

**Multi-Jurisdictional
Hazard Mitigation Plan:
Otay Water District Annex**

San Diego County, California

2023

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SECTION 1: Planning Area and Resources

1.1. Planning Area: Otay Water District

The Otay Water District (District) is a potable water, recycled water, and sewer services provider. The State Legislature authorized the establishment of the Otay Water District in 1956 as a California Special District under the provisions of the Municipal Water District Law of 1911, Division 20 (commencing with Section 71000) of the Water Code of the State of California. As a California Special District under the provisions of the Municipal Water District Law of 1911, Division 20 (commencing with Section 71000) of the Water Code of the State of California. Otay Water District is a "revenue neutral" public agency where each end-user pays only their fair share of the District's costs of acquiring, treating, transporting, or the operation and maintenance of the public water, recycled water, or sewer facilities.

The District provides safe, reliable water service to a population of more than 226,000 within approximately 125 square miles of southeastern San Diego County, including the communities of eastern Chula Vista, Bonita, Jamul, Spring Valley, Rancho San Diego, unincorporated areas of El Cajon and La Mesa, and eastern Otay Mesa along the international border with Mexico. The District's service area boundaries are nearly bounded on the northeast by the Padre Dam Municipal Water District, on the northwest by the Helix Water District, the west by the Sweetwater Authority/South Bay Irrigation District, and southwest by the City of San Diego. The southern boundary of the District is the international border with Mexico.

The District provides potable water service to residential, commercial, industrial, and agricultural customers, and for environmental and fire protection uses. The potable water delivered by the District is purchased from the San Diego County Water Authority or the Helix Water District. Imported water is a mix of waters from the Colorado River and Northern California. Most of the water is purchased from the region's primary importer, the Metropolitan Water District of Southern California.

The District owns and operates a wastewater collection system providing public sewer service to homes and businesses within the Jamacha drainage basin. The District also owns and operates the Ralph W. Chapman Water Reclamation Facility (RWCWRF), which produces up to 1.1 million gallons per day (MGD) of recycled water. The District has an additional recycled water source that can be purchased from the City of San Diego's South Bay Water Reclamation Plant (SBWRP). The District delivers recycled water to customers through a dedicated distribution system used to irrigate golf courses, playing fields, public parks, roadside landscapes, and open spaces in eastern Chula Vista.

1.2. Community Rating System Requirements

The Community Rating System (CRS) is a FEMA program that rewards communities 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.

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

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

- The risk assessment must assess each jurisdiction's risk, which 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))

SECTION 1 | Planning Area and Resources

- 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 seek plan approval. The San Diego County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) and annexes (Annex) meet all requirements.

SECTION 2: Planning Team

2.1 Planning Participants

In October 2021, the District expressed interest with the San Diego County Water Authority in developing its new plan through the County of San Diego's Multi-Jurisdictional Hazard Mitigation Plan Five-Year Update process. The District's hazard mitigation planning team was formed in November 2021. Representatives of the OWD attended regular planning meetings as indicated in the County's base plan.

In keeping with the recommended approaches by FEMA and the County of San Diego, the development of this Plan was overseen by the District's Hazard Mitigation Planning Team, made up of representatives from different departments in the District and other stakeholder agencies. The following members comprised the Planning Team:

- Adolfo Segura, OWD, Administrative Services
- Andrew Jackson, OWD, Water Operations
- Charles Mederos, OWD, Water Operations
- Dominique Fonseca, County of San Diego, Office of Emergency Services
- Eid, Fakhouri, OWD, Finance
- Eileen Salmeron, OWD, Communications
- Jake Vaclavek, OWD, Water Operations
- Joe Beachem, OWD, Finance
- Kent Payne, OWD, Administrative Services
- Kevin Koeppen, OWD, Finance
- Lisa Coburn-Boyd, OWD, Engineering
- Michael Kerr, OWD, Administrative Services
- Nicholas, Zubel, County of San Diego, Office of Emergency Services
- Rod Posada, OWD, Engineering
- Tenille Otero, OWD, Communications

2.2 Planning Process

The effort to develop the District's Annex and mitigation strategies was also accomplished through Microsoft Teams meetings, emails, and phone discussions. The District Planning Team members identified the Plan's objectives, discussed, and prioritized the relevant hazards to the District, conducted a review and incorporation of existing information, and prepared and reviewed mitigation strategies to address vulnerabilities.

