Multi-Jurisdictional Hazard Mitigation Plan: City of Coronado Annex

San Diego County, California

2023

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1. SECTION ONE: Determine the Planning Area and Resources

1.1. Planning Area: City of Coronado

The City of Coronado is a small, 13.5 square mile beach community, with an island feel. The military bases of the Naval Air Station North Island and Naval Amphibious Base occupy 5.3 square miles, and Coronado is connected to San Diego by a 2.3-mile bridge and to Imperial Beach (its neighbor to the south) by a six-mile scenic highway (the Silver Strand).[1]

The City had a population of 20,192 in 2020, and is an internationally renowned tourist destination. This vibrant community welcomes more than two million visitors annually to soak up the sun and the sand, while enjoying the lush surroundings and village appeal. The city contains world-class resorts, including the Hotel Del Coronado, and highly acclaimed restaurants.

Coronado Unified School District serves local students and includes eight schools.[2]

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). Communities can potentially improve their Community Rating System and lower NFIP premiums by developing a CRS Plan. **The City of Coronado participates in 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	

[1] https://www.coronado.ca.us/210/About-Coronado
[2] https://coronadousd.net/Our-District/index.html

Step 6. Set goals	**Task 6:** Develop a Mitigation Strategy 44 CFR 201.6(c)(3)(i) 44 CFR 201.6(c)(3)(ii) 44 CFR 201.6(c)(3)(iii)
Step 7. Review possible activities	
Step 8. Draft an action plan	
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: 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.

1.3. Development Over Time

All elements of the City of Coronado's General Plan has been and will continue to be integrated into this plan to prevent the City from experiencing increased vulnerabilities from hazards. The General Plan contains goals and policies for urban development, community design, housing, natural hazards, historic preservation, transportation, open space and conservation, recreation, parking, circulation, noise, and public services and facilities. The content of this Housing Element is consistent with the goals and policies of all elements of the General Plan. If any elements of the General Plan are amended during the Housing Element cycle, the City will ensure that the Housing Element remains consistent.

State law requires that the Safety and Conservation Elements include an analysis and policies regarding flood hazard and management information upon revisions to the Housing Element. The City will ensure compliance with this requirement by reviewing its Safety and Conservation Elements. Construction in the City occurs primarily as recycling of older single-family units into new single-family homes or small multi-family complexes. Furthermore, the City is primarily built out and has less than 50 acres of land within the Coastal Zone that is vacant and designated for residential uses. Therefore, the City is not subject to the replacement requirement.

2. SECTION TWO: Build the Planning Team

2.1. Planning Participants

Fire Chief Jayson Summers, Division Chief Brian Standing & Division Chief Jeff Terwilliger

2.2. Planning Process

Emergency Management Coordinator, along with Division Chief responsible for Emergency Management, met with the County of San Diego on several occasions. County of San Diego provided crucial data obtained from *their* sources to assist in the development of the overall plan. Data was evaluated to help determine upcoming action items.

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

3. SECTION THREE: Create an Outreach Strategy

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 must be included in a hazard mitigation plan by the planning team.
The planning team also may identify additional types of capabilities relevant to mitigation planning.

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

Overall, The City of Coronado can improve all its capabilities by enhancing public education, community preparedness, business continuity planning, and seeking opportunities for additional disaster preparedness funding through local, state, and/or federal grants. This can be accomplished through community surveys, research, disaster preparedness training, local business continuity awareness training, and grant funding research opportunities for employees assigned to disaster preparedness.

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. Please indicate which of the following your jurisdiction has in place:

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 City has an adopted General Plan which includes a Safety Element and a Natural Hazards Element. The plans may be used to implement mitigation measures.
Capital Improvements Plan	Yes	The City updates its Capital Improvements Plan (CIP) on an annual basis, coincident with the Annual Budget. Projects are approved in for the next fiscal year, with future projects listed for awareness. Projects' mitigation characteristics depend on the scope and type of project. In

		all cases, completed projects deliver facilities that are built to current code and engineering standards.
Economic Development Plan	No	N/A
Local Emergency Operations Plan	Yes	Plan is All Hazards.
Continuity of Operations Plan	Varies	Some departments have COOP plans. Varies on progress by department.
Transportation Plan	Yes	The City's General Plan includes a Circulation Element which can be used to implement mitigation measures.
Stormwater Management Plan	Yes	The Jurisdictional Runoff Management Plan (JRMP) is updated annually, and submitted in January to the Regional Water Quality Control Board as part of the Water Quality Improvement Plan (WQIP). The plan mitigates contaminates from the storm water conveyance system to prevent them from reaching open waters.
Community Wildfire Protection Plan	No	N/A
M. Real estate disclosure requirements	No	N/A
Other special plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation)	Yes	The City has a certified Local Coastal Program and is preparing a Climate Action Plan. Both may be used to implement mitigation measures.

TABLE 2: 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. For smaller jurisdictions without local staff resources, if there are public resources at the next higher-level government that can provide technical assistance, indicate so in your comments:

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 is fully equipped with a staff of qualified planners and engineers who coordinate closely and effectively.

Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	PSE
Planners or Engineer(s) with an understanding of natural and/or manmade hazards	Yes	The City has planners and engineers on staff who understand natural and manmade hazards and risk reduction strategies.
Mitigation Planning Committee	No	N/A
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	Yes	PSE
Mutual aid agreements	Yes	Regional Public Safety Agreements
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, F/T	Staffing is adequate to enforce regulations and has some training on hazards and mitigation. The Building Official coordinates with other staff and agencies.
Floodplain Administrator	Yes, F/T	Staffing is adequate to enforce regulations and has some training on hazards and mitigation. The Floodplain administrator coordinates with other staff and agencies.
Emergency Manager	Yes, F/T	Emergency Management Coordinator is trained on multiple hazards. Coordination between agency and staff is effective.
Surveyors	No	N/A
Staff with education or expertise to assess the community's vulnerability to hazards	Yes, F/T	Public Safety Agencies have understanding of community vulnerability and hazards. Coordination amongst agencies are effective.
Community Planner	Yes, F/T	Staffing is adequate to enforce regulations and has some training on hazards and mitigation. Planners coordinate with other staff and agencies.
Scientists familiar with the hazards of the community	No	The City does not employ a scientist with special hazards knowledge or training.
Civil Engineer	Yes, F/T	PSE

Personnel skilled in GIS and/or HAZUS	Yes, F/T	The City has staff who are knowledgeable and experienced with GIS applications.
Grant writers	Yes, F/T	The City has staff who are knowledgeable and experienced with preparing grant applications who coordinate with other staff and agencies as needed.
Other	N/A	

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

4.1.3. Financial

Identify whether your jurisdiction 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/Potentially	Eligible in certain circumstances
Capital improvements project funding	Yes/Yes	Council approval required
Authority to levy taxes for specific purposes	Yes/Yes	2/3 voter approval
Fees for water, sewer, gas, or electric service	Yes/Yes	Sewer only
Impact fees for homebuyers or developers for new developments/homes	No	N/A
Incur debt through general obligation bonds	Yes	2/3 voter approval
Incur debt through special tax and revenue bonds	Yes	2/3 voter approval
Incur debt through private activity bonds	No	

TABLE 4: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.1 DATA CONTINUED.

