Multi-Jurisdictional Hazard Mitigation Plan: City of Del Mar Annex

San Diego County, California

2023

CITY OF DEL MAR
CALIFORNIA

1. SECTION ONE: Determine the Planning Area and Resources

1.1. Planning Area: City of Del Mar

Incorporated in 1959, the City of Del Mar is a quaint seaside village located just 20 miles north of San Diego. With a population of approximately 4,331 people, and covering just 2.2 square miles, Del Mar is known for its vibrant small-town atmosphere. Del Mar attracts residents, and upwards of three (3) million visitors annually from all over the world, who come to enjoy the beautiful dog-friendly beaches, hiking trails, scenic views, and year-round events held at the Del Mar Fairgrounds including the San Diego County Fair and Del Mar horse races.

The community is primarily comprised of single-family residential neighborhoods, with retail uses and restaurants in the downtown, a small commercial area, and several hotels. The City employs approximately 60 full-time employees, and 70 part-time, seasonal employees, who operate out of the City's Civic Center, Lifeguard Headquarters, Del Mar Fire Station, and Public Works yard and administration building. The City provides law enforcement services through a contract with the San Diego County Sheriff's Department, and fire administration is provided through a mutual agreement between the cities of Del Mar, Encinitas, and Solana Beach.

1.2. Community Rating System Requirements

The Community Rating System (CRS) is a FEMA program and rewards communities that go beyond the minimum standards for floodplain management under the National Flood Insurance Program (NFIP).

For more information on the National Flood Insurance Program, see http://www.fema.gov/national-flood-insurance-program.

Community Rating System (CRS) Planning Steps	Local Mitigation Planning Handbook Tasks (44 CFR Part 201)
Step 1. Organize	**Task 1:** Determine the Planning Area and Resources **Task 2:** Build the Planning Team 44 CFR 201.6(c)(1)
Step 2. Involve the public	**Task 3:** Create an Outreach Strategy 44 CFR 201.6(b)(1)
Step 3. Coordinate	**Task 4:** Review Community Capabilities 44 CFR 201.6(b)(2) & (3)
Step 4. Assess the hazard	**Task 5:** Conduct a Risk Assessment 44 CFR 201.6(c)(2)(i) 44 CFR 201.6(c)(2)(ii) & (iii)
Step 5. Assess the problem	
Step 6. Set goals	**Task 6:** Develop a Mitigation

Step 7. Review possible activities	Strategy 44 CFR 201.6(c)(3)(i)
Step 8. Draft an action plan	44 CFR 201.6(c)(3)(ii) 44 CFR 201.6(c)(3)(iii)
Step 9. Adopt the plan	**Task 8:** Review and Adopt the Plan 44 CFR 201.6(c)(5)
Step 10. Implement, evaluate, revise	**Task 7:** Keep the Plan Current **Task 9:** Create a Safe and Resilient Community 44 CFR 201.6(c)(4)

TABLE 1.2: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 1.1 DESCRIBES THE CRS REQUIREMENTS MET BY THE SAN DIEGO COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN.

Any jurisdiction or special district may participate in the hazard mitigation planning process. However, to request FEMA approval, each of the local jurisdictions must meet all requirements of 44 CFR §201.6. In addition to the requirement for participation in the process, the Federal regulation specifies the following requirements for multi-jurisdictional plans:

- The risk assessment must assess each jurisdiction's risk where they may vary from the risks facing the entire planning area. (44 CFR §201.6(c)(2)(iii))
- There must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan. (44 CFR §201.6(c)(3)(iv))
- Each jurisdiction requesting approval of the plan must document that is has been formally adopted. (44 CFR §201.6(c)(5))

The hazard mitigation plan must clearly list the jurisdictions that participated in the plan and are seeking plan approval. The San Diego County Multi-Jurisdictional Hazard Mitigation Plan and annexes meet all requirements.

2. SECTION TWO: Build the Planning Team

2.1. Planning Participants

City of Del Mar Hazard Mitigation Planning Team

Name	Title	Department
Mike Stein	Chief	Fire
Hans Schmidt	Fire Marshal	Fire
Corina Jimenez	Senior Management Analyst	Fire
Joe Bride	Public Works Director / City Engineer	Public Works
Tim Thiele	Engineering / Manager (contractor)	Public Works
Kristen Crane	Assistant City Manager	City Manager's Office
Clem Brown	Environmental Sustainability/Special Projects Manager	City Manager's Office
Jon Edelbrock	Director and Chief Lifeguard	Community Services
Karen Brindley	Director	Planning & Community Development
Amanda Lee	Principal Planner	Planning & Community Development
Emily Bernardo	IT Manager	Administrative Services

TABLE 2.1 - DEL MAR HAZARD MITIGATION PLANNING TEAM

2.2. Planning Process

The City of Del Mar Planning Team (Planning Team) reviewed hazard maps, critical facility information, and localized potential hazard/exposure/loss estimates provided by the County of San Diego and applied the set of criteria to identify hazards with the most significant to the City (Section 5). The Planning Team also identified current capabilities available for implementing hazard mitigation activities (Section 4).

Mitigation goals were developed by considering the risk assessment findings, localized hazard identification and loss/exposure estimates, and an analysis of the City's current capabilities. Mitigation goals and actions were developed to represent a vision of long-term hazard reduction or enhancement of capabilities (Section 6). To help further develop these goals, the Planning Team compiled and reviewed current City sources including the City's planning documents, codes, and ordinances (Section 5). In addition, representatives from the Planning Team met with consultant staff and/or OES to specifically discuss these hazard-related goals, objectives, and actions as they related to the Plan. As discussed in 2.1, representatives of numerous City departments involved in

hazard mitigation planning, including Fire, Administrative Services, Community Services, Planning & Community Development, City Manager's Office, and Public Works participated in the planning process.

Once developed, the Planning Team submitted the final plan to the State of California (Cal OES) and the Federal Emergency Management Agency (FEMA) for approval. Once approved by FEMA, the plan will be taken to the Del Mar City Council for adoption.

See the *San Diego County Multi-Jurisdictional Hazard Mitigation Plan's* Section 2 for details about the county-wide Planning Process.

3. SECTION THREE: Create an Outreach Strategy

The City of Del Mar did not conduct a separate outreach strategy for its Hazard Mitigation Plan Annex. Rather, the measures identified have been vetted through the development of other City plans such as the Community (General) Plan, Sea Level Rise Adaptation Plan, and Climate Action Plan. Instead, the City relied on the County's public outreach strategy for the totality of the Hazard Mitigation Plan including all annexes (see the *San Diego County Multi-Jurisdictional Hazard Mitigation Plan's* Section Three for details about the county-wide outreach strategy).

4. SECTION FOUR: Review Community Capabilities

Local mitigation capabilities are existing authorities, policies, programs, and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities and are described in further detail below.

4.1. Capability Assessment

The primary types of capabilities for reducing long-term vulnerability through mitigation planning are:

- Planning and regulatory
- Administrative and technical
- Financial
- Education and outreach

4.1.1. Planning and Regulatory

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of hazards. Table 4.1-1 includes a summary of the City of Del Mar's existing

planning documents and regulations related to mitigation efforts within the community.

Future opportunities for planning and regulatory enhancement would focus on implementing new ordinances to implement improvements in energy use and safety in the City of Del Mar such as a building electrification ordinance. Additional efforts will be made to incorporate references from the MJHMP in any plan updates such as the Tsunami Max Phase Playbook.

Plans	Yes/No Year	Does the plan address hazards? Does the plan identify projects to include in the mitigation strategy? Can the plan be used to implement mitigation actions?
Comprehensive/Master Plan	Yes	The Del Mar Community Plan (General Plan) includes policies that specify the City's goals and objectives for protection of the public health, safety, and welfare. These policies are implemented via mitigation and conditions of approval for development projects. The City's certified Local Coastal Program (Land Use Plan and implementing ordinances) is a comprehensive plan that identifies policies and regulations for hazard control, including but not limited to flood and erosion hazards, that are implemented via mitigation and conditions of approval for development projects.
Capital Improvements Plan	Yes	The City's 10-year CIP program identifies various public projects to be implemented for public health and safety to minimize risk and address hazards including the Camino del Mar bridge replacement (one of two critical north-south roadways that provides access across San Dieguito Lagoon), sand replenishment (for flood control in North Beach neighborhood that protects public facilities and infrastructure and private property), citywide upgrades to roadways and water/sewer/storm water infrastructure, and upgrades to critical City facilities (Beach Safety Center, Fire Station, Public Works, Civic Center).
Economic Development Plan	No	The City of Del Mar does not have an adopted Economic Plan. However, the City has a close partnership with the Del Mar Village Association, including substantial financial contributions, that implements programs and provides recommendations in support of furthering the City's economic vitality.
Local Emergency Operations Plan	Yes	The City has a draft of an updated Emergency Operations Plan that was completed in May 2021. It needs to be finalized and approved by the City Council and submitted to Cal OES for certification.

Continuity of Operations Plan	Yes	The City has a Continuity of Operations Plan that was developed in 2012. The plan is currently being updated, with a target completion date of December 2022.
Transportation Plan	Yes	The Del Mar Community Plan (General Plan) includes policies that specify the City's goals and objectives for transportation management. These policies are implemented via mitigation and conditions of approval for development projects.
Stormwater Management Plan	Yes	The City has a Jurisdictional Runoff Management Plan (JRMP) and two Water Quality Improvement Plans (WQIP) for the Los Peñasquitos and San Dieguito Watersheds. The City's two WMPs mention flood control in the context of some flood relief from future/potential green infrastructure projects via detention, retention, and infiltration. Furthermore, the City's recently constructed downtown streetscape and Civic Center projects include features that fit the flood control benefit of green infrastructure. Finally, all new private development and redevelopment projects also include LID features that incorporate elements of detention, retention and/or infiltration. Public Works implements a storm water preparation program which includes seasonally cleaning all the City's storm drains. Public Works also installs sandbags, erosion control and other storm preparations during the rainy season.
Community Wildfire Protection Plan	Yes	The City of Del Mar does not currently have a Community Wildfire Protection Plan. However, the City recently completed a Wildfire Evacuation Plan for the Crest Canyon area, which is an area of the City within a Very High Fire Hazard Severity Zone. The plan was received by the City Council in March 2022.
M. Real estate disclosure requirements	Yes	The City's Local Coastal Program Land Use Plan and implementing ordinances require real estate disclosure of a property's location within the Floodplain Overlay Zone or Coastal Bluff Overlay Zone.
Other special plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation)	Yes	The City of Del Mar is located entirely within the coastal zone. In accordance with the Coastal Act, the City's certified Local Coastal Program (Land Use Plan and implementing ordinances) is a comprehensive plan for coastal zone management that identifies policies and regulations for hazard control, including but not limited to flood and erosion hazards, that are implemented via mitigation and conditions of approval for development projects. The City's Sea Level Rise Adaptation Plan (2018) is incorporated by reference within the City's Community Plan (General Plan) Safety Element and sets forth a plan for the City to adapt to sea level rise as projected through year 2100. The Plan identifies priority adaptation projects for the City to implement in the near-term including beach nourishment, dredging of the San Dieguito Lagoon river mouth, preparation of a conceptual living levee plan for flood protection along both sides of the San Dieguito

Other special plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation)		Lagoon, and continued maintenance of the existing shoreline protection that protects the North Beach neighborhood in accordance with the 1988 local voter initiative (Beach Preservation Initiative). The Plan also incorporates by reference the City's Sediment Management Plan (2018). The City's Climate Action Plan (2016) identifies the policies and desired implementation actions to minimize greenhouse gas emissions for sustainability and supports the City's expressed desire to maintain the quality of life in accordance with community's vision for the future.

