1.1 City of Encinitas

The City of Encinitas (Encinitas) reviewed a set of jurisdictional-level hazard maps including detailed critical facility information and localized potential hazard exposure/loss estimates to help identify the top hazards threatening their jurisdiction. In addition, LPGs were supplied with exposure/loss estimates for Encinitas summarized in Table 5.8-1. See Section 4.0 for additional details.

Table 5.8-1
Summary of Potential Hazard-Related Exposure/Loss in Encinitas

		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	64	0	0	0	0	0	0
Sea Level Rise	187	1	282	103	36,007	11	13,124
Dam Failure	1,920	561	157,922	711	284,994	18	3,449
Earthquake (Annualized Loss - Includes shaking, liquefaction and landslide components)	5,350*	2,761*	777,222*	1,323*	462,918*	55*	149,410*
Floods (Loss)							
100 Year	441	40	11,260	138	48,463	19	17,658
500 Year	462	53	14,920	155	54,419	20	18,424
Rain-Induced Landslide							
High Risk	38	5	1,408	0	0	0	0
Moderate Risk	0	0	0	0	0	0	23
Tsunami	247	3	845	135	47,126	13	15,679
Wildfire/ Structure Fire							
Fire regime II & IV	5,7529	23,980	6,750,370	15,107	5,287,475	299	752,375

* Represents best available data at this time.

After reviewing the localized hazard maps and exposure/loss table above, the following hazards were identified by the Encinitas LPG as their top six, based on their probability and potential impact. A brief rationale for including each of these is included.

- **Earthquake:** On November 22, 1800, a 6.5 magnitude occurred on the Rose Canyon fault offshore from Oceanside. It cracked adobe walls at the missions of San Diego de Alcala and San Juan Capistrano. Other notable local earthquakes include a magnitude 6.0 earthquake centered on the Rose Canyon or Coronado Band faults on May 27, 1862, and a magnitude 5.4 earthquake centered off the coast of Oceanside on the Coronado Bank Fault on July 13, 1986. The geographic extent of this hazard is citywide. A greater percentage of the city's population is potentially exposed to this hazard relative to other hazards, and potential losses from an earthquake would be comparatively larger in most cases.

The Rose Canyon Fault lies offshore (2.5 miles west of the city at its closest point) and is capable of generating a magnitude 6.2 to 7.2 earthquake that could potentially damage dwellings and infrastructure throughout the city. A magnitude 6.9 earthquake on the Rose Canyon Fault could potentially result in a peak ground acceleration of .40 within downtown Encinitas and the Coast Highway 101 corridor. These areas of the city are more likely to suffer heavier damage and greater human losses than other parts of the city because of the presence of older buildings (including 19 unreinforced masonry buildings and 27 two-story, multi-unit buildings constructed prior to 1976), a relatively higher population density and softer soils susceptible to liquefaction, lurch cracking, lateral spreading and local subsidence.

- **Wildfire**: A significant number of Encinitas residents live within the wildland-urban interface. The geographic extent of this hazard includes the following areas of the city, for the most part: 1) Saxony Canyon; 2) South El Camino Real/Crest Drive; and 3) Olivenhain. Properties in these and other smaller areas are susceptible to wildfire because they are situated near open space and canyons containing heavy fuel loads. Reoccurring periods of low precipitation have increased the risk of wildfires in the region. A greater percentage of the population is potentially exposed to wildfires and potential losses from this hazard are comparatively larger than those associated with a dam failure, flooding, coastal bluff failures or hazardous materials incidents. Recent wildfire events in Encinitas include the Harmony Grove Fire in 1996, which resulted in the loss of three homes and evacuation and sheltering of hundreds of residents.

- **Dam Failure**: Geologists estimate that a magnitude 7.5 earthquake from the Elsinore Fault 11 miles east of Lake Wohlford could result in a failure of its hydraulic fill dam. The geographic extent of this hazard is limited to the persons and properties within the inundation path surrounding Escondido Creek and San Elijo Lagoon. The dam inundation path is larger than the Escondido Creek 100-year floodway and a greater number of persons and properties are exposed to this hazard compared to coastal bluff failures and flooding. Major arterials within the inundation path include El Camino Del Norte, Rancho Santa Fe Road, Manchester Avenue and Coast Highway 101. The failure of Wohlford Dam (1895) and Dixon Reservoir Dam (1970) could possibly threaten city facilities and infrastructure (including the San Elijo Water Reclamation Facility, Cardiff and Olivenhain sewer pump stations and the San Dieguito Water District 36" high pressure supply line) and educational facilities (Mira Costa College) located in and adjacent to the inundation path. Although exposure to loss of property is significant, the potential for loss of life is limited because of the length of time before flood wave arrival (approximately 1 ½ hours) allowing for aggressive warning and evacuation measures to be initiated by the city.

  The Olivenhain Dam (2003) is a concrete gravity dam located on a tributary of Escondido Creek, just west of Lake Hodges, holding 24,000 acre feet. Stanley Mahr Reservoir (1981) is a small, earth filled embankment dam located on a tributary of Encinitas Creek in San Marcos with a capacity of approximately 200 acre feet. A failure of Mahr Reservoir in Carlsbad would produce flooding along Encinitas Creek (which flows into Batiquitos Lagoon) in the northern portion of the city. Emergency Action Plans have been developed for these dams. The risk of failure of both dams in relatively low due to their age and construction and existing surveillance and inspection measures.

- **Coastal Bluff Failures**: Geographic extent of the hazard is limited primarily to the Encinitas coastal sandstone bluffs. After the El Nino storms of 1982-1983, Encinitas beaches were stripped of vertical sand up to 20 feet deep putting the coastal bluffs and homes in jeopardy of collapsing into the sea. Furthermore, the shoreline segments at Moonlight Beach and Cardiff-by-the-Sea are extremely vulnerable to coastal inundation from potential future sea level rise.

In 2000, unstable cliffs at Beacon's Beach in Encinitas caused a landslide that killed a woman sitting on the beach. The recreational bicycle path along the seaside of Highway 101 was undermined in 2010.

Erosion studies have been conducted for Encinitas, Solana Beach and Del Mar. Various degrees of coastal bluff erosion occur annually and coastal bluff failures have resulted in limited loss of life. As a result, negotiations with the California Coastal Commission are underway to develop a comprehensive coastal bluff policy towards coastal bluff top development. A smaller percentage of the population is exposed to this hazard relative to earthquakes, wildfires and dam failures and the potential for losses is comparatively less.

