

**Multi-Jurisdictional
Hazard Mitigation Plan: City of Escondido
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 Escondido

The City of Escondido lies approximately 30 miles north of San Diego, California and is approximately 18 miles inland from the coast. Escondido is a densely populated urban area covering 62 square miles and serving over 151,000 city inhabitants that include large senior and non-English-speaking communities.

The coverage area includes 24 elementary schools; seven high schools; five middle schools; a regional trauma center, a regional hospital, a water filtration and purification plant; three electrical co-generation plants; a sewage treatment plant; a large industrial area; a mall; an auto park; and several large, multi-story retirement complexes. Moreover, there are current plans for the construction of several multi-story residential and commercial buildings as well as various master planned communities. Escondido also has two major freeway systems, which bisect our city and a major transit center that includes both commuter trains and bus service.

The City also maintains its own water and wastewater utilities, Public Works, Police Department, and Fire Department. The Fire Department provides fire, rescue, paramedic level emergency medical services and ambulance transportation. The Fire Department is currently comprised of seven fire stations staffed by 36 field personnel each day. The Escondido Fire Department also provides all-risk service to over 25,600 additional residents of the Rincon Del Diablo Fire Protection District.

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 Escondido participates in NFIP.**

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

SECTION ONE | Determine the Planning Area and Resources

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 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 it 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

The City of Escondido's Local Planning Group (LPG) consists of the following City staff:

- Jeff Murdock Emergency Manager, Emergency Management Department
- Adam Finestone City Planner, Development Services Department
- Doug Moody Building Official, Building Department
- Angela Morrow Deputy Director of Utilities / Construction, Utilities Department
- Reed Harlan Deputy Director of Utilities/Water, Utilities Department
- La Vona Koretke Deputy Fire Marshal, Fire Department
- Danielle Lopez Assistant Director, Community Services Department
- Hector Favela Associate Engineer, Engineering Department

2.2. Planning Process

The Planning process started in September, 2019 with a County Orientation Briefing. The City of Escondido identified key staff from every department to identify which hazards had the most significant impact on the city using FEMA Mitigation Planning Worksheet 5.1. Staff was invited to participate in a number of County OES webinars covering a number of potential hazards to the San Diego area. These hazard related webinars included:

- Dam Failure
- Pandemic Disease
- Terrorism & Cyber Threats
- Extreme Heat
- Wildfire
- Flood
- Rain-Induced Landslide
- Drought
- Coastal Storm/Sea Level Rise/Cliff Erosion/Tsunami
- Earthquake (two sessions)
- Climate Change (two sessions)

Worksheet 5.1 was completed in April, 2021 and the top five hazards were identified. The LPG then begin the develop of the Hazard Mitigation Goals and actions. The LPG also reviewed all prioritized Action Items and provide the actions progress or completion. New prioritized actions were also identified. The LPG also completed worksheets in Section 4, working with other city staff and subject matter experts as need.

SECTION TWO | Determine the Planning Area and Resources

The Emergency Preparedness Manager was responsible for collecting the worksheets, attending the Hazard Mitigation Working Group and posting all documents to the County's SharePoint site in June, 2022.

2.3. Incorporation into Existing Plans

Another important implementation mechanism that is highly effective and low-cost is the incorporation of the hazard mitigation plan recommendations and their underlying principles into other jurisdictional plans and mechanisms. Mitigation is most successful when it is incorporated into the day-to-day functions and priorities of government and development. Properly implemented, the Hazard Mitigation Plan should serve as one of the foundational documents of the jurisdictions' emergency management programs, since everything emergency management does should relate back in one way or another to the hazards the jurisdiction faces.

LPG prior to and during the planning process reviewed several existing policies, plans, studies, guides, programs, and other resources. These items included FEMA documents, emergency services documents as well as local general plans, community plans, local codes and ordinances, and other similar documents. The documents included, but were not limited to:

- Escondido's General Plan: Safety Element, Land Use and Community Form, and Mobility and Infrastructure Element
 - Update of the Safety Element in 2022 required incorporation of element from the hazard mitigation plan. Direct reference to the hazard mitigation plan was also add to the Safety Element
 - Land Use and Community Form identifies future land use.
 - Mobility and Infrastructure Element identifies growth of transportation systems including roadways.
- Escondido's Climate Action Plan
 - Escondido's Climate Action Plan was adapted March 10, 2022
 - The Local Hazard Mitigation Plan has been updated to show two climate related hazards as priority hazards; Drought and Extreme Heat.
 - New plans and projects were added to address climate changes in this plan.
- Escondido's Building Codes
 - The building codes require for building in areas prone to flooding and fires meet specific specifications to mitigate damage from flooding and fires.

SECTION TWO | Determine the Planning Area and Resources

- Escondido's Fire Codes
 - Fire codes outline fire mitigation requirements when building near wilderness areas. These plans also include requirements for weed abatement and alternate evacuation routes.
- Community Wildfire Protection Plan
 - This document provides a comprehensive, scientifically-based analysis of wildfire-related hazards and risks in the Wildland-Urban Interface areas of Escondido.
- Continuity of Operation Plan (COOP)
 - Continuity of Operations Plan (COOP) details the City's critical functions and how the city will continue to provide essential services during a disaster or interruption.
- Capital Improvement Plan (CIP)
 - Mitigation actions listed in Section 6.2, such as Priority Action #3 (Flooding Infrastructure) and Priority Action #4 (Lake Wolhford Dam) may be funded from the Capital Improvements Plans, and thus have already been identified for funding. Other high-dollar actions listed or identified in the future can also be added to the Capital Improvements Plan to ensure that hazard mitigation projects continue to receive funding. Even projects for which the city intends to seek grant funding may also need to be addressed in the Capital Improvements Plan, given that most mitigation grants require significant local matching funds.

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

The Local Planning Group identified current capabilities available for implementing hazard mitigation activities. The *Capability Assessment* (Assessment) portion of the jurisdictional mitigation plan identifies administrative, technical, legal, and fiscal capabilities. This includes a summary of departments and their responsibilities associated to hazard mitigation planning as well as codes, ordinances, and plans already in place associated to hazard mitigation planning. The second part of the Assessment provides Escondido's fiscal capabilities that may be applicable to providing financial resources to implement identified mitigation action items.

The *Capability Assessment* in Section 4.1 provides an identification of the staff, 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 GIS skills, and scientists familiar with hazards in the community.

The following is a summary of existing departments in Escondido and their responsibilities related to hazard mitigation planning and implementation, as well as existing planning documents and regulations related to mitigation efforts within the community.

City of Escondido Building

- Coordinate adoption of building, plumbing, electrical, and mechanical codes.
- Develop building ordinances.
- Review site and building plans for compliance with building codes and ordinances.
- Damage assessment of structures from multiple causes to facilitate repair and future occupancy.

City of Escondido Public Works

- Maintains City infrastructure (assets) ranging from streets to parks to buildings and vehicle fleet.
- Responds to City emergencies, including EOC response in disasters, and assists police and fire departments with hazardous materials clean up, traffic and perimeter control efforts, traffic accident clean up, and evacuation routing.

City of Escondido Engineering

- Reviews engineering on private and public grading, floodways, retention basins, transportation infrastructure, and structures to assure compliance with Federal, State, and local ordinances on seismic and structural stability.

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- Develops engineering ordinances and policies that help protect and preserve City infrastructure.
- Evaluates all circulation elements for projected traffic impacts.
- Provides response personnel for evaluation of damaged infrastructure and rescue situations.
- Coordinates other response agencies assisting with damage assessment.

City of Escondido Fire

- Administration: Develops, implements, and monitors policies, procedures, budgets, fees, automatic aid agreements, mutual aid agreements, and serves as liaison with other City departments and outside agencies.
- Fire Prevention Bureau: Coordinates adoption of codes and ordinances, reviews site and building plans for fire code compliance, develops and presents public education programs, conducts construction, business permit, State mandated and annual fire, life safety, and residential defensible space inspections, and manages the City's weed abatement program.
- Emergency Medical Services: Manages the department's advanced life support first responder program and ambulance transportation service, responds to medical emergencies and other calls for service, provides training and oversight for the City's Public Access Defibrillation (PAD) program, and participates with other community and regional health care providers to reduce public illness and injury.
- Operations Division: Maintains the department's personnel, apparatus, equipment and fire stations in a state of readiness to respond to the community's needs; develops and implements standard operating procedures for various types of emergency responses; responds to all types of emergencies including fire, hazardous materials, and rescue; and trains with and interacts with neighboring jurisdictions and regional agencies.
- Emergency Management: Coordinates the City's Disaster Preparedness Program, serves as liaison with all City departments and divisions, as well as other public and private organizations; develops, coordinates, and implements hazard-specific response plans; and maintains the operational readiness of the City's Emergency Operations Center (EOC) and other key elements.

City of Escondido Planning

- Develops and maintains City general plan, zoning ordinances, and development standards.
- Oversees City's development process assuring compliance with zoning and general plan, and including environmental impact reports, design review, historic preservation, landscape review, habitat conservation, floodway prohibitions, and floodplain development standards.

City of Escondido Police

- Responds to safety concerns involving threats and/or damage to life or property.
- Acts as the enforcement entity for violations of State and local laws and ordinances.

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

City of Escondido Utilities

- Operates, maintains, and enhances the water treatment and distribution; sewer treatment and collection; and recycled water treatment and distribution systems within the City of Escondido Utilities Department's water and sewer service areas. Also has oversight of solid waste management.
- Responsible for planning and implementation associated with the following City plans:

Dixon Dam Emergency Action Plan

HARRF Chemical Spill Response Plan

HARRF Hazmat Business Plan

Sewer Overflow Response Plan

Sewer System Management Plan

Water Division Emergency Response Plan

Water Operations Emergency Response Guide

Water Quality Emergency Notification Plan

Wohlford Dam Emergency Action Plan

WTP Hazmat Business Plan

WTP Operations Plan

SECTION FOUR | Review Community Capabilities

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 reduce the likelihood and impacts of hazards.

Overall, the City of Escondido can expand on these capabilities by creating and applying an updated five-year Multi-Jurisdictional Hazard Mitigation Plan Cycle and Work Plan along with the addition of more funding opportunities for applicable staff, research, plan developments/projects, and applicable resources and expenses. Escondido has always been working with our engineering and planning departments to increase awareness of the hazard mitigation plan and its application to future projects.

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 1995	Storm Drain Master Plan, Ordinance 95-19 Storm Drain Master Plan identifies storm drain facilities needed that would mitigate and reduce flood hazard.
Capital Improvement Plan	Yes 2020	Capital Improvement Program & Budget CIP Plan addresses and budgets critical traffic signalization projects: major road segments and thoroughfares; major storm drain infrastructures; water, recycled water, and sewer infrastructure projects. CIP can be used to plan, fund, and implement mitigation actions.
Economic Development Plan	Yes 2018	https://www.escondido.org/Data/Sites/1/media/PDFs/CMOOffice/Attachmentt_ostaffreport-Updated2017CEDS_v2.pdf No No Maybe

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Local Emergency Operations Plan	Yes 2004	Yes No Yes
Continuity of Operations Plan	Yes 2019	No No Yes
Transportation Plan	Yes 2014	General Plan Circulation Element. Circulation Element identifies future road segments, assists with planning and reserving underimproved roadways.
Stormwater Management Plan	Yes	Jurisdictional Runoff Management Program (JRMP) The JRMP is required to document the City's compliance with our regional storm water (MS4) permit
Community Wildfire Protection Plan	Yes 2011	Yes Yes Yes
Real estate disclosure requirements	No	
Other special plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation)	No	

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.

Overall, the City of Escondido can expand on these capabilities by creating and applying an updated five-year Multi-Jurisdictional Hazard Mitigation Plan Cycle and Work Plan along with the addition of more funding opportunities for applicable staff, research, plan developments/projects, and applicable resources and expenses. Additional training of technical staff on new technology tools, especially in the areas of GIS, and the latest science on natural hazards such as earthquakes and climate change impacts on Escondido will identify additional mitigation efforts.

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Administration	Yes/No	Describe capability Is coordination effective?
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Engineering staff are trained to become familiar and to enforce all applicable Federal, State, and local regulations and requirements of land development and land management practices.
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Engineering staff are trained and become familiar with public works construction, public works design, and specifications. Apply Federal, State and local design criteria for public safety.
Planners or Engineer(s) with an understanding of natural and/or manmade hazards	Yes	Planners and Engineers are trained and have knowledge and understanding of natural and manmade hazards.
Mitigation Planning Committee	Yes	Escondido Emergency Management Administrative Team made up of representatives from City departments.
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	Yes	Tree trimming, cleaning and replacement of storm drain, and street sweeping
Mutual aid agreements	Yes	Fire and Law enforcement mutual aid 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 FT	Building Department Staff has a solid understanding of hazards and is fully staffed to enforce State and local regulations. Coordination between agencies is arranged where needed
Floodplain Administrator	Yes FT	Engineering Department Staff has strong understanding of hazards and is fully staffed to enforce Federal, State, and local regulations. Coordination between agencies is arranged where needed.
Emergency Manager	Yes FT	Yes Yes Yes

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Surveyors	Yes FT	Engineering Department Staff has strong understanding of hazards and staffed to implement and investigate existing critical structures
Staff with education or expertise to assess the community's vulnerability to hazards	Yes FT	YES
Community Planner	Yes FT	Development Services Department Staff understands and stays current on best practices related to disaster planning and response.
Scientists familiar with the hazards of the community	No	
Civil Engineer	Yes FT	Engineering Department Engineering staff has strong understanding of critical hazards. Enforces and complies with Federal, State, and local regulations. Coordination between agencies and staff is effective.
Personnel skilled in GIS and/or HAZUS	Yes FT	
Grant writers	Yes FT	
Other		

Technical	Yes/No	Describe capability Has capability been used to assess/mitigate risk in the past?
Warning systems/services (Reverse 911, outdoor warning signals)	Yes	Alert San Diego, WEA, NAS Alert San Diego (Reverse land-line and cellular) notification system that the Federal Wireless Emergency Alerting system along with social media have been used to notify the public of emergencies and the mitigation steps that the public can take.
Hazard data and information	Yes	Fire Severity Zone maps, Target Hazard Pre-Incident Maps, Wildfire Pre-Fire Plans and Fire Response maps; Used in plan check and for emergency incidents
Grant writing	Yes	Yes – Grants have been used to purchase equipment, develop mitigation plans, and to implement mitigation projects.
Hazus analysis	Yes	The City's GIS department works with the County's GIS department to coordinate updates.