4.1.4. Education and Outreach

Identify 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.	No	N/A
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	Fire Department maintains public education information that is available. Topics include fire safety and disaster preparedness.
Natural disaster or safety related school programs	Yes	Fire Department has a Ready Coronado Program that teaches about safety and disaster readiness. This program is available upon request.
StormReady certification	Yes	The City has obtained Storm Ready certification from the National Weather Service.
Firewise Communities certification	No	N/A
Public-private partnership initiatives addressing disaster-related issues	No	N/A
Other	N/A	

TABLE 5: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.1 DATA CONTINUED.

4.2. Safe Growth Audit

Identify gaps in your community'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
2. Do the land-use policies discourage development or redevelopment within natural hazard areas?	X	
3. Does the plan provide adequate space for expected future growth in areas located outside natural hazard areas?	X	
Transportation		
1. Does the transportation plan limit access to hazard areas?		X
2. Is transportation policy used to guide growth to safe locations?		X
3. Are movement systems designed to function under disaster conditions (e.g., evacuation)?		X
There are only two surface egress avenues for the City: the Silver Strand Highway, SR-75, to the south and the San Diego-Coronado Bridge, SR-75, to the East. After a major seismic event the Bridge would be closed until Caltrans engineers could inspect and attest that the Bridge is safe for use. – The City does not have personnel movement systems. Within City facilities there are only two personnel elevators, which only travel one floor in distance. There are multiple stair options for both these facilities.		

TABLE 6: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.2 DATA.

Comprehensive Plan (continued)	Yes	No
Environmental Management		
1. Are environmental systems that protect development from hazards identified and mapped?	X	
2. Do environmental policies maintain and restore protective ecosystems?	X	
3. Do environmental policies provide incentives to development that is located outside protective ecosystems?	X	
Public Safety		
1. Are the goals and policies of the comprehensive plan related to those of the FEMA Local Hazard Mitigation Plan?	X	
2. Is safety explicitly included in the plan's growth and development policies?	X	
3. Does the monitoring and implementation section of the plan cover safe growth objectives?		X

TABLE 7: 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	
2. Does the ordinance contain natural hazard overlay zones that set conditions for land use within such zones?		X
3. Do rezoning procedures recognize natural hazard areas as limits on zoning changes that allow greater intensity or density of use?	X	
4. Does the ordinance prohibit development within, or filling of, wetlands, floodways, and floodplains?		X
Subdivision Regulations	**Yes**	**No**
1. Do the subdivision regulations restrict the subdivision of land within or adjacent to natural hazard areas?	X	
2. Do the regulations provide for conservation subdivisions or cluster subdivisions in order to conserve environmental resources?		X
3. Do the regulations allow density transfers where hazard areas exist?		X

TABLE 8: 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	
2. Do infrastructure policies limit extension of existing facilities and services that would encourage development in areas vulnerable to natural hazards?	X	
3. Does the capital improvement program provide funding for hazard mitigation projects identified in the FEMA Mitigation Plan?		X
Other	**Yes**	**No**
1. Do small area or corridor plans recognize the need to avoid or mitigation natural hazards?		X
2. Does the building code contain provisions to strengthen or elevate construction to withstand hazard forces?	X	
3. Do economic development or redevelopment strategies include provisions for mitigation natural hazards?		X
4. Is there an adopted evacuation and shelter plan to deal with emergencies from natural hazards?	X	

TABLE 9: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.2 DATA CONTINUED.

Questions were adapted from Godschalk, David R. Practice Safe Growth Audits, Zoning Practice, Issue Number 10, October 2009, American Planning Association.

4.2.1 Development since 2018 Plan

The City of Coronado is a peninsula with one side bordering a neighboring City. These development constraints have led to increased infill development with the City. New development does not extend City boundaries, it is re-utilizing existing real estate within the City limits.

Most development that occurs is generally as a result of replacing older constructed buildings with newer constructed buildings. In 2019, there was one major construction project for a local resort which resulted in underground parking as well as constructing several new buildings to increase occupancy. Regardless of project size or complexity, all construction is regulated by the most up-to-date Building and Fire Codes. Currently, there is no method to track permits issued inside the Tsunami Inundation Zones, and according to FEMA, there are no designated flood zones inside the City boundary. Additionally, with the exception of more occupancy in the City potentially exposed to natural hazards, these changes in development should not cause a significant increase in vulnerability.

Community Development tracked total new construction permits issued since the 2018 plan. A summary of this development is shown in the table below:

Property Use	2018	2019	2020	2021	2022
Residential	32	28	29	50	52

In 2021, the City Council approved the final draft of the Sea Level Rise Vulnerability Assessment and Adaptation Plan. This plan was implemented to understand the potential effects of sea level rise and to explore possible mitigation strategies. The Vulnerability Assessment identifies areas in Coronado that are subject to projected sea level rise, rising tides, storm surge, coastal flooding and erosion through 2100. The Adaptation Plan provides a variety of possible strategies and approaches that the City and public and private property owners can use to plan for and to address impacts identified by the Vulnerability Assessment.

4.3. National Flood Insurance Program (NFIP)

As a participant in the National Flood Insurance Program (NFIP), a community develops capabilities for conducting flood mitigation activities. The hazard mitigation plan must describe each jurisdiction's participation in the NFIP. Participating communities must describe their continued compliance with NFIP requirements. The mitigation plan must do more than state that the community will continue to comply with the NFIP. Each jurisdiction must describe their floodplain management program and address how they will continue to comply with the NFIP requirements. The local floodplain administrator is often the primary source for this information.

Jurisdictions where FEMA has issued a floodplain map but are currently not participating in the NFIP may meet this requirement by describing the reasons why the community does not participate. Plan updates must meet the same requirements and document any change in floodplain management programs.

The City of Coronado actively participates in the National Flood Insurance Program.