TABLE 4.1-1: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.1 DATA.

4.1.2. Administrative and Technical

Administrative and technical capabilities include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions. The administrative and technical capabilities of Del Mar, as shown in Table 4.1-2, provide an identification of the personnel and department resources available to implement the actions identified in the mitigation section of the Plan. Specific resources reviewed include those involving technical personnel, such as planners/engineers with knowledge of land development and land management practices, engineers trained in construction practices related to building and infrastructure, planners and engineers with an understanding of natural or manmade hazards, floodplain managers, surveyors, personnel with Geographic Information Systems (GIS) skills, and scientists familiar with hazards in the community.

Overall, the City can expand upon these capabilities by creating and applying the updated five-year Multi-Jurisdictional Hazard Mitigation Plan Cycle to City operations, provide hazard training for staff, apply for hazard mitigation grant funding in partnership with San Diego County and CalOES, and look for other opportunities to coordinate and educate key stakeholders who may be interested in aligning efforts related to hazard mitigation. Other future enhancements may include providing hazard training for staff or hazard mitigation grant funding in partnership with San Diego County and CalOES. Other opportunities to coordinate and educate key stakeholders may be interested in aligning efforts related to hazard mitigation and supporting Hazard Mitigation Grant Program (HMGP) applications and other hazard mitigation trainings.

Administration	Yes/No	Describe capability Is coordination effective?
Planner(s) or engineer(s) with knowledge of land **development and land management practices**	Yes	The City of Del Mar has a team of staff that are knowledgeable and capable of effectively implementing land development and land management practices. This primarily includes staff within the Planning and Community Development Department (includes Planning and Building Services, Clean Water Management, and Code Enforcement), Public Works and Engineering Department, Community Services Department, and Fire Protection Services. However, the City Manager and Administrative Services Departments also significantly contribute to ensure the effective implementation of land development and land management in accordance with applicable policies and regulations.
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	The City of Del Mar has a team of staff that are knowledgeable and capable of effectively implementing construction practices related to buildings and/or infrastructure. This primarily includes staff within the Planning and Community Development Department (includes Planning and Building Services, Clean Water Management, and Code Enforcement), Public Works and Engineering Department, and Fire Protection Services. However, the City Manager, Administrative Services, and Community Services Departments also significantly contribute to ensure the effective implementation of approved construction plans.
Planners or Engineer(s) with an understanding of natural and/or manmade hazards	Yes	The City of Del Mar has a team of staff with an understanding of natural and/or manmade hazards and strategies to plan, minimize risk, and respond in case of emergencies. This primarily includes staff within the Community Services Department, Fire Protection Services, Public Works and Engineering Department, and Planning and Community Development Department (includes Planning and Building Services, Clean Water Management, and Code Enforcement). However, the City Manager and Administrative Services Departments also significantly contribute to the strategies and plans to minimize risk and respond to emergencies, which includes Emergency Operations planning and training via the City Manager's office and coordination, training, equipment, and risk management services provided via the Administrative Services Department.

Mitigation Planning Committee	Yes	The City of Del Mar has a local Community Emergency Response Team (CERT) that meets regularly and participates in City emergency operations coordination and planning. The City had a City Council Advisory Committee in place 2014-2018 (Sea Level Rise Technical Advisory Committee), which facilitated input on local plans to plan for and minimize the risk of projected flooding, storms, coastal and bluff erosion, and sea level rise.
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	Yes	The City performs regular tree trimming activities on an approved work schedule. The City also performs annual storm drain cleaning under its Clean Water Program to mitigate localized flooding during rain events.
Mutual aid agreements	Yes	The City participates in various aid agreements. The Fire Department is part of the North Regional Zone Master Automatic Aid Agreement for Fire-Rescue Responses and Support Activities. The City participates in a San Diego County Water Authority Mutual Aid Agreement amongst San Diego retail Water Agencies.

Staff	**Yes/No FT/PT1**	**Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation?** **Is coordination between agencies and staff effective?**
Chief Building Official	Yes	The City utilizes a Building Official to oversee all aspects of building/structural safety, which is a contracted service that is managed by the Planning and Community Development Department. The Building Official coordinates the City's contracted Building and Safety Services Division, which includes building plan check and inspection services.
Floodplain Administrator	Yes	The Planning and Community Development Director is assigned as the City's Floodplain Administrator to administer and enforce the Floodplain management regulations of Del Mar Municipal Code Chapter 30.56 (Floodplain Overlay Zone). Planners ensure compliance with the City's floodplain requirements including base flood elevation and project design requirements. The City utilizes a contract Engineering Services firm administered by the City's Public Works Director to assist on civil and drainage plan reviews during concept and construction-level drawings to ensure technical requirements are met. The City's contracted Building Services Division completes structural reviews during plan check and in-person inspections.
Emergency Manager	Yes	The City's Environmental Sustainability/Special Projects Manager in the City Manager's Office serves as the City's Emergency Manager. This function is part of the duties of that position.

Surveyors	Yes	The City has as-needed contracts with three California-licensed surveying firms: PSOMAS, NV5, and Michael Baker International.
Staff with education or expertise to assess the community's vulnerability to hazards	Yes	The City of Del Mar has a team of staff with an understanding of natural and/or manmade hazards and strategies to plan, minimize risk, and respond in case of emergencies. This primarily includes staff within the Community Services Department, Fire Department, Public Works and Engineering Department, and Planning and Community Development Department (includes Planning and Building Services, Clean Water Management, and Code Enforcement). However, the City Manager and Administrative Services Departments also significantly contribute to the strategies and plans to assess risk and respond to emergencies, which includes Emergency Operations planning and training via the City Manager's office and coordination, training, equipment, and risk management services provided via the Administrative Services Department.
Community Planner	Yes	The Planning and Community Development Department has a team of community planners, which includes a Planning Director.
Scientists familiar with the hazards of the community	Yes	The City of Del Mar does not currently have any scientists on staff. However, due to the City's location near the University of California San Diego and the Scripps Institute of Oceanography, the community includes a significant number of renowned scientists with expertise in this area. The City Council consistently has representatives with scientific backgrounds and qualifications to contribute this type of expertise. In addition, the City has contracts with Environmental Science Associates (2014-2018) and Moffatt & Nicholl (2019-present) to provide this type of expertise as it relates to sea level rise planning, planning for coastal hazards, and shoreline management. The City has a Vulnerability and Risk Assessment that discloses local hazards (Environmental Science Associates 2016 and Addendum 2018), and an Adaptation Plan (Environmental Science Associates 2018) and Sediment Management Plan (Environmental Science Associates 2018) that set forth strategies to minimize the risk of hazards. Further, the City has a locally adopted Sand Compatibility Opportunistic Use Program (Moffatt & Nicholl 2020) that is currently in process for federal and state approvals. The City also participates in a regional Memorandum of Understanding with SANDAG with a Regional Shoreline Monitoring program, which monitors the beach width and sand volume of coastal beaches in San Diego County.
Civil Engineer	Yes	The City's Public Works Director/City Engineer is a licensed civil engineer, and the City further supplements via contracted services (currently provided by contracts with PSOMAS, NV5 and Michael Baker International).

Personnel skilled in GIS and/or HAZUS	Yes	The City of Del Mar has a team of staff with an understanding of GIS. This primarily includes staff within the City's Administrative Services Department and Planning and Community Development Department (includes Planning and Building Services, Clean Water Management, and Code Enforcement) and is supplemented with contract services as needed. The City's emergency responders and risk assessment managers use FEMA's HazUs and other tools to determine potential losses from disasters and to identify the most effective mitigation actions for minimizing those losses. The City's Administrative Services Department, Fire Department, Public Works Department, and Community Services Department facilitate this type of risk assessment and emergency response.
Grant writers	Yes	The City of Del Mar is a small City that does not currently have any designated grant writers on staff. However, the City has retained specialized contract services for grant writing services. The City has also been successful in preparing grant applications and being awarded funds.

TABLE 4.1-2: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.1 DATA CONTINUED.

4.1.3. Financial

Table 4.1-3 shows specific financial and budgetary tools potentially available to Del Mar, such as Community Development Block Grants; capital improvement project funding; authority to levy taxes for specific purposes; fees for water, clean water, and sewer; impact fees related to new development and/or redevelopment; ability to incur debt through general obligation bonds; and withholding spending in hazard-prone areas. In most cases, these are subject to City Council and/or voter approval.

Overall, the City could expand upon this capability by updating other plans, such as the CIP plan to incorporate hazard information and include hazard mitigation actions and climate adaptation strategies that relate to infrastructure systems resiliency associated with the water and wastewater systems. Capital investments and improvements related to seismic retrofits, sea level rise, and water supply systems should all be emphasized in the outreach materials as they are related to hazard mitigation. These fiscal capabilities may be supported by City staff or augmented with consultants.

The City has access to or is eligible to use the following funding resources for hazard mitigation:

Funding Resource	Access/ Eligibility (Yes/No)	Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions?
Community Development Block Grants (CDBG)	Yes	The most recent city CDBG-funded project installed pedestrian ramps and restriped the intersection of 22nd Street / Camino del Mar (CDM) to enhance pedestrian, bicycle, and vehicle safety. The City of Del Mar receives a relatively minor amount of funding each year, which historically has been important for completing disabled access improvement capital projects.
Capital improvements project funding	Yes	The City has utilized Capital Improvement Project funding in the past for required bluff collapse repairs and other emergency storm drain repairs.
Authority to levy taxes for specific purposes	Yes	The City Council could consider levying taxes for specific purposes subject to State law, which generally includes voter approval.
Fees for water, sewer, gas, or electric service	Yes	City does not control fees for electric or gas service. The City Council does establish fees for water and sewer service in accordance with State law, including Proposition 218. Not likely a source of funding for hazard mitigation.
Impact fees for homebuyers or developers for new developments/homes	Yes	The City has an adopted fee schedule that includes mitigation fees for fire, transportation (regional) and affordable housing due at the time of permit issuance.
Incur debt through general obligation bonds	Yes	The City currently does not have any general obligation bonds.
Incur debt through special tax and revenue bonds	Yes	A general tax was approved by the voters in November 2016. Funds are presently being used for the City's Utility Undergrounding Project and are anticipated to be used for the future development of Shores Park. To date, there has not been any debt or revenue bonds associated with this funding source.
Incur debt through private activity bonds	Yes	The City borrowed approximately $3 million from SANDAG, which is annually paid using the City's Annual TransNet revenue allocation. No additional TransNet funding is available for borrowing currently. The City also borrowed approximately $16 million from IBank to fund the construction of the Civic Center Project.

TABLE 4.1-3: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.1 DATA CONTINUED.

4.1.4. Education and Outreach

Table 4.1.4 identifies the City of Del Mar's education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information.