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

SECTION FOUR | Review Community Capabilities

4.1.3. Financial

The following table indicates whether the City of Escondido has access to or is eligible to use the following funding resources for hazard mitigation:

Overall, the City of Escondido can expand on these capabilities by continuing to research additional sources of fund for mitigation efforts, staff, and plan development. In 2022, the City of Escondido hired a dedicated grant writer. The new City grant writer has been introduced to the Hazard Mitigation Plan and how it applies to other city plans and mitigation projects.

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	All city departments are allowed to submit an internal application for CDBG each year in late January / Early February. The funds/projects can't be used for activities that supplant general funds.
Capital improvements project funding	Yes	Funding have been used for critical transportation infrastructures, road thoroughfares, and storm drain infrastructures. Funds can be allocated to continue funding future mitigation projects.
Authority to levy taxes for specific purposes	Yes	Voter approval is required, taxes have not been levied for hazard mitigation purposes.
Fees for water, sewer, gas, or electric service	Yes	Water and sewer charges for services are assessed to customers for services being provided.
Impact fees for homebuyers or developers for new developments/homes	Yes	Impact fees have been used collaboratively with developers to expand critical public safety infrastructure commensurate with the impact of growth. Impact fees can be used to fund future infrastructure.
Incur debt through general obligation bonds	Yes	Voter Approval is required, bonds have not been issued for hazard mitigation purposes.
Incur debt through special tax and revenue bonds	Yes	Special Tax requires voter approval, bonds have not been levied for hazard mitigation purposes.
Incur debt through private activity bonds	Yes	The City has not incurred debt through private activity bonds.

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

SECTION FOUR | Review Community Capabilities

4.1.4. Education and Outreach

The following table identifies 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 of Escondido can expand on these capabilities by creating and applying an updated five-year Multi-Jurisdictional Hazard Mitigation Plan Cycle and Work Plan along with the addition of more funding opportunities for applicable staff, research, plan developments/projects, and applicable resources and expenses. Escondido Fire and Escondido Environmental Departments have increased our outreach programs especially in the areas of climate change to get more public and special district participation in mitigation efforts.

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	https://sierraclubnbcg.org/ https://escondidocreek.org/ https://firesafesdcounty.org/ https://fire.escondido.org/cert
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	https://www.escondido.org/water-conservation.aspx https://www.escondido.org/education-and-outreach.aspx
Natural disaster or safety related school programs	Yes	As staffing permits, the fire department has provided safety related training to elementary students.
Storm Ready certification	No	
Firewise Communities certification	No	
Public-private partnership initiatives addressing disaster-related issues	Yes	Fire department along with SDGE, Fire Safe Council, and local community groups annually provide information on wildland fire safety.
Other		

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

SECTION FOUR | Review Community Capabilities

4.2. Safe Growth Audit

Identified gaps in 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?		NO
The General Plan Land Use Map does not directly identify natural hazard areas, however there are numerous other figures, maps, and exhibit in the General Plan that speak directly to natural hazards that staff reviews on a regular basis as part of land use development applications.		
2. Do the land-use policies discourage development or redevelopment within natural hazard areas?	YES	
The City's Flood Plain Management Ordinance limits development in the FEMA's mapped floodway. Residential land use densities are limited based on topography in areas prone to natural hazards.		
3. Does the plan provide adequate space for expected future growth in areas located outside natural hazard areas?	YES	
The Land Use and Community Form chapter and 6 th Cycle Housing Element of the Escondido General Plan identify adequate sites to accommodate future growth, primarily outside of natural hazard areas.		
Transportation		
1. Does the transportation plan limit access to hazard areas?		NO
2. Is transportation policy used to guide growth to safe locations?	YES	
Adopted General Plan Circulation Elements		
3. Are movement systems designed to function under disaster conditions (e.g., evacuation)?	YES	
Coordinated with local liaison to analyze and create a comprehensive transportation network. Adopted General Plan Circulation Elements		

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

SECTION FOUR | Review Community Capabilities

Comprehensive Plan (continued)	Yes	No
Environmental Management		
1. Are environmental systems that protect development from hazards identified and mapped?		NO
2. Do environmental policies maintain and restore protective ecosystems?	YES	
Policies are contained in the Resource Conservation chapter of the Escondido General Plan,		
3. Do environmental policies provide incentives to development that is located outside protective ecosystems?		NO
Public Safety		
1. Are the goals and policies of the comprehensive plan related to those of the FEMA Local Hazard Mitigation Plan?	YES	
The Hazard Mitigation Plan is in alignment with the Safety Element of the General Plan.		
2. Is safety explicitly included in the plan's growth and development policies?	YES	
Public safety and transportation are analyzed and formulated in the General Plan for growth and land development		
3. Does the monitoring and implementation section of the plan cover safe growth objectives?	YES	

TABLE 7: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.2 DATA CONTINUED.

SECTION FOUR | Review Community Capabilities

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?	YES	
The Zoning Ordinance is the mechanism by which the General Plan land use element is implemented.		
2. Does the ordinance contain natural hazard overlay zones that set conditions for land use within such zones?	YES	
The Zoning Ordinance includes the following articles: Open Space and Hazardous Lands, generally; Flood Plain Overlay Zone; Hazardous Chemical Overlay Zone; Environmental Quality; Grading and Erosion Control; and Water Efficient Landscape Regulations;		
3. Do rezoning procedures recognize natural hazard areas as limits on zoning changes that allow greater intensity or density of use?	YES	
Areas that are prone to natural hazards typically have low density designations that cannot be increased without a vote of the public.		
4. Does the ordinance prohibit development within, or filling of, wetlands, floodways, and floodplains?	YES	
The adopted flood plain ordinance requires compliance with FEMA's floodplain regulations.		
Subdivision Regulations	Yes	No
1. Do the subdivision regulations restrict the subdivision of land within or adjacent to natural hazard areas?		NO
2. Do the regulations provide for conservation subdivisions or cluster subdivisions in order to conserve environmental resources?	YES	
The Land Use and Community Form chapter of the Escondido General plan includes goals and policies which encourage residential clustering in order to leave sensitive areas undisturbed.		
3. Do the regulations allow density transfers where hazard areas exist?	YES	
In the Northeast Gateway Specific Plan, density transfers are available to shift residential uses from topographically constrained lands onto flatter areas of in the plan area.		

TABLE 8: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.2 DATA CONTINUED.

SECTION FOUR | Review Community Capabilities

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?		NO
2. Do infrastructure policies limit extension of existing facilities and services that would encourage development in areas vulnerable to natural hazards?		NO
3. Does the capital improvement program provide funding for hazard mitigation projects identified in the FEMA Mitigation Plan?	YES	
CIP funds are typically allocated for hazard mitigation projects. Current CIP hazard mitigation projects include the following: Lake Wohlford Dam replacement, construction of storm drain structures to mitigate the several floodplain areas.		
Other	Yes	No
1. Do small area or corridor plans recognize the need to avoid or mitigation natural hazards?		NO
2. Does the building code contain provisions to strengthen or elevate construction to withstand hazard forces?	YES	
The building code adopted contain provisions to elevate construction for hazards i.e. (Seismic and Wild Fire)		
3. Do economic development or redevelopment strategies include provisions for mitigation of natural hazards?		NO
4. Is there an adopted evacuation and shelter plan to deal with emergencies from natural hazards?	YES	

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

4.3. National Flood Insurance Program (NFIP)

The City of Escondido participates in the 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.

SECTION FOUR | Review Community Capabilities

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	As of 12/31/2018, Total number of policies is 547, total premiums is \$531,535,
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	As of 12/31/2018, Total number of closed paid losses: 25 Total amount of closed paid losses: \$269,124.00 Substantial Damage losses: 0
How many structures are exposed to flood risk within the community?	Community Floodplain Administrator (FPA)	1501 structures are within the 100-year flood risk zones
Describe any areas of flood risk with limited NFIP policy coverage	Community FPA and FEMA Insurance Specialist	As of 12/31/2018, Mandatory is 411 and voluntary (possibly lender driven) is 136
Staff Resources		
Is the Community FPA or NFIP Coordinator certified?	Community FPA	
Is floodplain management an auxiliary function?	Community FPA	No. Engineering Department administers the floodplain regulations
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Engineering Department performs all functions of plan review and inspections of land development. Staff attends NFIP training courses, and trains internal employees on FEMA's floodplain regulations. GIS maintains and shares database. Staff educates local community.
What are the barriers to running an effective NFIP program in the community, if any?	Community FPA	
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)?		March 2019
Is a CAV or CAC scheduled or needed?		No

TABLE 10: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 4.3 DATA.

SECTION FOUR | Review Community Capabilities

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	09/15/1983
Are the FIRMs digital or paper?	Community FPA	Both on digital and paper
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	Floodplain ordinance meets FEMA's minimum regulations
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 CRS manual http://www.fema.gov/library/viewRecord.do?id=2434	Engineering Dept. staff reviews all preliminary development applications and building permits. Provides written condition to the applicant on all applicable regulations. Reviews and enforces all regulations for compliance with Federal, State, and local regulations. Engineering field staff inspects and obtains certifications to show compliance with the approved plans.
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?		
Does the plan include CRS planning requirements	Community FPA, FEMA CRS Coordinator, ISO representative CRS manual http://www.fema.gov/library/viewRecord.do?id=2434	

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

5. SECTION FIVE: Conduct a Risk Assessment

The Local Planning Group (LPG) conducted a risk assessment to determine the potential impacts of hazards to the people, economy, and built and natural environments of the community (Table 12).

As a result of the Survey in Table 12, the LPC identified the following hazards as medium or high significance:

High Significance: Wildland Fire

Medium Significance: Dam Failure, Flooding, Earthquake, Severe Wind, Drought, Extreme Heat

Severe Wind was marked medium significance due to the Santa Winds experienced in the San Diego area that may lead to wildland fires and/or intensifies the destruction of wildfires. However, most Santa Ana wind events do not result in wildland fires. Given that severe wind events by itself is not the destructive element rather a possible contributor to wildland fires, it was decided that Severe Wind is a component of wildland fire rather than a top hazard by itself and was not selected as a top hazard.

Flooding and Dam Failure was again ranked medium as part of this plan's survey. Given that past plans for the City of Escondido has always combined Flooding and Dam Failure together, the LPG decided to combine these two as one hazard to be consistent with previous plans.

While Landslide has an Overall Significance Rating of **Medium**, Landslide was not selected as one of the top hazards given the "**limited**" geographical area where a landslide could occur and that a land slide was "**unlikely**" to occur.

After reviewing the localized hazard maps and exposure/loss table (Table 13), the following hazards were identified by the Escondido LPG as their top five.

Based on the two consolidations above, the City of Escondido's top five hazards are:

- Wildland Fire
- Earthquake
- Drought
- Flooding or Dam Failure
- Extreme Heat

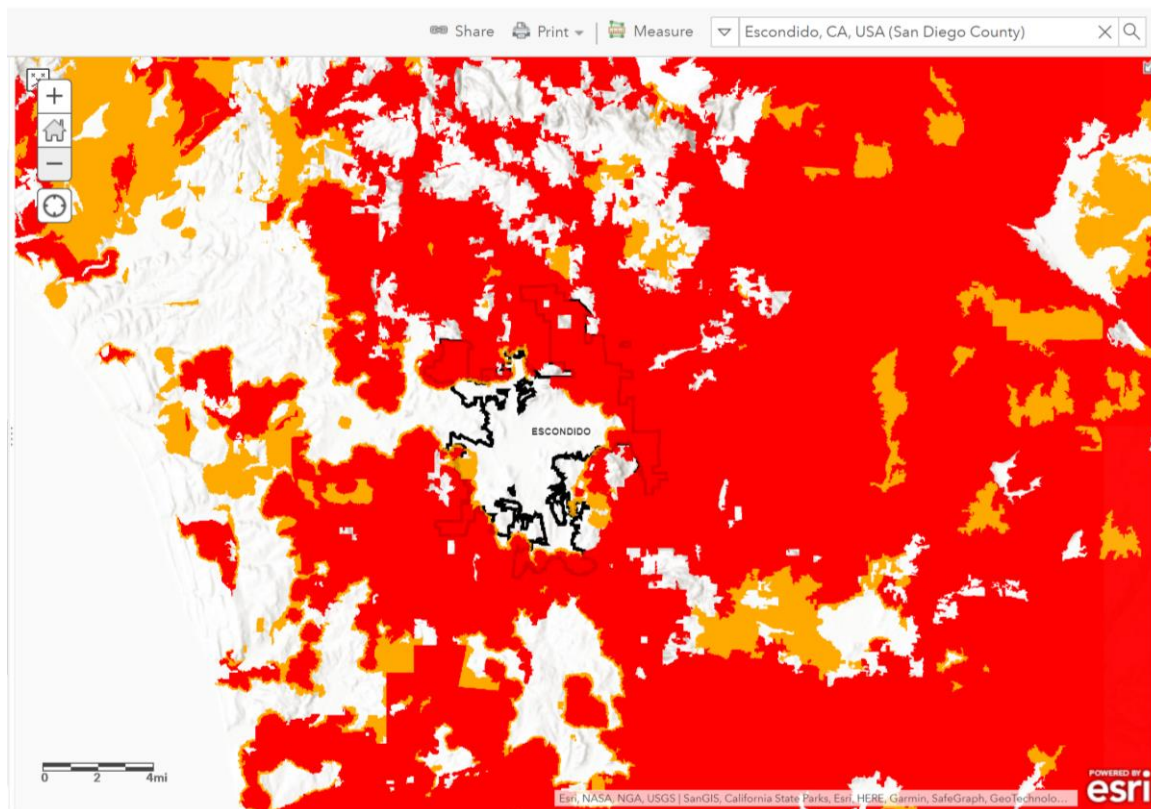
SECTION FIVE | Conduct a Risk Assessment

A brief rationale for including each of these is included.