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	192 NFIP policies, Total Premium=$118,559 Total coverage=$64,430,000
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	4 claims paid, Total amount paid claims=$308,000, Substantial damage claims=0
How many structures are exposed to flood risk within the community?	San Diego County Office of Emergency Services	118
Describe any areas of flood risk with limited NFIP policy coverage	Community FPA and FEMA Insurance Specialist	All NFIP policies are non-SFHA policies
Staff Resources		
Is the Community FPA or NFIP Coordinator certified?	Community FPA	No
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	Permit review, GIS, code maintenance
What are the barriers to running an effective NFIP program in the community, if any?	Community FPA	N/A
Compliance History		
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?		01/27/2010
Is a CAV or CAC scheduled or needed?		CAV needed 2025

TABLE 10: 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	06/01/1982
Are the FIRMs digital or paper?	Community FPA	Digital
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	The City's Floodplain Management Ordinance was updated in 2019 and was deemed compliant by FEMA
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 CRS Coordinator, ISO representative	New development that occurs within mapped flood zones are reviewed to ensure compliance with federal, state, and local flood standards.
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

TABLE 11: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.3 DATA CONTINUED.

5. SECTION FIVE: Conduct a Risk Assessment

The planning team conducts a risk assessment to determine the potential impacts of hazards to the people, economy, and built and natural environments of the community. The 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 forming the mitigation strategy, the risk assessment also can be used to establish emergency preparedness and response priorities for land use and comprehensive planning, decision making by elected officials, city departments, businesses, and organizations within the community.

The City's top priority hazards were determined by the Local Hazard Mitigation Planning Team using jurisdictional-level hazard maps and data, historical records, vulnerability assessments, and input from subject matter experts.

5.1. Hazards Summary

Summarize hazard description information and identify which hazards are most significant to the planning area:

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

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

TABLE 12: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 5.1 DATA.

Definitions for Classifications

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.

5.1.1 Hazard Profiles

Drought

- **Significant:** 25 to 75 percent of planning area or frequent single-point occurrences
- **Likely:** 10 to 90 percent probability of occurrence in the next year or a recurrence interval of 1 to 10 years
- **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
- **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.

Justification:

Statewide multiple year droughts have occurred numerous times since 1976

Warming temperatures statewide could result in reduced water supply for the San Diego region. The State Water Project and Colorado River provide 75% to 95% of the water supply for the San Diego region, depending on the year. Both of these water supplies originate in mountain snowpack. Over the past 50 years across most of the Southwest, there has been less late-winter precipitation falling as snow, earlier snowmelt, and earlier arrival of most of the year's streamflow. Projections of further warming will result in reduced snowpack, which could translate into reduced water supply for the San Diego region's cities, agriculture, and ecosystems. In fact, studies indicate that San Diego's sources of water could shrink by 20 percent or more by 2050. An additional threat to water supply is the vulnerability of the levees protecting the California Delta, which feeds the State Water Project. According to the California Adaptation Planning Guide, jurisdictions in the San Diego region must carefully consider the vulnerability of their water supply.

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.

Earthquake

- **Extensive:** 75 to 100 percent of planning area or consistent single-point occurrences
- **Extreme:** Extreme classification on scientific scale, immediate onset or extended duration of event, resulting in catastrophic damage and uninhabitable conditions
- **Likely:** 10 to 90 percent probability of occurrence in the next year or a recurrence interval of 1 to 10 years

- **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.

Justification:

Several active fault zones pass through San Diego County

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.

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.

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. The La Nacion Fault Zone is located near National City and Chula Vista. The Elsinore Fault Zone is a branch of the San Andreas Fault System. It originates near downtown Los Angeles and enters San Diego County through the communities of Rainbow and Pala; it then travels in a southeasterly direction through Lake Henshaw, Santa Ysabel, Julian; then down into Anza-Borrego Desert State Park at Agua Caliente Springs, ending at Ocotillo, approximately 40 miles east of downtown.

Flood

- **Extensive:** 75 to 100 percent of planning area or consistent single-point occurrences
- **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
- **Likely:** 10 to 90 percent probability of occurrence in the next year or a recurrence interval of 1 to 10 years
- **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.

Justification:

Much of San Diego County is located within the 100-year floodplain
Flash floods and other flood events occur regularly during rainstorms due to terrain and hydrology of San Diego County
There have been multiple Proclaimed States of Emergency between 1950-2019 for floods in San Diego County

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 as a result 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. The central and eastern portions of San Diego County are most susceptible to flash floods where mountain canyons, dry creek beds, and high deserts are the prevailing terrain.

Wildfire

- **Limited:** 10 to 25 percent of the planning area or limited single-point occurrences
- **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
- **Unlikely:** Less than 1 percent probability of occurrence in the next year or a recurrence interval of greater than every 100 years.
- **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.

Justification:

San Diego County experiences wildfires on a regular basis
Twelve States of Emergency were declared for wildfires between 1950-2020
Terrain and climate of San Diego
Santa Ana Winds

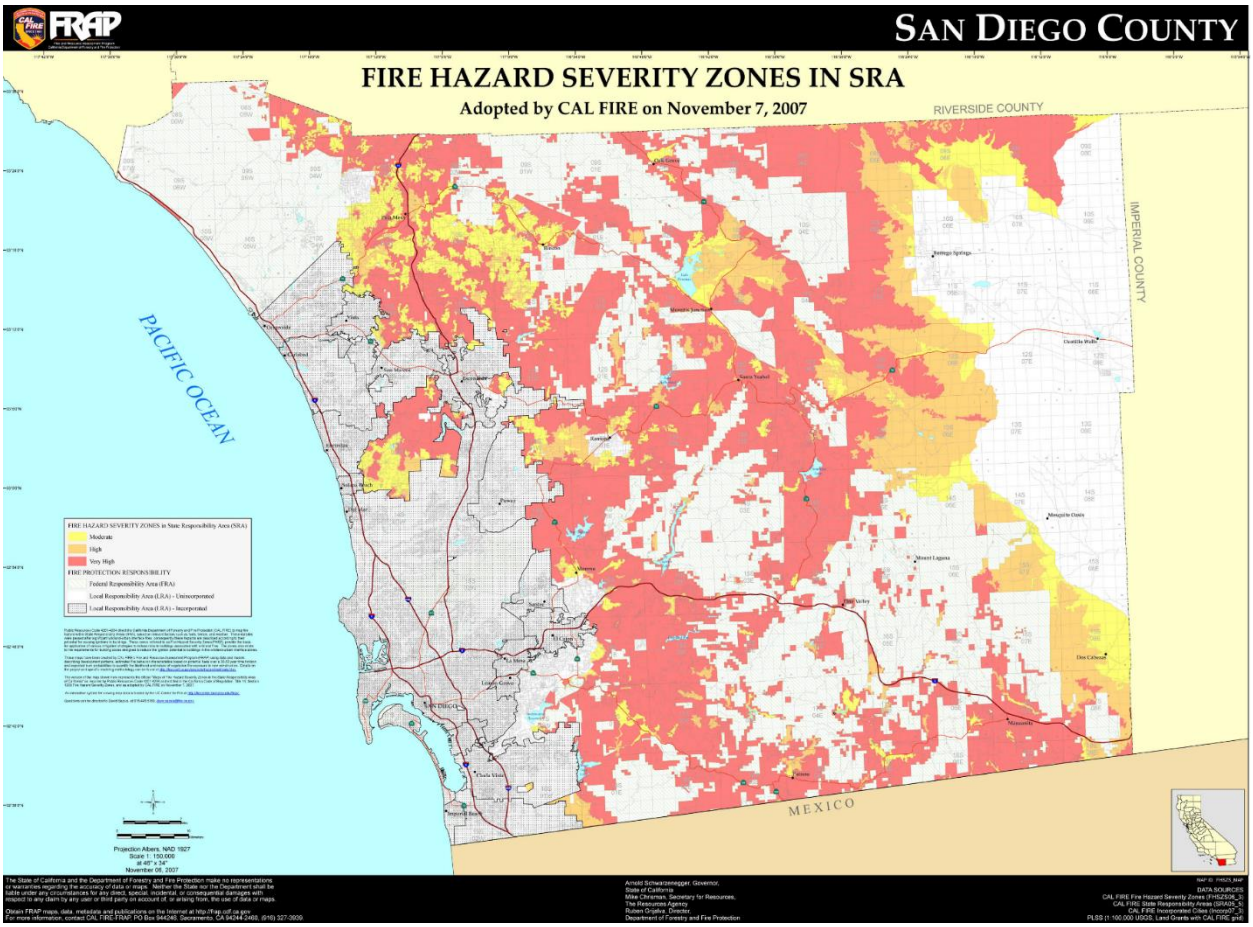
A structure fire hazard is one where there is a risk of a fire starting in an urban setting and spreading uncontrollably from one building to another across several city blocks, or within high-rise buildings.