Overall, the City can expand upon these capabilities by creating and applying the updated five-year Multi-Jurisdictional Hazard Mitigation Plan Cycle, to City operations, provide hazard training for staff, apply for hazard mitigation grant funding in partnership with San Diego County and CalOES, and look for other opportunities to coordinate and educate key stakeholders who may be interest in aligning efforts related to hazard mitigation.

Specific enhancements may include continued public engagement through the city's weekly newsletter and social media posts focused on project successes related to the MJHMP, and focused outreach to community based organization and non-profits in the City. Additionally, the City can conduct quarterly trainings to the Community Emergency Response Team (CERT) and conduct a fuel reduction program inform residents on how to improve fire survivability.

The table below identifies education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information:

Program/Organization	Yes/No	Describe program/organization and how relates to disaster resilience and mitigation. Could the program/organization help implement future mitigation activities?
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	Yes	The City of Del Mar has a volunteer Community Emergency Reponses Team (CERT) that coordinates with the City on emergency operations planning and training. In terms of environmental protection and access, the Surfrider Foundation is a stakeholder group that regularly participates in local planning.
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	The City has a Communication Plan in place that provides for robust communication of hot topics, public education, and regular sharing of information that is in addition to legally required public noticing. This is primarily done via the City's web page and communications that are sent electronically and/or mailed including a weekly electronic newsletter and frequent communications as needed via the City's social media accounts. The City highlights topics such as community events, vegetation management/fire safety, household preparedness, responsible water use, Clean Water Program compliance, proper techniques for disposal of waste, recycling, energy savings, etc.
Natural disaster or safety related school programs	Yes	The City of Del Mar does not have any public schools located within its jurisdiction. However, the City regularly accommodates participation from public schools in the surrounding jurisdictions, which has included school projects focused on local adaptation along the shoreline and safe access and design along the downtown streetscape.
StormReady certification	No	The City does not have a StormReady certification.
Firewise Communities certification	No	The City does not have a Firewise Communities certification.
Public-private partnership initiatives addressing disaster-related issues	Yes	The Sea Level Rise Technical Advisory Committee work (2014-2018) helped to bolster private property owner support for the City's local adaptation initiatives (i.e., beach nourishment, living levee, maintenance of the existing system of shoreline protection/beach access in North Beach, and relocation of the railroad operations/infrastructure from the South Bluff).
Other	Yes	The City of Del Mar has a volunteer CERT team that coordinates with the City on emergency operations planning and training. In terms of environmental protection and access, the Surfrider Foundation is a stakeholder group that regularly participates in local planning.

TABLE 4.1.4: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.1 DATA CONTINUED

4.2. Safe Growth Audit

Tables 4.2-1 through 4.2-4 identifies gaps in the City of Del Mar's growth guidance instruments and improvements that could be made to reduce vulnerability to future development.

Comprehensive Plan	Yes	No
Land Use		
1. Does the future land-use map clearly identify natural hazard areas?		X
The City's Community (General) Plan land use map does not identify natural hazard areas. However, the City has a certified Local Coastal Program Land Use Plan that does include this information. The City prepared a Vulnerability and Risk Assessment (Environmental Science Associates 2016 and Addendum 2018) that identifies the extent of natural hazard areas as projected through year 2100 based on assumptions of projected sea level rise. The City's Floodway Zone, Floodplain Overlay Zone, Coastal Bluff Overlay Zone, Lagoon Overlay Zone, and Open Space Overlay Zone effectively cover the locations at risk. Further, the City's Adaptation Plan, which is incorporated into the Community (General) Plan Safety Element by reference, effectively identifies and describes the City's plan to adapt and minimize the risk of projected hazards.		
2. Do the land-use policies discourage development or redevelopment within natural hazard areas?	X	
The City's land use policies within the Community (General) Plan and within the certified Local Coastal Program Land Use Plan discourage development within natural hazard areas based on relative risk. This includes prohibitions on development within the floodway, wetlands, on the public beach, and within 40 feet of a coastal bluff edge. The City's proposed approach is consistent with the California Coastal Act, State Fire Hazard Severity Zones, and Federal Floodplain Management standards. However, it is important to note that within the Floodplain, the State Coastal Commission has recently indicated their preference for a more conservative approach to further limit development and redevelopment (i.e., via definition changes to carry out managed retreat) in locations with a relatively very low risk of flooding in the Floodplain (i.e., the existing century-old North Beach neighborhood). This approach was not supported by the Del Mar City Council after four years of planning that included scientific studies and extensive public outreach and discussion.		
3. Does the plan provide adequate space for expected future growth in areas located outside natural hazard areas?	X	
The City's Community (General) Plan provides for adequate space for expected future growth areas in locations outside of natural hazard areas. This includes prohibitions on development within the floodway, wetlands, on the public beach, and within 40 feet of a coastal bluff edge.		
Transportation		
1. Does the transportation plan limit access to hazard areas?	X	
The City's Community (General) Plan Circulation Element and transportation plans rely on an existing network of roadway connections that facilitate pedestrian and vehicular access to the downtown village, public beach, and State Fairgrounds and limit access to environmentally sensitive and hazardous areas. Further, the Community (General) Plan Safety Element incorporates by reference the adopted Adaptation Plan (Environmental Science Associates 2018), which identifies adopted local policy to support relocation of the railroad operations and infrastructure away from the South Bluff in Del Mar, which is vulnerable to bluff erosion and projected sea level rise.		

2. Is transportation policy used to guide growth to safe locations?	X	
The City's transportation policy and desired protection for the public health and safety is reflected in the City's Community (General) Plan and in the City's certified Local Coastal Program.		
3. Are movement systems designed to function under disaster conditions (e.g., evacuation)?	X	
The City is in the process of implementing various plans and special projects to improve mobility. For example, the City recently completed an evacuation plan in consultation with the City of San Diego Fire Department to facilitate the evacuation of properties located in the jurisdictions of the City of Del Mar and the City of San Diego along Crest Canyon and the San Dieguito Lagoon (Crest Canyon Evacuation Plan). In addition, the City is currently working with Caltrans and a team of consultants to replace the Camino del Mar bridge over the San Dieguito Lagoon, which is currently vulnerable to various hazards (i.e., flooding, earthquakes, storm damage). The replacement bridge will be able to adapt to such hazards including projected sea level rise.		

TABLE 4.2-1: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.2 DATA.

	Yes	No
Environmental Management		
1. Are environmental systems that protect development from hazards identified and mapped?	X	
The City's Community (General) Plan maps the environmentally sensitive locations within the City. This includes: • the San Dieguito River/Lagoon Floodway and Floodplain; • locations within the North Beach Floodplain, San Dieguito River Valley, and State Fairgrounds that are subject to potential flooding from the Pacific Ocean and/or the San Dieguito River; • locations on the North Bluff and South Bluff that are vulnerable to coastal bluff erosion; • locations along Crest Canyon that are vulnerable to fire hazards; and • locations in the North Hills and South Hills that are vulnerable to inland bluff erosion.		
2. Do environmental policies maintain and restore protective ecosystems?	X	
The City's Community (General) Plan policies protect each of the environmentally sensitive locations within the City.		
3. Do environmental policies provide incentives to development that is located outside protective ecosystems?		X
The City of Del Mar does not have a system of incentives for location of new development outside of protective ecosystems. Location of new development outside of protective ecosystems and environmentally sensitive or hazardous areas is a required regulatory standard as reflected by the City's Community (General) Plan, certified Local Coastal Program, and the Del Mar Municipal Code.		
Public Safety		
1. Are the goals and policies of the comprehensive plan related to those of the FEMA Local Hazard Mitigation Plan?	X	
The City of Del Mar's Community (General) Plan and certified Local Coastal Program are consistent with the goals and policies of the FEMA Local Hazard Mitigation Plan.		
2. Is safety explicitly included in the plan's growth and development policies?	X	
Protection of the public health, safety, and general welfare is a primary objective and component of the City's Community (General) Plan, certified Local Coastal Program, and the Del Mar Municipal Code.		

3. Does the monitoring and implementation section of the plan cover safe growth objectives?	X	
Safe growth objectives and assured protection of the public health, safety, and general welfare is a primary objective and component of the City's General Plan, certified Local Coastal Program, and the Del Mar Municipal Code.		

TABLE 4.2-2: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.2 DATA CONTINUED.

Zoning Ordinance	**Yes**	**No**
1. Does the zoning ordinance conform to the comprehensive plan in terms of discouraging development or redevelopment within natural hazard areas?	X	
The location of new development outside of hazardous areas is a required regulatory standard as reflected by the City's Community (General) Plan, certified Local Coastal Program, and the Del Mar Municipal Code.		
2. Does the ordinance contain natural hazard overlay zones that set conditions for land use within such zones?	X	
The City's Floodway Zone, Floodplain Overlay Zone, Coastal Bluff Overlay Zone, Lagoon Overlay Zone, and Open Space Overlay Zone effectively cover the locations at risk of natural hazards and explicitly either prohibit new development or identify how new development may be conditionally approved via a discretionary permit process and subject to conditions of approval.		
3. Do rezoning procedures recognize natural hazard areas as limits on zoning changes that allow greater intensity or density of use?		
The City's Community (General) Plan, certified Local Coastal Program, and the Del Mar Municipal Code identify policies, regulations, and permit approval procedures that effectively provide for decision makers to limit zoning changes, as appropriate within natural hazard areas, including proposed changes that would allow greater intensity or density. Requested zoning changes require processing of legislative approvals through a public process via the Planning Commission and City Council. Following local adoption, the proposed zoning amendments require further processing via the California Coastal Commission for final certification approval to become effective. Consistency with the Coastal Act environmental protections and provisions for minimization of hazard risk is required to gain final certification approval of any proposed zoning changes.		
4. Does the ordinance prohibit development within, or filling of, wetlands, floodways, and floodplains?	X	
The City's certified Local Coastal Program and the Del Mar Municipal Code prohibit the filling of wetlands and prohibit new development within wetlands and floodways. New development within the existing developed areas of the floodplain is required to meet all Federal Floodplain Management requirements and additional limitations in accordance with the Floodway Zone and Floodplain Overlay Zone within the City's certified Local Coastal Program.		
Subdivision Regulations	**Yes**	**No**
1. Do the subdivision regulations restrict the subdivision of land within or adjacent to natural hazard areas?	X	
The City's Subdivision Regulations are incorporated in the Del Mar Municipal Code Title 24 to implement the Subdivision Map Act. Further, the City's certified Local Coastal Program regulates proposed subdivisions as "coastal development" subject to approval of a Coastal Development Permit, which is a discretionary permit that requires findings for approval that include environmental projections and assurances to minimize risk of hazards for new development.		
2. Do the regulations provide for conservation subdivisions or cluster subdivisions in order to conserve environmental resources?	X	

The City's Community (General) Plan, certified Local Coastal Program, and the Del Mar Municipal Code identify policies, regulations, and permit approval procedures that provide for development to be clustered to avoid environmentally sensitive resources or hazards. Further, the City utilizes easements as a condition of approval, where appropriate, to reserve areas as sensitive areas as open space or building restricted as necessary to ensure sensitive environmental resources are protected and conserved in perpetuity.		
3. Do the regulations allow density transfers where hazard areas exist?		X
The Del Mar Municipal Code does not explicitly allow for a density transfer.		

