other AFN, and animals.	CMO/EMC	Ongoing	X	X	X	X	X	Y	GF	GF	M	L	M	Revised
MH-7 Develop a public outreach and awareness campaign that informs the community regarding the hazards that can impact the city and how to implement mitigation actions at their homes to prepare themselves and their families.	CMO/EMC	1 year	X	X	X	X	X	Y	GF	GF	H	L	M	Revised – outreach program running simultaneously with HMP update.
MH-8 Partner with the Chamber of Commerce and local businesses to develop and implement an emergency preparedness program for businesses and visitors to the City.	CMO/EMC	?	X	X	X	X	X	N	GF	GF	H	L	M	Revised

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
MH-9 Encourage local businesses to develop a business COOP.	CMO/EMC	?	X	X	X	X	X	N	GF	GF	H	L	M	Revised
MH-10 Utilize the internal Hazard Mitigation Planning Team to identify, pursue and secure funds that support risk reduction measures.	CMO/EMC	?	X	X	X	X	X	Y	GF	GF	H	L	M	Revised
MH-11 Periodically update the Public Safety Element and concurrently amend the Local Hazard Mitigation Plan to maintain eligibility for maximum grant funding.	CD	Ongoing	X		X		X		General Plan Maintenance Fee	GF	H	L	H	Revised
MH-12 Encourage all new development (including rehabilitation, renovation, and redevelopment) to incorporate "Green" building activities, increase tree plantings, use fire-resistant materials, and include projects to mitigate sea level rise and flooding.	CD, CMO, PW	Ongoing	X	X	X			X	GF, Project Applicant	GF	H	L	H	Revised

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
Activities may include the use of low impact development standards, energy efficient features, or active and passive solar heating and water pumping systems.														
MH-13 Develop a post disaster recovery policy that establishes the procedures and permit requirements surrounding abandoned structures, condemned buildings, and reconstruction. The policy will need to address debris removal, hazardous materials management, utility reconnection, and designated historical landmarks.	CD, CMO, PW	Ongoing	X	X	X	X		X	GF, HMGP, BRIC, Bonds	GF	H	H	H	Revised
MH-14 Coordinate with the utility companies and vendors to strengthen, safeguard, improve the resiliency of their infrastructure and facilities to address the impact of	PW	Annual	X	X	X	X	X	Y	GF	GF	H	L	H	Revised

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
disasters on their vital lifeline services provided to the community.														
~~MH-15 Continue to educate, train, and exercise City staff in compliance with California Disaster Services Workers program, SEMS/NIMS Compliance, and all other State and Federal requirements.~~	~~Emergency Management~~					~~X~~			~~GF~~				~~M~~	Deleted – not mitigation
~~MH-16 Build a cadre of committed, and trained volunteers to augment disaster response and recovery efforts in compliance with the California Disaster Service Worker program guidance. These volunteer teams may include but are not limited to: Community Emergency Response Team, American Red Cross shelter workers, animal rescue and care~~	~~Emergency Management~~					~~X~~			~~GF~~				~~H~~	Deleted – not mitigation

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
~~teams, and Amateur Radio communications teams.~~														
~~MH-17 Develop a volunteer management plan (including spontaneous unaffiliated volunteers) to support City disaster response and recovery efforts.~~	~~Emergency Management~~					~~X~~			~~GF~~				~~H~~	Deleted – not mitigation
~~MH-18 Partner with Hermosa Beach City School District to review, update, and maintain a multi-hazard emergency operation plan.~~	~~Emergency Management~~					~~X~~			~~GF~~				~~H~~	Deleted – not mitigation
MH-19 This project includes design and construction of sewer improvements and repairs based on the Sewer Master Plan. (Source: 2023-2024 CIP)	PW	Ongoing	X	X	X	X	X	Y	CIP	CIP	M	L-H	H	New
MH-20 This project provides necessary safety improvements to the City's Record Center that is	PW	2025-2027	X	X	X	X	X	Y	CIP	CIP	M	L-H	H	New

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currently housed in the former shower and locker room area in the lower level of the Community Center. The area is not designed, or properly set up, to be a Records Center for the City to ensure safe retention and processing of public records. The Records Center is in need of several improvements to bring the area up to current health and building safety standards, including, but not limited to, new sprinkler system, new ventilation system, pipe repairs, seismic retrofit of records shelving, and lighting modifications. The project currently includes funding for design of the improvements; construction costs will be further defined through the design process. (Source: 2023-2024 CIP)														

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(Note: also include the Citywide effort to digitize records for cloud storage/access)														
MH-21 Buildings and infrastructure will be periodically evaluated for seismic, fire, flood, and coastal storm hazard risks and identified risks will be minimized by complying with California Building Code standards and other applicable regulations. (Source: GP Public Safety Element)	PW, CD (Building Official)	Ongoing	X	X	X		X	Y	CIP	CIP	H	L	H	New, Status: 2015 was last time evaluation was conducted.
MH-22 Reduce fire hazards associated with older buildings, multi-story structures, and industrial facilities. (Source: GP Public Safety Element)	CD, LACoFD	2026	X	X	X		X	Y	CIP	CIP	H	L	H	New
MH-23 Establish centralized internal procedures to coordinate efforts for securing funds that support risk reduction measures.	FI	2025	X	X	X		X	Y	GF	GF	H	L	H	New

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(Source: GP Public Safety Element)														
MH-24 Identify and regularly evaluate or update evacuation and response procedures through the Emergency Operations Plan. (Source: GP Public Safety Element)	CMO/EMC	2018	X	X	X	X	X	Y	GF	GF	H	L	H	New, Completed in 2017 GP Public Safety Element Update
MH-25 Consider the combined effects of sea level rise when evaluating potential tsunami and storm surge impacts. (Source: GP Public Safety Element)	CMO/EMC, PW, CD	Ongoing	X	X	X	X	X	Y	GF	GF	H	L	H	New
MH-26 Strictly implement, enforce, and monitor MS4 National Pollutant Discharge Elimination Systems (NPDES) Permit requirements through stormwater ordinances. (Source: GP Infrastructure Element)	CMO/EPM	Ongoing	X	X	X	X	X	Y	GF	GF	H	L	H	New

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
MH-27 Promote community-based programs in fire safety and emergency preparedness, including neighborhood-level and business programs and community volunteer groups such as CERT, Neighborhood Watch, Volunteers in Policing and the Amateur Radio Association. (Source: GP Public Safety Element)	CMO/EMC	Ongoing	X	X	X	X	X	Y	GF	GF	H	L	H	New
MH-28 Maintain the City's emergency communication policy and protocols and utilize City media resources, emergency alert notification systems, and program advertising to provide information and communicate with the community prior to, during, or after events posing risk to community health safety, and welfare.	CMO/EMC	Ongoing	X	X	X	X	X	Y	GF	GF	H	L	H	New

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(Source: GP Public Safety Element)														
MH-29 Encourage neighborhood groups, including Neighborhood Watch, to identify, consider, and prepare for the needs of neighbors with access and functional needs to adequately respond to disasters. (Source: GP Public Safety Element)	CMO/EMC	Ongoing	X	X	X	X	X	Y	GF	GF	H	L	H	New
MH-30 Incorporate procedures into emergency and hazard mitigation plans to take care of vulnerable populations during hazardous events. (Source: GP Public Safety Element)	CMO/EMC	Ongoing	X	X	X	X	X	Y	GF	GF	H	L	H	New
MH-31 Regularly evaluate, identify, and communicate new hazard risks and incorporate into planning and	CMO/EMC, CD	Ongoing	X	X	X	X	X	Y	GF	GF	H	L	H	New