- **Flooding**: The geographic extent of this hazard is limited to 1) Encinitas coastline, particularly "Restaurant Row" in Cardiff (south of San Elijo State Beach Campgrounds); 2) Escondido, Encinitas and Cottonwood Creeks; and 3) low-lying areas of Leucadia and Old Encinitas. The city has experienced some property-related losses resulting from localized flooding in Leucadia and coastal flooding in Cardiff, but not loss of life. Winter storms in 1997, 2005-2006 and 2010-2011 resulted in significant damage and required emergency protective measures, debris removal and reconstruction of infrastructure. The associated recovery costs (FEMA public assistance) for the 2005-06 event was over $500,000.

- **Hazardous Materials**: One major freeway (Interstate 5), one railway and a major liquefied petroleum transmission pipeline pass through the community. This hazard is addressed in Attachment A.

1.1.1 Capabilities Assessment

The LPG 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 Encinitas' fiscal capabilities that may be applicable to providing financial resources to implement identified mitigation action items.

1.1.2 Existing Institutions, Plans, Policies and Ordinances

The following is a summary of existing departments in Encinitas 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. Existing policies and procedures are reviewed and revised periodically. The administrative and technical capabilities of Encinitas, as shown in Table 5.8-2, 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.

Table 5.8-2
City of Encinitas: Administrative and Technical Capacity

Staff/Personnel Resources	Y/N	Department/Agency and Position
A. Planner(s) or engineer(s) with knowledge of land development and land management practices	Y	Planning & Building, Public Works (Engineering)
B. Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Planning & Building, Public Works (Engineering) and Fire (Prevention)
C. Planners or Engineer(s) with an understanding of natural and/or manmade hazards	Y	Planning & Building, Public Works (Engineering)
D. Floodplain manager	Y	Public Works (Engineering)
E. Surveyors	N	Contracted through Public Works (Engineering) on a as needed basis
F. Staff with education or expertise to assess the community's vulnerability to hazards	Y	Fire Department, Public Works (Engineering) and Planning & Building
G. Personnel skilled in GIS and/or HAZUS	Y	GIS Division, Planning & Building
H. Scientists familiar with the hazards of the community	N	Contracted as needed
I. Emergency manager	Y	Fire Department
J. Grant writers	Y	All City Departments

The legal and regulatory capabilities of Encinitas are shown in Table 5.8-3, which presents the existing ordinances and codes that affect the physical or built environment of Encinitas. Examples of legal and/or regulatory capabilities can include: the City's building codes, zoning ordinances, subdivision ordnances, special purpose ordinances, growth management ordinances, site plan review, general plans, capital improvement plans, economic development plans, emergency response plans, and real estate disclosure plans.

Table 5.8-3
City of Encinitas: Legal and Regulatory Capability

Regulatory Tools (ordinances, codes, plans)	Local Authority (Y/N)	Does State Prohibit? (Y/N)
Building code and Uniform Fire Code	Y	N
International Wildland Urban Interface Code	Y	N
Zoning ordinance	Y	N
Subdivision ordinance or regulations	Y	N
Special purpose ordinances (floodplain management, storm water management, hillside or steep slope ordinances, grading, wildfire ordinances, hazard setback requirements, water conservation, clean water/NPDES)	Y	N

Growth management ordinances (also called "smart growth" or anti-sprawl programs)	Y	N
Site plan review requirements	Y	N
Land use overlay zones (Floodplain, Hillside/Inland and Coastal Bluff)	Y	N
General or comprehensive plan	Y	N
Local Coastal Program	Y	N
A capital improvements plan	Y	N
An economic development plan / strategy	Y	N
An emergency response plan	Y	N
A post-disaster recovery plan	N	N
A post-disaster recovery ordinance	N	N
Real estate disclosure requirements (required by CA state law)	N	N

1.1.3 Fiscal Resources

Table 5.8-4 shows specific financial and budgetary tools available to Encinitas such as community development block grants; capital improvements project funding; authority to levy taxes for specific purposes; fees for water, sewer, gas, or electric services; impact fees for homebuyers or developers for new development; ability to incur debt through general obligations bonds; and withholding spending in hazard-prone areas.

Table 5.8-4
City of Encinitas: Fiscal Capability

Financial Resources	Accessible or Eligible to Use (Yes/No)
A. Community Development Block Grants (CDBG)	Yes
B. Capital improvements project funding	Yes
C. Authority to levy taxes for specific purposes	Yes - Vote required
D. Fees for water, sewer, gas, or electric service	Yes
E. Impact fees for homebuyers or developers for new developments/homes	Yes
F. Incur debt through general obligation bonds	Yes
G. Incur debt through special tax and revenue bonds	Yes - Vote required
H. Incur debt through private activity bonds	Yes
I. Withhold spending in hazard-prone areas	Yes
J. State and Federal grants for post disaster mitigation	Yes

1.1.4 Goals, Objectives and Actions

Listed below are Encinitas' specific hazard mitigation goals, objectives and related potential actions. For each goal, one or more objectives have been identified that provide strategies to attain the goal. Where appropriate, the City has identified a range of specific actions to achieve the objective and goal.

The goals and objectives were developed by considering the risk assessment findings, localized hazard identification and loss/exposure estimates, and an analysis of the jurisdiction's current capabilities assessment. These preliminary goals, objectives and actions were developed to represent a vision of long-term hazard reduction or enhancement of capabilities. To help in further development of these goals and objectives, the LPG compiled and reviewed current jurisdictional sources including the City's planning documents, codes, and ordinances. In addition, City representatives met with consultant staff and/or OES to specifically discuss these hazard-related goals, objectives and actions as they related to the overall Plan. Representatives of numerous City departments involved in hazard mitigation planning provided input to the Encinitas LPG. The San Dieguito Water District is a subsidiary district to the City of Encinitas and its goals, objectives and actions are included in this document. The Encinitas LPG members were:

- Wendy Flynn, GIS Supervisor / Project Manager, GIS Division
- Tom Gallup, Senior Management Analyst, Fire Department **(no longer with Department)**
- Corina Jimenez, Senior Management Analyst, Fire Department **(added in 2017)**
- Kipp Hefner, Associate Engineer, Development Services Department **(no longer with City)**
- Matt Widelski, Engineer II, Development Services Department **(added in 2017)**
- Blair Knoll, Senior Engineer, San Dieguito Water District
- Bob McSeveney, Senior Management Analyst, City Manager's Office
- Steve Nowak, Associate Engineer, Development Services Department
- Anita Pupping, Fire Marshal, Fire Department
- Michael Strong, Associate Planner, Development Services Department **(no longer with City)**
- Laurie Winters, Planer IV, Development Services Department **(added in 2017)**
- Christy Villa, Associate Engineer, Development Services Department **(no longer with City)**
- Scott Vurbeff, Environmental Project Manager, Development Services Department
- Katherine Weldon, Program Administrator, City Manager's Office
- Bryce Wilson, Senior Management Analyst, Public Works Department

Once developed, City staff submitted the plan to the State of California and FEMA. Once FEMA has approved the plan it will be taken the Encinitas City Council for adoption.