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.

San Diego County's topography consists of a semi-arid coastal plain and rolling highlands which, when fueled by shrub overgrowth, occasional Santa Ana winds and high temperatures,

creates an ever-present threat of wildland fire. Extreme weather conditions such as high temperature, low humidity, and/or winds of extraordinary force may cause an ordinary fire to expand into one of massive proportions.

Large fires would have several indirect effects beyond those that a smaller, more localized fire would create. These may include air quality and health issues, road closures, business closures, and others that increase the potential losses that can occur from this hazard. Modeling for a larger type of fire would be difficult, but the consequences of the three largest San Diego fires this century (October, 2003, October 2007 and May 2014) should be used as a guide for fire planning and mitigation.



Sea Level Rise

- **Significant:** 25 to 75 percent of planning area or frequent single-point occurrences
- **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
- **Occasional:** 1 to 10 percent probability of occurrence in the next year or a recurrence interval of 11 to 100 years.
- **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.

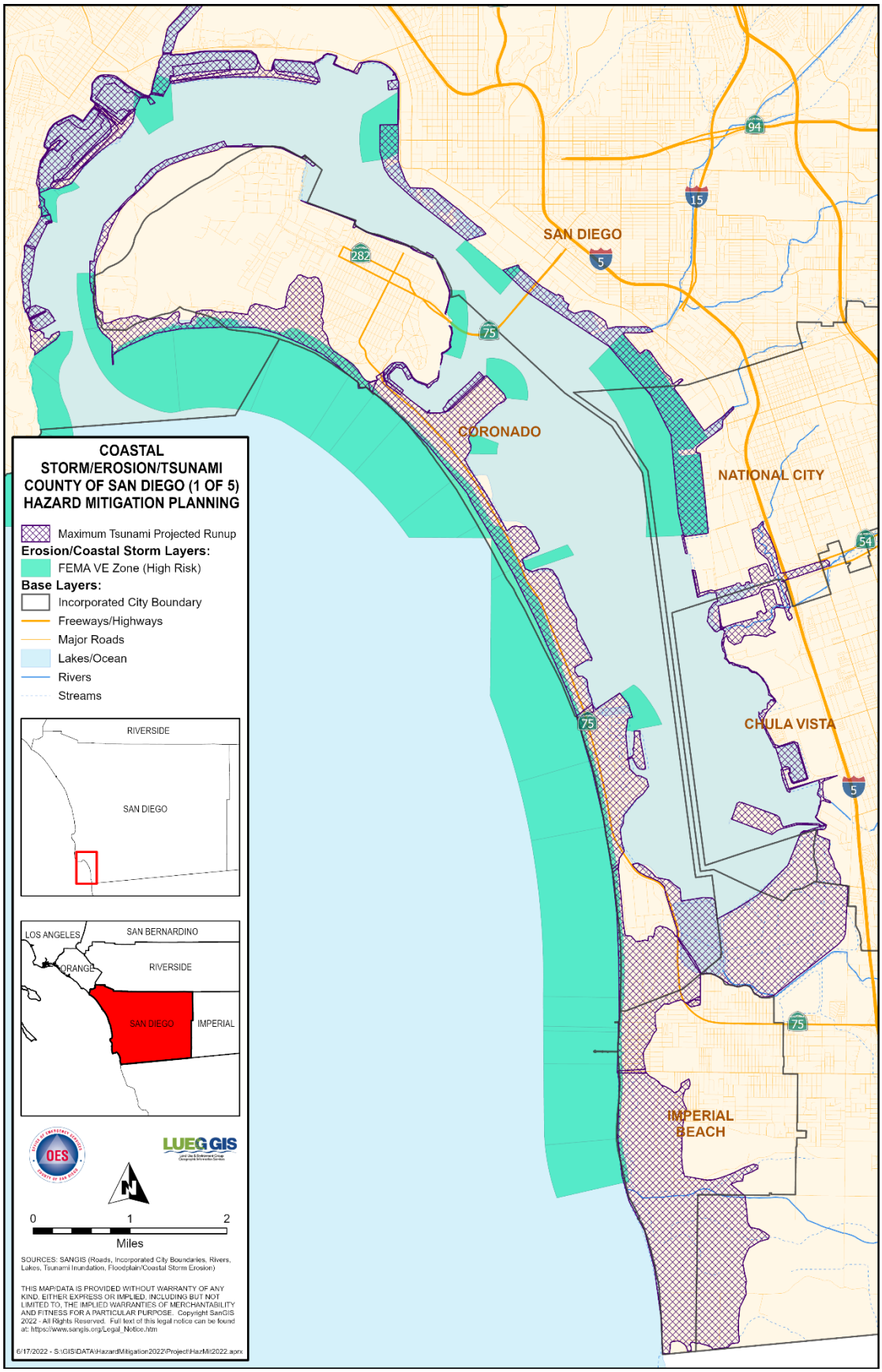
Justification

- Sea levels measured at a station in La Jolla have risen at a rate of 6 inches over the last century
- Coastline stabilization measures have been implemented at various times in the past (erosion)
- Extensive development along the coast

Coastal storms can cause increases in tidal elevations (called storm surge), wind speed, and erosion. The most dangerous and damaging feature of a coastal storm is storm surge. Storm surges are large waves of ocean water that sweep across coastlines where a storm makes landfall. Storm surges can inundate coastal areas, wash out dunes, and cause backwater flooding. If a storm surge occurs at the same time as high tide, the water height will be even greater.