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programs. (Source: GP Public Safety Element)														
MH-32 Cooperate and collaborate with neighboring jurisdictions and social services to maximize public safety and emergency services. (Source: GP Public Safety Element)	CMO/EMC, PD, LACoFD	Ongoing	X	X	X	X	X	Y	GF	GF	H	L	H	New
MH-33 Dedicate funds to upgrade and maintain essential facilities (including EOC, Police/Fire Facilities, and City Hall) to make them more resilient to the potential impacts of natural disasters. (Source: GP Public Safety Element)	CMO, PW	Ongoing	X	X	X	X	X	Y	GF, HMGP, BRIC, CIP	GF, HMGP, BRIC, CIP	H	L	H	New
MH-34 Develop a comprehensive approach to water infrastructure that integrates sewer system planning with potable and recycled water systems, stormwater	PW, CD	Ongoing	X	X	X	X	X	Y	GF	GF	H	L	H	New

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systems, and increased conservation awareness. (Source: GP Infrastructure Element)														
MH-35 Complete grant-funded Emergency Preparedness Community Education Project.	CMO	2024	X	X	X	X	X	X	State of California Grant	GF	H	H	H	New
MH-36 Continue efforts to convert first responder vehicle to fully electric vehicles.	PW, PD	Ongoing	X	X	X	X	X		GF	GF	H	L	H	New
EARTHQUAKE MITIGATION ACTION ITEMS														
EQ-1 Identify residential structures that are not seismically resilient and implement programs to support retrofitting	CD	Ongoing	X		X			Y	GF	GF	H	H	M	Revised
EQ-2 Require new and redevelopment projects to prepare geotechnical reports (tool used to communicate site conditions,	CD	Ongoing	X		X			Y	PA	GF	H	L	M	Revised

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design and construction recommendations) to include potential liquefaction and/or landslide issues and mitigation strategies and site construction recommendations.														
~~EQ-3 Develop and implement a Citywide building retrofit policy to include URMs and second soft story and other seismically vulnerable structures in the City.~~	~~CD, PW, CMO/EMC~~	~~?~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~Y~~	~~GF~~	~~GF~~	~~H~~	~~L~~	~~M~~	Deleted - redundant
~~EQ-4 Develop a retrofitting action plan to improve the structural integrity of city owned structures.~~	~~CD, PW, CMO/EMC~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~Y~~	~~GF~~	~~GF~~	~~H~~	~~H~~	~~H~~	Deleted - redundant
EQ-5 This project will prepare condition assessment reports for City facilities throughout the city to understand the infrastructure improvement needs. (Source: 2023-2024 CIP)	PW	Ongoing	X	X	X	X	X	Y	CIP	CIP	M	L-H	H	New

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EQ-6 This project is for the design and construction of a new City Yard. The current City Yard is in need of reconstruction. A new City Yard will provide a safe and functional area for City maintenance crew and staging and be consistent with contemporary seismic standards. (Source: 2023-2024 CIP)	PW	Ongoing	X	X	X	X	X	Y	CIP, HMGP, BRIC	GF	M	L-H	H	New
EQ-7 Geotechnical reports will be prepared for new development projects in areas with the potential for liquefaction or landslide. (Source: GP Public Safety Element)	CD	Ongoing	X	X	X	X	X	Y	GF	GF	H	L	H	New
EQ-8 Encourage and facilitate retrofits of seismically high-risk buildings. (Source: GP Public Safety Element)	PW	Ongoing	X	X	X	X	X	Y	CIP	CIP	M	L-H	H	New

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FLOOD MITIGATION ACTION ITEMS														
FLD-1 Require new development and redevelopment projects to analyze and mitigate relevant sea level rise impacts.	CD	Ongoing	X	X	X	X	X	Y	GF, PA	GF	H	L	M	Revised
FLD-2 Investigate, design and implement engineering improvements to the City's storm water outfall system's operation and resiliency.	CMO/EPM, PW	10 years	X	X	X	X	X	Y	GF, HMGP, BRIC	GF, HMGP, BRIC	M	L-H	H	Status: Began work in 2019, Revised
FLD-3 Enhance community understanding of sea level rise and the potential impacts it will have on the City.	CD, CMO/EPM	Ongoing	X	X	X	X	X	N	GF	GF	L	L	H	Revised
~~FLD-4 Develop a long-term adaptive shoreline management program with a strong preference for beach replenishment over shoreline protective structures.~~	~~PW~~	~~2026~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~Y~~	~~GF~~	~~GF~~	~~M~~	~~L~~	~~H~~	Deleted – no longer necessary

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~~Replenish beaches after major erosion events.~~														
FLD-5 This project includes storm drain improvements throughout the city. Locations will be as identified and prioritized per the Storm Drain Master Plan. Projects will address deficiencies, ponding, and repairs citywide. (Source: 2023-2024 CIP)	PW	Ongoing	X	X	X	X	X	Y	CIP	CIP	M	L-H	H	New
FLD-6 This project includes storm drain improvements at 5th Street. (Source: 2023-2024 CIP)	PW	2024-2025	X	X	X	X	X	Y	CIP	CIP	M	L-H	H	New
FLD-7 This project includes storm drain improvements throughout the city. Locations will be as identified and prioritized per the Storm Drain Master Plan and includes Bard Street. Projects will address deficiencies, ponding, and repairs as well as where new storm drains	PW	2025	X	X	X	X	X	Y	CIP	CIP	M	L-H	H	New

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are needed citywide. (Source: 2023-2024 CIP														
FLD-8 As required by the region's Enhanced Watershed Management Plan (EWMP), this project will assess the implementation of a series of drywells east of Pacific Coast Highway (PCH) between 1st Street and 10th Street to capture storm water and dry weather flows within 118 acres of the Herondo Drain (SMB-6-1) watershed. (Source: 2023-2024 CIP)	PW	2026	X	X	X	X	X	Y	CIP	CIP	M	L-H	H	Status: Design is complete, New
FLD-9 Inspection of the pier will be performed to assess and evaluate the structural condition of the pier and provide recommendations for additional repairs as needed. (Source: 2023-2024 CIP)	PW	2024-2025	X	X	X	X	X	Y	CIP	CIP	M	L	H	New

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
FLD-10 This project will include repairs of the municipal pier structural elements including the piles, pile caps, deck and the lifeguard storage room. (Source: 2023-2024 CIP)	PW	February 2024	X	X	X	X	X	Y	CIP	CIP	M	L	H	Status: to be completed in February 2024, New
FLD-11 Natural interventions, green infrastructure, and infiltration systems will be utilized to minimize damage from coastal flooding. (Source: GP Public Safety Element)	CD, PW	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New
FLD-12 Encourage existing structures, critical facilities, and infrastructure to reduce flood vulnerability. (Source: GP Safety Element)	CD, PW	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New
FLD-13 Reduce stormwater runoff consistent with local stormwater	CD	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
permits. (Source: GP Public Safety Element)														
FLD-14 Integrate resilience to anticipated sea level rise impacts into project designs when repairing and replacing aging infrastructure within the coastal zone. (Source: GP Safety Element)	PW	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New
FLD-15 Require new development and redevelopment projects to consider and address relevant sea level rise impacts. (Source: GP Safety Element)	CD	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New
FLD-16 Enhance local understanding of sea level rise and keep decisionmakers and the community aware of potential impacts based on best available science. (Source: GP Safety Element)	CD, PW	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
FLD-17 Provide public information describing new flooding risks under a 55-inch sea level rise scenario in areas previously not affected by flooding. (Source: GP Safety Element)	CMO/EMC, CD	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New
FLD-18 Maintain or expand current beach widths under changing sea level conditions. (Source: GP Safety Element)	PW	Ongoing	X	X	X	X	X	Y	GF	GP	H	M	H	New
FLD-19 Support regional approaches to sediment management, beach replenishment, and adaptive shoreline protection to allow Hermosa Beach to voice its needs, allow for coordination with neighboring jurisdictions, and identify creative finance mechanisms to continue the	PW	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
replenishment program. (Source: GP Safety Element)														
FLD-20 Continue to monitor beach width and elevations to identify potential erosion problems. (Source: GP Safety Element)	PW	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New
FLD-21 Consider allowing construction projects with sand excavation to add sand for beach replenishment or nourishment purposes. (Source: GP Safety Element)	CD, PW	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New
FLD-22 Where feasible, use permeable pavement for low travel streets and minimize the use of concrete on streets and medians. (Source: GP Infrastructure Element)	PW	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New
FLD-23 Anticipate sea level rise impacts when planning, upgrading,	PW	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
and operating the sewer collection and treatment systems. (Source: GP Infrastructure Element)														
FLD-24 Naturalize flood channels that enhance flood protection capacity before employing other management solutions. (Source: GP Infrastructure Element)	PW	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New
FLD-25 Integrate natural features, such as topography, drainage, and trees, into the design of streets and rights-of-way to capture stormwater and prevent runoff. (Source: GP Infrastructure Element)	PW	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New
FLD-26 Encourage community behavior changes to reduce urban runoff pollution by incentivizing the capture of rainwater to prevent runoff and meet on-site water	CMO/EMC, CD	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
demand. (Source: GP Infrastructure Element)														
FLD-27 Require new development and redevelopment projects to incorporate low impact development (LID) techniques in project designs, including but not limited to on-site drainage improvements using native vegetation to capture and clean stormwater runoff and minimize impervious surfaces. (Source: GP Infrastructure Element)	CD, PW	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New
WEATHER MITIGATION ACTION ITEMS														
WEA-1 Implement a City-wide water wise plan to survey public and private water usage and implement water conservation measures.	PW, CalWater	Ongoing	X	X	X	X	X	Y	GF	GF	H	L	M	Revised