A public survey was posted on all participating agencies websites from March through July 2014. Over 500 responses were received. The survey results are in Appendix E. An email address was provided for the public to send comments and suggestions to. This email address was checked daily for public input.

The following sections present the hazard-related goals, objectives and actions as prepared by Encinitas' LPG in conjunction with the Hazard Mitigation Working Group, locally elected officials, and local citizens.

The San Dieguito Water District is a subsidiary district of the City of Encinitas. The Olivenhain Municipal Water District, Santa Fe Irrigation District and North County Transit District have adopted Local Multi-hazard Mitigation Plans. The goals, objectives and action items identified in the City of Encinitas' plan compliment and support those identified our partner agencies' plans.

References

In addition to the references listed in Section 7, the Encinitas LPG relied on studies and documents specifically produced for the City of Encinitas. Also, referenced are City Council resolutions adopting previous versions of the Multi-Jurisdictional Hazard Mitigation Plan:

Solana Beach-Encinitas Shoreline Study, U.S. Army Corps of Engineers, December 2012

Highway 101 Bridge over the San Elijo Lagoon (57C-210) Seismic Vulnerability Study Report, Ty Lin International, November 4, 2011

City of Encinitas Resolution 2011-19, Approving Revisions to the Multi-Jurisdictional Hazard Mitigation Plan, April 13, 2011.

Encinitas Fire Department Wildfire Hazard Reduction Project, Dudek & Associates Inc., December 2005

Addendum to Hydrologic and Hydraulic Study for Leucadia Drainage Improvement Alternatives, Rick Engineering Company, January 28, 2005
City of Encinitas Resolution 2004-20, Approving the San Diego County Multi-Jurisdictional Hazard Mitigation Plan and Implementing the Recommended Actions Assigned in the Plan for the City of Encinitas, April 14, 2004.

Hazard Analysis of the City of Encinitas Transmission Pipelines, ABSG Consulting Inc., July 2003.

Beach Bluff Erosion Technical Report, Zeisler Kling Consultants, Inc., November 24, 1993

City of Encinitas Unreinforced Masonry Building Survey and Report, EQE Engineering and Design, January 24, 1991

1.1.4.1 Goals

The City of Encinitas has developed the following 10 Goals for their Hazard Mitigation Plan

Goal 1. Promote disaster-resistant existing and future development.

Goal 2. Minimize losses by providing for the prompt resumption of city operations and restoration of city services after a disaster (post-disaster mitigation).

Goal 3. Improve hazard mitigation coordination and communication with federal, state, local, and tribal governments.

"Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to":

Goal 4. Geologic Hazards, including Earthquake, Liquefaction and Landslides

Goal 5. Structural Fires/Wildfires

Goal 6. Flooding/Dam Failure

Goal 7. Coastal Erosion and Bluff Failure/Storm Surge/Tsunami/Sea Level Rise

Goal 8. Severe Weather, including Extreme Heat

Goal 9. Drought

Goal 10. Other Manmade Hazards (See Attachment A)

1.1.4.2 Objectives and Actions

The City of Encinitas developed the following broad list of objectives and actions to assist in the implementation of each of their 10 identified goals. The City of Encinitas developed objectives to assist in achieving their hazard mitigation goals. For each of these objectives, specific actions were developed that would assist in their implementation. A discussion of the prioritization and implementation of the action items is provided in Section 5.8.5.

Goal 1: Promote disaster resistant existing and future development.		**New, Existing or Both**
Objective 1.A: Encourage and facilitate the continuous review and updating of general plans and zoning ordinances to limit development in hazard areas.		
Action 1.A.1	Continue to rely on the Floodplain, Coastal Bluff and Hillside/Inland Bluff Overlay Zones to prevent future development or redevelopment that will represent a hazard to its owners or occupants, and which may require structural measures to prevent destruction erosion or collapse.	NEW
Action 1.A.2	Continue to establish and implement standards based on the 50- and 100-year storm, for flood control drainage improvements and the maintenance of such improvements, designed to assure adequate public safety.	BOTH
Action 1.A.3	Continue to evaluate the effectiveness of the goals that have been developed in the City's Public Safety Element that minimize the risks associated with natural and man-made hazards.	NEW
Action 1.A.4	Prohibit development or filling within any 100-year floodplain, except as provided in Public Safety Policy 1.1.	NEW
Action 1.A.5	Require and maintain setbacks, easements, and accesses that are necessary to assure that emergency services can function with available equipment.	BOTH
Action 1.A.6	Ensure construction standards reduce structural susceptibility and increase protection in areas identified as susceptible to brush or wildfire hazard,	NEW
Action 1.A.7	Periodically evaluate and update the City's General Plan to ensure compliance with California Government Code section 65302.6 (AB 2140).	N/A
Objective 1.B: Encourage and facilitate the adoption of <u>building codes</u> and <u>construction requirements</u> that protect renovated existing assets and new development in hazard areas.		
Action 1.B.1	Observe and apply measures to reduce seismic structural risk through building and construction codes.	NEW

Goal 1: Promote disaster resistant existing and future development.		**New, Existing or Both**
Action 1.B.2	New residential and commercial construction shall provide for smoke detector and automatic fire sprinkler systems to reduce the impact of development on fire suppression and EMS service levels.	NEW
Action 1.B.3	The roof covering any structure regulated by the municipal code shall be a roof classification no less than a Class A Roof-Covering.	BOTH
Action 1.B.4	Require exterior wall surfacing materials be made of non-combustible materials.	BOTH
Action 1.B.5	Require underground electrical infrastructure for new development.	NEW
Action 1.B.6	Require a minimum flow of water for fire protection.	NEW
Objective 1.C: Encourage consistent <u>enforcement</u> of general plans, zoning ordinances, and building codes.		
Action 1.C.1	Enforce the policies of the Public Safety Element of the City's General Plan, which identifies the hazards faced by the City and the appropriate actions and responses needed to be taken by City departments and staff.	BOTH
Action 1.C.2	Continue to authorize city officials to issue citations where compliance cannot be gained through traditional means, such as written notification.	BOTH
Action 1.C.3	Continue to authorize city officials to place liens on properties that do not comply with City's weed abatement ordinance.	BOTH
Action 1.C.4	Continue to provide a building inspection and code enforcement program to ensure compliance with codes and ordinances.	BOTH
Objective 1.D: Discourage future development that <u>exacerbates</u> hazardous conditions and protect and restore natural buffers.		
Action 1.D.1	Maintain prohibition of development and grading or filling in drainage courses, floodways and floodplains, except as provided by Land Use Element Policy 8.2. When flood/drainage improvements are warranted, require developers to mitigate flood hazards in those areas identified as being subject to periodic flooding prior to actual development.	NEW
Action 1.D.2	Continue to rely on the Floodplain, Coastal Bluff and Hillside/Inland Bluff Overlay Zones to prevent future development or redevelopment that will represent a hazard to its owners or occupants, and which may require structural measures to prevent destruction, erosion or collapse.	NEW
Action 1.D.3	Continue to evaluate and update City's Open Space Management Plan that preserves environmentally significant portions of parcels and acquires areas for conservation or public parkland and continue participation in the North County Multiple Habitat Conservation Program.	NEW
Action 1.D.4	Continue to require an Environmental Impact Report to identify degrees of risk, when necessary.	NEW
Action 1.D.5	Continue to require setbacks from delineated hazard areas (i.e., shoreline, wetlands, steep slopes).	BOTH