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. Beaches and cliffs could also see increased erosion as they are exposed to more hours of high sea levels and wave action. 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.

According to the Sea Level Rise Adaptation Strategy for the San Diego Bay, the sectors that are most vulnerable to sea level rise are storm water, wastewater, shoreline parks, transportation facilities, commercial buildings, and ecosystems. Low-lying communities, such as Imperial Beach, Coronado, Mission Beach, and parts of La Jolla Shores, Del Mar, and Oceanside may be particularly vulnerable to sea level rise. In addition, some of San Diego's military installations and the region controlled by the Port of San Diego may also be affected. However, sea level rise is considered (on a scale of low, medium, high, very high) a low hazard for the region.
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. 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. The risk/probability of coastal erosion in San Diego County is considered "Likely".


SAN DIEGO
CORONADO
NATIONAL CITY
CHULA VISTA
IMPERIAL BEACH
COASTAL STORM/EROSION/TSUNAMI COUNTY OF SAN DIEGO (1 OF 5) HAZARD MITIGATION PLANNING
Maximum Tsunami Projected Runup
Erosion/Coastal Storm Layers:
FEMA VE Zone (High Risk)
Base Layers:
Incorporated City Boundary
Freeways/Highways
Major Roads
Lakes/Ocean
Rivers
Streams
RIVERSIDE
SAN DIEGO
LOS ANGELES
SAN BERNARDINO
ORANGE
RIVERSIDE
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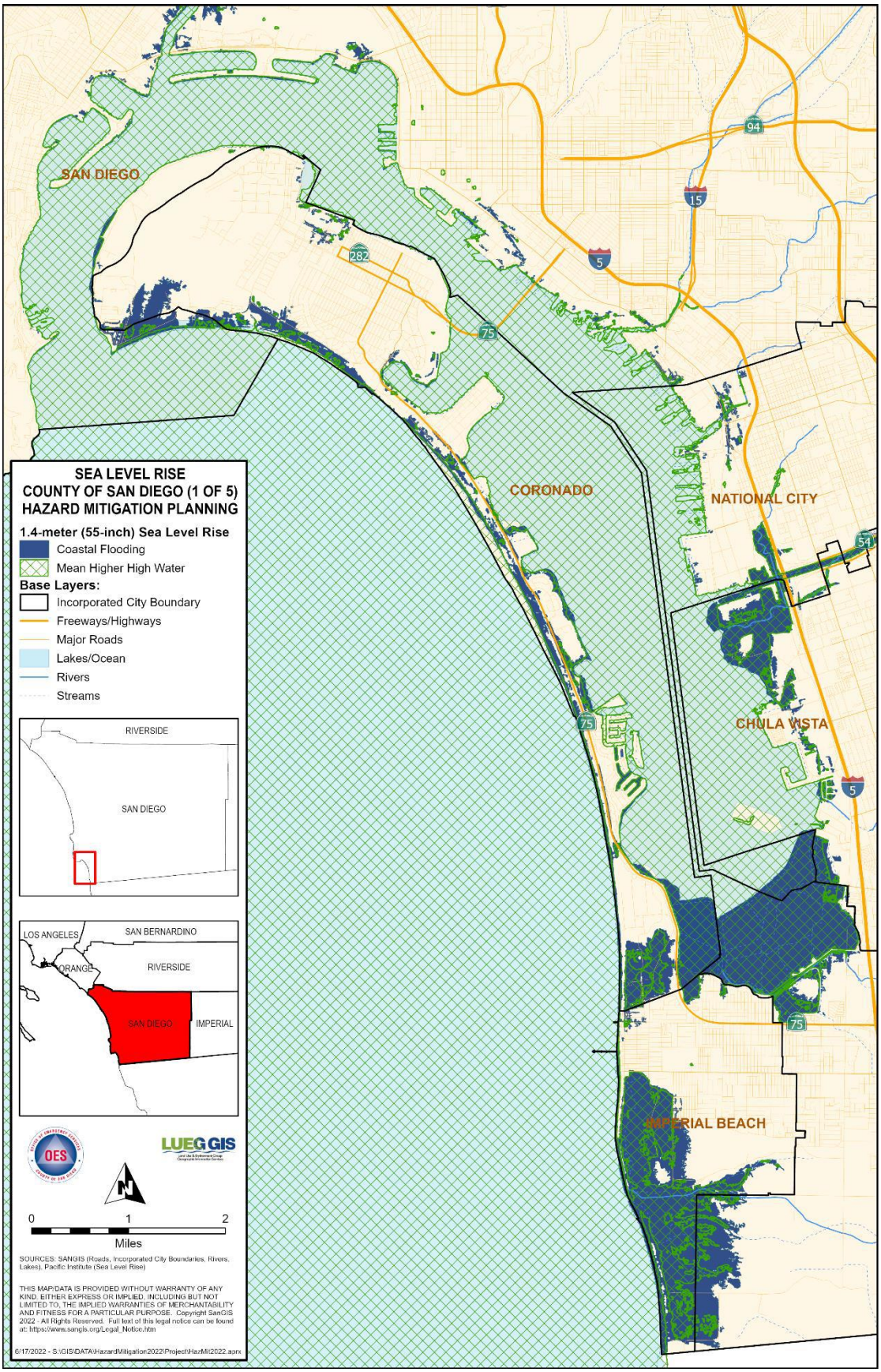
SAN DIEGO
CORONADO
NATIONAL CITY
CHULA VISTA
IMPERIAL BEACH
SEA LEVEL RISE
COUNTY OF SAN DIEGO (1 OF 5)
HAZARD MITIGATION PLANNING
1.4-meter (55-inch) Sea Level Rise
Coastal Flooding
Mean Higher High Water
Base Layers:
Incorporated City Boundary
Freeways/Highways
Major Roads
Lakes/Ocean
Rivers
Streams
RIVERSIDE
SAN DIEGO
LOS ANGELES
SAN BERNARDINO
ORANGE
RIVERSIDE
SAN DIEGO
IMPERIAL
OES
LUEGGIS
0
1
2
Miles
SOURCES: SANGIS (Roads, Incorporated City Boundaries, Rivers, Lakes), Pacific Institute (Sea Level Rise)
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- *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*

5.1.2 Hazard Omission Rationale

During the initial evaluation, only hazards that received a High or Medium ranking in Section 5.1 were considered in this mitigation planning process. One hazard of medium ranking was excluded from profiling because it posed minimal impact to portions of the City despite its potential significance rating.