TABLE 4.2-3: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.2 DATA CONTINUED.

Capital Improvement Program and Infrastructure Policies	**Yes**	**No**
1. Does the capital improvement program limit expenditures on projects that would encourage development in areas vulnerable to natural hazards?	X	
The City of Del Mar does not expend funds on projects that encourage development in areas vulnerable to hazards. The CIP is reviewed for conformance with the Community (General) Plan, which as incorporated by reference identifies locations and facilities that are vulnerable to hazards and the City's Adaptation Plan to minimize risk of hazards.		
2. Do infrastructure policies limit extension of existing facilities and services that would encourage development in areas vulnerable to natural hazards?	X	
The City's CIP is consistent with the City's Community (General) Plan that identifies locations and facilities that are vulnerable to hazards and the City's Adaptation Plan to minimize risk of hazards; and discourages new development and infrastructure in vulnerable locations.		
3. Does the capital improvement program provide funding for hazard mitigation projects identified in the FEMA Mitigation Plan?	X	
The City's CIP is consistent with the Community (General) Plan, which is consistent with the FEMA Mitigation Plan and local Adaptation Plan. Projects on the current 10-year CIP include priority projects identified in the Adaptation Plan such as the Sand Compatibility Opportunistic Use Program (SCOUP), beach nourishment, living levee, and replacement of the Camino del Mar bridge over the San Dieguito Lagoon. These are projects with identified funding and/or identified grant opportunities to help fund these priority CIP projects.		
Other	**Yes**	**No**
1. Do small area or corridor plans recognize the need to avoid or mitigation natural hazards?	X	
The City's Community (General) Plan recognizes the need to avoid or mitigate natural hazards and identifies opportunities within the Open Space Element and Safety Element for more fine grain environmental connections in specified small areas and habitat corridors. Further, the City's Community (General) Plan Safety Element incorporates by reference the City's Adaptation Plan and the supporting technical documents including the: 1) Sediment Management Plan to help maintain the public beach and environmental health of the Lagoon; and 2) Lagoon Habitat Migration Assessment, which identifies potential locations for the City to consider in the future to accommodate wetland habitat migration, if necessary, with increasing sea level rise and the associated mixing of ocean water within the freshwater Lagoon environs.		
2. Does the building code contain provisions to strengthen or elevate construction to withstand hazard forces?	X	
The City's Community (General) Plan Safety Element, certified Local Coastal Program, and Del Mar Municipal Code, including the California Building Code, include policies and regulations applicable to the Floodplain contain provisions that require flood proofing or elevation of new construction in accordance with FEMA's Floodplain Management standards as necessary to withstand flood hazards.		

3. Do economic development or redevelopment strategies include provisions for mitigation natural hazards?	X	
The City's Community (General) Plan, certified Local Coastal Program, and Del Mar Municipal Code include provisions to facilitate and require mitigation and reduction of risk of natural hazards.		
4. Is there an adopted evacuation and shelter plan to deal with emergencies from natural hazards?	X	
The City has an Emergency Operations Plan to coordinate and facilitate response to emergencies, including those related to natural hazards. In addition, the City recently completed an evacuation plan in consultation with the City of San Diego Fire Department to facilitate the evacuation of properties located in the jurisdictions of the City of Del Mar and the City of San Diego along Crest Canyon and the San Dieguito Lagoon (Crest Canyon Evacuation Plan).		

TABLE 4.2-4: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.2 DATA CONTINUED.

4.3. National Flood Insurance Program (NFIP)

The City of Del Mar is a participant in the National Flood Insurance Program (NFIP) and develops capabilities for conducting flood mitigation activities. This section of the Plan describes each the City of Del Mar's participation in the NFIP.

The information in Tables 4.3-1 and 4.3-2 below describe the City of Del Mar's participation in and continued compliance with the NFIP and identified areas for improvement that could be potential mitigation actions.

NFIP Topic	Source of Information	Comments
Insurance Summary		
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	• 242 NFIP policies • Total premiums: $445,933 • Total coverage: $69,071,800
How many claims have been paid in the community? What is the total amount of paid claims? How many of the claims were for substantial damage?	FEMA NFIP or Insurance Specialist	• Claims: 144 • Amount paid: $1,339,418 • Substantial damage: 4
How many structures are exposed to flood risk within the community?	Community Floodplain Administrator (FPA)	The City does not have this information currently.

Describe any areas of flood risk with limited NFIP policy coverage	Community FPA and FEMA Insurance Specialist	The City of Del Mar is vulnerable to flooding in North Beach, which is a century-old beach-level neighborhood where the flood risk is from San Dieguito River flooding and Pacific Ocean flooding. The relative risk of flooding varies depending on property location. The westernmost portion of the beachfront properties located between 18th Street and the San Dieguito Lagoon river mouth are located within the VE zone, which is a special flood hazard area due to the associated risk of ocean flooding in a 100-year flood. Portions of other properties located within the northernmost section of the North Beach neighborhood, northernmost section of the North Commercial Zone, and southernmost section of the State Fairgrounds are located within the AE zone, which is a special flood hazard area due to the associated risk of river flooding in a 100-year flood.
Staff Resources		
Is the Community FPA or NFIP Coordinator certified?	Community FPA (Planning and Community Development Director)	Yes
Is floodplain management an auxiliary function?	Community FPA	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	The City of Del Mar utilizes the FEMA FIRM map in effect to identify the floodway and floodplain locations. The City utilizes policies and zoning regulations (Floodway Zone and Floodplain Overlay zone) to regulate development that is vulnerable to flooding. Proposed development within the floodplain requires a Floodplain Development Permit (FDP), which is a discretionary permit that requires required findings and conditions of approval in accordance with FEMA floodplain management standards and the City's certified Local Coastal Program consistent with the Coastal Act. Public notice of submitted applications is required. FDP applications are reviewed by planning and engineering staff certification and/or training in floodplain management.
What are the barriers to running an effective NFIP program in the community, if any?	Community FPA	A challenge is that FEMA and the CA Coastal Commission utilize separate floodplain management requirements and standards of review. The main difference is that the Coastal Commission prefers to consider projected sea level rise through year 2100 as part of the standard of review, despite the inherent uncertainty associated with mid to late century projections.

Compliance History		
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	The City is in good standing with the NFIP.
Are there any outstanding compliance issues (i.e., current violations)?		There are no outstanding compliance issues.
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?		2017
Is a CAV or CAC scheduled or needed?		No

TABLE 4.3-1: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.3 DATA.

NFIP Topic	Source of Information	Comments
Regulation		
When did the community enter the NFIP?	Community Status Book http://www.fema.gov/national-flood-insurance-program/national-flood-insurance-program-community-status-book	August 15, 1983
Are the FIRMs digital or paper?	Community FPA	Both digital and paper.
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	The City's regulations are more restrictive than the FEMA minimum requirements and are consistent with the State's minimum requirements. This is because the City of Del Mar is a coastal city that is subject to compliance with the Coastal Act and certification of its Local Coastal program by the California Coastal Commission.
Provide an explanation of the permitting process.	Community FPA, State, FEMA NFIP Flood Insurance Manual http://www.fema.gov/flood-insurance-manual Community FPA, FEMA Community Rating System (CRS) Coordinator, International Organization for Standardization (ISO) representative	Proposed development within the floodplain requires a Floodplain Development Permit (FDP), which is a discretionary permit that requires required findings and conditions of approval in accordance with FEMA floodplain management standards and the City's certified Local Coastal Program consistent with the Coastal Act. Public notice of submitted applications is required. FDP applications are reviewed by planning and engineering staff certification and/or training in floodplain management.

Community Rating System (CRS)		
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	No
What is the community's CRS Class Ranking?	Flood Insurance Manual http://www.fema.gov/flood-insurance-manual	N/A
What categories and activities provide CRS points and how can the class be improved?		N/A
Does the plan include CRS planning requirements	Community FPA, FEMA CRS Coordinator, ISO representative	N/A

TABLE 4.3-2: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.3 DATA CONTINUED.

5. SECTION FIVE: Conduct a Risk Assessment

The City of Del Mar Planning Team conducted a risk assessment to determine the potential impacts of hazards to the people, economy, and built and natural environments of the Del Mar community. This risk assessment provides the foundation for the rest of the mitigation planning process, which is focused on identifying and prioritizing actions to reduce risk to hazards.

In addition to informing the mitigation strategy, the risk assessment also can be used to establish emergency preparedness and response priorities, for land use and comprehensive planning, and for decision making by elected officials, city and county departments, businesses, and organizations in the Del Mar community.

5.1. Hazards Summary

As shown in Tables 5.1-1 and 5.1-2, the Planning Team reviewed hazard maps and critical facility information and localized potential hazard/exposure/loss estimates provided by the County of San Diego, and then applied the criteria below to identify hazards with the most significant to the City.

Hazard	Location (Geographic Area Affected)	Maximum Probable Extent (Magnitude/Strength)	Probability of Future Events	Overall Significance Ranking
Avalanche	Negligible	Weak	Unlikely	Low
Dam Failure	Significant	Moderate	Unlikely	Medium
Drought	Extensive	Severe	Likely	High
Earthquake	Extensive	Severe	Likely	High

Erosion	Significant	Severe	Likely	High
Expansive Soils	Limited	Moderate	Occasional	Medium
Extreme Cold	Negligible	Weak	Unlikely	Low
Extreme Heat	Extensive	Severe	Occasional	Medium
Flood	Significant	Severe	Likely	High
Hail	Negligible	Weak	Unlikely	Low
Hurricane	Negligible	Weak	Unlikely	Low
Landslide	Limited	Severe	Occasional	Medium
Lightning	Negligible	Weak	Occasional	Low
Sea Level Rise	Significant	Extreme	Likely	High
Severe Wind	Negligible	Weak	Occasional	Low
Severe Winter Weather	Negligible	Weak	Unlikely	Low
Storm Surge	Significant	Moderate	Likely	Medium
Subsidence	Negligible	Weak	Unlikely	Low
Tornado	Negligible	Weak	Unlikely	Low
Tsunami	Significant	Severe	Likely	High
Wildfire	Significant	Severe	Likely	High

TABLE 5.1-1: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 5.1 DATA.

Hazard Evaluation Criteria:

Location (Geographic Area Affected)

- **Negligible:** Less than 10 percent of planning area or isolated single-point occurrences
- **Limited:** 10 to 25 percent of the planning area or limited single-point occurrences
- **Significant:** 25 to 75 percent of planning area or frequent single-point occurrences
- **Extensive:** 75 to 100 percent of planning area or consistent single-point occurrences

Maximum Probable Extent (Magnitude/Strength based on historic events or future probability)

- **Weak:** Limited classification on scientific scale, slow speed of onset or short duration of event, resulting in little to no damage
- **Moderate:** Moderate classification on scientific scale, moderate speed of onset or moderate duration of event, resulting in some damage and loss of services for days
- **Severe:** Severe classification on scientific scale, fast speed of onset or long duration of event, resulting in devastating damage and loss of services for weeks or months
- **Extreme:** Extreme classification on scientific scale, immediate onset or extended duration of event, resulting in catastrophic damage and uninhabitable conditions

Hazard	Scale / Index	Weak	Moderate	Severe	Extreme
Drought	Palmer Drought Severity Index3	-1.99 to +1.99	-2.00 to -2.99	-3.00 to -3.99	-4.00 and below
Earthquake	Modified Mercalli Scale4	I to IV	V to VII	VII	IX to XII
	Richter Magnitude5	2, 3	4, 5	6	7, 8
Hurricane Wind	Saffir-Simpson Hurricane Wind Scale6	1	2	3	4, 5
Tornado	Fujita Tornado Damage Scale7	F0	F1, F2	F3	F4, F5

Probability of Future Events

- **Unlikely:** Less than 1 percent probability of occurrence in the next year or a recurrence interval of greater than every 100 years.
- **Occasional:** 1 to 10 percent probability of occurrence in the next year or a recurrence interval of 11 to 100 years.
- **Likely:** 10 to 90 percent probability of occurrence in the next year or a recurrence interval of 1 to 10 years
- **Highly Likely:** 90 to 100 percent probability of occurrence in the next year or a recurrence interval of less than 1 year.