Goal 1: Promote disaster resistant existing and future development.		**New, Existing or Both**
Action 1.D.6	Continue to require easements to prevent development in known hazard areas.	BOTH
Action 1.D.7	Continue to require that development projects comply with the California Environmental Quality Act (CEQA) and other environmental review standards.	NEW
Action 1.D.8	Continue to incorporate proper species selection, planting and maintenance practices at city facilities and for consideration in the development of landscape ordinances.	BOTH
Objective 1.E: In coordination with federal, state and county agencies, continue to utilize emerging technologies and share available data to evaluate risks and provide better information about hazards.		
Action 1.E.1	Utilize updated Fire Hazard Severity Zone map as part of periodic amendments to Encinitas Municipal Code Chapter 10.04.010 (California Fire Code).	N/A
Action 1.E.2	Continue to obtain local data including parcel-specific data, building footprints, critical facility locations and other information for use in risk analysis and possible incorporation in future EnerGov platform.	N/A
Action 1.E.3	Require engineering studies to evaluate specific hazards in hazard prone areas and identify alternative site design criteria to mitigate hazards to the maximum extent possible, as funding permits.	BOTH
Action 1.E.4	Update databases/Geographic Information System (GIS), with particular attention to maintaining hazard overlay layers and mapping risk for various hazards and require electronic submittals of plans.	N/A
Action 1.E.5	Ensure aerial photography is kept current.	N/A
Action 1.E.6	Participate in the San Diego Regional Public Safety Geodatabase project which provides a central repository of Public Safety GIS information and a model framework for consolidation of disparate data from regional agencies.	N/A
Action 1.E.7	Further develop database of contaminated soils within the city.	N/A
Action 1.E.8	Utilize modeling tools to evaluate impacts of potential sea level rise.	N/A
Action 1.E.9	Support State of California's efforts for mapping of hazards, including seismic, wildfire and tsunami run-up.	N/A
Objective 1.F: Address future conditions resulting from climate change and mitigate future environmental impacts through adaptation strategies and sustainability efforts.		
Action 1.F.1	Continue to implement the Climate Action Plan that addresses AB32 and SB375 (City Council Resolution 2011-11) and conduct updates and revisions, as necessary.	N/A
Action 1.F.2	Continue to promote sound environmental management practices throughout all city departments and services through an annual review and update of the Environmental Action Plan. (Council Policy C025).	N/A

Goal 1: Promote disaster resistant existing and future development.		**New, Existing or Both**
Action 1.F.3	Continue to provide incentives that enable homeowners and commercial-property owners to pay off energy- and water-efficiency improvements through their property tax bill, as part of the HERO Property Assessed Clean Energy (PACE) Program.	BOTH
Action 1.F.4	Consider options that mandate certain energy efficient construction standards for new construction as well as options that incentivize the retrofit of existing structures ("Green Building Codes").	BOTH
Action 1.F.5	Evaluate the applicability of converting the City's fleet to alternative fuels.	N/A
Objective 1.G: Develop strategies for minimizing health and safety risks to residents.		
Action 1.G.1	Continue to participate in the Live Well San Diego partnership.	N/A
Action 1.G.2	Continue participation in Safe Routes to School program, in partnership with state and federal agencies.	N/A
Action 1.G.3	Develop strategies to meet the needs of increasing senior-aged population.	N/A
Action 1.G.4	Work with Senior Commission and local care facilities to educate Encinitas seniors and providers about the benefits of mitigation practices.	N/A

Goal 2: Minimize losses by providing for the prompt resumption of city operations and restoration of city services after a disaster (post-disaster mitigation).		**New, Existing or Both**
Objective 2.A: Prepare plans and identify resources that facilitate recovery from disasters		
Action 2.A.1	Prepare a Debris Management Plan.	N/A
Action 2.A.2	Ensure city facilities are equipped with alternative emergency power sources and replace the emergency standby generator at the Encinitas Civic Center with new generator with greater capacity.	BOTH
Action 2.A.3	Ensure redundancy in the data network serving city facilities and provide necessary alternate telecommunications capabilities.	BOTH
Action 2.A.4	Continue to utilize Supervisory Control and Data Acquisition (SCADA) systems to minimize interruptions in water service delivery.	N/A
Action 2.A.5	Assist Santa Fe Irrigation District (SFID) in securing regional grant funds to configure the San Dieguito Reservoir Pump Station with a permanent back-up power supply.	EXISTING

Goal 3: Improve hazard mitigation coordination and communication with federal, state, local, and tribal governments.		
Objective 3.A: Establish and maintain close working relationships with state agencies, local, and tribal governments.		
Action 3.A.1	Maintain partnerships in mitigation and disaster planning	BOTH

Goal 3: Improve hazard mitigation coordination and communication with federal, state, local, and tribal governments.		
Action 3.A.2	Explore opportunities for additional funding through cooperative efforts	BOTH
Objective 3.B: Improve the City's capability and efficiency at administering pre- and post-disaster mitigation.		
Action 3.B.1	Find additional emergency management training opportunities for staff	N/A
Action 3.B.2	Continue participation in the regional training and exercise program	N/A
Action 3.B.3	Make this institutional for the staff	N/A
Action 3.B.4	Train multiple staff members for each position in the EOC to ensure adequate staffing levels	N/A