Five formal meetings were held on the following dates:

SECTION 2 | Planning Team

- MJHMP Annex Meeting #1, November 10, 2021
- MJHMP Annex Meeting #2, December 8, 2021
- MJHMP Annex Meeting #3, January 27, 2021
- MJHMP Annex Meeting #4, February 8, 2022
- MJHMP Annex Meeting #5, April 19, 2022

The specific discussion topics are given in Table 1.5.

The information to create the District's Annex was collected by feedback from the staff who participated in the review and mitigation priority setting process. Subject matter experts (SMEs) reviewed the information and provided specific input on sections pertaining to their expertise.

Meeting	Meeting Date	Discussion Topics
Annex Meeting 1	November 10, 2021	Project goals and objectives, requirements for the Plan, structure, and function of the Planning Team, review, update, and incorporate existing data, public outreach strategies, critical facilities, and relevant hazards.
Annex Meeting 2	December 8, 2021	Details of each hazard (location and extent, past occurrences, risk of future events, and climate change considerations), hazard mapping, hazard prioritization.
Annex Meeting 3	January 27, 2022	The meeting focused on discussing hazard mitigation actions and determining potential relative cost, responsible department, and action priority.
Annex Meeting 4	February 8, 2022	Review final draft of mitigation action items.
Annex Meeting 5	April 19, 2022	Review the final draft of the Annex. Incorporate changes and finalize.

The Plan will be monitored over the next five years to ensure the project maintains alignment and coordination with other District internal objectives, including the Capital Improvement Plan, the Water Facilities Master Plan, the Integrated Resources Plan, OWD Strategic Plan, and other District Plan Documents.

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

SECTION 3: Outreach Strategy

See the *San Diego County Multi-Jurisdictional Hazard Mitigation Plan's* Section Three for details about the county-wide outreach strategy.

3.1 Existing Plans or Studies Reviewed

During the planning process, the Planning Team reviewed documents, emergency services documents, County and local plans, local codes and ordinances, and other similar documents. These included:

- **Various Local Codes and Ordinances**
- **[FEMA Local Mitigation Handbook March 2013](#)**
- **[FEMA Mitigation Ideas January 2013](#)**
- **[Local Mitigation Plan Review Tool](#)**
- **Otay Water District Urban Water Management Plan**
- **Otay Water District Water Facilities Master Plan 2015**
- **Otay Water District Water Shortage Contingency Plan**
- **Otay Water District's Emergency Response Plan**
- **Otay Water District AWIA Risk and Resiliency Assessment 2018**

SECTION 4: Community Capabilities

Local mitigation capabilities are existing authorities, policies, programs, and resources that reduce hazard impacts or could be used to implement hazard mitigation activities and must be included in a hazard mitigation plan by the planning team.

The Planning Team also may identify additional types of capabilities relevant to mitigation planning.

4.1 Capability Assessment

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

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

4.2 Planning and Regulatory

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of hazards. The District identified the programs within its jurisdiction which can be used to address risks, identify projects and used to implement mitigation actions:

Plans	Does the plan address hazards?	
	Yes/No Year	Does the Plan identify projects to include in the mitigation strategy? Can the Plan be used to implement mitigation actions?
Comprehensive/Master Plan	Yes	Yes. The Potable Plan identifies projects and can be used to implement mitigation action items.
Capital Improvements Plan	Yes	It identifies projects for mitigation and can be used to implement mitigation actions.
Economic Development Plan	N/A	
Local Emergency Operations Plan	Yes	Based on the AWIA Risk and Resiliency Assessment, the District updated its Emergency Response Plan (ERP), which can be used to implement mitigation actions.