Overall Significance

- **Low:** Two or more criteria fall in lower classifications, or the event has a minimal impact on the planning area. This rating is sometimes used for hazards with a minimal or unknown record of occurrences or for hazards with minimal mitigation potential.
- **Medium:** The criteria fall mostly in the middle ranges of classifications and the event's impacts on the planning area are noticeable but not devastating. This rating is sometimes used for hazards with a high extent rating but very low probability rating.
- **High:** The criteria consistently fall in the high classifications and the event is likely/highly likely to occur with severe strength over a significant to extensive portion of the planning area.

References

- *Cumulative meteorological drought and wet conditions: http://ncdc.noaa.gov/*
- *Earthquake intensity and effect on population and structures: http://earthquake.usgs.gov*
- *Earthquake magnitude as a logarithmic scale, measured by a seismograph: http://earthquake.usgs.gov*
- *Hurricane rating based on sustained wind speed: http://nhc.noaa.gov*
- *Tornado rating based on wind speed and associated damage: http://spc.noaa.gov*

		Residential		Commercial		Critical Facilities	
Hazard Type	**Exposed Population**	**Number of Residential Buildings**	**Potential Exposure/Loss for Residential Buildings (x$1,000)**	**Number of Commercial Buildings**	**Potential Exposure/Loss for Commercial Buildings (x$1,000)**	**Number of Critical Facilities**	**Potential Exposure for Critical Facilities (x$1,000)**
Coastal Storm / Erosion	70	5	1,943	0	0	0	0
Sea Level Rise	790	52	20,207	9	2,721	4	25,730
Dam Failure	1,260	556	216,062	31	9,373	5	25,156
Earthquake (Annualized Loss - Includes shaking, liquefaction, and landslide components)	471	351	212,056	104	39,064	0	0
Rose Canyon M6.9 Scenario	3,965	2,001	$777,388,500	546	$165,083,100	13	$60,406,000
Flood (Loss)							
100 Year	1,123	384	149,222	29	8,768	5	25,156
500 Year	1,228	475	184,585	36	10,885	5	25,156
Rain-Induced Landslide							
High Risk	0	0	0	0	0	0	0
Moderate Risk	0	0	0	0	0	0	0
Tsunami	1,173	532	206,735	25	7,559	5	25,156
Wildfire / Structure Fire							
High	940	255	99,068	8	2,419	1	6,670
Very High	3,555	340	132,124	249	75,285	0	0

TABLE 5.1-2 SUMMARY OF POTENTIAL HAZARD-RELATED EXPOSURE/LOSS IN DEL MAR

Development Since 2018 Plan

The City of Del Mar tracks the number of building permits and certificates of occupancy issued annually. A summary of new residential development for the past five years is as follows:

- 2018 – 1
- 2019 – 1
- 2020 – 3
- 2021 – 6
- 2022 – 14 (accessory dwelling units on existing residential properties)

As a built-out community with limited land available for residential and commercial development,

Del Mar experienced minimal housing grown from 2018 to 2022. No new commercial development occurred during this period. Furthermore, any development that occurred in identified hazard areas were completed in accordance with all current and applicable development codes and standards and should be adequately protected. Thus, with the exception of slightly more people living in the city potentially exposed to natural hazards, this growth should not cause a significant change in vulnerability of the City to identified priority hazards.

Future Development

The 2010 U.S. Census reported that Del Mar's population declined from 4,860 to 4,161 in 2010. Despite prior tends, the San Diego Association of Governments (SANDAG) 2050 Regional Growth Forecast estimates that Del Mar's population will experience forecasted growth reaching 4,672 by 2023 and 4,732 by 2050. Del Mar is the smallest incorporated jurisdiction by land area, population, and housing units within San Diego County. As a generally built out community with limited land available to accommodate new growth, Del Mar is expected to experience the lowest percentage of average annual growth compared to neighboring jurisdictions and other incorporated cities in San Diego County.

Potential hazards related to new development have been analyzed in detail in the City's Housing Element Programmatic Environmental Impact Report (PEIR). As summarized in that report, future development constructed under the Housing Element may involve the construction of new residential structures in a seismically active area (e.g., subject to earthquake, ground failure, or liquefaction). However, the potential hazards would be less than significant because of the existing regulatory framework related to seismic safety standards. For example, the City applies State and local permit requirements and regulations to new housing in areas identified in the Community Plan as having the greatest potential of ground failure to minimize risk of hazards (e.g., along the coastal bluffs and sea cliffs, areas of the Del Mar Foundation of Torrey Sandstone in which existing slopes exceed 25 percent, and terrace escarpments made up of colluvium and slope wash in Crest Canyon and on the northeast side of the Del Mar Hills).

In addition, any proposed development within "Special Flood Hazard Area" of the floodplain (locations in the City with one (1) percent chance of flooding within a given year) would be required to comply with the regulations in the City's Floodplain Overlay Zone (Del Mar Municipal Code 30.56). Finally, future development projects within the City located in a fire hazard severity zone (e.g., mostly in the southern and eastern portions of the City), will be required to meet the applicable requirements and regulations of the California Fire Code to minimize the risk from wildfires.

High Priority Hazards

After reviewing the local hazard maps, exposure/loss estimates, and their overall significance rankings, the following hazards were identified by the City of Del Mar as the highest priorities for mitigation. A general profile for each of the high priority hazard is included below. Each hazard profile includes the nature of the hazard, impacts of the hazard, location/extent/magnitude of the hazard, and the probability of the hazard's occurrence.

- **Rising or High-Water Events** – Constant and historical. See details below.
    - **Flood**

      Nature of the Hazard

      A flood occurs when excess water from snowmelt, rainfall, or storm surge

accumulates and overflows onto a river's bank or to adjacent floodplains. Floodplains are lowlands adjacent to rivers, lakes, and oceans that are subject to recurring floods. Most injuries and deaths from flood occur when people are swept away by flood currents, and property damage typically occurs because of inundation by sediment-filled water. 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.

There are no watersheds in San Diego County that have a longer response time than six hours. In this county, flash floods range from the stereotypical wall of water to a gradually rising stream. Since the City of Del Mar is located along the coastline and is bordered to the north and south by San Dieguito River and Lagoon and the Los Penasquitos Lagoon, respectively, it is most susceptible to flooding from these bodies of water during significant rain events and/or storm surge.

Hazard Impacts

Flooding kills more people than just about any weather-related hazard. Most deaths associated with floods occur either at night, or when people become trapped in automobiles that stall while driving in areas that are flooded. Flooding can also cause substantial property damage.

Location/Extent & Magnitude/Probability of Future Events

Location: **Significant** – 25-75 percent of the City of Del Mar is likely to be affected during a large flood event given its proximity to the coastline, San Dieguito River and the San Dieguito and Los Penasquitos Lagoons.

Extent: **Severe** classification on the scientific scale and long duration of the event could result in the devastating damage and loss of services for weeks or months based on historical flooding.

Probability of Future Events: **Likely** – 10 to 90 percent probably of flooding in the next year or a recurrence interval of 1 to 10 years.

Overall Significance: **High** – the criteria above consistently fall in the high classifications and the event is likely to occur with severe strength over a significant portion of the City of Del Mar.

- **Sea Level Rise**

Nature of the Hazard

Sea Level Rise is an increase in sea level caused by a change in the volume of the world's oceans and changes in local ground elevations. Sea level rise leads to increased frequency and depth of flooding in coastal areas.[1] With up to two feet of sea level rise projected by 2050, low-lying areas could become inundated more frequently and with increasingly higher water levels. In addition, storm related

flooding may reach further inland and occur more often[2]. Beaches and cliffs could also see increased erosion as they are exposed to more hours of high sea levels and wave action.[3] The NOAA Sea Level Rise Viewer allows for planers to predict the impact of sea level rise over the next several decades. It can be found at https://coast.noaa.gov/digitalcoast/tools/slr.

Hazard Impacts
Hazard impacts can include but are not limited to flooding, asset/structure damage and/or collapses, injury, and death.

[1] https://www.fema.gov/sites/default/files/documents/fema_coastal-glossary.pdf
[2] San Diego's Changing Climate: A Regional Wake-Up Call. A Summary of the Focus 2050 Study Presented by The San Diego Foundation
[3] Ibid.

Location/Extent & Magnitude/Probability of Future Events
Location: **Significant** – 25-75 percent of the City of Del Mar is likely to be affected by future sea level rise given its proximity to the coastline, San Dieguito River and the San Dieguito and Los Penasquitos Lagoons.
Extent: **Extreme** classification on the scientific scale and long duration of the event could result in the devastating damage and the permanent loss of beachfront property.
Probability of Future Events: **Likely** – Sea level rise and the associated impacts of coastal erosion and loss of beach sand is already happening and will continue to impact the Del Mar community for the next several decades.
Overall Significance: **High** – the criteria above consistently fall in the high classifications and the event is likely to occur with severe strength over a significant portion of the City of Del Mar.

- **Tsunami**

Nature of the Hazard
A tsunami is a series of long waves generated in the ocean by a sudden displacement of a large volume of water. Underwater earthquakes, landslides, volcanic eruptions, meteoric impacts, or onshore slope failures can cause this displacement. Tsunami waves can travel at speeds averaging 450 to 600 miles per hour. As a tsunami nears the coastline, its speed diminishes, its wavelength decreases, and its height increases greatly. After a major earthquake or other tsunami-inducing activity occurs, a tsunami could reach the shore within a few minutes. Some low-lying areas could experience severe inland inundation of water and deposition of debris more than 3,000 feet inland. Historically the impact of Tsunamis on the San Diego coastline has been low, but inundation maps developed by the California Office of Emergency Services and the California Geologic Survey show the potential for moderate damage along low-lying areas.

Hazard Impacts
Hazard impacts can include but are not limited to flooding, asset/structure damage and/or collapses, loss of resources such as utilities, injury, and death.

Location/Extent & Magnitude/Probability of Future Events
Location: **Significant** – 25-75 percent of the City of Del Mar is likely to be affected by a tsunami given its proximity to the coastline, San Dieguito River and the San Dieguito and Los Penasquitos Lagoons.
Extent: **Severe** classification on the scientific scale and fast speed of onset could result in devastating damage and beachfront property damage.
Probability of Future Events: **Likely** – 10 to 90 percent probably of a tsunami in the next year or a recurrence interval of 1 to 10 years.