Goal 4: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure and City-owned facilities, due to <u>geologic hazards, including earthquake, liquefaction and landslides</u>.		**New, Existing or Both**
Objective 4.A: Develop a comprehensive approach to <u>reducing the possibility of damage and losses</u> due to geologic hazards, including earthquake, liquefaction and landslides.		
Action 4.A.1	Encourage property owners to voluntarily upgrade buildings to provide acceptable performance during an earthquake.	EXISTING
Action 4.A.2	Continue to conduct routine seismic safety surveys/assessments of city facilities to ensure that heavy furniture and equipment are properly secured.	EXISTING
Action 4.A.3	Working with Downtown Encinitas Mainstreet Association (DEMA) representatives, educate business owners about potential safety risks of unreinforced masonry buildings and identify existing low cost options to retrofit unreinforced masonry buildings, such as tax credits and tax preference incentives available for the rehabilitation of historic buildings, such as La Paloma Theater.	EXISTING
Action 4.A.4	Contingent on funding from San Diego Gas and Electric, continue to underground existing overhead electrical lines, including portions of Santa Fe Drive and Birmingham Drive.	EXISTING
Action 4.A.5	Consider bracing water heaters, if necessary, in conjunction with the Fire Department's smoke detector installation program for seniors and those with special needs.	EXISTING
Objective 4.B: <u>Protect existing assets</u> with the highest relative vulnerability to the effects of geologic hazards, including earthquake, liquefaction and landslides.		
Action 4.B.1	As funding permits, seismically upgrade (retrofit) or reconstruct Fire Station #1 (originally constructed in 1957) to meet existing building codes.	EXISTING
Action 4.B.2	Rebuild Moonlight Beach Lifeguard Tower to meet existing building codes.	EXISTING
Action 4.B.3	As funding permits, replace South Coast Highway 101 bridge (constructed in 1932).	EXISTING

Goal 4: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure and City-owned facilities, due to <u>geologic hazards, including earthquake, liquefaction and landslides</u>.		**New, Existing or Both**
Action 4.B.4	Support phased implementation of seismic upgrades recommended by Carollo Engineers to the San Elijo Water Reclamation Facility, as funding permits.	EXISTING
Action 4.B.5	Continue to train staff on using rapid visual screening to quickly inspect city facilities and identify damage or potential seismic structural and non-structural weaknesses.	N/A
Objective 4.C: Coordinate with and support existing efforts by federal, state, local governments, utility providers and other organizations to mitigate geologic hazards, including earthquake, liquefaction and landslides.		
Action 4.C.1	Support the replacement of freeway bridge supports at La Costa Ave., Encinitas Blvd., Santa Fe Dr. and Mackinnon Avenue with new supports that meet current seismic standards as part of Caltrans future Interstate 5 widening project.	BOTH
Action 4.C.2	Support the replacement, repair or retrofitting of the 70 year old ballasted deck, pile trestle type (BDPT) rail bridges in Encinitas by the North County Transit District, as funding becomes available.	EXISTING
Action 4.C.3	Continue to support earthquake mitigation efforts by Scripps Memorial Hospital as part of its expansion.	BOTH
Action 4.C.4	Encourage federal and state government to provide economic incentives for Encinitas property owners to retrofit unreinforced masonry buildings.	EXISTING
Action 4.C.5	Support efforts by the Encinitas Union School District, Cardiff Elementary School District and San Dieguito Union High School District to evaluate the seismic risk to schools within Encinitas and implement mitigation measures, if necessary.	EXISTING
Action 4.C.6	Encourage utility companies to evaluate the seismic risk to their high-pressure transmission pipelines and encourage the development of a risk reduction strategy and the implementation of mitigation measures, such as automatic shut off valves, if necessary.	EXISTING
Action 4.C.7	Support regional efforts by water agencies to ensure the delivery of water through the use of emergency interconnections and redundancies throughout their delivery systems.	BOTH
Objective 4.D: <u>Educate citizens</u> about seismic risks, the potential impacts of geologic hazards, including earthquake, liquefaction and landslides, and opportunities for mitigation actions.		
Action 4.D.1	Educate Encinitas business owners about the benefit of retrofitting buildings for improved seismic performance, as well as the possibility of reduced insurance premiums and provide them with loss prevention strategies.	N/A

Goal 4: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure and City-owned facilities, due to <u>geologic hazards, including earthquake, liquefaction and landslides</u>.		**New, Existing or Both**
Action 4.D.2	Continue to develop and provide managers of mobile home parks and owners of multi-unit buildings with earthquake mitigation and safety information, including how to improve the seismic performance of mobile homes and buildings.	N/A
Action 4.D.3	Continue to maintain the Community Emergency Response Team (CERT) program as a means for mitigating hazards in neighborhoods, which includes educating neighborhood teams on safety techniques to follow during and after an earthquake (such as shutting off residential gas valves).	N/A
Action 4.D.4	Increase awareness among at-risk and special needs populations of emerging earthquake mitigation technologies, including early warning systems.	N/A
Action 4.D.5	Continue to promote CalOES "My Hazards" interactive web site.	N/A

Goal 5: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure and City-owned facilities, due to <u>wildfires/structural fires</u>.		**New, Existing or Both**
Objective 5.A: Develop a comprehensive approach to reducing the possibility of damage and losses due to wildfires/structural fires.		
Action 5.A.1	Continue to enforce the City's weed abatement policy.	BOTH
Action 5.A.2	Continue to conduct fire safety inspections to reduce the risk of wildfire/structural fire.	BOTH
Action 5.A.3	Continue to encourage existing property owners without fire suppression ("sprinkler") systems or a class A rated roof covering to voluntarily install them.	EXISTING
Action 5.A.4	Evaluate existing emergency resources (i.e. brush trucks, water tenders) and, if necessary and funding is available, purchase additional resources.	N/A
Action 5.A.5	Continue to offer fire extinguisher training to City employees and staff and community organizations upon request.	N/A
Action 5.A.6	Update the San Dieguito Water District Master Plan with particular attention to fire system upgrades (i.e. hydrants adequately spaced, sufficient water flow).	N/A
Action 5.A.7	Work with Olivenhain Municipal Water District, Rancho Santa Fe Fire Protection District and Elfin Forest/Harmony Grove Fire Department to secure grant funding to add additional hydrants in wildland urban interface areas.	NEW
Action 5.A.8	Pursue an Insurance Service Organization (ISO) rating of 2 or lower (current rating is 3).	N/A
Action 5.A.9	Complete installation of approximately 100 to 150 new fire hydrants in older areas of the city served by San Dieguito Water District to meet current hydrant spacing requirements (SDWD Master Plan project number HP-5).	NEW