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
WEA-2 Develop a public outreach and awareness campaign about drought, water conservation measures and the use of recycled water.	CMO/EMC, CMO/EPM	2024	X	X	X	X	X	Y	GF	GF	H	L	H	Revised
WEA-3 Continue to evaluate and monitor the adequacy of available water supply and distribution systems relative to proposed development and redevelopment projects. (Source: GP Infrastructure Element)	PW, CalWater	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New
WEA-4 Pursue expansion of recycled water infrastructure and other alternative water supplies to meet water demands of the community that cannot be offset through conservation measures. (Source: GP Infrastructure Element)	PW	2024-2025	X	X	X	X	X	Y	GF	GP	H	L	H	New

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
WEA-5 Encourage the use and integration of dual plumbing system hookups to accommodate recycled water into new development. (Source: GP Infrastructure Element)	CD, PW	2024-2025	X	X	X	X	X	Y	GF	GP	H	L	H	New
WEA-6 Consider the impacts of climate change in projections used to establish which water supply and distribution facilities as well as conservation efforts are necessary to sustain future water demands. (Source: GP Infrastructure Element) (Note: also consider water peak periods generally occur in July and August)	PW	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New
WEA-7 Ensure measures to respond to drought conditions are enforced through the City's 'Water Conservation and Drought Management Plan Ordinance.'	CD, CalWater	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
(Source: GP Infrastructure Element)														
WEA-8 Support the development of general water storage, recycling, greywater treatment, and necessary transmission facilities to meet necessary water demand. (Source: GP Infrastructure Element)	CD, PW, CalWater	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New
TSUNAMI MITIGATION ACTION ITEMS														
TSU-1 Work with the Emergency Management Coordinator, Los Angeles County Department of Beaches and Harbors to install an outdoor warning siren at the community Center and possible other locations and integrate the selected siren and the Beach Emergency Evacuation Lighting System (BEELS) systems into the	CMO/EMC	2023-2024	X	X	X	X	X	Y	CIP	CIP	H	L	H	New

Mitigation Action Item	Lead Department/Division/Position	Timeline	Goal: Protect Life and Property	Goal: Improve Public Understanding	Goal: Promote Disaster Resilience	Goal: Strengthen Partnerships and Collaboration	Goal: Enhance Ability to Respond and Recover	Buildings & Infrastructure: Does the Action item involve New and/or Existing Buildings and/or Infrastructure? Yes (Y), No (N)	Funding Source: GF-General Fund, CIP-Capital Improvement Program, HMGP-Hazard Mitigation Grant Program, BRIC-Building Resilient Infrastructure and Communities, PA-Project Applicant	Planning Mechanism: GP-General Plan, CIP-Capital Improvement Program, GF-General Fund, GR-Grant, SP-Strategic Plan	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2024 Comments and Status: Completed, Revised, Deleted, New, Deferred, and Notes
City's alert and warning software platform, Alert South Bay. (Source: 2023-2024 CIP)														
TSU-2 Work with Los Angeles County and utilize resources such as the Tsunami Playbook in the evaluation and response of tsunami risk. (Source: GP Public Safety Element)	CMO/EMC, PW	Ongoing	X	X	X	X	X	Y	GF	GP	H	L	H	New
DISEASE MITIGATION ACTION ITEMS														
EPV-1 Mandatory inoculation to COVID for all City staff as a condition of employment	CMO	2021	X	X	X	X	X	Y	GF	GF	H	L	H	New
EPV-2 Regulation requiring mask-wearing in response to COVID.	CMO	2020	X	X	X	X	X	Y	GF	GF	H	L	H	New

Plan Maintenance

The plan maintenance process includes a schedule for monitoring and evaluating the Plan annually and producing a plan revision every five years. This section describes how the City of Hermosa Beach will integrate public participation throughout the plan maintenance process.

Q&A | ELEMENT D: PLAN MAINTENANCE | D2-a.

Q: Does the plan describe the process that will be followed to track the progress/status of the mitigation actions identified within the Mitigation Strategy, along with when this process will occur and who will be responsible for the process? (Requirement 44 CFR § 201.6(c)(4)(i))

A: See **Local Mitigation Officer, Method and Scheduling of Plan Implementation, Monitoring and Implementing the Plan** below.

Local Mitigation Officer

The Planning Team that was involved in research and writing of the Plan will also be responsible for implementation. The Planning Team will be led by the Planning Team Chair Angela Crespi who will be referred to as the Local Mitigation Officer. Under the direction of the Local Mitigation Officer, the Planning Team will take responsibility for plan maintenance and implementation. The Local Mitigation Officer will facilitate the Planning Team meetings and will assign tasks such as updating and presenting the Plan to the members of the Planning Team. Plan implementation and evaluation will be a shared responsibility among all of the Planning Team members. The Local Mitigation Officer will coordinate with the City of Hermosa Beach leadership to ensure funding for 5-year updates to Plan as required by FEMA.

The Planning Team will be responsible for coordinating the implementation of plan action items and undertaking the formal review process. The Local Mitigation Officer will be authorized to make changes in assignments to the current Planning Team.

The Planning Team will meet no less than annually. Meeting dates will be scheduled once the final Planning Team has been established. These meetings will provide an opportunity to discuss the progress of the action items and maintain the partnerships that are essential for the sustainability of the mitigation plan. The Local Mitigation Officer or designee will be responsible for contacting the Planning Team members and organizing the annual meetings.

Plan updates will need to be approved by FEMA every 5 years. However adequate time should be allowed to secure grant funding (if necessary), allow adequate time for a thorough planning process, and time for the formal review by Cal OES and FEMA. All said, if grant funding is going to be needed, the update timeline should begin 3 years prior to the plan's due date to FEMA.

Method and Scheduling of Plan Implementation

	Year 1	Year 2	Year 3	Year 4	Year 5
Monitoring	X	X	X	X	X
Evaluating					
Internal Planning Team Evaluation	X	X	X	X	X
Cal OES and FEMA Evaluation					X
Updating					X

Monitoring and Implementing the Plan

Monitoring the Plan

The Local Mitigation Officer will hold annual meetings with representatives from the departments with assignments in the Mitigation Actions Matrix. These meetings will provide an opportunity to discuss the progress of the action items and maintain the partnerships that are essential for the sustainability of the mitigation plan. See the **Annual Implementation Report** discussed below which will be a valuable tool for the Planning Team to measure the success of the Hazard Mitigation Plan. The focus of the annual meetings will be on the progress and changes to the Mitigation Action Items.

Q&A | ELEMENT D: PLAN MAINTENANCE | D3-a.

Q: Does the plan describe each community will follow to integrate the ideas, information and strategy of the mitigation plan into other planning mechanisms? (Requirement 44 CFR § 201.6(c)(4)(ii))

A: See **Integration into Other Planning Mechanisms** below.