Overall Significance: **High** – the criteria above consistently fall in the high classifications and the event is likely to occur with severe strength over a significant portion of the City of Del Mar.

- **Wildfire** – Periodic Santa Ana conditions and fuel loads in hillside areas and Crest Canyon.
Nature of Hazard
A wildfire is an uncontrolled fire spreading through vegetative fuels and exposing or possibly consuming structures. They often begin unnoticed and spread quickly. Naturally occurring and non-native species of grasses, brush, and trees fuel wildfires. Urban-Wildland/Urban Interface fire is a wildfire in a geographical area where structures and other human development meet or intermingle with wildland or vegetative fuels. The hillside and Crest Canyon areas in the City of Del Mar are in the Wildland/Urban Interface.

Significant development in San Diego County is located along canyon ridges at the wildland/urban interface. Areas that have experienced prolonged droughts or are excessively dry are at risk of wildfires.

Hazard Impacts
Hazard impacts can include but are not limited to increased flooding risk over burn scar areas, environmental impacts/damage, air quality impacts, loss of resources such as utilities, asset/structure damage and/or total loss, injury, and death.

Location/Extent & Magnitude/Probability of Future Events
Location: **Significant** – 25-75 percent of the City of Del Mar is likely to be affected by a wildfire given the City's eastern hillside topography and proximity to the Crest Canyon Open Space Preserve, which has vegetative fuels.
Extent: **Severe** classification on the scientific scale and fast speed of onset could result in devastating damage to life and property.
Probability of Future Events: **Likely** – 10 to 90 percent probably of a wildfire in the next year or a recurrence interval of 1 to 10 years.
Overall Significance: **High** – the criteria above consistently fall in the high classifications and the event is likely to occur with severe strength over a significant portion of the City

of Del Mar.

- **Erosion**– Constant and historical beach sand loss and coastal buff erosion. See details below.

  Nature of Hazard

  Coastal erosion is the wearing of coastal land. It is commonly used to describe the horizontal retreat of the shoreline along the ocean and is considered a function of larger processes of shoreline change, which include erosion and accretion. Erosion results when more sediment is lost along a particular shoreline than is deposited by the water body and is measured as a rate with respect to either a linear retreat or volumetric loss. Erosion rates are not uniform and vary over time at any single location. Various locations along the coast of San Diego County are highly susceptible to erosion, including the City of Del Mar.

  Erosion prevention and repair measures such as installation of seawalls and reinforcement of cliffs have been required in different locations along the San Diego coast in the past. Coastal erosion risk is highest in the City of Del Mar where geologically unstable cliffs become over-saturated by irrigation or rainwater.

  The risk/probability of coastal erosion in San Diego County is considered "Likely". with the risk of damage from coastal erosion considered to be "Likely" and tsunami "Highly Likely".

  Hazard Impacts

  Hazard impacts can include but are not limited to beach sand loss, asset/structure damage and/or collapses, injury, and death.

  Location/Extent & Magnitude/Probability of Future Events

  Location: **Significant** – 25-75 percent of the City of Del Mar is likely to be affected by coastal erosion given the City's 1.6 miles of coastal bluffs along the Pacific Ocean.
  Extent: **Severe** classification on the scientific scale and fast speed of onset could result in devastating damage to life and property.
  Probability of Future Events: **Likely** – Coastal erosion and loss of beach sand is already happening and will continue to impact the Del Mar community for the next several decades.
  Overall Significance: **High** – the criteria above consistently fall in the high classifications and the event is likely to occur with severe strength over a significant portion of the City of Del Mar.

- **Earthquake**

  Nature of the Hazard

  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. Ground motion is the vibration or shaking of the ground during an earthquake.

Hazard Impacts

Earthquakes usually occur without warning and can quickly cause massive damage and extensive casualties. Other earthquake impacts include, but are not limited to, structure doors swinging, persons at risk of being struck by unstable/falling objects, cracks in building structures, persons having trouble controlling heavy machinery/motor vehicles that may pose a life safety risk, underground pipelines out of service, and large rock masses displaced. Several major active faults exist in San Diego County, including the Rose Canyon, La Nacion, Elsinore, San Jacinto, Coronado Bank and San Clemente Fault Zones.

The Rose Canyon Fault Zone is part of the Newport-Inglewood fault zone, which originates to the north in Los Angeles, and the Vallecitos and San Miguel Fault Systems to the south in Baja California.

Location/Extent & Magnitude/Probability of Future Events

Location: **Extensive** – 75-100 percent of the City of Del Mar is likely to be affected by an earthquake given the City's proximity to the Rose Canyon Fault. The Rose Canyon Fault extends inland from La Jolla Cove, south through Rose Canyon, along the east side of Mission Bay, and out into San Diego Bay. The Rose Canyon Fault is considered the greatest potential threat to San Diego as a region, due to its proximity to areas of high population.

Extent: **Severe** classification on the scientific scale and fast speed of onset could result in devastating damage to life and property.

Probability of Future Events: **Likely** – 10 to 90 percent probability of an earthquake in the next year or a recurrence interval of 1 to 10 years.

Overall Significance: **High** – the criteria above consistently fall in the high classifications and the event is likely to occur with severe strength over a significant portion of the City of Del Mar.

- **Drought**

Nature of the Hazard

Drought is a slow-onset hazard that can last for months or years. As a hazard, it has the potential to impact many aspects of life, including drinking water and food. Because of the long duration of droughts, the impacts last for years and can ripple through a community over time. Severe droughts are projected for the coming decades and may increase incidences of other events, like wildfires. Warming temperatures statewide could result in reduced water supply for the San Diego region. Local water managers also report that higher temperatures could lead to increased demand for water for irrigation. Water shortages could become more frequent and more severe in the future, straining the local economy. The potential for drought in San Diego is highly likely. Severe droughts are projected for the coming decades and may increase incidences of other events like wildfires, which are threats to people, structures, and other community assets.

Hazard Impacts

As extreme drought periods become more frequent, the increase in slow, or chronic drought periods can cause long term and indirect health effects on people. Potential health effects

include “compromised quantity and quality of drinking water, increased recreational risks, effects on air quality, diminished living conditions related to energy, air quality, and sanitation and hygiene, mental health effects related to economic and job losses, compromised food and nutrition and increased incidence of illness and disease” (Centers for Disease Control, 2022).

Location/Extent & Magnitude/Probability of Future Events

Location: **Extensive** – 75-100 percent of the City of Del Mar is likely to be affected as extreme drought periods become more frequent in San Diego County.
Extent: **Severe** classification on the scientific scale and long duration of the event could result in devastating damage to life and property.
Probability of Future Events: **Likely** – 10 to 90 percent probably of drought conditions in the next year or a recurrence interval of 1 to 10 years.
Overall Significance: **High** – the criteria above consistently fall in the high classifications and the event is likely to occur with severe strength over a significant portion of the City of Del Mar.

6. SECTION SIX: Develop a Mitigation Strategy

The City of Del Mar’s mitigation strategy serves as the long-term blueprint for reducing potential losses identified in the risk assessment included in Section 5. The mitigation strategy describes how the City of Del Mar will accomplish the overall purpose, or mission, of the planning process.

The mitigation strategy is made up of three main required components: mitigation goals, mitigation actions, and an action plan for implementation. These provide the framework to identify, prioritize, and implement actions to reduce risk to hazards.

Mitigation goals are general guidelines that explain what the Del Mar community wants to achieve with the Plan. They are usually broad policy-type statements that are long-term, and they represent visions for reducing or avoiding losses from the identified hazards

Mitigation actions are specific projects and activities that help achieve the goals.

The action plan describes how the mitigation actions will be implemented including how those actions will be prioritized, administered, and incorporated into the Del Mar community’s existing planning mechanisms.

6.1. Mitigation Action Evaluation

The Del Mar Planning Team used FEMA Worksheet 6.1 to help evaluate and prioritize each mitigation action under consideration. For each action, the potential benefits and/or likelihood of successful implementation were considered for the criteria defined below.

Each criterion was ranked with a -1, 0 or 1 using the following scale:

- 1 = Highly effective or feasible
- 0 = Neutral
- -1 = Ineffective or not feasible

Example Evaluation Criteria:

- **Life Safety** – How effective will the action be at protecting lives and preventing injuries?
- **Property Protection** – How significant will the action be at eliminating or reducing damage to structures and infrastructure?
- **Technical** – Is the mitigation action technically feasible? Is it a long-term solution? Eliminate actions that, from a technical standpoint, will not meet the goals.
- **Political** – Is there overall public support for the mitigation action? Is there the political will to support it?
- **Legal** – Does the community have the authority to implement the action?
- **Environmental** – What are the potential environmental impacts of the action? Will it comply with environmental regulations?
- **Social** – Will the proposed action adversely affect one segment of the population? Will the action disrupt established neighborhoods, break up voting districts, or cause the relocation of lower income people?
- **Administrative** – Does the community have the personnel and administrative capabilities to implement the action and maintain it or will outside help be necessary?
- **Local Champion** – Is there a strong advocate for the action or project among local departments and agencies that will support the action's implementation?
- **Other Community Objectives** – Does the action advance other community objectives, such as capital improvements, economic development, environmental quality, or open space preservation? Does it support the policies of the comprehensive plan?

Mitigation Action	Life Safety	Property Protection	Technical	Political	Legal	Environmental	Social	Admin.	Local Champion	Other Community Objectives	Total Score
Local Plans and Regulations											
Action 4: Continue to implement, and update as needed, the Crest Canyon Evacuation Plan that provides for the safe and orderly evacuation of community members and visitors who live and or are visiting the communities and neighborhoods that surround the Crest Canyon in the event of a wildfire (supports **Goal 2**).											
	1	0	1	1	1	1	1	1	1	0	**8**
Action 11: Update the City's Emergency Operations Plan to bring it in alignment with current emergency planning standards (support **Goals 1-3**).											
	1	1	1	1	1	1	0	1	1	1	**9**
Action 12: Update the City's Safety Element in accordance with the State law requirement that requires an update with each Housing Element Cycle (supports **Goals 1-3**).											
	1	1	1	0	1	1	1	1	1	1	**9**