Hazard	Description	Reason for Exclusion
Dam Failure	Catastrophic rupture of the dam structure causing downstream flooding and the possibility of human injury or loss of life.	Due to a lack of historical incidents, it is unknown what harm a dam failure may cause. However, if failure were to occur, it would present a threat to limited portions of the City.

5.2 Potential Hazard Exposure and Loss Estimates

The City of Coronado reviewed a set of jurisdictional-level hazard maps and data provided by the County of San Diego, including detailed critical facility information and localized potential hazard exposure/loss estimates related to residential, commercial, and critical asset/facilities to identify the top hazards threatening their City. Potential hazard exposure/loss estimates are summarized in Table 5. 2

TABLE 5.2 SUMMARY OF POTENTIAL HAZARD-RELATED EXPOSURE/LOSS IN CITY OF CORONADO

		Residential		Commercial		Critical Facilities	
Hazard Type	**Exposed Population**	**Number of Residential Buildings**	**Potential Exposure Loss for Residential Buildings**	**Number of Commercial Buildings**	**Potential Exposure Loss for Commercial Buildings**	**Number of Critical Facilities**	**Potential Exposure for Critical Facilities**
Coastal Storm	3,506	0	0	2	$604,700	1	$6,670,000
Sea Level Rise							
Coastal Flooding	1,750	112	$435,232,00	6	$1,814,100	0	0
Mean Higher High Water							
Dam Failure	2,275	392	$152,331,200	5	$1,511,750	0	0
Earthquake (Loss)							
(Annualized Loss - Includes shaking, liquefaction and landslide components)	1,275	2,419	$1,079,929,973	201	$81,574,030	10	$130,548,000
100 Year	0	0	0	0	0	0	0
500 Year	0	0	0	0	0	0	0
Rose Canyon M6.9 Scenario	19,375	7,211	$2,801,473,500	857	$259,113,950	17	$418,679,250
Floods (Loss)							
100 Year	4,022	0	0	2	$604,700	1	$6,670,000
500 Year	4,022	0	0	2	$604,700	1	$6,670,000
Rain-Induced Landslide							
High Risk	0	0	0	0	0	0	0
Moderate Risk	0	0	0	0	0	0	0
Tsunami	24,603	3,043	$1,182,507,800	103	$31,142,050	1	$6,670,000
Wildfire/Structure Fire							
High Fire Hazard	0	0	0	0	0	0	0

Very High Fire Hazard	0	0	0	0	0	0	0

Hazard Type	Data	HWY	OIL GAS	RR	TOTAL
Coastal Storm	**Total KMs**	**1.652**	**2.853**	**0**	**4.505**
	Exposure (x$1,000)	**11013.902**	**1948.451**	**0**	**12962.354**
Sea Level Rise					
Coastal Flooding	**Total KMs**	**16.09656**	**0**	**0**	**16.09656**
	Exposure (x$1,000)	**107331.882**	**0**	**0**	**107331.882**
Mean Higher High Water	**Total KMs**	**0**	**0**	**0**	
	Exposure (x$1,000)	**0**	**0**	**0**	
Dam Failure	**Total KMs**	**0.898588**	**0.400102**	**0**	**1.29869**
	Exposure (x$1,000)	**5991.785**	**273.27**	**0**	**6265.054**
Flood (Loss)					
100 Year	**Total KMs**	**1.6518**	**2.904333**	**0**	**1.6518**
	Exposure (x$1,000)	**11013.902**	**1983.659**	**0**	**11013.902**
500 Year	**Total KMs**	**1.65176**	**2.90433**	**0**	**4.55609**
	Exposure (x$1,000)	**11013.902**	**1983.659**	**0**	**1994708.9**
Rain-Induced Landslide					
High Risk	**Total KMs**	**0**	**0**	**0**	
	Exposure (x$1,000)	**0**	**0**	**0**	
Moderate Risk	**Total KMs**	**0**	**0**	**0**	
	Exposure (x$1,000)	**0**	**0**	**0**	
Tsunami	**Total KMs**	**44.78562**	**9.26038**	**0**	**98.83162**
	Exposure (x$1,000)	**298630.487**	**6324.837**	**0**	**304955.324**
Wildfire/Structure Fire					
High Fire Hazard	**Total KMs**	**0**	**0**	**0**	
	Exposure (x$1,000)	**0**	**0**	**0**	

TABLE 5.3 INVENTORY EXPOSURE FOR INFRASTRUCTURE IN CITY OF CORONADO

6. SECTION SIX: Develop a Mitigation Strategy

The mitigation strategy serves as the long-term blueprint for reducing potential losses identified in the risk assessment. The mitigation strategy describes how the community 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 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 community's existing planning mechanisms. In a multi-jurisdictional plan, each jurisdiction must have an action plan specific to that jurisdiction and its vulnerabilities.

Although not required, some communities choose to develop **objectives** to help define or organize mitigation actions. Objectives are broader than specific actions, but are measurable, unlike goals. Objectives connect goals with the actual mitigation actions

6.1. Mitigation Action Evaluation

Use this worksheet to help evaluate and prioritize each mitigation action being considered by the planning team. For each action, evaluate the potential benefits and/or likelihood of successful implementation for the criteria defined below.
Rank each of the criteria 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?

Very High Fire Hazard	Total KMs	0	0	0	
	Exposure (x1000)	0	0	0	
Total Number		66.736328	18.322145		126.93976
Total Exposure (x $1,000)		$444,995,860	$12,513,876		$457,509,736

- **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	Administrative	Local Champion	Other Community Objectives	Total Score
Local Plans and Regulations											
Promote disaster resistant future development.	1	1	0	1	1	1	1	0	0	0	6
Improve hazard mitigation coordination and communication with federal, state, local and tribal governments	0	1	0	1	1	0	0	1	0	1	5
Structure and Infrastructure Projects											
Reduce the possibility of damage and losses to existing assets (people, critical facilities/infrastructure) due to local hazards (floods, urban conflagrations, severe weather, geological hazards)	1	1	0	1	1	1	1	1	0	1	8
Education and Awareness Programs											
Promote public understanding, support and demand for hazard mitigation.	1	0	0	1	0	0	1	0	0	0	3
Build and support local capacity and commitment to continuously become less vulnerable to hazards.	1	1	0	1	1	1	1	1	0	1	8