Integration into Other Planning Mechanisms

The City of Hermosa Beach addresses statewide planning goals and legislative requirements through the General Fund, Capital Improvement Program, and Grants. The Mitigation Plan provides a series of recommendations - many of which are closely related to the goals and objectives of existing planning programs. The City of Hermosa Beach will implement recommended mitigation action items through existing programs and procedures.

The City of Hermosa Beach is responsible for adhering to the Building Standards Codes, including the California Building Code. In addition, the City of Hermosa Beach may work with other agencies at the state level to review, develop and ensure the Building Standards Codes are adequate to mitigate or present damage by hazards. This is to ensure that life-safety criteria are met for new construction.

Some of the goals and action items in the Mitigation Plan will be achieved through activities recommended in the strategic and other budget documents. The various departments involved in developing the Plan will review it on an annual basis. Upon annual review, the Planning Team will work with the departments to identify areas that the Mitigation Plan action items are consistent with the strategic and budget documents to ensure the Mitigation Plan goals and action items are implemented in a timely fashion.

Upon FEMA approval, the Planning Team will begin the process of incorporating risk information and mitigation action items into existing planning mechanisms including the General Fund (Operating Budget and Capital Improvement Program - see Mitigation Actions Matrix for links between individual action items and associated planning mechanism). The annual meetings of the Planning Team will provide an opportunity for Planning Team members to report back on the progress made on the integration of mitigation planning elements into the City of Hermosa Beach's planning documents and procedures.

Specifically, the Planning Team will utilize the updates of the following documents to implement the Mitigation Plan:

- ✓ Risk Assessment, City Profile, Planning Process (stakeholders) – Emergency Operations Plan, etc.

✓ Mitigation Actions Matrix – General Fund, Capital Improvement Program, Grants

Annual Implementation Report

The Annual Implementation Matrix is the same as the Mitigation Actions Matrix but with a column added to track the annual status of each Action Item. Upon approval and adoption of the Plan, the Annual Implementation Reports will be added to the Plan's **Attachments**. Following is a view of the Annual Implementation Matrix:

Insert Implementation Matrix here once plan has been adopted and approved

An equal part of the monitoring process is the need to maintain a strategic planning process which needs to include funding and organizational support. In that light, at least one year in advance of the FEMA-mandated 5-year submission of an update, the Local Mitigation Officer will convene the Planning Team (as well as any other departments with responsibilities on the Mitigation Actions Matrix) to discuss funding and timing of the update planning process. On the fifth year of the planning cycles, the Planning Team will broaden its scope to include discussions and research on all of the sections within the Plan with particular attention given to goal achievement and public participation.

Economic Analysis of Mitigation Projects

FEMA's approach to identifying costs and benefits associated with hazard mitigation strategies, measures, or projects fall into two general categories: benefit/cost analysis and cost-effectiveness analysis.

Conducting benefit/cost analysis for a mitigation activity can assist communities in determining whether a project is worth undertaking now, in order to avoid disaster-related damages later. Cost-effectiveness analysis evaluates how best to spend a given amount of money to achieve a specific goal. Determining the economic feasibility of mitigating hazards can provide decision-makers with an understanding of the potential benefits and costs of an activity, as well as a basis upon which to compare alternative projects.

Given federal funding, the Planning Team will use a FEMA-approved benefit/cost analysis approach to identify and prioritize mitigation action items. For other projects and funding sources, the Planning Team will use other approaches to understand the costs and benefits of each action item and develop a prioritized list.

The "benefit", "cost", and overall "priority" of each mitigation action item was included in the Mitigation Actions Matrix located in Part III: Mitigation Strategies. A more technical assessment will be required in the event grant funding is pursued through the Hazard Mitigation Grant Program. FEMA Benefit-Cost Analysis Guidelines are discussed below.

FEMA Benefit-Cost Analysis Guidelines

The Stafford Act authorizes the President to establish a program to provide technical and financial assistance to state and local governments to assist in the implementation of hazard mitigation measures that are cost effective and designed to substantially reduce injuries, loss of life, hardship, or the risk of future damage and destruction of property. To evaluate proposed hazard mitigation projects prior to funding FEMA requires a Benefit-Cost Analysis (BCA) to validate cost effectiveness. BCA is the method by which the future benefits of a mitigation project are estimated

and compared to its cost. The end result is a benefit-cost ratio (BCR), which is derived from a project's total net benefits divided by its total project cost. The BCR is a numerical expression of the cost effectiveness of a project. A project is considered to be cost effective when the BCR is 1.0 or greater, indicating the benefits of a prospective hazard mitigation project are sufficient to justify the costs.

Although the preparation of a BCA is a technical process, FEMA has developed software, written materials, and training to support the effort and assist with estimating the expected future benefits over the useful life of a retrofit project. It is imperative to conduct a BCA early in the project development process to ensure the likelihood of meeting the cost-effective eligibility requirement in the Stafford Act.

The BCA program consists of guidelines, methodologies, and software modules for a range of major natural hazards including:

- ✓ Flood (Riverine, Coastal Zone A, Coastal Zone V)
- ✓ Hurricane Wind
- ✓ Hurricane Safe Room
- ✓ Damage-Frequency Assessment
- ✓ Tornado Safe Room
- ✓ Earthquake
- ✓ Wildfire

The BCA program provides up to date program data, up to date default and standard values, user manuals and training. Overall, the program makes it easier for users and evaluators to conduct and review BCAs and to address multiple buildings and hazards in a single BCA module run.

Evaluating and Updating the Plan

Q&A | ELEMENT D: PLAN MAINTENANCE | D2-b.
Q: Does the plan describe the process that will be followed to evaluate the plan for effectiveness? This process must identify the criteria that will be used to evaluate the information in the plan, along with when this process will occur and who will be responsible. (Requirement 44 CFR § 201.6(c)(4)(i)) **A:** See **Evaluation** below.

Evaluation

As discussed at the beginning of this section, the representatives from the lead departments (as identified in the Mitigation Actions Matrix) will meet annually to gather status updates on the mitigation action items. At the conclusion of the Annual Implementation Meeting each year, the Local Mitigation Officer will lead a discussion with the lead departments on the success (or failure) of the Mitigation Plan to be effective and to meet the plan goals. Examples of measuring the plan's effective will include assessing effectiveness include evaluating whether new hazards have emerged, whether community vulnerability has shifted, and whether stated mitigation strategies are still appropriate for the community's circumstances. The plan goals are defined in the

beginning of the Mitigation Strategies Section and each of the mitigation action items is aligned with a goal or goals.

The results of that discussion will be added to the Evaluation portion of the Annual Implementation Report and inclusion in the 5-year update to the Plan. Efforts will be made immediately by the Local Mitigation Officer to address any failed plan goals.

Q&A | ELEMENT D: PLAN MAINTENANCE | D2-c.
Q: Does the plan describe the process that will be followed to update the plan, along with when this process will occur and who will be responsible for the process? (Requirement 44 CFR § 201.6(c)(4)(i))
A: See **Formal Update Process** below.

Formal Update Process

As identified above, the Mitigation Action Items will be monitored for status on an annual basis as well as an evaluation of the Plan's goals. The Local Mitigation Officer or designee will be responsible for contacting the coordinating agency members and organizing the annual meetings which will take place based on the month of the Plan's approval. Planning Team members will also be responsible for participating in the formal update to the Plan every fifth year of the planning cycle. In the event the City desires to seek grant funding for the update, the application process should begin 2 years in advance of the plan's expiration. Even without grant funding, the planning process should begin at least 1.5 years ahead of the plan's expiration.

The Planning Team will begin the update process with a review the goals and mitigation action items to determine their relevance to changing situations within the City of Hermosa Beach as well as changes in state or federal policy, and to ensure they are addressing current and expected conditions. The Planning Team will also review the Plan's **Risk Assessment** portion of the Plan to determine if this information should be updated or modified, given any new available data. The lead departments responsible for the various action items will report on the status of their projects, including the success of various implementation processes, difficulties encountered, success of coordination efforts, and which strategies should be revised. Amending will be made to the Mitigation Actions Matrix and other sections in the Plan as deemed necessary by the Planning Team.