Action 10: Review building codes to reflect current earthquake, fire, ad wind standards annually and update as necessary (supports **Goal 3**).											
	1	1	1	1	1	1	1	1	0	0	**8**
Structure and Infrastructure Projects											
Action 1: Complete the design, engineering, and environmental permitting to replace the Camino del Mar Bridge over the San Dieguito River to accommodate anticipated sea level rise (supports **Goal 1**).											
	1	0	1	1	1	1	0	1	1	1	**8**
Action 7: Complete the design for the Jimmy Durante Boulevard Bluff Repair Project and construct permanent improvements to protect Jimmy Durante Boulevard from future bluff slides (supports **Goal 3**).											
	1	1	1	1	1	1	0	1	1	1	**9**
Action 8: Continue to support SANDAG's regional effort to relocate the train tracks off the Del Mar Bluffs to an inland location (supports **Goal 3**).											
	1	0	0	1	1	0	0	0	1	1	**5**
Action 9: Continue to support SANDAG's efforts to stabilize portions of the coastal bluffs in the City of Del Mar. Phase 5 is currently funded through construction and will address additional seismic and general stabilization needs, install additional support columns, and replace more aging drainage structures. Phase 6 will continue to provide long-term rehabilitation and stabilization work, including protecting the base of the bluffs against additional bluff retreat (supports **Goal 3**).											
	1	0	0	1	1	0	0	0	1	1	**5**
Natural Systems Protection											
Action 5: Continue to implement mitigation measures to enhance protection of homes along Crest Canyon and the wildland urban interface (WUI) like the City's annual Fuel Reduction Program (supports **Goal 2**).											
	1	1	1	1	1	1	1	0	0	1	**8**
Action 2: Complete the permitting for the City's Sand Compatibility Opportunistic Use Program (SCOUP) to allow the City to accept beach quality sand more readily for beach nourishment efforts when available (supports **Goal 1**).											
	0	1	1	1	1	1	1	0	1	1	**8**
Action 3: Prepare a conceptual plan for a living levee along the banks of the San Dieguito River as an adaptation measure to reduce flood risk consistent with the City's adopted Sea Level Rise Adaptation Plan and Community (General) Plan Safety Element (supports **Goal 1**).											
	0	1	1	1	1	1	1	0	1	1	**8**
Education and Awareness Programs											
Action 13: Educate the public to increase awareness of the City's priority hazards and mitigation actions by hosting periodic community meetings, giving Council presentations, sending electronic notifications, and making updates to the City's website (supports **Goals 1-3**).											
	1	1	1	1	1	1	1	0	0	1	**8**

Action 6: Assist the community in adapting to more frequent and intense droughts by encouraging drought tolerant landscaping or xeriscape practices, promoting the use of reclaimed water for all landscaping efforts, where available and feasible, and supporting regional groundwater recycling efforts (supports **Goal 2**).											
	1	1	1	1	1	1	1	1	0	0	**8**

TABLE 6.1-1: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 6.1 DATA.

6.2. Mitigation Action Implementation

A mitigation action is a specific action, project, activity, or process taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the Plan's mission and goals. The actions to reduce vulnerability to threats and hazards form the core of the Plan and are a key outcome of the planning process.

The Del Mar Planning Team developed three overarching goals to reduce vulnerability to threats and hazards and are a key outcome of the planning process described above. Each goal includes a subset of corresponding mitigation actions. Each mitigation action was assigned to a City Department(s) that will have responsibility for implementation. The potential funding source(s) and general timeline for all the mitigation actions will extend five years from 2022 until the next Hazard Mitigation Plan update in 2026-2027. Specific mitigation action timelines are included below. For more information on potential funding sources and grants, please see the County of San Diego Multi-jurisdictional Hazard Mitigation Base Plan, Section 6.2.

The City of Del Mar does not use the Hazard Mitigation Plan (Plan) as a budget planning document. Instead, the Del Mar City Council approves an annual work plan that prioritizes City actions or projects for inclusion in the City's adopted two-year fiscal budget. During the development of the City's two-year budget, the scope and cost for each item on the City's work plan, including the mitigation actions identified below, are carefully considered and approved by the City Council. Funding sources for the mitigation actions include the City's General Fund, grants, and/or private donations.

The following 13 mitigation actions have been prioritized by the Del Mar City Council and are in the City's current work plan, although not all actions are fully funded. These actions are acceptable and realistic actions to mitigate the highest priority hazards identified by the Del Mar Planning Team. The prioritized actions below reflect progress in local mitigation efforts as well as changes in development.

- **Goal 1: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to coastal flooding, non-coastal flooding, erosion, sea level rise, and/or tsunami.**
  - Action 1: Complete the design, engineering, and environmental permitting to replace the Camino del Mar Bridge over the San Dieguito River to accommodate anticipated sea level rise.
    - Department(s): Public Works, Planning and Community Development, City Manager's Office

- Potential Funding Source: General Fund, County of San Diego ($3.5 million), State funding ($2.2 million), Federal Highway Bridge Program (89 percent of total project cost)
- Implementation Timeline: Complete permitting and final design by 2025 and construction by 2028
- Hazard(s) Addressed: Sea Level Rise, Coastal Flooding, Tsunami

➢ Action 2: Complete the permitting for the City's Sand Compatibility Opportunistic Use Program (SCOUP) to allow the City to accept beach quality sand more readily for beach nourishment efforts when available.

- Department(s): Planning and Community Development
- Potential Funding Source: General Fund, grants
- Implementation Timeline: Fall 2023
- Hazard(s) Addressed: Sea Level Rise, Coastal Flooding, Tsunami

➢ Action 3: Prepare a conceptual plan for a living levee along the banks of the San Dieguito River as an adaptation measure to reduce flood risk consistent with the City's adopted Sea Level Rise Adaptation Plan and Community (General) Plan Safety Element.

- Department(s): Planning and Community Development
- Potential Funding Source: General Fund, grants
- Implementation Timeline: End of Fiscal Year 2023-2024
- Hazard(s) Addressed: Sea Level Rise, Non-Coastal Flooding, Tsunami

❖ **Goal 2: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to wildfires/structure fire and drought.**

➢ Action 4: Continue to implement, and update as needed, the Crest Canyon Evacuation Plan that provides for the safe and orderly evacuation of community members and visitors who live and or are visiting the communities and neighborhoods that surround the Crest Canyon in the event of a wildfire.

- Department(s): Fire Department, City Manager's Office
- Potential Funding Source: General Fund, grants
- Implementation Timeline: Ongoing, plan to be revisited and updated based on changes from future development
- Hazard(s) Addressed: Wildfire

➢ Action 5: Continue to implement mitigation measures to enhance protection of homes along Crest Canyon and the wildland urban interface (WUI) like the City's annual Fuel

Reduction Program.

- Department(s): Fire Department, City Manager's Office
- Potential Funding Source: General Fund
- Implementation Timeline: Ongoing
- Hazard(s) Addressed: Wildfire

➢ Action 6: Assist the community in adapting to more frequent and intense droughts by encouraging drought tolerant landscaping or xeriscape practices, promoting the use of reclaimed water for all landscaping efforts, where available and feasible, and supporting regional groundwater recycling efforts.

- Department(s): Public Works, City Manager's Office
- Potential Funding Source: General Fund
- Implementation Timeline: Ongoing
- Hazard(s) Addressed: Drought

❖ **Goal 3: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to geological hazards including erosion, landslides and/or earthquakes.**

➢ Action 7: Complete the design for the Jimmy Durante Boulevard Bluff Repair Project and construct permanent improvements to protect Jimmy Durante Boulevard from future bluff slides

- Department: Public Works, Planning and Community Development
- Potential Funding Source: General Fund, City's property insurance (covers City's cost above $500,000 and up to property's original condition)
- Implementation Timeline: End of 2023 to complete design and construction
- Hazard(s) Addressed: Erosion

➢ Action 8: Continue to support SANDAG's regional effort to relocate the train tracks off the Del Mar Bluffs to an inland location.

- Department: City Manager's Office, Planning and Community Development
- Potential Funding Source: SANDAG, State funding, Federal funding ($300 million secured to complete initial studies and environmental permitting)
- Implementation Timeline: 2035 to complete construction
- Hazard(s) Addressed: Erosion

➢ Action 9: Continue to support SANDAG's efforts to stabilize portions of the coastal bluffs in the City of Del Mar. Phase 5 is currently funded through construction and will address

additional seismic and general stabilization needs, install additional support columns, and replace more aging drainage structures. Phase 6 will continue to provide long-term rehabilitation and stabilization work, including protecting the base of the bluffs against additional bluff retreat.

- Department(s): City Manager's Office, Planning and Community Development
- Potential Funding Source: SANDAG ($65 million)
- Implementation Timeline: 2023-2026 to complete construction
- Hazard(s) Addressed: Erosion, Sea Level Rise

- Action 10: Review building codes to reflect current earthquake, fire, and wind standards annually and update as necessary.
  - Department(s): Planning and Community Development
  - Potential Funding Source: General Fund
  - Implementation Timeline: Ongoing
  - Hazard(s) Addressed: Earthquake

The Del Mar Planning team also identified the following three mitigation actions that support all three goals.

- Action 11: Update the City's Emergency Operations Plan to bring it in alignment with current emergency planning standards.
  - Department(s): City Manager's Office, Fire Department
  - Potential Funding Source: General Fund, grants
  - Implementation Timeline: Ongoing
  - Hazard(s) Addressed: All
- Action 12: Update the City's Safety Element in accordance with the State law requirement that requires an update with each Housing Element Cycle.
  - Department(s): Planning and Community Development
  - Potential Funding Source: General Fund, grants
  - Implementation Timeline: Ongoing
  - Hazard(s) Addressed: All
- Action 13: Educate the public to increase awareness of the City's priority hazards and mitigation actions by hosting periodic community meetings, giving Council presentations, sending electronic notifications, and making updates to the City's website.
  - Department(s): All

- Potential Funding Source: General fund, grants
- Implementation Timeline: Ongoing
- Hazard(s) Addressed: All

7. SECTION SEVEN: Keep the Plan Current

Hazard Mitigation Plan maintenance is the process the Del Mar Planning Team establishes to track the Plan's implementation progress and to inform the plan update. The Plan must include a description of the method and schedule for monitoring, evaluating, and updating it within a 5-year cycle. These procedures help to:

- Ensure that the mitigation strategy is implemented according to the Plan.
- Provide the foundation for an ongoing mitigation program in your community.
- Standardize long-term monitoring of hazard-related activities.
- Integrate mitigation principles into community officials' daily job responsibilities and department roles.
- Maintain momentum through continued engagement and accountability in the Plan's progress.

Hazard Mitigation Plan updates provide the opportunity to consider how well the procedures established in the previously approved plan worked and revise them as needed. This annex is part of the most recent *San Diego County Multi-Jurisdictional Hazard Mitigation Plan* update. The plan was last updated in 2018. See the *San Diego County Multi-Jurisdictional Hazard Mitigation Plan* for more information.

7.1. Mitigation Action Progress

Plan monitoring means tracking the implementation of the plan over time. The City of Del Mar participated in the development of the San Diego County Multi-Jurisdictional Hazard Plan in 2018. However, the City has other planning documents it uses to track progress on various hazard mitigation efforts including the Community (General) Plan; Climate Action Plan; Crest Canyon Evacuation Plan; Coastal Hazards Analysis, Vulnerability, And Risk Assessment; Sea Level Rise Adaptation Plan; as well as the City Council's approved annual work plan.

The Del Mar Planning Team used some of these documents to inform the 2018 Hazard Mitigation Plan; however, active monitoring and implementation of those plans occurs on a regular basis through processes outside the 5-year Hazard Mitigation Planning cycle. For the 2022 Hazard Mitigation Plan update, the Del Mar Planning Team reviewed the priority actions identified in 2018 Plan and determined they were either complete, no longer being worked on, or not a priority.

To ensure improved Hazard Mitigation Plan action monitoring moving forward, beginning with the 2022 Plan update, the Del Mar Planning streamlined the mitigation goals and actions to only

include those that are currently being worked on or have been prioritized by the City Council but are not fully funded. This will allow the Planning Team to easily track the implementation of the mitigation actions during the next 5-year cycle.