- **Wildland Fire:** California is recognized as one of the most fire prone and consequently fire-adapted landscapes in the world.
 - San Diego's combination of complex terrain, semi-arid climate, and productive natural plant communities, along with ample natural and aboriginal ignition sources, has created conditions for extensive wildfires. Wildland fire is an ongoing concern for Escondido. Generally, the fire season extends from July through October of each year during the hot, dry summer months. However, recently the fire season has become year around. Fire conditions arise from a combination of high temperatures, an accumulation of vegetation, low humidity, and high winds.
 - A significant amount of the community fringe area is wildland/urban interface and fires have been experienced in the past (see Wildland Fire Hazard Map). Until recently, fires in 2003, 2007, and 2014 were a few of the largest wildfires in the State of California.
 - **Probability of Future Events Highly Likely: 90 to 100 percent probability of occurrence in the next year or a recurrence interval of less than 1 year.**
 - **Overall Significance 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.**
 - Reference County Plan Section 5.2.11 Wildfire/Structure Fire for map and additional information on wildland fires.

rd Mitigation Map

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Wildland Fire Hazard Map

SECTION FIVE | Conduct a Risk Assessment

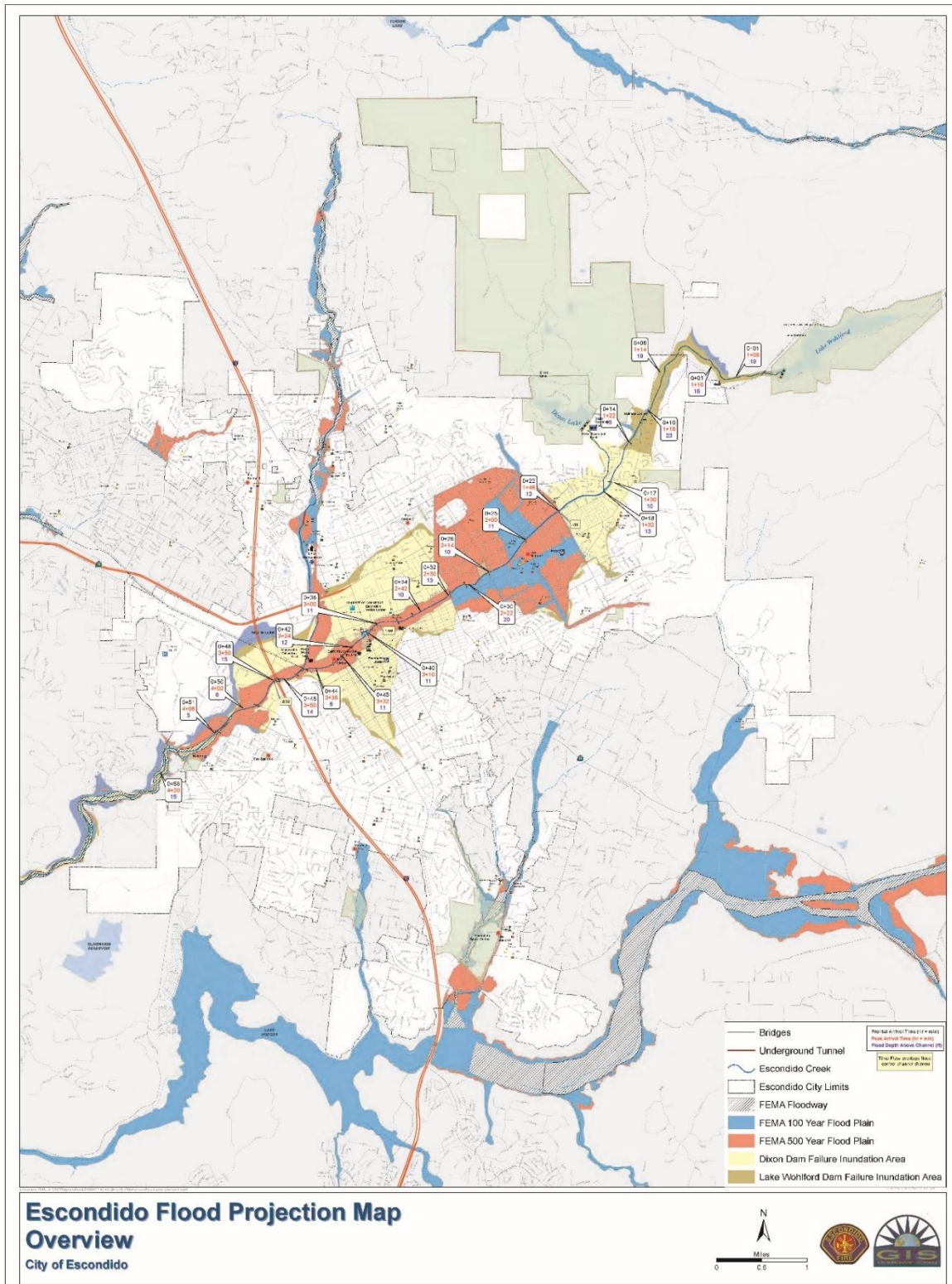
- **Earthquake:** The potential for loss of life, injuries, damage to property, and disruption of services is likely.
 - While it is impossible to determine where an earthquake will occur or how widespread the damage will be, Escondido can be impacted by earthquakes from within and outside the of San Diego County. The impact on Escondido depends on many factors and the source of the earthquake (epicenter) may be located many miles away or even outside of the County. Reference the County Plan Section 5.2.4 Earthquake for map and additional information on earthquakes and their potential impact on the county and Escondido.
 - **Probability of Future Events Likely: 10 to 90 percent probability of occurrence in the next year or a recurrence interval of 1 to 10 years**
 - **Overall Significance 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.**

- **Drought:** Drought has enormous adverse effects on agriculture, water resources and the environment.
 - Given the semi-arid climate of Escondido, the regular occurrences of multi-year droughts across the State and Southwest and the agricultural economy of Escondido, drought has can have a major impact on Escondido's resiliency.
 - Reference County Plan Section 5.3.11 Climate Change (Extreme Heat, Drought, Compounding Events) for map and additional information on droughts. Escondido's exposure to drought is not limited by the jurisdictions boundaries and is affected by events throughout the County and State.
 - **Probability of Future Events Likely: 10 to 90 percent probability of occurrence in the next year or a recurrence interval of 1 to 10 years**
 - **Overall Significance 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.**

SECTION FIVE | Conduct a Risk Assessment

- **Flooding or Dam Failure:** The community lies in a natural river valley with a substantial portion existing within the floodplain. There are two large dammed reservoirs located above the community.
 - Protection from flood hazards created by dam failures is critical to the safety and well-being of Escondido residents and businesses. Escondido's two dams, Dixon and Lake Wohlford, are rated as Extremely High by the California Department of Water Resources (DWR), Division of Safety of Dams (DSOD). Extremely High rated dams are expected to cause considerable loss of human life or result in an inundation area with a population of 1,000 or more. The City would experience catastrophic damage if Dixon or Lake Wohlford dams were to breach. A total of 57 critical facilities are located within the various dam inundation areas. See the flooding and dam failure map below.
 - Lake Wohlford Dam must be replaced because it has been determined that a portion of the dam has the potential to liquify in a large earthquake (7.5M+). See Priority Action #4 in Section 7.2
 - **Probability of Future Events Occasional: 1 to 10 percent probability of occurrence in the next year or a recurrence interval of 11 to 100 years.**
 - **Overall Significance 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.**
 - Reference County Plan Section 5.2.6 for Flood map and additional information on floods.

SECTION FIVE | Conduct a Risk Assessment



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- **Extreme Heat:** The frequency of heat waves been increasing in recent years across the County and the City of Escondido. The duration of these heat events has the potential to threaten human life, especially among the elderly and children.
 - As noted in the County Base Plan, climate change will continue to cause more extreme heat events and studies show that, by the end of this century, the number of days with temperatures reaching or exceeding 100°F is projected to increase as a result of climate change. Periods of high temperatures can make people vulnerable to heatstroke, heat cramps, heat exhaustion and pose a threat to human life, especially to our young and elderly populations that may not have ways to cool off or transportation to cool zones.
 - Reference County Plan Section 5.3.11 Climate Change (Extreme Heat, Drought, Compounding Events) for map and additional information on extreme heat. Extreme Heat is the result of climate change globally. As a global hazard, Escondido suffers from the same issues as the county and state.
 - Probability of Future Events **Likely:** 10 to 90 percent probability of occurrence in the next year or a recurrence interval of 1 to 10 years
 - Overall Significance **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.

5.1. Hazards Summary

Table 12 was completed by the LPC to identify, profile, and rate the significance of identified hazards. Those hazards identified as a high or medium significance are considered priority hazards for mitigation planning. Those hazards that occur infrequently or have little or no impact on the Planning Area were determined to be of low significance and not considered a priority hazard. Significance was determined based on the hazard profile, focusing on key criteria such as frequency, extent, and resulting damage, including deaths/injuries and property, crop, and economic damage. This assessment was used by the LPC to prioritize those hazards of greatest significance to the City of Escondido, enabling the City to focus resources where they are most needed. The following table summarizes the hazards information and identifies 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	Extensive	Extreme	Unlikely	Medium
Drought	Extensive	Moderate	Likely	Medium
Earthquake	Extensive	Moderate	Likely	Medium
Erosion	Negligible	Weak	Unlikely	Low
Expansive Soils	Significant	Weak	Unlikely	Low
Extreme Cold	Negligible	Weak	Unlikely	Low
Extreme Heat	Extensive	Moderate	Likely	Medium
Flood	Limited	Weak	Occasional	Medium
Hail	Negligible	Weak	Unlikely	Low
Hurricane	Negligible	Moderate	Unlikely	Low
Landslide	Limited	Moderate	Unlikely	Medium
Lightning	Extensive	Moderate	Likely	Low
Sea Level Rise	Negligible	Weak	Unlikely	Low
Severe Wind	Extensive	Moderate	Likely	Medium
Severe Winter Weather	Negligible	Weak	Unlikely	Low
Storm Surge	Negligible	Moderate	Unlikely	Low

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Subsidence	Negligible	Weak	unlikely	Low
Tornado	Negligible	Weak	Unlikely	Low
Tsunami	Negligible	Weak	Unlikely	Low
Wildfire	Significant	Extreme	Highly Likely	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 Index ³	-1.99 to +1.99	-2.00 to -2.99	-3.00 to -3.99	-4.00 and below
Earthquake	Modified Mercalli Scale ⁴	I to IV	V to VII	VII	IX to XII
	Richter Magnitude ⁵	2, 3	4, 5	6	7, 8
Hurricane Wind	Saffir-Simpson Hurricane Wind Scale ⁶	1	2	3	4, 5
Tornado	Fujita Tornado Damage Scale ⁷	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.

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- **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.
- *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>

5.2. Critical Facilities

Critical Facility Type	Jurisdiction Name	Counts
EMERGENCY – FIRE	ESCONDIDO	8
EMERGENCY – EOC	ESCONDIDO	2
EMERGENCY - POLICE	ESCONDIDO	1
WATER - TREATMENT	ESCONDIDO	1
WATER - WASTE	ESCONDIDO	1

5.3. Potential Hazard Exposure and Loss Estimates

The following table summarizes the potential losses associate with different hazard types:

		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	0	0	0	0	0	0	0
Sea Level Change	0	0	0	0	0	0	0
Dam Failure	34,783	11,624	4,517,086	969	292,977	68	1,798,118
Earthquake (Annualized Loss - Includes shaking, liquefaction and landslide components)	57	1,031	400,636	642	194,229	22	586,251
Flood (Loss)							
100 Year	7,380	1,625	631,475	209	63,191	14	263,340
500 Year	31,005	10,048	3,904,652	545	164,780	57	1,814,314
Rain-Induced Landslide							
High Risk	4,372	76	29,526	3	907.05	0	0
Moderate Risk	558	494	191,919	26	7,861.10	0	0
Tsunami	0	0	0	0	0	0	0
Wildfire / Structure Fire							
Fire Regime II & IV	42,951	6,268	2,435,382	224	67,726	20	2,159,434

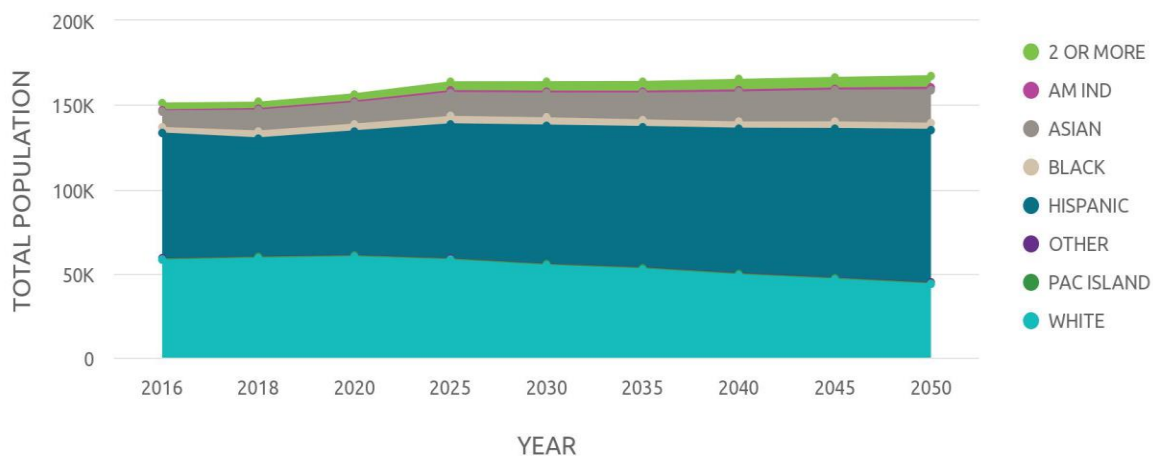
Table 13: Based on HAZUS data provided by San Diego County Office of Emergency Services.