TABLE 13: 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. For more information on potential funding sources and grants on mitigation actions, please see the County of San Diego Multi-jurisdictional Hazard Mitigation Base Plan, Section 6.2. This annex details the following mitigation action implementations:

Action 1:

Jurisdiction:	City of Coronado
Mitigation Action/Project Title:	**Project**: Promote disaster resistant future development **Action**: 1a. Add Tsunami Inundation Zones to GIS mapping 1b. Adopt new building codes to ensure the highest level of safety for new construction. 1c. Seek potential funding sources for earthquake retrofitting of existing non-compliant structures. 1d. Implement the Vulnerability Assessment Plan.
Hazards Addressed	Earthquake, Flood, Sea Level Rise
Background/Issue:	The City of Coronado has a vested interest in reducing the risk to life and property within the community.
Ideas for Integration:	• Maintain and update the general plan and zoning ordinances to limit development in hazard areas. • Maintain and update building codes that protect renovated existing assets and new development in hazard areas. • Encourage consistent enforcement of general plans, zoning ordinances and building codes. • Discourage future development that exacerbates hazardous conditions.
Responsible Agency:	Community Development Fire Department
Potential Funding:	General Fund
Cost Estimate:	Undetermined
Timeline:	Ongoing

Worksheet Completed by:	Fire Chief Jayson Summers Division Chief Brian Standing Division Chief Jeff Terwilliger

Action 2:

Jurisdiction:	City of Coronado
Mitigation Action/Project Title:	**Project**: Promote public understanding, support and demand for hazard mitigation. **Action**: 2a. Quarterly community meetings to review case studies of previous disasters. 2b Joint training with military partners in jurisdiction. 2c. Implement ReadySanDiego.gov education program
Hazards Addressed	Drought, Earthquake, Flood, Wildfire, Sea Level Rise
Background/Issue:	The City of Coronado has a vested interest in reducing the risk to life and property within the community.
Ideas for Integration:	• Educate the public to increase awareness of hazards and opportunities for mitigation actions. • Promote partnerships between state, county and local governments to identify, prioritize and implement mitigation actions. • Discourage activities that exacerbate hazardous conditions.
Responsible Agency:	Fire Department
Partners:	Police Department, Community Development
Potential Funding:	General Fund
Cost Estimate:	Undetermined
Timeline:	Ongoing
Worksheet Completed by:	Fire Chief Jayson Summers Division Chief Brian Standing Division Chief Jeff Terwilliger

Action 3:

Jurisdiction:	City of Coronado
Mitigation Action/Project Title:	**Project:** Improve hazard mitigation, coordination with federal, state, local and tribal governments. **Action:** 3a. Share updated HMP with military, and jurisdictional partners. 3b. Sponsor City of Coronado employee training for disaster recovery methods and funding sources.
Hazards Addressed	Drought, Earthquake, Flood, Wildfire, Sea Level Rise
Background/Issue:	The City of Coronado has a vested interest in reducing the risk to life and property within the community.
Ideas for Integration:	• Establish and maintain closer working relationships with state agencies, local and tribal governments • Improve the city's capability and efficiency at administering pre and post disaster mitigation
Responsible Agency:	Fire Department
Partners:	All City Departments
Potential Funding:	General Fund
Cost Estimate:	Undetermined
Timeline:	Ongoing
Worksheet Completed by:	Fire Chief Jayson Summers Division Chief Brian Standing Division Chief Jeff Terwilliger

Action 4:

Jurisdiction:	City of Coronado
Mitigation Action/Project Title:	**Project**: Build and support local capacity and commitment to continuously become less vulnerable to hazards **Actions:** 4a. Quarterly training for community groups. 4b. Quarterly training for community and senior centers. 4c. Add disaster preparedness tools and information to City website.
Hazards Addressed	Drought, Earthquake, Flood, Wildfire, Sea Level Rise
Background/Issue:	The City of Coronado has a vested interest in reducing the risk to life and property within the community.
Ideas for Integration:	• Increase awareness and knowledge of hazard mitigation principles and practices amongst local officials • Develop a model hazard mitigation plan • Provide web-based information regarding mitigation on city website
Responsible Agency:	Fire Department
Partners:	San Diego County, IT Department
Potential Funding:	General Fund
Cost Estimate:	Undetermined
Timeline:	Ongoing
Worksheet Completed by:	Fire Chief Jayson Summers Division Chief Brian Standing Division Chief Jeff Terwilliger

7. SECTION SEVEN: Keep the Plan Current

Hazard Mitigation Plan maintenance is the process the 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.

The City has added a staff position to oversee Emergency Management. The position is responsible for overseeing the Emergency Operations Center (EOC), as well as ensuring staff are ready and trained to respond to various disasters. Currently, all personnel assigned to the EOC are actively being trained in their specific position. Additionally, the Emergency Manager is responsible for monitoring the current plan goals and ensuring the City is accomplishing them.

They City is also actively engaged in the adoption of new and updated codes related to the Building Code, Residential Code, Electric Code, Mechanical Code, Plumbing Code, Energy Code, Historic Building Code, Fire Code, Existing Building Code, Green Building Standards, and Referenced Standards Code.

7.1. Mitigation Action Progress

Plan monitoring means tracking the implementation of the plan over time. The plan must identify how, when, and by whom the plan will be monitored.

Progress Report Period	From Date: 2018	To Date: 2022
Action/Project Title	Increase and enhance EOC Operations	
Responsible Agency	Fire Department	
Contact Name	Division Chief in charge of Emergency Management	
Project Status	⊙ Project Ongoing	

Summary of Project Progress for this Report Period

What was accomplished for this project during this reporting period?

- Technology enhancement which allows for multiple screen usage, telecommuting/ teleconferencing, Citywide monitoring of security camera system, remote access for Command and General Staff

What obstacles, problems, or delays did the project encounter?

- None

If uncompleted, is the project still relevant? Should the project be changed or revised?

- Project is on-going. Currently building new staff to fill all positions of the EOC.

Progress Report Period	From Date: 2018	To Date: 2022
Action/Project Title	NIMS/SEMS/ICS training for city personnel	
Responsible Agency	City of Coronado	
Contact Name	Division Chief in charge of Emergency Management	
Contact Phone/Email	619-481-9126 jsummers@coronado.ca.us	
Project Status	⊙ Project Ongoing	

Summary of Project Progress for this Report Period

What was accomplished for this project during this reporting period?

- New employees required to attend and complete NIMS 100, 200, 700 and 800

Progress Report Period	From Date: 2018	To Date: 2022
Action/Project Title	Participate in Regional Exercises and Training Programs	
Responsible Agency	City of Coronado	
Contact Name	Jayson Summers	
Contact Phone/Email	619-481-9126 jsummers@coronado.ca.us	
Project Status	◉ Project Ongoing	

Summary of Project Progress for this Report Period

What was accomplished for this project during this reporting period?