Status of Priority Mitigation Actions from 2018 Plan	
2018 Priority Mitigation Actions	**Current Status**
Priority Action #1: Review, update, and seek adoption of previously prepared Flood Hazard Mitigation Plan	Complete.
Priority Action #2: Protect existing assets with the highest relative vulnerability to the effects of geological hazards. Continue efforts to relocate the train tracks off the coastal bluff region. Retrofit the Camino Del Mar Bridge over San Dieguito River. Pursue funding to retrofit the Jimmy Durante/Camino Del Mar Bridge over railroad). Reconstruct City Hall with Essential Facility Designation and backup generator. Monitor existing protective measures to assure continued improvement and effectiveness in addressing the effects of geological hazards local land mass and infrastructure.	Efforts to relocate the train tracks off the coastal bluffs are ongoing. This is a long-term project led by SANDAG and supported by the City. SANDAG recently received $300 million in Federal funding to complete the initial studies and environmental permitting. This action has been carried forward into the 2022 Plan update as Priority Action #8 with a target completion date of 2035. Federal, State, and local funding for the Camino del Mar Bridge Replacement Project has been secured. This action has been carried forward into the 2022 Plan update as Priority Action #1 with a target completion date of 2028. Efforts to secure funding to retrofit the Jimmy Durante/Camino Del Mar Bridge are ongoing. The redevelopment of City Hall is complete. The new Del Mar Civic Center includes battery backup and an emergency generator to support the City's Emergency Operations Center.
Priority Action #3: Coordinate with and support existing efforts to mitigate wildfire hazards (e.g., County of San Diego and State of California). Implement mitigation measures to enhance protection of homes along and in the Crest Canyon area and the wild land/urban interface. Work in conjunction and cooperation with the applicable regulatory governmental agencies. Coordinate with other agencies to ensure consistency among standards.	This effort is ongoing and has been enhanced with the development of the Crest Canyon Wildfire Evacuation Plan. Continued implementation and updating of that plan has been carried forward into the 2022 Plan update as Priority Action #4. The plan will be updated as needed based on changes from future development.
Priority Action #4: Upgrade to Next Generation Regional Communications System (RCS). The RCS was placed in service in 1998 and is approaching the end of its useful life, after which the County will no longer be able to support and maintain the system. The Next Generation RCS will provide improved communication capabilities.	Complete.
Priority Action #5: Develop a comprehensive approach to reducing the possibility of damage and losses due to other manmade hazards. Coordinate with other agencies on training and planning for terrorist-related activities. Maintain communications links with regards to threat assessments and dissemination of information.	This effort is ongoing and incorporated into the City's emergency preparedness operations. City staff regulatory attend emergency management meetings and trainings led by the County of San Diego's Office of Emergency Services.

Priority Action #6: Address the lack of information about relative vulnerability of assets from floods. Work with regional agencies and state agencies (OES, SanGIS) to accurately map affected areas. Share and train acquired information with all City departments and personnel. Coordinate with neighboring jurisdictions on joint training opportunities between staffs.	This effort is ongoing and incorporated into the City's daily operations.
Priority Action #7: Protect existing assets with the highest relative vulnerability to the effects of other manmade hazards. Evaluate access levels to public facilities; restrict access where necessary. Evaluate infrastructure and facilities for additional security measures as required. Coordinate with neighboring jurisdictions to address vulnerable assets (i.e., gas lines).	This effort is ongoing and incorporated into the City's daily operations.
Priority Action #8: Monitor and publicize the effectiveness of mitigation actions implemented locally. Utilize City newsletter, press releases, and public meetings. Train and review with staff implemented programs as part of regular training.	This effort is ongoing and incorporated into the City's daily operations.
Priority Action #9: Discourage activities that exacerbate hazardous conditions. Make hazard mitigation part of the planning and approval process. Enhance Code Enforcement activities targeting these conditions.	This effort is ongoing and incorporated into the City's daily operations.
Priority Action #10: Work with the Sustainability Advisory Board to implement policies and programs that promote hazard mitigation measures relevant to the city's most vulnerable assets.	This effort is ongoing and incorporated into the City's daily operations.
Priority Action #11: Prepare and process a Vulnerability Assessment, Adaptation Plan, and associated Local Coastal Program Amendment (LCPA) with strategies to address coastal resiliency and sea level rise-related impacts.	The City has completed the Vulnerability Assessment, which includes the development of a Coastal Hazards Vulnerability and Risk Assessment and Addendum, Sea Level Rise Adaptation Plan, Sediment Management Plan, and Wetland Habitat Migration Assessment. The City has also adopted a Local Coastal Program Amendment package that includes these plans.

7.2. Plan Update Evaluation

Tables 7.2-1 and 7.2-2 below include evaluation information from the City of Del Mar Planning Team on the Hazard Mitigation Plan update process.

Plan Section	Considerations	Explanation
Planning Process	Should new jurisdictions and/or districts be invited to participate in future updates?	Yes.
	Have any internal or external agencies been invaluable to the mitigation strategy?	Yes, the County of San Diego's Office of Emergency Services.
	Can any procedures (e.g., meeting announcements, plan updates) be done differently or more efficiently?	Yes. For the next update, it would be helpful to receive a template for updating the annex at the beginning of the update process.
	Has the Planning Team undertaken any public outreach activities?	Yes, by the County's Office of Emergency Services.
	How can public participation be improved?	It is important to note that the City of Del Mar conducted extensive public outreach on the planning documents (e.g., Sea Level Rise Adaptation Plan, Crest Canyon Evacuation Plan, Climate Action Plan, etc.) that were used to inform this Plan and will continue to do so for future updates.
	Have there been any changes in public support and/or decision- maker priorities related to hazard mitigation?	No, but there has been greater community concern of wildfire hazards and impacts to coastal properties from sea level rise.
Capability Assessment	Have jurisdictions adopted new policies, plans, regulations, or reports that could be incorporated into this plan?	Yes, the Crest Canyon Evacuation Plan was presented to the Del Mar City Council in March 2022. The City has also completed a Coastal Hazards, Vulnerability, and Risk Assessment and Seal Level Rise Adaptation Plan.
	Are there different or additional administrative, human, technical, and financial resources available for mitigation planning?	No, but the City is applying for grant funding to support its Sand Compatibility Opportunistic Use Program (SCOUP). Also, the City is working with its lobbyist to get Federal funding for several mitigation action efforts, including the Camino del Mar Bridge Replacement Project.
	Are there different or new education and outreach programs and resources available for mitigation activities?	No.
	Has NFIP participation changed in the participating jurisdictions?	No.

Risk Assessment	Has a natural and/or technical or human-caused disaster occurred?	Yes, the City experienced a bluff failure/slide along Jimmy Durante Blvd. in 2018 that impacted private and public property and several coastal bluff failures along the Del Mar Bluffs adjacent to the railroad tracks. Those bluff failure resulted in suspended train service and several emergency repairs by SANDAG and the North County Transit District.
	Should the list of hazards addressed in the plan be modified?	No, the hazards identified in this plan are up to date and prioritized.
	Are there new data sources and/or additional maps and studies available? If so, what are they and what have they revealed? Should the information be incorporated into future updates?	No.
	Do any new critical facilities or infrastructure need to be added to the asset lists?	No.
	Have any changes in development trends occurred that could create additional risks?	The City has seen an increase in the number of Accessory Dwelling Units (ADUs) proposed and constructed since 2020. In accordance with State law, this means that residential lots can end up with an additional two units per lot if developed as ADUs.
	Are there repetitive losses and/or severe repetitive losses to document?	Yes. As noted in Table 15 of the County of San Diego's Base Plan, there are 15 residential repetitive loss properties located in the City of Del Mar. There are no (0) severe repetitive loss properties and no (0) mitigated properties.

TABLE 7.2-1: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 7.2 DATA.

Plan Section	Considerations	Explanation
Mitigation Strategy	Is the mitigation strategy being implemented as anticipated? Were the cost and timeline estimates accurate?	Yes, however, the City does not use the Hazard Mitigation Plan as a budget planning document. Instead, the Del Mar City Council approves an annual work plan that prioritizes City actions or projects for inclusion in the City's adopted two-year fiscal budget. Furthermore, active monitoring and implementation of the mitigation actions included in the Plan occurs on a regular basis through processes outside the 5-year Hazard Mitigation Planning cycle, as discussed in Section 7.1.
	Should new mitigation actions be added to the Action Plan? Should existing mitigation actions be revised or eliminated from the plan?	Yes, as discussed in Section 7.1, Del Mar Planning Team reviewed the priority actions identified in 2018 Plan and determined they were either complete, no longer being worked on, or not a priority. To ensure improved Hazard Mitigation Plan action monitoring moving forward, beginning with the 2022 Plan update, the Del Mar Planning streamlined the mitigation goals and actions to only include those that are currently being worked on or have been prioritized by the City Council but are not fully funded. This will allow the Planning Team to easily track the implementation of the mitigation actions during the next 5-year cycle.
	Are there new obstacles that were not anticipated in the plan that will need to be considered in the next plan update?	No.
	Are there new funding sources to consider?	Yes, Federal infrastructure funding and potential grant funds from the State for climate action planning and adaptation.
	Have elements of the plan been incorporated into other planning mechanisms?	Yes, the City's Hazard Mitigation Plan is being incorporated into the City's Safety Element in accordance with the State law requirement that requires an update with each Housing Element Cycle.
	Was the plan monitored and evaluated as anticipated?	Yes.
Plan Maintenance Procedures	What are needed improvements to the procedures?	None currently.

TABLE 7.2-2: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 7.2 DATA CONTINUED.

7.3. Incorporation into Existing Planning Mechanisms

Another important implementation mechanism that is highly effective and low-cost is incorporation of the 2022 Hazard Mitigation Plan updates into other City plans and operations, where appropriate and feasible. Where possible, the Del Mar Planning Team will use existing plans and/or programs to implement hazard mitigation actions. As previously stated in Section 7.1, the City already implements policies and programs to reduce losses to life and property from hazards. The 2022 Plan update builds upon the momentum developed through previous City planning efforts and mitigation programs and recommends implementing actions, where possible, through these other plans and programs. These existing plans and programs include:

- Community (General) Plan and Safety Element
- Emergency Operations Plan
- Climate Action Plan
- Crest Canyon Evacuation Plan
- Coastal Hazards Analysis, Vulnerability, And Risk Assessment
- Sea Level Rise Adaptation Plan
- City Council's Approved Annual Work Plan

The Del Mar Planning Team involved in implementing these plans and programs will be responsible for integrating the findings and recommendations of this 2022 Plan update those documents and programs, as appropriate. As described in Section 7.1, incorporation into existing plans will be done through the routine actions of:

- Monitoring other planning/program items going before the City Council;
- Attending other planning/program meetings;
- Participating in Executive Team meetings; and
- Participating in the development of the City's two-year budget process.

The successful implementation of this mitigation strategy will require constant and vigilant review of existing plans and programs for coordination and multi-objective opportunities that promote a safe, sustainable community. For example, the City will consider incorporating the 2022 Plan update into the City's Safety Element of the Community Plan, as recommended by Assembly Bill 2140.

Efforts should continuously be made to monitor the progress of mitigation actions implemented through these other planning mechanisms and, where appropriate, their priority actions should be incorporated into updates of this hazard mitigation plan.