Goal 5: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure and City-owned facilities, due to <u>wildfires/structural fires</u>.		**New, Existing or Both**
Action 5.A.10	Provide vegetation management recommendations to developments or homeowner associations bordering open space or in Very High Fire Hazard Severity Zones.	BOTH
Action 5.A.11	Participate in the upgrade of the regional 800 MHz radio system to improve communication and coordination among emergency responders. A coordinated response can reduce losses during the initial onset of a wildfire.	N/A
Action 5.A.12	Continue to provide for the coordinated delivery of fire protection services through boundary drop, automatic aid and mutual aid agreements with other agencies when appropriate.	BOTH
Objective 5.B: Protect existing assets with the highest relative vulnerability to the effects of wildfires/structural fires.		
Action 5.B.1	Continue to support efforts by the Santa Fe Irrigation District (SFID) to implement mitigation measures (i.e. landscape maintenance, weed abatement, brush removal) necessary to protect the R.E. Badger Filtration Plan, as funding becomes available.	EXISTING
Action 5.B.2	Continue to support efforts by the Olivenhain Municipal Water District (OMWD) to implement mitigation measures (i.e. landscape maintenance, weed abatement, brush removal) necessary to protect, as funding becomes available.	EXISTING
Objective 5.C: Coordinate with and support existing efforts by federal, state, local governments, utility providers and other organizations to mitigate wildfire/structural fire hazards.		
Action 5.C.1	Working with other agencies, support efforts to locate firefighting aircraft within San Diego County and use of military aerial support during wildfires.	N/A
Action 5.C.2	Continue to support the pre-positioning of SDG&E helicopter at Olivenhain helibase (southwest of Olivenhain Dam) during red-flag warnings.	N/A
Action 5.C.3	Support San Elijo Lagoon Conservancy and California Conservation Corps efforts to clear non-native vegetation and thin brush near Escondido Creek.	EXISTING
Action 5.C.4	Continue Fire Department's partnership with SDWD and OMWD to inspect and maintain fire hydrants.	EXISTING
Objective 5.D: Educate citizens about wildfire/structural fire risks, the potential impacts of wildfires/structural fires, their consequences and opportunities for mitigation actions.		
Action 5.D.1	Conduct annual workshops/seminars that educate residents about wildfire defensible space actions and make them aware of possible reductions in insurance premiums for implementing mitigate strategies. Incorporate Ready, Set, Go! program guidelines.	N/A
Action 5.D.2	Incorporate hazard mitigation education/training in routine inspections of businesses by engine companies and fire inspectors. Educate Encinitas business owners about the benefit of installing fire suppression systems in older buildings during inspections.	N/A

Goal 5: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure and City-owned facilities, due to <u>wildfires/structural fires</u>.		**New, Existing or Both**
Action 5.D.3	Continue to provide Community Emergency Response Team (CERT) training for volunteers to assist early notification and evacuation efforts in their neighborhoods, as well to extinguish small home fires.	N/A
Action 5.D.4	Maintain wildfire defensible space and landscaping exhibit at Sun Vista Park.	N/A
Action 5.D.5	Continue partnership with San Diego Botanical Gardens to promote wildfire defensible space exhibit.	N/A
Action 5.D.6	Continue Fire Department's smoke detector installation program in partnership with the Burn Institute to install smoke detectors for seniors and special needs population.	N/A
Action 5.D.7	Continue to promote CalOES "My Hazards" interactive web site.	N/A
Action 5.D.8	Promote Santa Ana Wildfire Threat Index to provide citizens with early warning of high risk conditions.	N/A

Goal 6: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to <u>flooding / dam failure</u>.		**New, Existing or Both**
Objective 6.A: Develop a comprehensive approach to reducing the possibility of damage and losses due to flooding / dam failure.		
Action 6.A.1	Establish and implement standards based on the 50- and 100-year storm, for flood control drainage improvements, and the maintenance of such improvement, designed to assure adequate public safety.	BOTH
Action 6.A.2	Adopt a master plan for drainage and flood control.	BOTH
Action 6.A.3	Continue to provide public support by maintaining pumping equipment and vacuum trucks and by providing supplies of sand and sandbags for residents.	N/A
Action 6.A.4	Continue to participate in the National Flood Insurance Program and requirement to review applications for conformance with NFIP standards.	BOTH
Action 6.A.5	Continue to improve road flooding problems by constructing permanent drainage structures as approved and funded in the City's Capital Improvement Program (CIP) budget.	EXISTING
Objective 6.B: Protect existing assets with the highest relative vulnerability to the effects of flooding / dam failure.		
Action 6.B.1	Implement comprehensive Leucadia Drainage Project (100 year storm drain system), as funding permits.	NEW
Action 6.B.2	Complete drainage improvements in conjunction with the Highway 101 streetscape project.	NEW
Action 6.B.3	Complete Encinitas Creek Channel Improvement project at Leucadia Blvd. and El Camino Real.	NEW

Goal 6: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to <u>flooding / dam failure</u>.		**New, Existing or Both**
Action 6.B.4	Improve drainage channel at Stratford Knoll and Lone Jack Rd.	EXISTING
Action 6.B.5	Complete Cottonwood Creek outfall replacement project.	NEW
Objective 6.C: Coordinate with and support existing efforts by federal, state, local governments, utility providers and other organizations to mitigate flooding / dam failures.		
Action 6.C.1	Continue to participate in Wohlford Dam failure tabletop and functional disaster exercises with City of Escondido.	N/A
Action 6.C.2	Ensure that City has adequate information from dam owners and California Dam and Safety Board so that areas subject to inundation can be identified.	N/A
Action 6.C.3	Working with County Office of Emergency Services, continue to maintain an early warning system to minimize/mitigate dam inundation hazards to critical facilities and vulnerable populations.	N/A
Action 6.C.4	Working with the U.S. Army Corp of Engineers, continue developing a drainage maintenance program.	NEW
Action 6.C.5	Support multi-agency San Elijo Lagoon Restoration Project.	N/A
Action 6.C.6	Support efforts by the City of Escondido to secure mitigation funding (i.e. grants) from State and Federal government to strengthen Wohlford Dam.	EXISTING
Action 6.C.7	Encourage Mira Costa College to implement mitigation activities for dam failure / flooding (along Manchester Ave.), if necessary.	N/A
Action 6.C.8	Continue to coordinate with the Vallecitos Water District to promote mitigation measures that protect residents downstream from Stanley Mahr Reservoir.	N/A
Action 6.C.9	Continue to coordinate with the San Diego County Water Authority to promote mitigation measures that protect Encinitas residents downstream from Olivenhain Dam.	N/A
Action 6.C.10	Support efforts by the San Elijo JPA to evaluate need for a secondary emergency access road in the event flooding blocks entrance/exit to the reclamation facility off Manchester Ave.	NEW
Objective 6.D: Educate citizens about flooding / dam failure risk, the potential impacts of flooding / dam failure and opportunities for mitigation actions.		
Action 6.D.1	Promote the FloodSmart.gov and CalOES's "My Hazards" interactive web site to provide residents with recommended flood mitigation actions.	N/A