5.4. Growth & Development

According to the California Department of Finance population estimates, the City of Escondido population in 2020 was 153,008 increasing from 133,559 in 2000 and 143,911 in 2010. Between 2010 and 2020, the City population increased by approximately 10,000 people, representing an increase of approximately six percent (Table 14). During the same period, San Diego County population increased by 8 percent. Population growth is forecast to continue to increase through the period of this plan and through 2050.

Population Growth (2000-2020)					
	2000	2010	2020	2000-2010	2010-2020
Escondido	133,559	143,911	153,008	7.8%	6.3%
San Diego Region	2,813,833	3,095,313	3,343,355	10.0%	8.0%
Source: Bureau of the Census, 2000 and 2010; California Department of Finance, 2020					

Table 14: City of Escondido Population Growth



Source: San Diego Association of Governments - SANDAG.ORG

5.5. Residential Housing Growth

Residential house building permits continue to grow (Table 15). While there was a reduction in building permits during COVID-19, there has been an increase in building permits at above pre-COVID-19 levels. Additional, developers continue to consider development in the wilderness areas surrounding Escondido. Continued enforcement of Fire and Build codes is crucial to prevent destruction of residential homes due to wildland fire.

	2018	2019	2020	2021
Building Permits	240	37	262	433

Table 15: City of Escondido Residential Housing Permits Issued

The status of current housing development and other development projects within the City of Escondido can be found at

<https://cityofescondido.maps.arcgis.com/apps/dashboards/3df9dd5f830a4db4a6dce61747906ae8>.

Even with this growth, the City of Escondido’s General Plan’s “Growth Management Element” provides assurance that growth is achieved sacrificing aspects of the community valued by its residents, thereby not increasing hazard vulnerabilities. Quality of Life Standards are detailed in Chapter I of the General Plan that identify minimum acceptable service thresholds for critical infrastructure such as traffic and transportation, fire service, police service, water, and wastewater treatment systems.

Thresholds have also been developed to address other less critical standards such as library service, parks system, open space system, air quality, public schools, and economic prosperity. Factors associated with the location, type, density, and amount, of development are tied to the city’s zoning ordinance (and linked with the General Plan Land Use Element) that establishes development parameters for land uses constructed in the community.

Improvements are required, or need to be maintained or expanded, as the community reaches identified thresholds. Assuming 300-400 units are constructed each year, Escondido’s General Plan (city and surrounding unincorporated area) is expected to increase approximately 7,000 – 9,000 units by the planning horizon year of 2035. Master plans that determine ultimate capital facilities necessary to achieve and/or maintain the quality of life standards at build out must be prepared based on adopted growth forecasts in order to adequately plan for growth. Master plans typically contain an analysis of existing facilities, existing and projected demand, and proposed maintenance and capital improvement projects. They also identify financing plans to accomplish identified improvements. The agencies and departments typically use growth projections provided by the city and other jurisdictions within their service boundaries to guide maintenance and capital improvement programs that may affect the rate and timing of private development.

Overall, the purpose of the General Plan’s Growth Management Element is to establish policies for balancing the timing of infrastructure improvements with current and anticipated demands for service through the adoption of specific implementation techniques. The Growth Management Element integrates General Plan goals and objectives with adopted Quality of Life Standards to facilitate the orderly development of public and private improvements.

SECTION FIVE | Conduct a Risk Assessment

A goal of growth management is to phase capital facility improvements concurrent with population growth so that new development does not compound existing service shortfalls or result in critical infrastructure deficiencies and/or increased hazard vulnerabilities. Effective growth management also establishes parameters for periodically monitoring the impacts that growth has on the community and defines the methods by which impacts are addressed, allowing decision makers to efficiently prioritize capital improvements.¹

5.6. Development since 2018 Plan

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

Property Use	2018	2019	2020	2021
Residential (Units)	240	37	262	433
Commercial (Buildings)	8	8	6	9
Total	248	45	268	442

Source: City of Escondido Development Services Department and Geographic Information Systems Division

Development Services also tracked if building permits were issued in the identified hazard areas, which includes the 1% annual chance floodplain and the high and very high fire hazard severity zone (VHFHSZ). All development in the 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 more people living in the area potentially exposed to natural hazards, this growth should not cause a significant change in vulnerability of the City to identified priority hazards. A summary of development in hazard zones since 2018 is shown in the table below:

Property Use	Flood Zone	HFHSZ	VHFHSZ
Residential (Units)	5	577	9
Non-Residential (Buildings)	0	10	1
Total	5	587	10

Source: City of Escondido Development Services Department and Geographic Information Systems Division

¹ <https://www.escondido.org/Data/Sites/1/media/PDFs/Planning/GPUpdate/GeneralPlanChapterVIII.pdf>

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

The following worksheet helps to 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?

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?

SECTION SIX | Develop a Mitigation Strategy

Mitigation Action	Life Safety	Property Protection	Technical	Political	Legal	Environmental	Social	Administrative	Local Champion	Other Community Objectives	Total Score
Local Plans and Regulations											
Goal 1: Promote disaster-resistant future development											
Objective 1A: Implement zoning ordinances that limit development in hazard areas.											
Continue to apply slope variable density requirements and restrict development on slopes in excess of 35% and in floodways.	1	1	1	1	1	0	0	1	1	1	8
Continue to limit the number of units in areas beyond adopted emergency response times.	1	1	1	1	1	0	0	1	1	1	8
Objective 1.B: Encourage and facilitate the adoption of building codes that protect renovated existing assets and new development in hazard areas.											
Continue to require that building pad elevations be increased for new construction and substantial modifications in Dam Failure inundation areas.	1	1	1	1	1	0	0	1	1	1	8
Continue to require the application of building codes that address earthquake design requirements.	1	1	1	1	1	0	0	1	1	1	8
Continue to obtain U.S. Army Corps of Engineers approval of construction in flood sensitive areas.	1	1	1	1	1	0	0	1	1	1	8
Continue to update the Grading Ordinance as necessary to comply with new technologies, regulations, and practices.	1	1	1	1	1	0	0	1	1	1	8
Continue to utilize current Standard Specifications for Public Works Construction and the	1	1	1	1	1	0	0	1	1	1	8

SECTION SIX | Develop a Mitigation Strategy

regional Amendments, which encourage materials and practices that resist failure.											
Objective 1.C: Consistently enforce provisions of general plans, zoning ordinances, and building codes.											
Continue aggressive enforcement to ensure all projects are properly permitted and inspected to document compliance with all city standards.	0	0	1	1	1	0	0	1	1	1	6
Objective 1.D: Discourage future development that exacerbates hazardous conditions.											
Continue to require minimum brush clearance requirements around new construction.	1	1	1	1	1	0	0	1	1	1	8
Goal 3: Build and support local capacity and commitment to continuously become less vulnerable to hazards											
Objective 3.A: Increase awareness and knowledge of hazard mitigation principles and practices among state and local officials.											
Continue periodic updates of local building codes, public works construction codes, zoning and grading ordinances to reflect legislative changes.	1	1	1	1	1	0	0	1	1	1	8
Continue to assess and mitigate potentially significant hazards as part of the required environmental review process.	1	1	1	1	1	1	0	1	1	1	9
Continue to conduct Emergency Operations Center training.	0	0	1	1	1	0	0	1	1	1	6
Goal 4: Improve hazard mitigation coordination and communication with federal, state, local, and tribal governments.											
Objective 4.A: Establish and maintain close working relationships with state agencies, local and tribal governments.											
Continue to participate in regional hazard mitigation activities as a member of the San Diego County	0	0	1	1	1	0	0	1	1	1	6

SECTION SIX | Develop a Mitigation Strategy

Unified Disaster Council.											
Continue to maintain good working relationships with the San Diego County Water Authority and neighboring water agencies.	0	0	1	1	1	0	0	1	1	1	6
Continue to maintain good working relationships with the American Red Cross, the Salvation Army, local churches, and other agencies that provide for public assistance and training.	0	0	1	1	1	0	0	1	1	1	6
Continue to provide storage of several disaster caches belonging to the American Red Cross.	1	0	1	1	1	0	0	1	1	1	7
Objective 4.B: Encourage other organizations to incorporate hazard mitigation activities.											
Continue to assist local entities, such as the Escondido Union Elementary School District, the Escondido Union High School District, Palomar Medical Center and others, in developing plans for hazard mitigation and disaster preparedness.	0	0	1	1	1	0	0	1	1	1	6
Goal 10: Develop plan and resources to assist residents and businesses to plan for and reduce health risks associated with Extreme Heat events.											
Objective 10.A: Develop Plan for the City to respond to an extreme heat event early.											
Develop an extreme heat plan that identifies the conditions conducive to an extreme heat event and when to notify residents and businesses that an extreme heat event is imminent.	1	0	1	1	1	0	0	1	1	1	7

SECTION SIX | Develop a Mitigation Strategy

Objective 10.B: Identify public resources to assist those suffering from the heat.											
Develop an extreme heat plan that identifies cool zones, communication methods, transportation, and other public resources to assist residents needing to escape extreme heat. The plan should include how to identify and check the City's at-risk population.	1	0	1	1	1	0	0	1	1	1	7
Structure and Infrastructure Projects											
Goal 5: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure and City-owned facilities, due to floods and extreme weather.											
Objective 5.A: Ensure new development is properly located and conditioned to avoid flooding.											
Continue to ensure finish floor elevations of new development are at least one foot above the 100-year flood plain.	0	1	1	1	1	0	0	1	1	1	7
Continue to require drainage studies for major projects to ensure adequate measures are incorporated and that they do not adversely affect downstream or other surrounding properties.	0	1	1	1	1	1	0	1	1	1	8
Continue to periodically evaluate drainage fees to ensure new development pays their fair share for offsite improvements.	0	0	1	1	1	0	0	1	1	1	6
Continue to limit uses in floodways to those tolerant of occasional flooding, including but not limited to agriculture, outdoor recreation, and natural resource areas.	1	1	1	1	1	0	0	1	1	1	8

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Continue to design new critical facilities to minimize potential flood damage. Such facilities include those that provide emergency response like hospitals, fire stations, police stations, civil defense headquarters, utility lifelines, ambulance services, and sewer treatment plants. Such facilities also include those that do not provide emergency response but attract large numbers of people, such as schools, theaters, and other public assembly facilities with capacities greater than 100 persons.	1	1	1	1	1	0	0	1	1	1	8
Objective 5.B: Protect existing assets with the highest relative vulnerability to the effects of floods within the 100-year floodplain and extreme weather.											
Continue to require Development Agreements for new projects within the North Broadway critical infrastructure deficiency areas to secure necessary flood control measures.	0	1	1	1	1	0	0	1	1	1	7
Continue to maintain flood control channels and storm drains, in accordance with habitat preservation policies, through periodic dredging, repair, de-silting, and clearing to prevent any loss in their effective use.	0	1	1	1	1	1	0	1	1	1	8
Continue to identify and prioritize flood control projects in the CIP.	0	0	1	1	1	0	0	1	1	1	6
Continue to pursue available grant funds for flood control projects.	0	0	1	1	1	0	0	1	1	1	6
Continue to participate in the National Flood Insurance Program	0	0	1	1	1	0	0	1	1	1	6

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and requirement to review applications for conformance with NFIP standards.											
Continue to provide public support by maintaining supplies of sand and sandbags to mitigate flooding.	0	1	1	1	1	0	0	1	1	1	7
Continue to provide barricades to identify flooded areas.	0	0	1	1	1	0	0	1	1	1	6
Objective 5.C: Minimize repetitive losses caused by flooding and severe weather											
Continue preventative maintenance and inspection of floodway structures, storm drains, etc. consistent with applicable regulations.	0	0	1	1	1	0	0	1	1	1	6
Continue to improve drainage courses in an environmentally sensitive manner to eliminate repetitive events (e.g. Spruce Street Channel Improvement Project).	0	0	1	1	1	1	0	1	1	1	7
Continue implementing programs required by the Regional Water Quality Control Board to encourage and require pollution prevention Best Management Practices on public and private properties.	0	0	1	1	1	0	0	1	1	1	6
Continue to improve road flooding problems by constructing permanent drainage structures as approved and funded in the City's Capital Improvement (CIP) Budget.	0	0	1	1	1	0	0	1	1	1	6
Objective 5.D: Develop a comprehensive approach to reducing the possibility of damage and losses due to floods and severe weather											
Continue to ensure that existing and new storm drain and street	0	1	1	1	1	0	0	1	1	1	7

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capacities are adequate to manage a 100-year flood event.											
Continue to ensure that new construction projects include surface drainage management that will preserve the integrity of the facility and public infrastructure.	0	1	1	1	1	0	0	1	1	1	7
Objective 5.E: Coordinate with and support existing efforts to mitigate severe weather (e.g., National Weather Service).											
Continue to participate in regional weather briefings.											
Objective 5.F: Infrastructure improvements for flood zone mitigation											
Protect residential, commercial, and industrial properties. Storm drains are undersized in the flood zone areas. Review new hydro reports, design for upsizing pipes, construction of infrastructures.	0	1	1	1	1	0	0	1	1	1	7
Goal 6: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure and City-owned facilities, due to wildfires.											
Objective 6.A: Develop a comprehensive approach to reducing the possibility of damage and losses due to wildfires in new development.											
Continue to require the application of California Fire Code Article 86, pertaining to Fire Protection Plans (FPP) in all Wildland-Urban Interface (WUI) areas. The FPP will provide for 100' of vegetation management (per CA Government Code 51182 and the MOU between the U.S. Fish and Wildlife Service, Calif. Department of Fish and Game, Cal FIRE, and the San Diego County Fire Chiefs Association) around all new structures or require equivalent	0	1	1	1	1	0	0	1	1	1	7