SECTION 4 | Community Capabilities

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?
Continuity of Operations Plan	No	
Transportation Plan	N/A	
Stormwater Management Plan	Yes	The District follows the County's Stormwater Management Plan.
Community Wildfire Protection Plan	Yes	The District's ERP – specific hazard response plan for wildland fire can be used to implement mitigation action items.
M. Real estate disclosure requirements	N/A	
Other unique plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation)	N/A	

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

4.3 Administrative and Technical

Administrative and technical capabilities include staff and their skills and tools for mitigation planning and implementing specific mitigation actions. As a Special District, public resources in the City or County may provide technical assistance and also indicated below:

Administration	Yes/No	Describe capability. Is coordination effective?
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	The District has its own Engineering Department, which includes Water Resources, Planning, Design, Environmental, Public Services, Survey, Inspection and Recycled Water Program.
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	The District has its own Engineering Department, including Water Resources, Planning, Design, Environmental, Public Services, and Inspection.
Planners or Engineer(s) with an understanding of natural and/or manmade hazards	Yes	The District has its own Engineering Department, including Water Resources, Planning, Design, Environmental, Public Services, and Inspection.

SECTION 4 | Community Capabilities

Mitigation Planning Committee	Yes	Yes, through our Engineering Department with other Departments.
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	Yes	Our Facility Maintenance Operations coordinates mitigation actions with other Departments.
Mutual aid agreements	Yes.	This is coordinated through the General Manager's Office, District Departments, and three partnering water agencies.
Staff	Yes/No FT/PT1	Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
Chief Building Official	N/A	
Floodplain Administrator	N/A	
Emergency Manager	N/A	The Safety & Security Specialist coordinates internal staff collaboration with the SDCWA-Water Emergency Water Agency Collaborative Group, San Diego Chapter InfraGard, County of San Diego Office of Emergency Services.
Surveyors	Yes	Yes, through our Engineering Survey Group.
Staff with education or expertise to assess the community's vulnerability to hazards	Yes	Representatives from each operation participated in the AWIA Risk and Resilience Assessment.
Community Planner	N/A	
Scientists familiar with the hazards of the community	N/A	However, the District coordinates its staff with Cal Fire, the San Miguel Fire Department, and the City of Chula Vista Emergency Services.
Civil Engineer	Yes	Yes, internal staff regularly meet to discuss regulations, hazards, and mitigation actions during pre-design, planning, and construction meetings.
Personnel skilled in GIS and/or HAZUS	Yes	This is conducted through our GIS Group, including our GIS Manager.
Grant writers	No	However, the District retains contracted grant writers to apply for eligible grant funds.
Other		

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

SECTION 4 | Community Capabilities

4.4 Financial

The Planning Team has identified where the District has access to or is eligible to use the following funding resources for hazard mitigation:

Funding Resource	Access/ Eligibility (Yes/No)	Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions?
Community Development Block Grants (CDBG)	No	
Capital improvements project funding	Yes	It was used for infrastructure. It could be used to fund future mitigation actions.
Authority to levy taxes for specific purposes	Yes	It was used for infrastructure projects. It could be used to fund future mitigation actions.
Fees for water, sewer, gas, or electric service	Yes	It was used for infrastructure projects. It could be used to fund future mitigation actions.
Impact fees for homebuyers or developers for new developments/homes	Yes	It was used for infrastructure projects. It could be used to fund future mitigation actions.
Incur debt through general obligation bonds	Yes	It was used for infrastructure projects. It could be used to fund future mitigation actions.
Incur debt through special tax and revenue bonds	Yes	It was used for infrastructure projects. It could be used to fund future mitigation actions.
Incur debt through private activity bonds	No	
Community Development Block Grants (CDBG)	No	
Capital improvements project funding	Yes	It was used for infrastructure projects. It could be used to fund future mitigation actions.
Authority to levy taxes for specific purposes	Yes	It was used for infrastructure projects. It could be used to fund future mitigation actions.
How can these capabilities be expanded and improved to reduce risk?		
Mitigation grant funding can help the District expand and improve to reduce risks in our service areas.		