Goal 7: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to <u>coastal erosion / coastal bluff failure / storm surge / tsunami / sea-level rise</u>.		**New, Existing or Both**
Objective 7.A: Develop a comprehensive approach to reducing the possibility of damage and losses due to coastal erosion / coastal bluff failure / storm surge / tsunami / sea-level rise.		
Action 7.A.1	Continue to develop and adopt a comprehensive plan, based on the Beach Bluff Erosion Technical Report and U.S. Army Corps of Engineers shoreline study, to address the coastal bluff recession and shoreline erosion problems in the City.	BOTH
Action 7.A.2	Continue to support and encourage sand replenishment on Encinitas shoreline.	N/A
Action 7.A.3	Protect coastal bluffs by enforcing compliance with storm water run-off regulations and implementation of run-off infiltration and diversion measures that protect coastal bluffs.	BOTH
Action 7.A.4	Update the coastal hazard map and GIS database of all coastal data, including existing structures, infrastructure, location and size of bluff failures and sea walls throughout the city.	N/A
Action 7.A.5	Formulate an adaptive management plan that addresses the potential impacts of mean sea level rise for the coast that is technically feasible, environmentally sensitive, economically sustainable and politically realistic.	BOTH
Action 7.A.6	Continue to update and amend Local Coastal Plan, as necessary, and incorporate potential sea-level rise and coastal flooding impacts.	BOTH
Objective 7.B: Protect existing assets with the highest relative vulnerability to the effects of coastal erosion / coastal bluff failure / storm surge / tsunami / sea-level rise.		
Action 7.B.1	Develop a long-term plan to protect Highway 101 south of Chesterfield Ave. (including bridge), Manchester Ave. and sewer pump station from sea level rise, storm surge and coastal erosion.	BOTH
Action 7.B.2	Rebuild Moonlight Beach Lifeguard Tower to meet existing building codes.	EXISTING
Action 7.B.3	Add storm protection rip-rap on South Coast Highway 101 in Cardiff–by-the-Sea to protect east side of road (adjacent to San Elijo Lagoon).	EXISTING
Action 7.B.4	Implement mitigation measures to stabilize the bluff and protect Beacon's Beach public access, as funding permits.	EXISTING
Objective 7.C: Coordinate with and support existing efforts by federal, state, local governments, utility providers and other organizations to mitigate coastal erosion / coastal bluff failure / storm surge / tsunami / sea-level rise.		
Action 7.C.1	Coordinate with Army Corp of Engineers to implement a shoreline preservation strategy.	BOTH
Action 7.C.2	Continue to discuss tsunami mitigation strategies for San Elijo State Beach campground with State of California Department of Parks and Recreation and Sheriff's Department.	EXISTING

Goal 7: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to <u>coastal erosion / coastal bluff failure / storm surge / tsunami / sea-level rise</u>.		**New, Existing or Both**
Action 7.C.3	Working with U.S. Army Corps of Engineers, support the opening of the San Elijo Lagoon mouth as a means of mitigating floods.	EXISTING
Action 7.C.4	Support efforts by NCTD to replace, repair or retrofit rail bridge near San Elijo Lagoon, as identified in 2007 NCTD Hazard Mitigation Plan (pages 76-77), and evaluate need for elevation due to extreme high water.	EXISTING
Action 7.C.5	Ensure that City has adequate information so that areas subject to tsunami run-up can be identified.	EXISTING
Action 7.C.6	Identify Federal and State funding to minimize/mitigate hazards to critical facilities and vulnerable populations.	EXISTING
Action 7.C.7	Encourage improvements to NOAA tsunami early warning systems.	EXISTING
Action 7.C.8	Support regional efforts to model sea level rise, conduct vulnerability and risk assessments and develop adaptation plans that identify effective accommodation, protection, and retreat strategies.	BOTH
Objective 7.D: Educate citizens about the risks from coastal erosion / coastal bluff failure / storm surge / tsunami / sea-level rise, associated potential impacts, and opportunities for mitigation actions.		
Action 7.D.1	Provide information on coastal bluff failures and mitigation strategies on the city's web site and via social media applications.	N/A
Action 7.D.2	Continue to maintain tsunami and bluff failure warning signs, as a means to encourage mitigation measures and reduce potential loss of life and damage to property.	N/A

Goal 8: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to <u>severe weather, including extreme heat</u>.		**New, Existing or Both**
Objective 8.A: Develop a comprehensive approach to reducing the possibility of damage and losses due to severe weather, including extreme heat.		
Action 8.A.1	Continue to participate in the National Weather Service StormReady Program.	N/A
Action 8.A.2	Continue to participate in Tree City USA program, as a means to reduce urban heat island effect and cool the built environment by encouraging tree planting and preservation.	N/A
Action 8.A.3	Continue to utilize public facilities, including the Community Center and Library, as "cool zone" sites on days when weather conditions are excessively hot.	N/A
Objective 8.B: Protect existing assets with the highest relative vulnerability to the effects of severe weather, including extreme heat.		

Goal 8: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to <u>severe weather, including extreme heat</u>.		**New, Existing or Both**
Action 8.B.1	Ensure that city facilities are equipped with emergency standby generators.	EXISTING
Objective 8.C: Educate citizens about severe weather, including extreme heat, its potential impacts and opportunities for mitigation actions.		
Action 8.C.1	Working with the County, organize outreach to vulnerable populations, including promoting accessible cooling centers.	N/A
Action 8.C.2	Provide information on severe weather and mitigation strategies on the city's web site and via social media applications.	N/A
Action 8.C.3	Continue to maintain a database to track and notify vulnerable populations, including homebound residents and seniors, of severe weather events.	N/A

Goal 9: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to <u>drought</u>.		**New, Existing or Both**
Objective 9.A: Develop a comprehensive approach to reducing the possibility of damage and losses due to drought.		
Action 9.A.1	Continue to promote water conservation as a means to mitigate future drought conditions (Municipal Code 23.26), including criteria for drought-related actions and updating of SDWD Drought Response Plan.	N/A
Objective 9.B: Protect existing assets with the highest relative vulnerability to the effects of drought.		
Action 9.B.1	Continue the use of reclaimed water for landscaping at city parks and facilities, where available.	BOTH
Action 9.B.2	Implement water efficiency upgrades at municipal buildings, parks and publicly owned facilities.	BOTH
Action 9.B.3	Explore options of public outreach, including providing residents with resources for water efficient plumbing and landscaping.	N/A
Objective 9.C: Coordinate with and support existing efforts by federal, state, local governments, utility providers and other organizations to mitigate the effects of drought.		
Action 9.C.1	Support groundwater recycling efforts by San Elijo JPA.	BOTH
Action 9.C.2	Support regional efforts to diversify and improve water supply and delivery systems, including the construction of the Carlsbad desalination plant.	BOTH
Action 9.C.3	Support OMWD water conservation initiatives, including the use of mandatory water restrictions as part of its drought response plan, when necessary.	N/A
Action 9.C.4	Continue to coordinate with other agencies to improve water reuse as part of the North County Water Reuse Coalition.	N/A