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construction methods as determined by a technical fire analysis.											
Continue to require secondary, emergency access and egress when streets exceed specified lengths or present other issues as identified during the project review process.	1	0	1	1	1	0	0	1	1	1	7
Continue to ensure that street widths, paving, and grades can accommodate emergency vehicles. Also continue to require vegetation management on all street segments without improved lots. Also, continue to require enhanced construction for certain structures in all WUI areas.	0	1	1	1	1	0	0	1	1	1	7
Continue to require defined defensible space around all habitable structures in WUI areas.	1	1	1	1	1	0	0	1	1	1	8
Continue to regulate and apply Wildland Urban Interface (WUI) codes and standards associated with the construction of buildings in wildfire prone areas.	0	1	1	1	1	0	0	1	1	1	7
Objective 6.B: Protect existing assets with the highest relative vulnerability to the effects of wildfires.											
Continue proactive enforcement of City's weed abatement ordinance to facilitate the removal of annual weeds/vegetation or habitat, placing existing properties in a fire safe condition.	0	1	1	1	1	1	0	1	1	1	8
Continue to maintain and update existing wildland pre-fire plans for neighborhoods adjacent to WUI	0	0	1	1	1	0	0	1	1	1	6

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areas.											
Ensure the City's Multiple Habitat Conservation Plan (MHCP) Sub-area Plan maintains current allowances for the removal of habitat as may be necessary to protect existing structures. Continue partnership with State Fish & Wildlife to mitigate exposure of protected habitat areas.	0	1	1	1	1	1	0	1	1	1	8
Objective 6.C: Coordinate with and support existing efforts to mitigate wildfire hazards (e.g., US Forest Service, Bureau of Land Management).											
Ensure the City's MHCP Sub-area Plan incorporates current fire protection measures and implement fire protection measures in Daley Ranch, consistent with the existing Conservation Agreement and the Daley Ranch Master Plan.	0	1	1	1	1	1	0	1	1	1	8
Continue to participate in the California Fire Master Mutual Aid Agreement, the San Diego County Fire Master Mutual Aid Agreement, and the North Zone Automatic Aid Agreement.	1	1	1	1	1	0	0	1	1	1	8
Objective 6.D: Maintain adequate emergency response capability.											
Continue to evaluate service level impacts and needs as part of the review of major projects.	0	0	1	1	1	0	0	1	1	1	6
Continue to plan for additional reserve equipment and staff during emergencies to supplement potential need for additional fire resources (i.e. surge capacity).	1	1	1	1	1	0	0	1	1	1	8

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Continue to staff and maintain Cal OES Type 3 and Type 6 brush engine.	0	1	1	1	1	0	0	1	1	1	7
Goal 7: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure and City-owned facilities, due to dam failure.											
Objective 7.A: Develop a comprehensive approach to reducing the possibility of damage and losses due to dam failure.											
Continue to design new critical facilities to minimize potential damage due to dam failure. Such facilities include those that provide emergency response like hospitals, fire stations, police stations, civil defense headquarters, utility lifelines, ambulance services, and sewer treatment plants. Such facilities also include those that do not provide emergency response but attract large numbers of people, such as schools, theatres, and other public assembly facilities with capacities greater than 100 persons.	1	1	1	1	1	0	0	1	1	1	8
Continue annual inspections of Wohlford Dam by the State of California Division of Safety of Dams.	0	0	1	1	1	0	0	1	1	1	6
Continue to gather weekly well readings at Wohlford Dam and piezometer readings at Dixon Dam. Continue to send annual reports of these readings to the State of California Division of Safety of Dams.	0	0	1	1	1	0	0	1	1	1	6
Continue to maintain an updated Wohlford Dam emergency Action Plan.	0	0	1	1	1	0	0	1	1	1	6

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Objective 7.B: Protect existing assets with the highest relative vulnerability to the effects of dam failure.											
Continue to conduct a table top drill and a functional exercise of the Wohlford Dam Emergency Action Plan.	0	0	1	1	1	0	0	1	1	1	6
Continue to annually exercise the Wohlford Dam Emergency Action Plan telephone tree.	1	1	1	1	1	0	0	1	1	1	8
Develop timeframes and funding mechanism for the ultimate replacement or renovation of the Dixon and Wohlford dams.	1	1	1	1	1	0	0	1	1	1	8
Objective 7.C: Maintain adequate emergency response capability.											
Continue to ensure that critical facilities and structures including emergency communication facilities are above the dam failure inundation zone.	1	1	1	1	1	0	0	1	1	1	8
Continue to inspect the 100-year flood channel to ensure integrity and unobstructed flow.	1	1	1	1	1	0	0	1	1	1	8
Goal 8: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure and City-owned facilities, due to geological hazards.											
Objective 8.A: Develop a comprehensive approach to reducing the possibility of damage and losses due to geological hazards.											
Continue to require soil reports and implement its recommendations for projects in identified areas where liquefaction or other soil issues exist.	1	1	1	1	1	0	0	1	1	1	8
Continue to review all new construction to ensure conformance with seismic requirements specified in the California Building Code and the	1	1	1	1	1	0	0	1	1	1	8

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California Residential Code.											
Continue to prohibit development in areas with slopes over 35%.	1	1	1	1	1	0	0	1	1	1	8
Continue to require a preliminary soil report and a report of satisfactory placement of fill prepared by a licensed civil engineer for all buildings and structures supported on fill.	1	1	1	1	1	0	0	1	1	1	8
Continue to require a preliminary soil report prepared by a civil engineer licensed in the State of California whenever expansive soil is present.	1	1	1	1	1	0	0	1	1	1	8
Observe and apply measures to reduce seismic structural risk through building and construction codes.	1	1	1	1	1	0	0	1	1	1	8
Objective 8.B: Protect existing assets with the highest relative vulnerability to the effects of geological hazards.											
Continue to maintain an updated inventory of un-reinforced masonry buildings, educate property owners about the potential safety risks of unreinforced masonry buildings, and identify low-cost options to retrofit unreinforced masonry buildings.	1	1	1	1	1	0	0	1	1	1	8
Continue to require seismic retrofits for major renovations in accordance with Historic and Building Code provisions.	1	1	1	1	1	0	0	1	1	1	8
Continue to provide a building inspection and code enforcement program to ensure compliance	1	1	1	1	1	0	0	1	1	1	8

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with codes and ordinances.											
Goal 9: Prepare for future droughts by maximizing water resource and public education.											
Objective 9A: Maximize efficiency of available water resources											
Participate in programs that provide rebates for water efficient tools (irrigation controllers, toilets, etc.)	0	0	1	1	1	0	0	1	1	1	6
Use results of the annual Water Loss Audit to determine approach to reducing water loss throughout the distribution system.	0	0	1	1	1	0	0	1	1	1	6
Objective 9B: Educate the community on their role to conserve water											
Promote classes, workshops, and on-line resources to the public through various means described in the Urban Water Management Plan.	0	0	1	1	1	0	0	1	1	1	6
Objective 9C: Prepare for drought in advance											
Have drought action plans approved by City Council so drought response can happen quickly.	1	1	1	1	1	0	0	1	1	1	8
Natural Systems Protection											
The City of Escondido has no mitigation actions related to Natural Systems Protection											

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Education and Awareness Programs											
Goal 2: Increase public understanding, support, and demand for hazard mitigation											
Objective 2.A: Educate the public to increase awareness of hazards and opportunities for mitigation actions.											
Continue to assist local mobile home parks with their community preparedness plans, including presentations at meetings of park residents.	1	1	1	1	1	0	0	1	1	1	8
Continue to offer hazard awareness and mitigation displays at bi-annual Community Street Fairs, fire station open houses, in library display cases, at health fairs, and other venues.	1	0	1	1	1	0	0	1	1	1	7
Continue to utilize the Community Emergency Response Team (C.E.R.T.) as a venue for teaching fire and life safety awareness and preparedness measures.	1	1	1	1	1	0	0	1	1	1	8
Continue to use the Fire Department website as a resource for public use to include mitigation methods for a variety of hazards.	1	1	1	1	1	0	0	1	1	1	8
Objective 2.B: Promote partnerships between the state, county, and local governments to identify, prioritize, and implement mitigation actions.											
Continue to use and expand the number of links on Fire Department website to state, county, and federal website hazard mitigation resources.	0	0	1	1	1	0	0	1	1	1	6
Continue to maintain communications with County OES in order to address potential hazard situations from a public education perspective.	0	0	1	1	1	0	0	1	1	1	6

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Continue to maintain partnership with County OES in mitigation actions related to C.E.R.T., Disaster Service Workers Programs, and Emergency Management Preparedness Programs.	0	0	1	1	1	0	0	1	1	1	6
Objective 2.C: Promote hazard mitigation in the business community.											
Continue to utilize the Fire Department's fire prevention inspection program to educate business owners and managers regarding hazard mitigation.	1	1	1	1	1	0	0	1	1	1	8
Continue to offer Fire Safety in the Workplace/Fire Extinguisher Training to businesses.	1	1	1	1	1	0	0	1	1	0	8
Objective 2.D: Discourage activities that exacerbate hazardous conditions.											
Continue to partner with County OES in the development of Public Service Announcements related to mitigation of hazardous conditions and corrections.	1	0	1	1	1	0	0	1	1	0	6

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. This annex details the following mitigation action implementations:

The City of Escondido developed the following 10 Goals for their Hazard Mitigation Plan:

Jurisdiction:	City of Escondido
Goal:	<i>Promote disaster-resistant future development.</i>
Background/Issue:	The City of Escondido works to maintain constructions standards to mitigate damage to person and property due to natural hazards.
Hazard Mitigated:	Earthquake, Flooding or Dam Failure
Ideas for Integration:	<i>Objective 1.A: Implement zoning ordinances that limit development in hazard areas.</i> ACTION 1: Continue to apply slope variable density requirements and restrict development on slopes in excess of 35% and in floodways. ACTION 2: Continue to limit the number of units in areas beyond adopted emergency response times. <i>Objective 1.B: Encourage and facilitate the adoption of building codes that protect renovated existing assets and new development in hazard areas.</i> ACTION 1: Continue to require that building pad elevations be increased for new construction and substantial modifications in Dam Failure inundation areas. ACTION 2: Continue to require the application of building codes that address earthquake design requirements. ACTION 3: Continue to obtain U.S. Army Corps of Engineers approval of construction in flood sensitive areas. ACTION 4: Continue to update the Grading Ordinance as necessary to comply with new technologies, regulations, and practices. ACTION 5: Continue to utilize current Standard Specifications for Public Works Construction and the regional Amendments, which encourage materials and practices that resist failure. <i>Objective 1.C: Consistently enforce provisions of general plans, zoning ordinances, and building codes.</i> ACTION 1: Continue aggressive enforcement to ensure all projects are properly permitted and inspected to document compliance with all city standards. <i>Objective 1.D: Discourage future development that exacerbates hazardous conditions.</i> ACTION 1: Continue to require minimum brush clearance requirements around new

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	construction.
Responsible Agency:	Community Development, Fire Department, Public Works
Partners:	U.S. Army Corps of Engineers, FEMA, State of California
Potential Funding:	General Fund
Cost Estimate:	Staff Time
Benefits: (Losses Avoided)	By requiring infrastructure and building projects to comply with current codes will mitigate future issues resulting from natural hazards.
Timeline:	Ongoing
Priority:	Medium
Worksheet Completed by: (Name/Department)	Jeff Murdock / Emergency Management

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Jurisdiction:	City of Escondido
Project Title:	<i>Increase public understanding, support, and demand for effective hazard mitigation.</i>
Background/Issue:	The City of Escondido as the desire to increase public understanding of hazard preparedness and support for effective hazard mitigation planning.
Hazard Mitigated:	Wildland Fire, Earthquake, Flooding or Dam Failure, Drought, Extreme Heat
Ideas for Integration:	<i>Objective 2.A: Educate the public to increase awareness of hazards and opportunities for mitigation actions.</i> ACTION 1: Continue to assist local mobile home parks with their community preparedness plans, including presentations at meetings of park residents ACTION 2: Continue to offer hazard awareness and mitigation displays at bi-annual Community Street Fairs, fire station open houses, in library display cases, at health fairs, and other venues. ACTION 3: Continue to utilize the Community Emergency Response Team (C.E.R.T.) as a venue for teaching fire and life safety awareness and preparedness measures ACTION 4: Continue to use the Fire Department website as a resource for public use to include mitigation methods for a variety of hazards. <i>Objective 2.B: Promote partnerships between the state, county, and local governments to identify, prioritize, and implement mitigation actions.</i> ACTION 1: Continue to use and expand the number of links on Fire Department website to state, county, and federal website hazard mitigation resources. ACTION 2: Continue to maintain communications with County OES in order to address potential hazard situations from a public education perspective ACTION 3: Continue to maintain partnership with County OES in mitigation actions related to C.E.R.T., Disaster Service Workers Programs, and Emergency Management Preparedness Programs. <i>Objective 2.C: Promote hazard mitigation in the business community.</i> ACTION 1: Continue to utilize the Fire Department's fire prevention inspection program to educate business owners and managers regarding hazard mitigation. ACTION 2: Continue to offer Fire Safety in the Workplace/Fire Extinguisher Training to businesses. <i>Objective 2.D: Discourage activities that exacerbate hazardous conditions.</i> ACTION 1: Continue to partner with County OES in the development of Public Service Announcements related to mitigation of hazardous conditions and corrections.
Responsible Agency:	Fire Department and Communications Department
Partners:	Escondido CERT, Escondido Library, County of San Diego Office of Emergency Services, San Diego Gas and Electric and the American Red Cross.
Potential Funding:	General Fund, County of San Diego Office of Emergency Services, Escondido Community Foundation and San Diego Gas and Electric