- Participated as a member of the County Disaster Drill Planning Committee for an Active Shooter Response Drill.
- Participated in the current County Disaster Drill Planning Committee for the upcoming drill in 2023.

Progress Report Period	From Date: 2018	To Date: 2022
Action/Project Title	Continue to support and maintain Community emergency Response Team (CERT) Program	
Responsible Agency	City of Coronado	
Contact Name	Division Chief in charge of Emergency Management	
Contact Phone/Email	619-481-9126 jsummers@coronado.ca.us	
Project Status	◉ CERT program has been discontinued	

Summary of Project Progress for this Report Period

What was accomplished for this project during this reporting period?

- CERT Program was discontinued and replaced with Ready San Diego.
- Currently training community members in disaster preparedness through training and workshops.

Progress Report Period	From Date: 2018	To Date: 2022
Action/Project Title	Continue to develop pre-incident plan to mitigate hazards and maximize response	
Responsible Agency	Fire Department	
Contact Name	Fire Marshal	
Contact Phone/Email	619-481-9126 jsummers@coronado.ca.us	
Project Status	⊙ No longer in progress	

Summary of Project Progress for this Report Period

What was accomplished for this project during this reporting period?

- Several maps were updated utilizing new software.
- Program is no longer in progress due to funding.

Progress Report Period	From Date: 2018	To Date: 2022
Action/Project Title	Continue to participate in the Multi-Jurisdiction Hazard Mitigation Plan planning process. Implement as much of the plan as practical	
Responsible Agency	City of Coronado	
Contact Name	Division Chief in charge of Emergency Management	
Project Status	⊙ Actively engaged in updating the City's Annex	

Summary of Project Progress for this Report Period

What was accomplished for this project during this reporting period?

- The City was able to execute several of the previous Action Items.
- Developing new Action Items

Progress Report Period	From Date: 2018	To Date: 2022
Action/Project Title	Use the City Website to educate the public	
Responsible Agency	City of Coronado	
Contact Name	Information Technology Department	
Project Status	◉ In Progress	

Summary of Project Progress for this Report Period

What was accomplished for this project during this reporting period?

- They City deployed a new website platform.
- New website has educational links which discuss various items throughout the City.

Progress Report Period	From Date: 2018	To Date: 2022
Action/Project Title	Update Emergency Preparedness guidelines for the City of Coronado	
Responsible Agency	City of Coronado	
Contact Name	Division Chief in charge of Emergency Management	
Project Status	◉ In Progress	

Summary of Project Progress for this Report Period

What was accomplished for this project during this reporting period?

- Establishing emergency operations center staffing and training
- Development of policies related to disaster response, Emergency Operations Center Operations, and personnel response during disaster.

7.2 Plan Update Evaluation

Plan Section	Considerations	Explanation
Planning Process	Should new jurisdictions and/or districts be invited to participate in future plan updates?	Yes- Current participants appear robust; however, others may benefit from plan inclusion.
	Have any internal or external agencies been invaluable to the mitigation strategy?	Yes- County has taken the lead with mitigation planning efforts.
	Can any procedures (e.g., meeting announcements, plan updates) be done differently or more efficiently?	Yes- Use of virtual meetings continue to provide value.
	Has the Planning Team undertaken any public outreach activities?	Unknown
	How can public participation be improved?	Provide multiple ways in which the public can participate, including virtual meetings.
	Have there been any changes in public support and/or decision- maker priorities related to hazard mitigation?	No
Capability Assessment	Have jurisdictions adopted new policies, plans, regulations, or reports that could be incorporated into this plan?	Yes- Coronado has a Sea Level Adaptation Rise Vulnerability Assessment and Adaption Plan.
	Are there different or additional administrative, human, technical, and financial resources available for mitigation planning?	No
	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 COVID-19 Pandemic.
	Should the list of hazards addressed in the plan be modified?	Yes- They should be regularly assessed and updated as needed.
	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 plan updates?	Yes- See above regarding the recent Sea Level Rise Adaptation Plan.
	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?	No, see development section within this plan
	Are there repetitive losses and/or severe repetitive losses to document?	According to FEMA data, Coronado has 1 residential Repetitive Loss Property.

TABLE 14: 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
	Should new mitigation actions be added to the Action Plan? Should existing mitigation actions be revised or eliminated from the plan?	Yes- Review and revise on a regular basis.
	Are there new obstacles that were not anticipated in the plan that will need to be considered in the next plan update?	Not anticipated
	Are there new funding sources to consider?	Unknown
	Have elements of the plan been incorporated into other planning mechanisms?	Yes- Sea Level Adaptation Planning Team was familiar with document during development.
Plan Maintenance Procedures	Was the plan monitored and evaluated as anticipated?	On a limited basis
	What are needed improvements to the procedures?	Routine review and check-in with plan elements.

TABLE 15: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 7.2 DATA CONTINUED

7.3 Opportunities for Future Integration

An important implementation mechanism that is highly effective and low-cost is incorporation of the 2023 Hazard Mitigation Plan updates into other City plans and operations, where appropriate and feasible. Where possible, the Community Development 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 2023 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 Development Planning
  - The City's Community Development Team will reference the LHMP while permitting new and existing construction.
- Emergency Operations Plan
  - The City will ensure that the EOP is integrated with the LHMP by linking the annual review and revision of these documents.
- Climate Action Plan
  - Continue to implement the Climate Action Plan to reduce GHG emissions. Update will also include information from the hazard mitigation plan, as appropriate; and also prepare a Climate Adaption Plan.
- Sea Level Rise Vulnerability Assessment
  - Integrate information on sea level rise from the LHMP into the next vulnerability assessment update.

7.3.1 Existing Integration

In the performance period since adoption of the previous hazard mitigation plan, the City of Coronado made progress on integrating hazard mitigation goals, objectives and actions into other planning initiatives. The following plans and programs currently integrate components of the hazard mitigation strategy:

- **Sea Level Rise – Vulnerability Assessment and Adaption Plan, 2022—** The Vulnerability Assessment examines the vulnerability of City infrastructure and coastal resources under sea level rise scenarios ranging from 0.8 feet (0.25 meters) to 4.9 feet (1.5 meters), covering projected sea level rise from 2030 to 2130.
- **Capital Improvement Planning**—The Capital Improvement Plan (CIP) includes projects that help mitigate potential hazards. The CIP is updated every year to reflect the most current project information and funding projections. The City's CIP deals with the

physical improvement or replacement of City-owned infrastructure and facilities which is categorized into five areas: City Facilities, Public Facilities, Transportation and Right-of-Way, Wastewater, and Storm Drain.