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

SECTION 4 | Community Capabilities

4.5 Education and Outreach

The Planning Team has identified education and outreach programs and methods already in place that could be used to implement mitigation activities, communicate hazard-related information and capabilities that can be expanded and improved to reduce risk:

Program/Organization	Yes/No	Describe the program/organization and how it 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, functional needs populations, etc.	Yes	The District's Communications staff works with citizen groups and non-profits; meets with the Chamber of Commerce and Community Planning Groups Yes.
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	Water Conservation Programs, Fire Scaping (Defensible space) to prevent wildfire hazards. Yes.
Natural disaster or safety-related school programs	Yes	The District collaborates with the City of Chula Vista Emergency Services Group, the County of San Diego, and other organizations/municipalities/special districts to supplement disaster preparedness information. The state requires the District to conduct water testing, for example, after an earthquake, during droughts, or to evaluate lead levels.
StormReady certification	N/A	
Firewise Communities certification	N/A	
Public-private partnership initiatives addressing disaster-related issues	Yes	Developers (Engineering, Public Services) irrigation meters must follow a process. Cell towers – lease space at reservoirs to AT&T, T-Mobile: creating a partnership in case of an emergency explore using these companies for assistance or communication/outreach. HOA meetings, SDG&E (PSPS)
Other		The District has crisis communication with response agencies such as Cal Fire. RAVE has been implemented to facilitate mass employee and public communication. Internal text capability for customers is facilitated by our Information Technology (IT) staff. Email and out dial (similar to reverse 911). It was also used during the COVID-19 pandemic event to provide water quality messaging. This was facilitated by our Customer Service, IT, and Communications staff.

SECTION 4 | Community Capabilities

How can these capabilities be expanded and improved to reduce risk?

Explore renewable energy equipment such as solar power. The District will continue to work with our energy provider and receive timely info regarding the Public Safety Power Shutoff (PSPS) to avoid significant disruption with customers' water service.

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

4.6 Safe Growth Audit

Various growth guidance instruments and improvement plans have been evaluated to reduce vulnerability to future development. As a Special District, public resources in the City or County may provide guidance and have been referenced below:

COMPREHENSIVE PLAN		
Land Use	Yes	No
1. Does the future land-use map clearly identify natural hazard areas?	N/A	
The District defers to the County of San Diego and City of Chula Vista's comprehensive plans as it falls in their jurisdictions.		
2. Do the land-use policies discourage development or redevelopment within natural hazard areas?	N/A	
3. Does the Plan provide adequate space for expected future growth in areas located outside natural hazard areas?	N/A	
Transportation	Yes	No
1. Does the transportation plan limit access to hazard areas?	N/A	
2. Is transportation policy used to guide growth to safe locations?	N/A	
3. Are movement systems designed to function under disaster conditions (e.g., evacuation)?	N/A	

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

SECTION 4 | Community Capabilities

COMPREHENSIVE PLAN (continued)		
Environmental Management	Yes	No
1. Are environmental systems that protect development from hazards identified and mapped?	X	
The District has an Engineering/Environmental Group which manages the plans. The District also defers to the County of San Diego and City of Chula Vista's environmental management plans when they fall in their jurisdictions.		
2. Do environmental policies maintain and restore protective ecosystems?	X	
3. Do environmental policies provide incentives to development located outside protective ecosystems?		X
Public Safety	Yes	No
1. Are the goals and policies of the comprehensive Plan related to those of the FEMA Local Hazard Mitigation Plan?	N/A	
The District does not have a public safety operation.		
2. Is safety explicitly included in the Plan's growth and development policies?	N/A	
3. Does the monitoring and implementation section of the Plan cover safe growth objectives?	N/A	