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Cost Estimate:	Total Cost Undetermined
Benefits: (Losses Avoided)	Increasing public awareness and providing basic training will make city residents more resilient to disaster and partners in mitigation efforts.
Timeline:	Ongoing
Priority:	Medium
Worksheet Completed by:	Jeff Murdock / Emergency Management

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Jurisdiction:	City of Escondido
Goal:	Build and support local capacity and commitment to continuously become less vulnerable to hazards.
Background/Issue:	The City of Escondido works with Federal, State, County and other local officials to understand and implement new legislation. The City also conducts drills with these agencies to establish relations and process to respond better to local hazards.
Hazard Mitigated:	Wildland Fire, Earthquake, Drought, Flooding or Dam Failure
Ideas for Integration:	Objective 3.A: Increase awareness and knowledge of hazard mitigation principles and practices among state and local officials. ACTION 1: Continue periodic updates of local building codes, public works construction codes, zoning and grading ordinances to reflect legislative changes. ACTION 2: Continue to assess and mitigate potentially significant hazards as part of the required environmental review process. ACTION 3: Continue to conduct Emergency Operations Center training.
Responsible Agency:	City of Escondido – Community Development, Public Works, Utilities, Fire, Emergency Management and Police
Partners:	CAL OES, CAL FIRE, San Diego County Office of Emergency Services, other local jurisdictions, San Diego Gas and Electric, State Fish and Game, American Red Cross and local school districts
Potential Funding:	General Fund
Cost Estimate:	Staff Time
Benefits: (Losses Avoided)	Develop relationships and understanding the responsibilities and procedures of other partners will expedite the disaster response and reduce the loss of life and property.
Timeline:	Ongoing
Priority:	Medium
Worksheet Completed by: (Name/Department)	Jeff Murdock / Emergency Management

SECTION SIX | Develop a Mitigation Strategy

Jurisdiction:	City of Escondido
Goal:	Improve hazard mitigation coordination and communication with federal, state, local, and tribal governments.
Background/Issue:	To effectively develop hazard mitigation efforts for the City of Escondido, the city must also work with other agencies that have activities that impact the city.
Hazard Mitigated:	Wildland Fire, Drought, Earthquake, Flooding or Dam Failure
Ideas for Integration:	Objective 4.A: Establish and maintain close working relationships with state agencies, local and tribal governments. ACTION 1: Continue to participate in regional hazard mitigation activities as a member of the San Diego County Unified Disaster Council. ACTION 1: Continue to maintain good working relationships with the San Diego County Water Authority and neighboring water agencies. ACTION 1: Continue to maintain good working relationships with the American Red Cross, the Salvation Army, local churches, and other agencies that provide for public assistance and training. ACTION 1: Continue to provide storage of several disaster caches belonging to the American Red Cross. Objective 4.B: Encourage other organizations to incorporate hazard mitigation activities. ACTION 1: Continue to assist local entities, such as the Escondido Union Elementary School District, the Escondido Union High School District, Palomar Medical Center and others, in developing plans for hazard mitigation and disaster preparedness.
Responsible Agency:	City of Escondido – Fire, Community Development, Utilities Department, Public Works, Emergency Management
Partners:	Water Districts, Faith Based Organizations, Red Cross, Schools, Medical Facilities, volunteer disaster organizations, San Diego County and other local agencies. This includes placing disaster response resources around the city.
Potential Funding:	General Fund, State and County Grants
Cost Estimate:	Staff Time
Benefits: (Losses Avoided)	Developing relationships and understanding the responsibilities and procedures of other partners will expedite the disaster response and reduce the loss of life and property.
Timeline:	Ongoing
Priority:	Medium
Worksheet Completed by: (Name/Department)	Jeff Murdock / Emergency Manager

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Jurisdiction:	City of Escondido
Goal:	Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to floods and extreme weather.
Background/Issue:	The City of Escondido has the potential for severe flooding.
Hazard Mitigated:	Flooding or Dam Failure, Extreme Heat, Drought
Ideas for Integration:	<i>Objective 5.A: Ensure new development is properly located and conditioned to avoid flooding.</i> ACTION 1: Continue to ensure finish floor elevations of new development are at least one foot above the 100-year flood plain. ACTION 2: Continue to require drainage studies for major projects to ensure adequate measures are incorporated and that they do not adversely affect downstream or other surrounding properties. ACTION 3: Continue to periodically evaluate drainage fees to ensure new development pays their fair share for offsite improvements. ACTION 4: Continue to limit uses in floodways to those tolerant of occasional flooding, including but not limited to agriculture, outdoor recreation, and natural resource areas. ACTION 5: Continue to design new critical facilities to minimize potential flood damage. Such facilities include those that provide emergency response like hospitals, fire stations, police stations, civil defense headquarters, utility lifelines, ambulance services, and sewer treatment plants. Such facilities also include those that do not provide emergency response but attract large numbers of people, such as schools, theaters, and other public assembly facilities with capacities greater than 100 persons. <i>Objective 5.B: Protect existing assets with the highest relative vulnerability to the effects of floods within the 100-year floodplain and extreme weather.</i> ACTION 1: Continue to require Development Agreements for new projects within the North Broadway critical infrastructure deficiency areas to secure necessary flood control measures. ACTION 2: Continue to maintain flood control channels and storm drains, in accordance with habitat preservation policies, through periodic dredging, repair, de-silting, and clearing to prevent any loss in their effective use. ACTION 3: Continue to identify and prioritize flood control projects in the CIP. ACTION 4: Continue to pursue available grant funds for flood control projects. ACTION 5: Continue to participate in the National Flood Insurance Program and requirement to review applications for conformance with NFIP standards. ACTION 6: Continue to provide public support by maintaining supplies of sand and sandbags to mitigate flooding ACTION 7: Continue to provide barricades to identify flooded areas.

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	Objective 5.C: Minimize repetitive losses caused by flooding and severe weather ACTION 1: Continue preventative maintenance and inspection of floodway structures, storm drains, etc. consistent with applicable regulations. ACTION 2: Continue to improve drainage courses in an environmentally sensitive manner to eliminate repetitive events (e.g. Spruce Street Channel Improvement Project). ACTION 3: Continue implementing programs required by the Regional Water Quality Control Board to encourage and require pollution prevention Best Management Practices on public and private properties ACTION 4: Continue to improve road flooding problems by constructing permanent drainage structures as approved and funded in the City's Capital Improvement (CIP) Budget. Objective 5.D: Develop a comprehensive approach to reducing the possibility of damage and losses due to floods and severe weather ACTION 1: Continue to ensure that existing and new storm drain and street capacities are adequate to manage a 100-year flood event. ACTION 2: Continue to ensure that new construction projects include surface drainage management that will preserve the integrity of the facility and public infrastructure Objective 5.E: Coordinate with and support existing efforts to mitigate severe weather (e.g., National Weather Service). ACTION 1: Continue to participate in regional weather briefings. Objective 5.F: Infrastructure improvements for flood zone mitigation ACTION 1: Protect residential, commercial, and industrial properties. Storm drains are undersized in the flood zone areas. Review new hydro reports, design for upsizing pipes, construction of infrastructures
Responsible Agency:	Community Development, Engineering, Utilities, Public Works
Partners:	Army Corps of Engineers, EPA, FEMA, State, CAL OES
Potential Funding:	General Fund, Capital Improvement Funds (CIP), FEMA State
Cost Estimate:	Total cost is undetermined given the number of possible projects. Prioritized Action Item #3 is estimated at \$34,000,000
Benefits: (Losses Avoided)	Reduced loss of live and property due to flooding.
Timeline:	Ongoing Prioritized Action Item #3: 3-5 years
Priority:	Moderately High
Worksheet Completed by: (Name/Department)	Jeff Murdock / Emergency Management

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Jurisdiction:	City of Escondido
Goal:	Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to wildfires.
Background/Issue:	Due to the Wildland Urban Interface areas surrounding and within the City of the Escondido, the potential for a wildfire is high in the area. The City of Escondido has also been impacted by major wildland fires over the last 20 years (2003, 2007, 2014).
Hazard Mitigated:	Wildland Fire
Ideas for Integration:	Objective 6.A: Develop a comprehensive approach to reducing the possibility of damage and losses due to wildfires in new development. ACTION 1: Continue to require the application of California Fire Code Article 86, pertaining to Fire Protection Plans (FPP) in all Wildland-Urban Interface (WUI) areas. The FPP will provide for 100' of vegetation management (per CA Government Code 51182 and the MOU between the U.S. Fish and Wildlife Service, Calif. Department of Fish and Game, CAL FIRE, and the San Diego County Fire Chiefs Association) around all new structures or require equivalent construction methods as determined by a technical fire analysis. ACTION 2: Continue to require secondary, emergency access and egress when streets exceed specified lengths or present other issues as identified during the project review process. ACTION 3: Continue to ensure that street widths, paving, and grades can accommodate emergency vehicles. Also continue to require vegetation management on all street segments without improved lots. Also, continue to require enhanced construction for certain structures in all WUI areas. ACTION 4: Continue to require defined defensible space around all habitable structures in WUI areas. ACTION 5: Continue to regulate and apply Wildland Urban Interface (WUI) codes and standards associated with the construction of buildings in wildfire prone areas. Objective 6.B: Protect existing assets with the highest relative vulnerability to the effects of wildfires ACTION 1: Continue proactive enforcement of City's weed abatement ordinance to facilitate the removal of annual weeds/vegetation or habitat, placing existing properties in a fire safe condition. ACTION 2: Ensure the City's Multiple Habitat Conservation Plan (MHCP) Sub-area Plan maintains current allowances for the removal of habitat as may be necessary to protect existing structures. Continue partnership with State Fish & Wildlife to mitigate exposure of protected habitat areas. Objective 6.C: Coordinate with and support existing efforts to mitigate wildfire hazards (e.g., US Forest Service, Bureau of Land Management). ACTION 1: Ensure the City's MHCP Sub-area Plan incorporates current fire protection measures and implement fire protection measures in Daley Ranch, consistent with the existing Conservation Agreement and the Daley Ranch Master Plan. ACTION 2: Continue to participate in the California Fire Master Mutual Aid Agreement, the

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	San Diego County Fire Master Mutual Aid Agreement, and the North Zone Automatic Aid Agreement, the California Fire Assistance Agreement through the Cal OES Fire and Rescue Branch. Objective 6.D: Maintain adequate emergency response capability. ACTION 1: Continue to evaluate service level impacts and needs as part of the review of major projects. ACTION 2: Continue to plan for additional reserve equipment and staff during emergencies to supplement potential need for additional fire resources (i.e. surge capacity). ACTION 3: Continue to staff and maintain Cal OES Type 3 and Type 6 brush engine.
Responsible Agency:	City of Escondido – Fire Department, Community Development, City Manager’s Office
Partners:	CAL FIRE, CAL OES, San Diego Gas and Electric, County Fire Authority and Local Fire Departments
Potential Funding:	General fund, CAL FIRE, CAL OES, State
Cost Estimate:	Staff Time
Benefits: (Losses Avoided)	Protection of life, property, and infrastructure
Timeline:	On-going
Priority:	High
Worksheet Completed by: (Name/Department)	La Vona Koretke / Fire Department

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Jurisdiction:	City of Escondido
Goal:	<i>Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to dam failure</i>
Background/Issue:	A portion of the Lake Wohlford Dam has been determined to have the potential to liquify and fail in the event of a large earthquake with a magnitude greater than 7.5. Additional Mitigation is also required for the City's second dam (Dixon Dam).
Hazard Mitigated:	Dam Failure
Ideas for Integration:	Objective 7.A: Develop a comprehensive approach to reducing the possibility of damage and losses due to dam failure. Action 1: Continue to design new critical facilities to minimize potential damage due to dam failure. Such facilities include those that provide emergency response like hospitals, fire stations, police stations, civil defense headquarters, utility lifelines, ambulance services, and sewer treatment plants. Such facilities also include those that do not provide emergency response but attract large numbers of people, such as schools, theatres, and other public assembly facilities with capacities greater than 100 persons. Action 2: Continue annual inspections of Wohlford Dam by the State of California Division of Safety of Dams. Action 3: Continue to gather weekly well readings at Wohlford Dam and piezometer readings at Dixon Dam. Continue to send annual reports of these readings to the State of California Division of Safety of Dams. Action 4: Continue to maintain an updated Wohlford Dam emergency Action Plan. Objective 7.B: Protect existing assets with the highest relative vulnerability to the effects of dam failure. Action 1: Continue to conduct a table top drill and a functional exercise of the Wohlford Dam Emergency Action Plan Action2: Continue to annually exercise the Wohlford Dam Emergency Action Plan telephone tree. Objective 7.C: Minimize the risk of hazards associated with dam failure. Action 1: Develop timeframes and funding mechanism for the ultimate replacement or renovation of the Dixon and Wohlford dams. Action 2: Continue to ensure that critical facilities and structures including emergency communication facilities are above the dam failure inundation zone. Action 3: Continue to inspect the 100-year flood channel to ensure integrity and unobstructed flow.
Responsible Agency:	City of Escondido - Utilities
Partners:	State of California Division of Safety of Dams San Diego County OES California OES

SECTION SIX | Develop a Mitigation Strategy

Potential Funding:	FEMA EPA State of California California OES
Cost Estimate:	The total project cost for the replacement of the Lake Wohlford Dam is currently estimated to be approximately \$132.9 Million.
Benefits: (Losses Avoided)	Avoid loss of life and property due to dam failure
Timeline:	Current timeline for the replacement of Lake Wohlford Dam is estimated to be approximately 6 years.
Priority:	Extremely high
Worksheet Completed by: (Name/Department)	Angela Morrow/Utilities