Q&A | ELEMENT D: PLAN MAINTENANCE | D1-a.
Q: Does the plan describe how communities will continue to seek future public participation after the plan has been approved? (Requirement 44 CFR § 201.6(c)(4)(iii))
A: See **Continued Public Involvement** below.

Continued Public Involvement

The City of Hermosa Beach is dedicated to involving the public directly in the continual review and updates to the Mitigation Plan. Copies of the plan will be made available at the City of Hermosa Beach City Hall Complex and on the City's website. The existence and location of these copies will be publicized in the City's monthly E-Newsletter and on the website. This site will also contain an email address and phone number where people can direct their comments and concerns. At the discretion of the Local Mitigation Officer, a public meeting may be held after the Annual Implementation Meeting. The meeting would provide the public with a forum in which interested individuals and/or agencies could express their concerns, opinions, or ideas about the plan. The Local Mitigation Officer will be responsible for using the City of Hermosa Beach

resources to publicize any public meetings and always free to maintain public involvement through the public access channel, web page, and newspapers.

Plan Review, Adoption and Approval

The plan is required to go through a formal review with Cal OES and FEMA. Once the Planning Team has reviewed the First Draft Plan and revisions made, the Second Draft Plan will be made available to the general public and external agencies. The plan will be posted and notices distributed advertising the plan's available for input. See **Planning Process** for details.

Comments gathered on the Second Draft Plan were incorporated into the Third Draft Plan which will be submitted to Cal OES along with a completed FEMA Plan Review Tool. In the event changes are required, Cal OES will update the Plan Review Tool and mandated changes will be incorporated into the Fourth Draft Plan. Once Cal OES deems the plan compliant with the mitigation planning regulations, the document will be forwarded to FEMA for a final review. Upon acceptance by FEMA, an Approvable Pending Adoption notice will be sent to the City requesting that the Final Draft Plan be submitted to the City Council for adoption. Once proof of adoption is forwarded to FEMA, a Letter of Approval will be issued. The Letter of Approval will be entered into the Final Plan.

Q&A | ELEMENT F: PLAN ADOPTION | F1-a.
Q: Does the participant include documentation of adoption? (Requirement 44 CFR § 201.6(c)(5)) **A:** See **Plan Adoption Process** below.

Plan Adoption Process

Adoption of the plan by the local governing body demonstrates the City of Hermosa Beach's commitment to meeting mitigation goals and objectives. Governing body approval legitimizes the plan and authorizes responsible agencies to execute their responsibilities.

The City Council must adopt the Hazard Mitigation Plan before the Plan can be approved by FEMA.

The Third Draft Plan was submitted to Cal OES and FEMA for review and approval. FEMA issued an Approvable Pending Adoption notice on _____ (to be inserted upon receipt) requiring the adoption of the Plan by the City Council. The adoption resolution was submitted to FEMA along with a request for a FEMA Letter of Approval.

In preparation for the public meeting with the City Council, the Planning Team posted the Third Draft Plan on the City's website. Notification of the Plan's availability was also distributed via the mediums utilized during the community outreach phase. Also, the Team prepared a Staff Report including an overview of the Planning Process, Risk Assessment, Mitigation Goals, and Mitigation Actions. The staff presentation concluded with a summary of the input received during the public review of the document. The meeting participants were encouraged to present their views and make suggestions on possible mitigation actions.

The City Council heard the item on _____ (to be inserted upon receipt). The City Council voted to adopt the Hazard Mitigation Plan. The Resolution of adoption by the City Council is below:

Plan Approval

Upon adoption by the City Council, the resolution was forwarded to FEMA. The FEMA Letter of Approval was issued on _____ (to be inserted upon receipt). FEMA issued a Letter of Approval on _____ is located in the **Attachments**.

Attachments

FEMA Letter of Approval

City Council

Informational Items

November 12, 2023 – To publicize National Preparedness Month, the City's Emergency Management Coordinator presented an overview of several projects including the update to the Hazard Mitigation Plan and other emergency preparedness programs and activities.

January 23, 2024 - City Manager's Update to City Council notified public of availability of the Second Draft Hazard Mitigation Plan for review and input.

City Council Public Meeting on _____

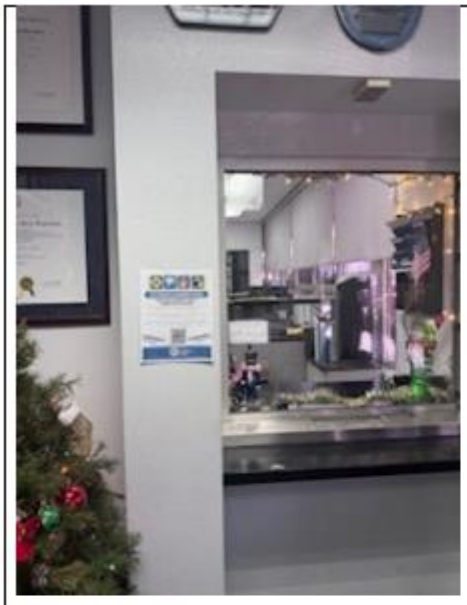
Web Posting and Notifications

Community Survey

Survey participation was garnered through an on-line survey (utilizing Microsoft forms). The survey was available to the public from December 4, 2023, through December 18, 2023. The Survey was posted on the City's website, sent out to residents via the community E-Newsletter, advertised on social media and posted at the following locations:

- Public Works
- Finance/Cashier's
- Community Development
- Police
- Los Angeles County- Hermosa Beach Branch Library
- Community Resources
- City Hall Bulletin Board

	**Hermosa Beach Community Center**, 710 Pier Avenue, Hermosa Beach, CA 90254
	**City Hall**- Bulletin Board, First Floor 1315 Valley Drive, Hermosa Beach, CA 90254

	**Hermosa Beach Police Department** 1315 Valley Drive, Hermosa Beach, CA 90254
	**City of Hermosa Beach, Public Works Counter** 1315 Valley Drive, Hermosa Beach, CA 90254

	**City of Hermosa Beach, Finance Counter** 1315 Valley Drive, Hermosa Beach, CA 90254
	**City of Hermosa Beach, Community Development Counter** 1315 Valley Drive, Hermosa Beach, CA 90254

Los Angeles Public Library (Hermosa Beach Branch), 550 Pier Avenue, Hermosa Beach, CA 90254

The Survey was emailed to the following community organizations:

Educational Organizations

- Hermosa Beach City School District, Jason Johnson
- Our Lady of Guadalupe, April Beuder
- Mira Costa High School, Karina Gerger