Goal 9: Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City-owned facilities, due to <u>drought</u>.		**New, Existing or Both**
Action 9.C.5	Continue to work with State Water Resources Control Board, San Diego County Water Authority, Office of Emergency Services, SFID and OMWD to assess vulnerability to drought risk and monitor drought conditions.	N/A
Action 9.C.6	Support OMWDs efforts to extend recycled water to Village Park (through the conversion of Wiegand Tank) and possible conversion of Wankett Tank to recycled water tank as a regional project.	NEW
Action 9.C.7	Provide support for the implementation of ongoing Lake Hodges Water Quality Improvement Projects (Prop 84), which are important for improving the ability to transport local supplies in regional system.	NEW
Action 9.C.8	Remain informed of state legislation regarding drought and water conservation.	N/A
Objective 9.D: Educate citizens about drought, its potential impacts and opportunities for mitigation actions.		
Action 9.D.1	Continue to provide outreach materials to residences within the city for water conservation, in coordination with SFID and OMWD.	N/A
Action 9.D.2	Encourage residents to adopt drought tolerant landscaping or xeriscape practices to reduce dependence on irrigation.	N/A

1.1.5 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. This prioritized list of action items was formed by the LPG weighing STAPLEE criteria.

The 2010 Multi-Jurisdictional Hazard Mitigation Plan has not been incorporated into the City's General Plan as the last update was in 1995. The 2015 Plan will be incorporated in the City's next update to its General Plan.

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 10 prioritized mitigation actions for 2015-2020 as well as an implementation strategy for each are:

Priority Action #1: **Beacon's Beach Bluff Stabilization**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: General Fund and/or Grant Funding

Implementation Timeline: January 2015– 2020

Description: Over the years, Beacon's Beach bluff has been slowly eroding due to an unstable historic bluff landslide. Bluff erosion is also increasing due to storm and wave activity. A draft geotechnical feasibility study from URS was recently received for the project, which seeks to provide bluff stabilization, shoreline protection, and beach access.

Priority Action #2: **Highway 101 Bridge Replacement**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: General Fund and Federal Highway Bridge Replacement Grant Funds

Implementation Timeline: January 2015– 2020

Description: A Seismic Vulnerability Study has been completed. The report concluded that the bridge (constructed in 1932) is susceptible to failure/collapse during a significant seismic event or tidal influx due to strong storms.

Priority Action Item #3 **Coastal Storm Damage Reduction (Beach Nourishment)**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: Federal Grant

Implementation Timeline: October 2014 – December 2016

Description: The U.S. Army Corps of Engineers has partnered with the Cities of Encinitas and Solana Beach on a 50 year sand beach replenishment program intended to reduce the impacts of storm damage on the City's shoreline and bluff. Anticipated benefits include protection of public infrastructure (including Coast Highway 101) and privately owned structures, and a reduction in the risk of bluff failures, protecting public health and safety and restoring the shoreline.

Priority Action Item #4 **Moonlight Beach Marine Safety Center Reconstruction**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: General Fund

Implementation Timeline: January 2015– May 2017

Description: The existing lifeguard tower at Moonlight Beach was built around 1960. This project will replace the existing tower with a new facility that will meet current seismic safety codes and provide better protection from tsunamis.

Priority Action Item #5 **Cottonwood Creek Outfall Replacement**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: General Fund and/or Grant Funds

Implementation Timeline: January 2015– 2020

Description: The existing corrugated metal pipe arches are deteriorating and two reinforced concrete pipes are blocked, causing flooding. These storm drain pipes will be replaced.

Priority Action Item #6 **El Camino Real Channel Drainage Improvement**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: General Fund and Hazard Mitigation Grant Program Grant

Implementation Timeline: January 2015– 2020

Description: In 2005, heavy rains forced the closure of the intersection of El Camino Real at Leucadia Boulevard due to flooding. This project will provide creek restoration enhancements and necessary flood control protection (improved channel capacity) to reduce the potential for flooding and road closures at this heavily utilized intersection.

Priority Action Item #7 **Upgrade to Next Generation Regional Communications System (RCS)**

Coordinating Individual/Organization: City Manager's Office

Potential Funding Source: General Fund

Implementation Timeline: January 2016– January 2018

Description: The San Diego County–Imperial County RCS is an 800-MHz trunked, smart-zone system. It handles communications for 264 public safety agencies in both counties and is the daily operational system for some state and federal groups in the region. The RCS was placed in service in 1998 and is approaching the end of its useful life, after which the County will no longer be able to support and maintain the system. The Next Generation RCS will provide improved communication capabilities.

Priority Action #8 **Climate Action Plan Measure Review & Update**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: Grant Funding (SDG&E)

Implementation Timeline: October 2014– January 2016

Description: Encinitas' Climate Action Plan (CAP) serves as a guiding document and outlines a course of action for community and municipal operations to reduce greenhouse gas (GHG) emissions and the lessen the potential impacts of climate change within the jurisdiction. This project involves a GHG inventory update and development of recommended revisions to the CAP.

Priority Action Item #9 **Leucadia 100 Year Storm Drainage System Improvements**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: Grant Funding

Implementation Timeline: January 2015– 2020

Description: The coastal community of Leucadia has a chronic history of rainwater flooding. This occurs primarily in the vicinity of its main north-south routes, N. Coast Highway 101 and N. Vulcan Avenue. This long-term project is contingent on significant grant funding (due to its overall cost) and seeks to construct an underground storm drain system (using 3 phase conventional methods) along Highway 101 with the capacity to convey the peak flow rate from the 100 year frequency storm event.

Priority Action #10 **Cardiff-by-the-Sea Dune Restoration Project**

Coordinating Individual/Organization: Public Works Department

Potential Funding Source: Grant Funding

Implementation Timeline: March 2015– 2017

Description: Construct a dune system fronting Coast Highway 101 to reduce the vulnerability of coastal infrastructure and natural resources in the region. Coastal dune systems provide multiple benefits in that they provide valuable habitat and coastal storm damage reduction during extreme events.