SECTION SIX | Develop a Mitigation Strategy

Jurisdiction:	City of Escondido
Goal:	<i>Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to geological hazards.</i>
Background/Issue:	While severe property damage to modern buildings due to an earthquake is may be unlikely per the USGS, landslides, liquid fraction and structural damage to older buildings is possible.
Hazard Mitigated:	Earthquake
Ideas for Integration:	<i>Objective 8.A: Develop a comprehensive approach to reducing the possibility of damage and losses due to geological hazards.</i> ACTION 1: Continue to require soil reports and implement its recommendations for projects in identified areas where liquefaction or other soil issues exist. ACTION 2: Continue to review all new construction to ensure conformance with seismic requirements specified in the California Building Code and the California Residential Code. ACTION 3: Continue to prohibit development in areas with slopes over 35%. ACTION 4: Continue to require a preliminary soil report and a report of satisfactory placement of fill prepared by a licensed civil engineer for all buildings and structures supported on fill. ACTION 5: Continue to require a preliminary soil report prepared by a civil engineer licensed in the State of California whenever expansive soil is present. ACTION 6: Observe and apply measures to reduce seismic structural risk through building and construction codes. <i>Objective 8.B: Protect existing assets with the highest relative vulnerability to the effects of geological hazards.</i> ACTION 1: Continue to maintain an updated inventory of un-reinforced masonry buildings, educate property owners about the potential safety risks of unreinforced masonry buildings, and identify low cost options to retrofit unreinforced masonry buildings. ACTION 2: Continue to require seismic retrofits for major renovations in accordance with Historic and Building Code provisions. ACTION 3: Continue to provide a building inspection and code enforcement program to ensure compliance with codes and ordinances.
Responsible Agency:	City of Escondido – Fire, Community Development, Utilities, Engineering and City Manager’s Office
Partners:	Army Corps of Engineers, Cal OES, USGS, California Geological Society, San Diego County
Potential Funding:	General Fund, Capital Improvement Projects (CIP), FEMA, State

SECTION SIX | Develop a Mitigation Strategy

Cost Estimate:	Undetermined given the number of potential projects
Benefits: (Losses Avoided)	Prevention of loss of life and property due to geological hazards.
Timeline:	Ongoing
Priority:	High
Worksheet Completed by:	Jeff Murdock / Emergency Management

SECTION SIX | Develop a Mitigation Strategy

Jurisdiction:	City of Escondido
Goal:	<i>Prepare for future droughts by maximizing water resource and public education</i>
Background/Issue:	The City of Escondido is located in an arid climate with unpredictable weather patterns year over year. The majority of its water supplies come from areas of California with similar situations.
Hazard Mitigated:	Drought
Ideas for Integration:	<i>Objective 1 – maximize efficiency of available water resources</i> 1.1 - Participate in programs that provide rebates for water efficient tools (irrigation controllers, toilets, etc.) 1.1 - Use results of the annual Water Loss Audit to determine approach to reducing water loss throughout the distribution system <i>Objective 2 – Educate the community on their role</i> 2.1 - Promote classes, workshops and on-line resources to the public through various means described in the Urban Water Management Plan <i>Objective 3 – prepare for drought in advance</i> 3.1 – Have drought action plans approved by City Council so drought response can happen quickly
Responsible Agency:	City of Escondido
Partners:	San Diego County Water Authority (SDCWA) – wholesaler; other water districts with customers within COE boundaries, including Rincon, Vallecitos and Vista Irrigation District
Potential Funding:	General Fund
Cost Estimate:	Staff time
Benefits: (Losses Avoided)	Help extend existing reserves for the uncertain future
Timeline:	Can be initiated as needed, or as required by others, such as State of California or wholesaler providers.
Priority:	Moderately High
Worksheet Completed by:	Reed Harlan/Utilities

SECTION SIX | Develop a Mitigation Strategy

Jurisdiction:	City of Escondido
Goal:	<i>Develop plan and resources to assist residents and businesses to plan for and reduce health risks associated with Extreme Heat events within 3 years.</i>
Background/Issue:	While the city has established 3 cool zones for extreme heat events, the City does not have a plan that defines what constitutes an extreme heat event, how to notify residents, or to check on at-risk populations.
Hazard Mitigated:	Extreme Heat
Ideas for Integration:	Objective 10A: <i>Develop Plan for the City to respond to an extreme heat event early.</i> Action: Develop an extreme heat plan that identifies the conditions conducive to an extreme heat event and when to notify residents and businesses that an extreme heat event is imminent. Objective 10.B: <i>Identify public resources to assist those suffering from the heat</i> Action: Develop an extreme heat plan that identifies cool zones, communication methods, transportation, and other public resources to assist residents needing to escape extreme heat. The plan should include how to identify and check the City's at-risk population.
Responsible Agency:	City of Escondido –Emergency Management Department (Lead)
Partners:	FEMA, NWS, CAL-OES, County of San Diego, faith-based organizations
Potential Funding:	General Fund
Cost Estimate:	Staff Time
Benefits: (Losses Avoided)	With longer extreme heat events, the plan will assist the city with planning and notification leading to fewer heat related medical calls
Timeline:	3 years
Priority:	Moderately high
Worksheet Completed by: (Name/Department)	Jeff Murdock, Emergency Management Department

SECTION SIX | Develop a Mitigation Strategy

Goals 9 and 10 in the 2018 plan are contained in a “For Official Use Only” document maintained separately from this document. Goals 9 and 10 were for manmade hazards; Hazardous Materials and Terrorism. Over the past 10 years policies and procedures have changed and the objectives and actions of Goals 9 and 10 have been moved to other plans or no longer apply. Therefore, **Goals 9 and 10 from the 2018 Hazard Mitigation Plan will be removed from the 2023 Hazard Mitigation Plan and have been replaced with goals for Drought and Extreme Heat hazards. As stated, the following 2018 goals have been removed from the 2023 plan:**

~~Goal 9. Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to extremely hazardous materials releases.~~

~~Goal 10. —Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to other manmade hazards.~~

6.3. Prioritization and Implementation of Action Items

Once the comprehensive list of jurisdictional goals, objectives, and action items listed above was developed, the proposed mitigation actions were prioritized. This step resulted in a list of acceptable and realistic actions that address the hazards identified in each jurisdiction.

The Disaster Mitigation Action of 2000 (at 44 CFR Parts 201 and 206) requires the development of an action plan that not only includes prioritized actions but one that includes information on how the prioritized actions will be implemented. Implementation consists of identifying who is responsible for which action, what kind of funding mechanisms and other resources are available or will be pursued, and when the action will be completed.

The prioritized actions below reflect progress in local mitigation efforts as well as changes in development.

The top five prioritized mitigation actions as well as an implementation strategy for each are:

Priority Action Item #1: Ensure the City's Multiple Habitat Conservation Plan (MHCP) Sub-area Plan maintains current allowances for the removal of habitat as may be necessary to protect existing structures.

Hazard Mitigated:	Wildland Fire
Coordinating Individual/Organization:	Fire Department
Potential Funding Source:	Local, state or federal resources
Implementation Timeline:	Awaiting input from County and State Agencies 2018-2028
Cost Estimate:	Staff Time
Potential Funding:	General Fund
Responsible Person:	Adam Finestone, City Planner

Priority Action Item #2: Ensure the City's MHCP Sub-area Plan incorporates current fire protection measures and implement fire measures in Daley Ranch, consistent with the existing Conservation Agreement and the Daley Ranch Master Plan.

Hazard Mitigated:	Wildland Fire
Coordinating Individual/Organization:	Fire Department
Potential Funding Source:	Local, state or federal resources
Implementation Timeline:	Awaiting input from County and State Agencies 2018-2028
Cost Estimate:	Staff Time
Potential Funding:	General Fund
Responsible Person:	Adam Finestone, City Planner

SECTION SIX | Develop a Mitigation Strategy

New Action Item: See Worksheet 6.2

Priority Action Item #3: Infrastructure improvements for flood zone mitigation

Hazard Mitigated:	Flooding or Dam Failure
Coordinating Individual/Organization:	Engineering Department
Potential Funding Source:	Local, state or federal resources
Implementation Timeline:	2023-2028 (design, construction, and apply for funding)
Cost Estimate:	\$34,000,000
Potential Funding:	Cal OES, HMGP, DBDG, General Fund, CIP
Responsible Person:	Jonathan Schauble

Priority Action Item #4: Develop timeframes and funding mechanism for the ultimate replacement or renovation of the Dixon and Wohlford Dams.

Hazard Mitigated:	Flooding or Dam Failure / Drought / Earthquake
Coordinating Individual/Organization:	Utilities Department
Potential Funding Source:	Private, local, state or federal resources
Implementation Timeline:	Start planning/design: 2012 Estimated construction start: late 2023 Estimated construction completion: 2028
Cost Estimate:	\$132.9 Million
Funding Source:	California Proposition 1E grant (secured) EPA WIFIA Loan (in progress) Escondido water enterprise CIP fund (existing)
Responsible Person:	Angela Morrow, Deputy Director of Utilities, Construction & Engineering

New Action Item: See Worksheet 6.2 on page 75

Priority Action Item #5: Develop and publish an “Extreme Heat Action Plan” identifying areas (cool zones, pools, parks) for residents, including the elderly, persons with disabilities, and other at-risk populations during an extreme heat event. The plan will define what constitutes extreme heat in the City of Escondido and how to message the public.

Hazard Mitigated:	Extreme Heat
Coordinating Individual/Organization:	Emergency Management Department
Potential Funding Source:	General Fund
Implementation Timeline:	2023-2025
Cost Estimate:	Staff Time
Funding Source:	General Fund
Responsible Person:	Jeff Murdock

7. SECTION SEVEN: Keeping the Plan Current

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 plan was last updated in 2018.

This section of the 2023 Plan describes the formal process that will ensure The Plan remains an active and relevant document. The plan maintenance process includes a schedule for monitoring and evaluating the Plan annually and producing a plan revision every five years.

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.

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* Base Plan for more information.

7.1. Mitigation Action Progress

The previous version of this plan was adopted by the County on February 20, 2018. The Escondido City Council adopted the Escondido Annex on August 8, 2018. Over the past five years a lot of work was put into the replacement of Lake Wohlford dam. Due to a number of delays, our State grant need to be extended and the cost of replacement has increased. The City applied for a BRIC grant, but it was denied. The city has also applied for a EPA WIFIA Loan that is currently pending. Work on the road modifications that will be impacted by the replacement dam has begun and work on the replacement dam is expected to begin in 2023. This replacement dam is important due to the determined earthquake liquefaction danger of the current dam. Failure of the this Extremely High rated dam would cause extreme flooding within the City of Escondido. The dam's water has been lowered to a safe level, however, due to the reduced water capacity of the dam, the city's drought resilience has been greatly reduced. Replacement of Lake Wohlford dam is covered in Priority Action #4

SECTION SEVEN | Keep the Plan Current

This version of the Multi-Jurisdictional Hazard Mitigation Plan was revised over the past five years to reflect changes in development, progress in local mitigation efforts, and changes in priorities. After reviewing the climate action plan and the progress that has been made through FEMA grants funds on man-made hazards, the LPG decided to remove two previous plan hazards; Terrorism and Hazardous Materials.

During the period of the previous plan, the City of Escondido adopted a Climate Action Plan on March 10, 2022. Two new top hazards, Drought and Extreme Heat, were selected as a result of the new Climate Action Plan and replace Terrorism and Hazardous Materials. All remain Hazard Profiles were researched for more modern content, data, and details.

Two high priority action (**Action #1 and #2**) has been delayed due to other agencies involved in completing these actions. These two actions are still high priorities as they deal with the Wildland Urban Interfaces where structures are threatened due to the proximity of wildland vegetation to structures.

Additionally, a couple of nonhigh-priority actions were closed. **Action Item 6 B.2** and **Action Item 6.A.4** were closed when they were incorporated into the State Fire Code and adapted by the Escondido's City Council.

This plan's Goals, Objectives, and Actions were updated from the last version to reflect current priorities within existing plans such as the City General Plan's Safety Element and the Climate Action Plan.

The 2020 COVID-19 Pandemic negatively affected overall progress on the 2018 plan and actions' progress, but did not negatively impact the community's vulnerability because the plan was created in tandem with existing plans/procedures and thus aided in local government responses and actions to keep communities and assets safe.

Work continued on the replacement of the Lake Wohlford Dam that may be prone to liquefaction in the event of a significant earthquake. This project remains one of Escondido's priority projects and impacts three of our top 5 hazards; Earthquake, Dam Failure/Flooding and Drought.

The following table shows the status of action items and Priority Action Item status since the 2018 Plan:

Action Item	Description	Status
6.A.4	Continue to require residential fire sprinklers.	Project Cancelled
6.B.2	Continue to ensure that all construction materials used during remodeling of structures in WUI areas are compliant with new building and fire codes for fire-resistant construction including possible enhanced construction requirements for certain structures.	Project Cancelled
#1	Ensure the City's Multiple Habitat Conservation Plan (MHCP) Sub-area Plan maintains current allowances for the removal of habitat as may be necessary to protect existing structures.	Project Delayed

SECTION SEVEN | Keep the Plan Current

#2	Ensure the City's MHCP Sub-area Plan incorporates current fire protection measures and implement fire measure in Daley Ranch, consistent with the existing Conservation Agreement and the Daley Ranch Master Plan.	Project Delayed
#3	Continue involvement in regional collaborative efforts between public and private partners in public education and disaster preparedness campaigns in High Hazard Urban Interface communities.	Project Complete
#4	Develop timeframes and funding mechanism for the ultimate replacement or renovation of the Dixon and Wohlford Dams.	Project on schedule
#5	Limit hazardous materials transportation to hours of less traffic congestion as determined necessary through the environmental and developmental review process.	Project Complete

Below are related progress reports for these five priority mitigation actions (and 2 additional, cancelled actions) listed in the 2018 Plan:

Mitigation Action Progress Report Form

Progress Report Period	From Date: 2018	To Date: 2022
Action/Project Title	Action 6.A.4 - Continue to require residential fire sprinklers	
Responsible Agency	Escondido Fire Department	
Contact Name	La Vona Koretke	
Project Dates	2020	
Project Status	Project canceled , fire sprinklers now required by the State Fire Code.	
Funding Source	General Fund	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Residential Fire Sprinklers are now required by the Fire Code.