Community Organizations

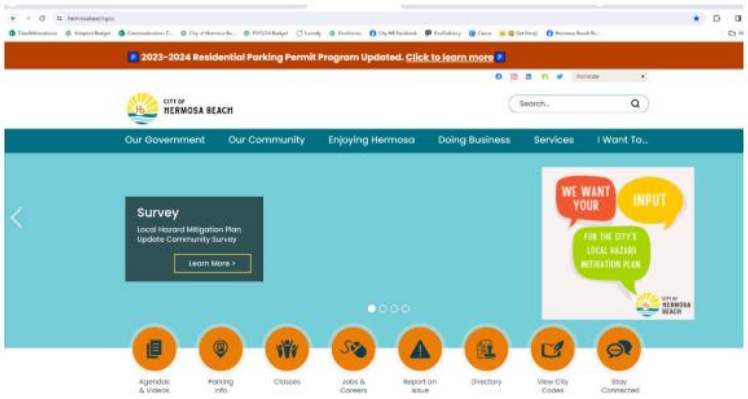
- Kiwanis Hermosa Beach, Glenn Menard

Religious Organizations

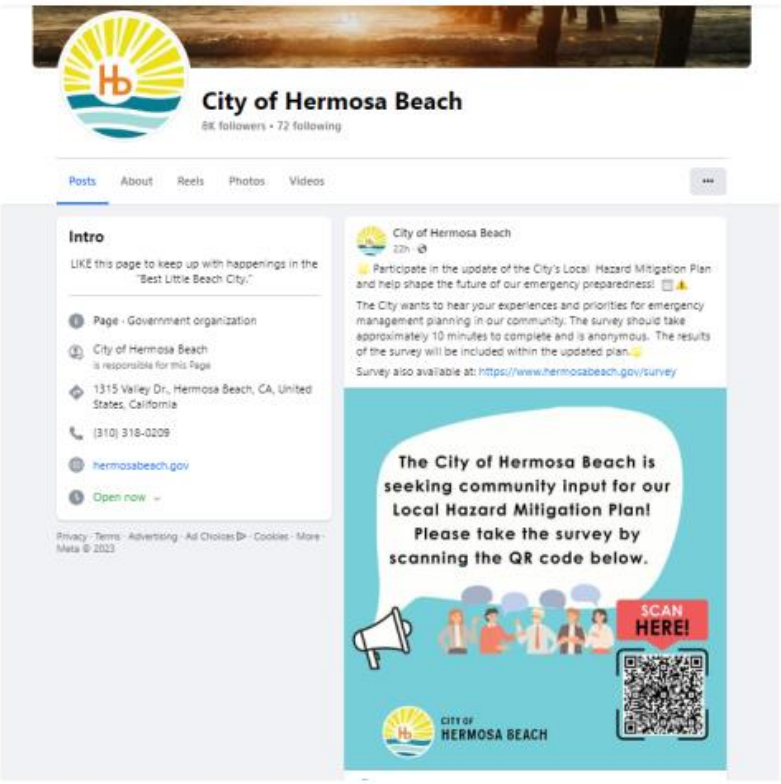
- Hope Chapel Hermosa Beach, Zac Nazarian
- Temple Shalom of the South Bay, Toba August
- Flourishing Church, Marcus Goodloe
- St Cross Episcopal Church, Rev. Dr. Rachel Anne Nyback
- Our Lady of Guadalupe, Rev. Paul Gawlowski

Community Survey – Postings

City's Website: Survey Posted on December 4, 2023



Facebook: Survey Announcement, Post #1 on December 4, 2023



2nd Announcement, December 12, 2023

Instagram: Survey Announcement, Post #1 on December 4, 2023

Post details
ID: 17913513695844748

2nd Announcement, December 12, 2023

3

X: Survey Announcement, Post #1 on December 4, 2023

City of Hermosa Beach
@HermosaBchCity

🌟 Participate in the preparation of the City's Local Hazard Mitigation Plan and help shape the future of our emergency preparedness! 📋⚠️
Please take the survey, see QR code below.

6:01 PM · Dec 4, 2023 · **111** Views

2nd Announcement, December 12, 2023

E-Newsletter
December 1, 2023:
https://www.hermosabeach.gov/Home/Components/News/News/3898/28
Link to PDF. Emailed to 9,903 recipients, 9,613 delivered, 3,503 total opens.
December 15, 2023:
https://www.hermosabeach.gov/Home/Components/News/News/3904/639
Link to PDF. Emailed to 10,008 recipients, 9,718 delivered, 5,430 total opens.

E-Newsletter

Font Size: Share & Bookmark Feedback Print

E-Newsletter 12.1.2023 |Construction Updates, Beach Cities Toy Drive, and the Sand Snowman Contest

Post Date: 11/30/2023 4:46 PM

Need to find holiday gifts? From unique handcrafted treasures to artisanal products, our local shops have something for everyone on your list. #ShopHermosa #ShopLocal

Local Hazard Mitigation Plan Community Survey

The City is seeking community feedback for an update to our Local Hazard Mitigation Plan. This plan is a document that outlines the City's long-term strategy to eliminate risk to human life, property, and infrastructure from future natural and man-made disasters.

Please take the **Community Survey today**!

CITY OF
HERMOSA BEACH

Local Hazard Mitigation Plan
Community Survey

The City of Hermosa Beach is seeking input from the community as we update our Local Hazard Mitigation Plan to help us keep our community safe in future emergencies and disasters.

What is a Local Hazard Mitigation Plan?
A Local Hazard Mitigation Plan is a framework that guides our community in making decisions and developing policies to reduce or eliminate risks to life and property. The plan identifies the types of hazards that threaten our community, evaluates our vulnerability to those threats, and outlines a strategy to reduce or eliminate the risk posed by those threats. This plan is required to be updated every five years.

Why is the Plan Important?
The Federal Disaster Mitigation Act of 2000 requires that a community have an approved hazard mitigation plan to be eligible to apply for and receive certain types of Federal Emergency Management Agency (FEMA) hazard mitigation funds. Receipt of these funds can be critical to the implementation of identified hazard mitigation programs that break the cycle of disaster, damage, restoration, and repeated damage.

When was the City's last plan approved?
The current plan was approved in April 2018. See existing plan here: https://www.hermosabeach.gov/home/showpublisheddocument/11583/637001018228830000

Why is my input needed?
In order to identify and plan for future disasters, we need your feedback. The City wants to hear your experiences and priorities for our community.

How long will the survey take?
The survey should take approximately 10 minutes to complete and is anonymous. Your information will be kept confidential. The results of the survey will be included within the updated plan.

For questions or comments, please contact the Hermosa Beach Emergency Management Coordinator, at oem@hermosabeach.gov.

Please share this survey link with your neighbors. Thank you for your participation!

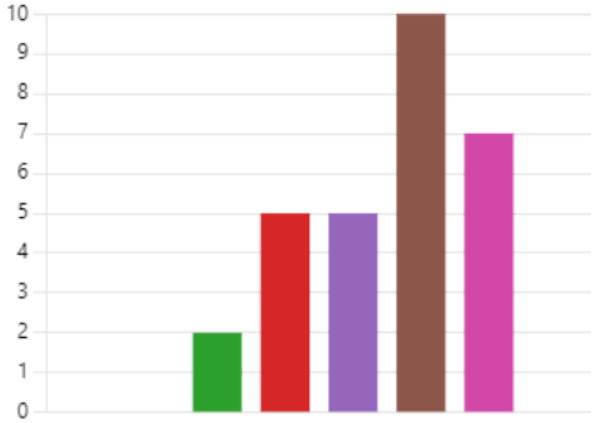
Community Survey – Survey Results

1. Do you (check all that apply)

Live in Hermosa Beach	19
Work in Hermosa Beach	6
Visit Hermosa Beach, but live an...	4

2. What is your age group?

Under 18	0
18-24	0
25-34	2
35-44	5
45-54	5
54-65	10
65 and older	7
Prefer not to answer	0



3. Do you own or rent your home?

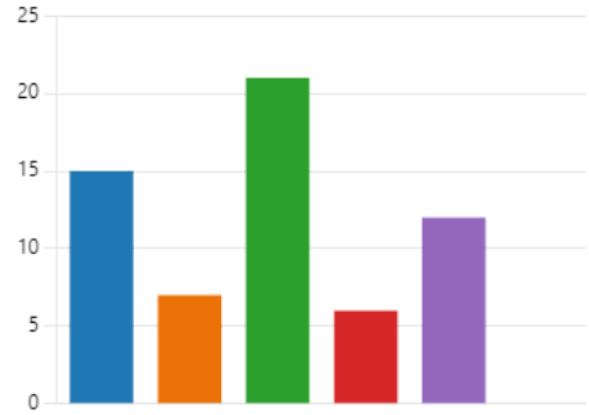
Own	20
Rent/Lease	8
Other	1

4. Do you work in the City of Hermosa Beach

Yes (includes working remotely ...	13
No, I work outside the City	4
No, I am not currently employed	0
No, I am retired	12

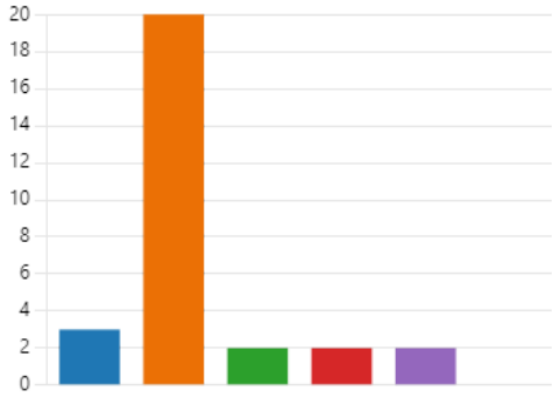
5. If a natural disaster such as a large earthquake were to strike tomorrow... (Check all that apply)

I feel confident that I know how ...	15
I am unsure how to protect mys...	7
I keep an emergency kit with sp...	21
I have practiced an evacuation p...	6
I am unsure where I would go if ...	12
Other	0



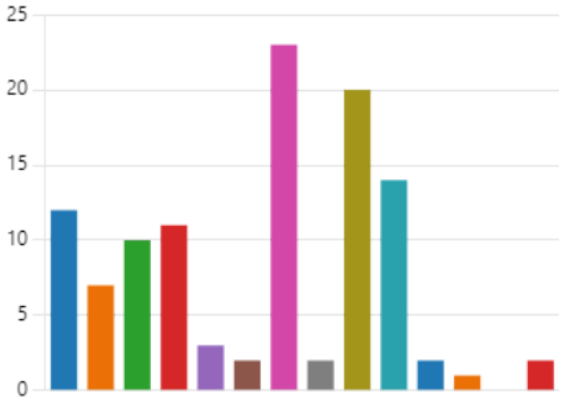
6. How prepared is your household for a natural hazard or disaster (for example, wildfire, flood, earthquake, extended power outage)?

Not at all prepared	3
Somewhat prepared	20
Adequately prepared	2
Well prepared	2
Very well prepared	2
Not Sure	0



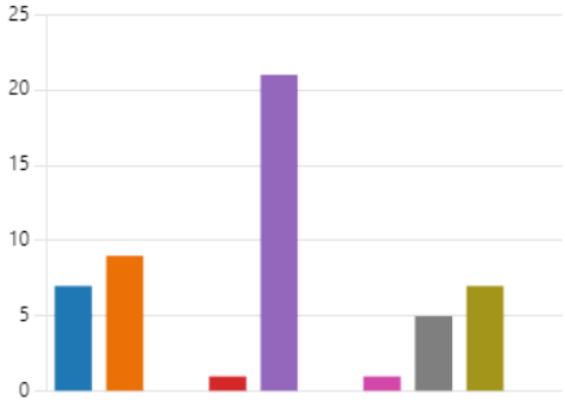
7. Which of the following types of disasters/hazards have you or someone in your household experienced while residing, visiting or working in Hermosa Beach ? (Check all that apply)

Climate Change	12
Civil Unrest	7
Drought	10
Extreme Heat	11
Flood	3
Hazardous Materials Incidents/S...	2
Pandemic	23
Landslide/Debris Flow	2
Earthquake	20
Severe Weather - Windstorms/S...	14
Terrorism/Active Shooter	2
None	1
Other (please specify)	0
Tsunami	2



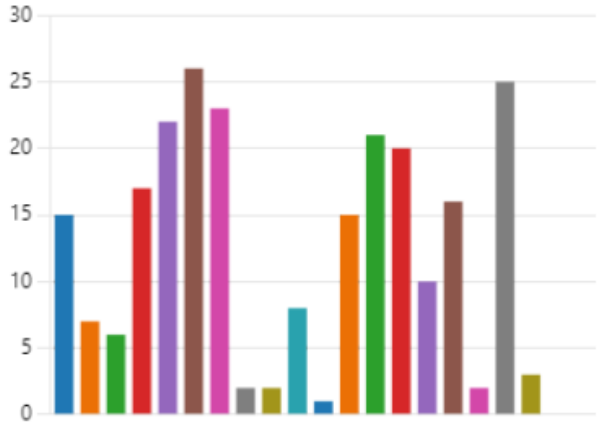
8. Which of the following additional hazards have you ever been impacted by within the City of Hermosa Beach? (Check all that apply)

Civil Unrest (violent public distu...	7
Critical Infrastructure Failure (uti...	9
Cyber Attack or Security Incident	0
Hazardous Materials (spill or rel...	1
Public Health (infectious disease...	21
Radiological Incident	0
Terrorism (threat, hoax, actual in...	1
Transportation Incident (roadwa...	5
None	7
Other	0

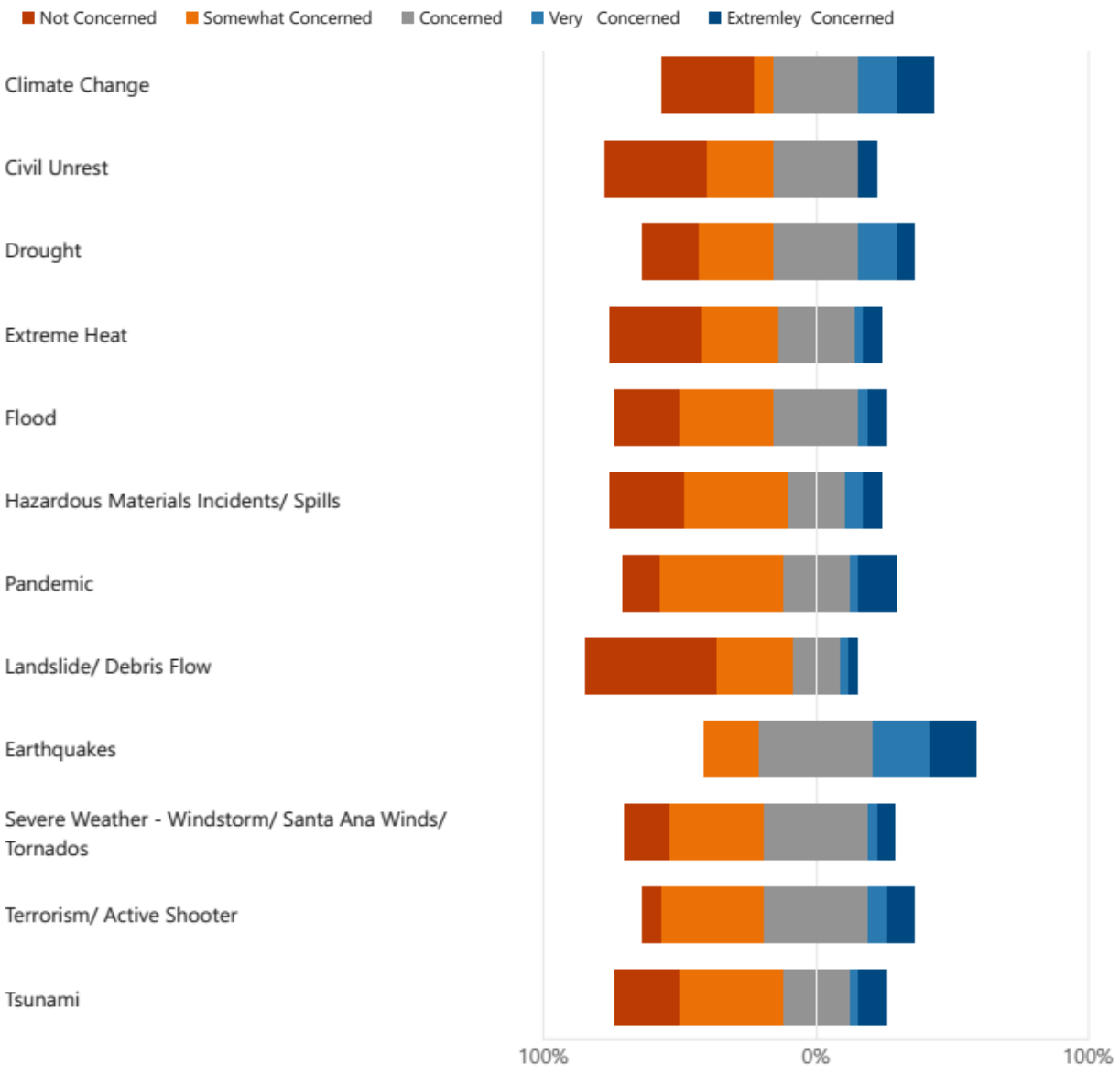


9. What steps has your household taken to prepare for a disaster? (Check all that apply)

Received First Aid/CPR training	15
Made a fire escape plan	7
Designated an evacuation meeti...	6
Identified utility shutoff locations	17
Maintain an emergency supply ...	22
Installed smoke detectors	26
Installed carbon monoxide dete...	23
Written and practiced an individ...	2
Made plans to care for elderly f...	2
Made plans to care for pets duri...	8
Participated in neighborhood pr...	1
Registered for emergency alerts...	15
Maintain a working fire extingui...	21
Maintain extra medical supplies ...	20
Maintain an additional kit for ca...	10
Maintain an emergency potable...	16
Installed an emergency generator	2
Purchased homeowner's or rent...	25
Installed solar panels	3
None	0