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

None

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

4. Other comments

This project is cancelled as fire sprinklers are now required by State Fire Code.

Mitigation Action Progress Report Form

Progress Report Period	From Date: 2018	To Date: 2022
Action/Project Title	Action Item 6 B.2 - Continue to ensure that all construction materials used during remodeling of structures in WUI areas are compliant with new building and fire codes for fire resistant construction including possible enhanced construction requirements for certain structures.	
Responsible Agency	Escondido Fire Department	
Contact Name	La Vona Koretke	
Contact Phone/Email	760-839-5415 lkoretke@escondido.org	
Project Dates	2020	
Project Status	Project canceled as State fire and building code require all structures under construction comply with fire resistive construction.	
Funding Source	General Fund	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Construction Materials are now spelled out in the Building and Fire Codes

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

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

4. Other comments

This project is cancelled as state fire and building code require all structures under construction comply with fire resistive construction.

Action Item # 1

Mitigation Action Progress Report Form

Progress Report Period	From Date: 2018	To Date: 2022
Action/Project Title	Priority Action Item #1 - Ensure the City's Multiple Habitat Conservation Plan (MHCP) Sub-area Plan maintains current allowances for the removal of habitat as may be necessary to protect existing structures.	
Responsible Agency	City of Escondido Planning Division	
Contact Name	Adam Finestone, City Planner	
Project Dates	2018 - 2028	
Project Status	Project delayed The agencies developing the main portion of the MHCP plan have had the plan on hold and the City has no control of the timeline. We have been told that the primary agencies (County of SD is the (formal) lead agency, the California Department of Fish and Wildlife and US Fish and Wildlife Service) plan to begin working on the plan soon.	
Funding Source	General Fund	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

There was no progress made during this reporting period.

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

The primary agencies responsible for the main portion of the plan have delayed the project, but are expected to begin development in the near future.

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

Yes, the plan is required to remove vegetation in high-fire areas to mitigate wildland fire.

4. Other comments

This Action is being moved to the City's Planning Department.

Action Item #2

Mitigation Action Progress Report Form

Progress Report Period	From Date: 2018	To Date: 2022
Action/Project Title	Priority Action Item #2 - Ensure the City's MHCP Sub-area Plan incorporates current fire protection measures and implement fire measure in Daley Ranch, consistent with the existing Conservation Agreement and the Daley Ranch Master Plan.	
Responsible Agency	City of Escondido Planning Division	
Contact Name	Adam Finestone, City Planner	
Project Dates	2018 - 2028	
Project Status	Project delayed The agencies developing the main portion of the MHCP plan have had the plan on hold and the City has no control of the timeline. We have been told that the primary agencies (County of SD is the (formal) lead agency, the California Department of Fish and Wildlife and US Fish and Wildlife Service) plan to begin working on the plan soon.	
Funding Source	General Fund	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

There was no progress made during this reporting period.

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

The primary agencies responsible for the main portion of the plan have delayed the project, but are expected to begin development in the near future.

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

Yes, the plan is required to remove vegetation in high-fire areas to mitigate wildland fire.

4. Other comments

This Action is being moved to the City's Planning Department.

Action Item #3 - Complete

Mitigation Action Progress Report Form

Progress Report Period	From Date: 2019	To Date: 2022
Action/Project Title	Priority Action item # 3 - Continue involvement in regional collaborative efforts between public and private partners in public education and disaster preparedness campaigns in High Hazard Urban Interface communities.	
Responsible Agency	Fire Department	
Contact Name	La Vona Koretke	
Project Dates	2019 - 2021	
Project Status	Project completed, quarterly community wildfire prevention meetings held between 2019 and 2021.	
Funding Source	General Fund	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?
Between 2019 and 2021; multiple agencies (CAL FIRE, SDGE, Fire Safe Council, Police and Fire) participated in quarterly community wildfire prevention meetings for the public.
2. What obstacles, problems, or delays did the project encounter?
None
3. If uncompleted, is the project still relevant? Should the project be changed or revised?
4. Other comments

Action Item #4

Mitigation Action Progress Report Form

Progress Report Period	From Date: January 2012	To Date: January 2023
Action/Project Title	Priority Action item # 4 - Develop timeframes and funding mechanism for the ultimate replacement or renovation of the Dixon and Wohlford Dams	
Responsible Agency	City of Escondido	
Contact Name	Angela Morrow	
Project Dates	2012-2028	
Project Status	Action #4 - Project on schedule, significant milestones achieved, see information below.	
Funding Source	California Proposition 1E grant (secured) EPA WIFIA Loan (in progress) Escondido water enterprise CIP fund (existing)	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

During this reporting period, the design of the replacement of Wohlford Dam was finalized and the proposed replacement schedule was updated. The end date for the existing California Proposition 1E grant funding for the Wohlford Dam Replacement Project was extended an additional five years. This was done when State Assembly Bill 692 was signed into law in 2021. The City of Escondido had applied for CA SRF funding and a FEMA BRIC grant for the Wohlford Dam Replacement Project, both of which were unsuccessful. The City of Escondido submitted a Letter of Interest to the EPA WIFIA Program for the Wohlford Dam Replacement Project. The Letter of Interest was accepted and the City was invited to apply for a WIFIA loan. The Escondido City Council approved the terms of a WIFIA loan in May 2022. It is anticipated that a WIFIA Loan for the Wohlford Dam Replacement Project will be fully executed before the end of 2022.

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

The estimated cost of the Wohlford Dam Replacement Project has increased significantly. Obtaining additional funding has been challenging. The City of Escondido had applied for CA SRF funding and a FEMA BRIC grant for the Project, both of which were unsuccessful.

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

The replacement of Lake Wohlford Dam is still relevant because it has been determined that a portion of the dam has the potential to liquify in a large earthquake (7.5M+) and is a major water storage for the City of Escondido and the Vista Irrigation District.

Action Item #5 - Complete

Mitigation Action Progress Report Form

Progress Report Period	From Date: 2018	To Date:2022
Action/Project Title	Priority Action Item #5: Limit hazardous materials transportation to hours of less traffic congestion as determined necessary through the environmental and developmental review process.	
Responsible Agency	City of Escondido Planning Division	
Contact Name	Adam Finestone, City Planner	
Project Dates	2018 - 2021	
Project Status	Project closed Manmade hazards were removed high priorities for hazard mitigation planning.	
Funding Source	General Fund	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?
Conditions of approval were placed on one project to address transportation of hazardous materials.
2. What obstacles, problems, or delays did the project encounter?
Staff capacity to address changes. Further, minimal projects were processed where it would be appropriate/applicable to place conditions of approval related to this action item.
3. If uncompleted, is the project still relevant? Should the project be changed or revised?
The issue is still relevant; however, it is not applicable to this plan as it is a man-made hazard.
4. Other comments

SECTION SEVEN | Keep the Plan Current

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, Considering the new drought hazard, working with other water districts and the public is important to future planning.
	Have any internal or external agencies been invaluable to the mitigation strategy?	Ca State Fire Marshal Staff SD County Fire Authority
	Can any procedures (e.g., meeting announcements, plan updates) be done differently or more efficiently?	Providing virtual meeting options may promote additional participation.
	Has the Planning Team undertaken any public outreach activities?	The Fire department has reached out to additional agencies to assist with wildfire education. These agencies include Fire Safe Council, Local Utilities, Local Regional Fire Agencies and CAL FIRE.
	How can public participation be improved?	Additional staff and an investment in technology will improve the ability to engage and maintain public involvement.
	Have there been any changes in public support and/or decision- maker priorities related to hazard mitigation?	Adding climate change related hazards, Drought and Extreme Heat has changed our focused on additional Hazard-mitigation actions.
Capability Assessment	Have jurisdictions adopted new policies, plans, regulations, or reports that could be incorporated into this plan?	Escondido has attempted to capture newly-adopted policies, plans, and regulations into this plan.
	Are there different or additional administrative, human, technical, and financial resources available for mitigation planning?	Not at this time
	Are there different or new education and outreach programs and resources available for mitigation activities?	Not at this time, but will be developed as a result of this plan.
	Has NFIP participation changed in the participating jurisdictions?	No
	Has a natural and/or technical or human-caused disaster occurred?	Coronavirus Pandemic

SECTION SEVEN | Keep the Plan Current

Risk Assessment	Should the list of hazards addressed in the plan be modified?	Escondido has modified the list of hazards for the City in this plan.
	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?	Not at this time.
	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, development trends are accounted for in this plan and the City's General Plan to account for any potential/additional risks.
	Are there repetitive losses and/or severe repetitive losses to document?	Yes. According to the 2022 FEMA Repetitive Loss Summary Report, the City of Escondido has 4 Repetitive Loss properties and 1 Severe Repetitive Loss property. See Table 14 in the County Base Plan Section 5.2.6

TABLE 13: 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 for some, however, there are external agencies that are delaying a few of our priority action items.
	Should new mitigation actions be added to the Action Plan? Should existing mitigation actions be revised or eliminated from the plan?	New Mitigation Actions have been added to the plan as a result of the reevaluation of our hazard review. New priority action items have also been added.
	Are there new obstacles that were not anticipated in the plan that will need to be considered in the next plan update?	Yes – unanticipated schedule delays from outside agencies and funding have delayed a few of our action items.
	Are there new funding sources to consider?	We continually work to identify new funding sources.
	Have elements of the plan been incorporated into other planning mechanisms?	Yes, aspects of the plan have been incorporated into the General Plan, including the Safety Element.
	Was the plan monitored and evaluated as anticipated?	No – However, additional persons of responsibility have been added to improve plan monitoring and evaluation.

SECTION SEVEN | Keep the Plan Current

Plan Maintenance Procedures	What are needed improvements to the procedures?	COVID-19 greatly shorten the development time for the plan. The city is also putting new process in place to improve the provcess.
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TABLE 14: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 7.2 DATA CONTINUED.

APPENDICES

Appendices:

Worksheets 6.2 – New Priority Action Items added to the plan

New Priority Action Item #3

Jurisdiction:	City of Escondido
Mitigation Action/Project Title:	New Priority Action Item #3 - Infrastructure improvements for flood zone mitigation
Hazard Mitigated:	Flooding or Dam Failure
Background/Issue:	Protect residential, commercial, and industrial properties. Storm drain is undersized in the flood zone areas.
Ideas for Integration:	Review new hydro reports, design for upsizing pipes, construction of infrastructures
Responsible Agency:	City of Escondido
Partners:	FEMA
Potential Funding:	Cal OES, HMGP, CBDG, City funds, FEMA match
Cost Estimate:	\$34,000,000
Benefits: (Losses Avoided)	Reduction of property damage, loss of life, no flooding, increase in property value
Timeline:	2023-2028 (design, construction, and apply for funding)
Priority:	Moderately high
Worksheet Completed by:	Lonnie Druliner, Engineering Dept.

APPENDICES

New Priority Action Item #5:

Jurisdiction:	City of Escondido
Mitigation Action/Project Title:	New Priority Action Item #5 – Develop and publish an “Extreme Heat Action Plan”
Hazard Mitigated:	Extreme Heat
Background/Issue:	While the city has established 3 cool zones for extreme heat events, the City does not have a plan that defines what constitutes an extreme heat event, how to notify residents, or to check on at-risk populations.
Ideas for Integration:	Develop and publish an “Extreme Heat Action Plan” identifies areas (cool zones, pools, parks) for residents, including the elderly, persons with disabilities and other at-risk populations during an extreme heat event. The plan will define what constitutes an extreme heat in the City of Escondido and how to message the public.
Responsible Agency:	City of Escondido – The lead department will be Emergency Management
Partners:	FEMA, NWS, CAL-OES, County of San Diego, faith-based organizations
Potential Funding:	General Fund
Cost Estimate:	Staff Time
Benefits: (Losses Avoided)	With longer extreme heat events, the plan will assist the city with planning and notification leading to fewer heat related medical calls
Timeline:	2023-2025
Priority:	Moderately high
Worksheet Completed by: (Name/Department)	Jeff Murdock, Emergency Management Department

APPENDICES

Worksheets 7.1 – Mitigation Action Progress

Changes from the 2010 plan

A few of the changes from the 2010 Hazard Mitigation Plan to the 2018 hazard Mitigation Plan were not implemented. Supporting documentation is provided in separate documents. Included with this annex are two documents presented to our city council showing the intended changes from 2010 to the 2018 Plan. The first document “HazMit Plan 2017 Sections 1-7 Rev 9-25-2017 Escondido Edits.doc” contained all the Escondido edits with tracking changes turned on. The second document “08.08.18 Attachment 1.pdf” was a summary of the changes made to the 2018 version from the 2010 version to assist councilmembers to easily identify the changes.

The following is a list of Escondido changes that did not make it into the County’s final 2018 version of the “Multijurisdictional Hazard Mitigation Plan”:

Should have been removed from the 2018 plan:

Action 5.D.1 - Continue to perform preventative maintenance and inspection of buildings/structures that utilize roof drain inlets, piping and sub-structures

- Action 5.D.1 was completed in the 2010 and not needed in the 2018 plan. Action 5.D.1 is not included in this plan.

Missing modification from 2018 plan

Action 2.A.1 - Continue to assist local mobile home parks with their community preparedness plans, including presentations at meetings of park residents.

- Action 2.A.1 – This action was dropped from the 2018 plan. This has been corrected in this plan and Objective 2A actions reordered.

Action 2.C.2 - Continue to offer Fire Safety in the Workplace/Fire Extinguisher Training to businesses.

- Action 2.C.2 – This action was dropped from the 2018 plan. This has been corrected in this plan.