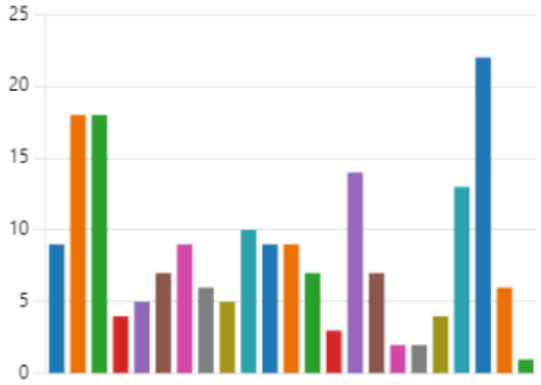
10. The following hazards could potentially impact the City of Hermosa Beach and may be addressed in the Hazard Mitigation Plan. Please indicate the level of concern you perceive for each hazard that may affect you and the City's critical facilities and infrastructure. (Please check ONE response for each hazard)



11. Do you, or anyone in your household:

12. Choose the ways you prefer to receive information about how to make your home and neighborhood more resistant to hazards?

Informational brochures	9
City newsletter	18
City website	18
County website	4
State/Federal website	5
Public meetings, workshops, an...	7
Schools and academic institutions	9
TV based media (news and publ...	6
Radio based media (news and p...	5
National Weather Service website	10
Fire department	9
Law enforcement	9
Faith-based institutions	7
Community Emergency Respons...	3
Public awareness campaigns	14
Community safety events	7
Books and/or magazines	2
Public Library	2
Chamber of Commerce	4
Social media (X, Facebook, Insta...	13
Email	22
Word of mouth	6
Other	1

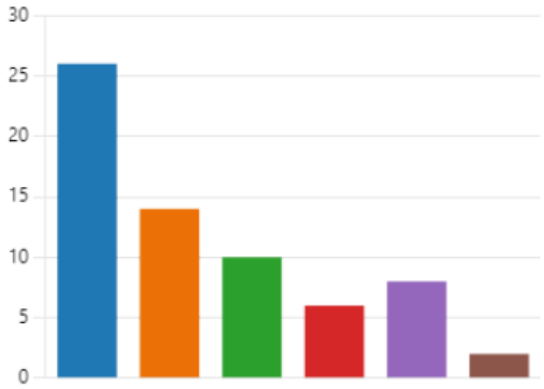


13. How can the City of Hermosa Beach help you become better prepared for a disaster? Choose all that apply.

Provide effective emergency not...	28
Offer training and education to ...	18
Provide community outreach re...	20
Create awareness of special nee...	14
Other	2

14. What characteristics make members of your community more vulnerable during a hazard event? Consider evacuation, sheltering in place, or recovery actions. Choose all that apply.

Age (children under the age of ...	26
Disability Status	14
Lack of Vehicle or Reliable Trans...	10
Single-Parent Households	6
Poverty Status	8
Other	2



Secondary Stakeholders Involvement

Entity	Name of Recipient	Job Title of Recipient	Response and Resolution
Hermosa Beach Emergency Preparedness Advisory Board			
	Alan Benson	Community Member	
	Dave Buckland	Hermosa Beach Volunteer in Policing & HbCERT	
	Bill Hallet	Community Member	
	Jeff Raedy	Renters Association	
	Nick Shattuck	City of Hermosa Beach Parks & Recreation	
	Nadine Skye-Davis	South Bay Animal Response Team	
	Megan Vixie	Beach Cities Health District	
Jurisdictions			
Alert South Bay	Soraya Sutherlin	Administrator	
Chamber of Commerce	Jessica Accamando	President / CEO	
Los Angeles County Departments			
Office of Los Angeles County 2nd District Supervisor Holly Mitchell	Jessalyn Waldron	Deputy of Constituent Engagement	
Los Angeles County Lifeguards	Arthur Lester IV	Marine Battalion Chief	
Los Angeles County Fire	Brian Bennett	Assistant Division Chief	
Los Angeles County Beaches and Harbor	Randy Dean	Safety Officer	
Los Angeles County Office of Emergency Management	Brandy Villanueva	Area G Coordinator	
Los Angeles County Public Health	Katayoun Kashani	Staff Analyst, Government Affairs	
Los Angeles County Public Library	Sara Harper	Community Library Manager	
Los Angeles County Area G Cities			
City of El Segundo	Casey Snow	Battalion Chief	
City of Gardena	Vicente Osorio	Emergency Management Coordinator	
City of Gardena	Tim Tran	Emergency Management Coordinator	
City of Hawthorne	Samuel English	Legal Risk Specialist	

Entity	Name of Recipient	Job Title of Recipient	Response and Resolution
City of Inglewood	Brian Walker	Emergency Services Manager	
City of Inglewood	Jeffrey Snoddy	Program Coordinator	
City of Inglewood	Crystal McGlover	Emergency Preparedness Coordinator	
City of Lawndale	Michael Reyes	Director of Municipal Services	
City of Lomita	Lina Hernandez	Senior Management Analyst	
City of Lomita	Juan Ibarra	Administrative Analyst	
City of Manhattan Beach	Michael E. Lang	Fire Chief	
City of Manhattan Beach	Amanda MacLennan	Emergency Preparedness Administrator	
City of Palos Verdes Estates	Merlin David	Community Relations Officer	
City of Rancho Palos Verdes	Jesse Villalpando	Emergency Management Coordinator	
City of Redondo Beach	Patrick Butler	Fire Chief / Harbor Master	
City of Rolling Hills Estates	Alexa Davis	Assistant City Manager	
City of Rolling Hills Estates	Jessica Slawson	Management Analyst	
City of Torrance	Eunique Day	Office of Emergency Services Coordinator	
City of Torrance	Jason Nishiyama	Deputy Finance Director	
Service Organizations			
American Red Cross	Luka Lezhanskyy	Disaster Program Manager	
Utilities			
Southern California Edison	Christian Torres	Key Accounts Advisor	
Southern California Edison	Celina Luna	Government Relations Manager	
California Water Service	Roberth Thompson	Operations Manager	
SoCalGas	Ben Steinberger	Public Affairs Manager	
Educational Institutions			
Hermosa Beach City School District	Jason Johnson	Superintendent	
Our Lady of Guadalupe	April Beuder	Principal	
Mira Costa High School	Karina Gerger	Principal	
Ambulance Provider			

Entity	Name of Recipient	Job Title of Recipient	Response and Resolution
McCormick Ambulance	Joseph Chidley	Chief Executive Officer	
Health District			
Beach Cities Health District	Tom Bakaly	Chief Executive Officer	
Beach Cities Health District	Megan Vixie	Chief Engagement Officer	
Houses of Worship			
Hope Chapel Hermosa Beach	Zac Nazarian	Lead Pastor	
Temple Shalom of the South Bay	Toba August	Rabbi	
Flourishing Church	Marcus Goodloe	Elder	
St Cross Episcopal Church	Rev. Dr. Rachel Anne Nyback	Rector	

External Agencies Letter of Invitation

External agencies listed above were invited via email and provided with an electronic link to the City of Hermosa Beach website posting of the Second Draft Plan. Following is the email distributed to the external agencies. A pdf of the Plan was attached.