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

SECTION 4 | Community Capabilities

COMPREHENSIVE PLAN (continued)		
Zoning Ordinance	Yes	No
1. Does the zoning ordinance conform to the comprehensive Plan to discourage development or redevelopment within natural hazard areas?	N/A	
The District defers to the County of San Diego and the City of Chula Vista's zoning ordinance plans.		
2. Does the ordinance contain natural hazard overlay zones that set conditions for land use within such zones?	N/A	
3. Do rezoning procedures recognize natural hazard areas as limits on zoning changes that allow greater intensity or density of use?	N/A	
4. Does the ordinance prohibit development within, or filling of, wetlands, floodways, and floodplains?	N/A	
Subdivision Regulations	Yes	No
1. Do the subdivision regulations restrict the subdivision of land within or adjacent to natural hazard areas?	N/A	
The District defers to the County of San Diego and the City of Chula Vista subdivision regulations as it falls under their jurisdictions.		
2. Do the regulations provide for conservation subdivisions or cluster subdivisions in order to conserve environmental resources?	N/A	
3. Do the regulations allow density transfers where hazard areas exist?	N/A	

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

SECTION 4 | Community Capabilities

COMPREHENSIVE PLAN (continued)		
Capital Improvement Program and Infrastructure Policies	Yes	No
1. Does the capital improvement program limit expenditures on projects that would encourage development in areas vulnerable to natural hazards?	X	
2. Do infrastructure policies limit extension of existing facilities and services that would encourage development in areas vulnerable to natural hazards?	X	
3. Does the capital improvement program provide funding for hazard mitigation projects identified in the FEMA Mitigation Plan?	X	
Other	Yes	No
1. Do small area or corridor plans recognize the need to avoid or mitigation natural hazards?	N/A	
2. Does the building code contain provisions to strengthen or elevate construction to withstand hazard forces?	N/A	
3. Do economic development or redevelopment strategies include provisions for mitigation natural hazards?	N/A	
4. Is there an adopted evacuation and shelter plan to deal with emergencies from natural hazards?	N/A	
The District coordinates with the City of Chula Vista, County of San Diego, and the SDCWA on its evaluation and shelter plans.		

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

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

SECTION 4 | Community Capabilities

4.7 National Flood Insurance Program (NFIP)

The District is not a participant in the National Flood Insurance Program (NFIP) as it was not identified to be a requirement under the Association of California Water Agencies (ACWA) Joint Power Insurance Authority (JPIA). ACWA JPIA provides the District's comprehensive and economical property coverage.

SECTION 5: Risk Assessment

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

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

5.1 Hazards Summary

The Planning Team evaluated the list of natural hazards that could impact the planning area and then identified the dangers that present a great concern. The process incorporated a review of state and local hazard planning documents and local, state, and federal information on the frequency, magnitude, and costs associated with threats that have impacted or could impact the planning area. Anecdotal information regarding natural hazards and the perceived vulnerability of the planning area's assets to them was also used. Based on the review, the Team evaluated the following dangers of concern:

Hazard	Location (Geographic Area Affected)	Maximum Probable Extent (Magnitude/Strength)	Probability of Future Events	Overall Significance Ranking
Avalanche	N/A	N/A	N/A	N/A
Dam Failure	Limited	Weak	Unlikely	Low
Drought	Extensive	Extensive	Likely	High
Earthquake	Extensive	Extensive	Likely	High
Erosion	Negligible	Weak	Likely	Low
Expansive Soils	Negligible	Weak	Unlikely	Low
Extreme Cold	N/A	N/A	N/A	N/A
Extreme Heat	N/A	N/A	N/A	N/A
Flood	N/A	N/A	N/A	N/A
Hail	N/A	N/A	N/A	N/A
Hurricane	N/A	N/A	N/A	N/A

SECTION 5 | Risk Assessment

Hazard	Location (Geographic Area Affected)	Maximum Probable Extent (Magnitude/Strength)	Probability of Future Events	Overall Significance Ranking
Landslide	N/A	N/A	N/A	N/A
Lightning	Limited	Weak	Likely	Low
Sea Level Rise	N/A	N/A	N/A	N/A
Severe Wind	Extensive	Weak	Likely	Medium
Severe Winter Weather	Extensive	Weak	Likely	Medium
Storm Surge	N/A	N/A	N/A	N/A
Subsidence	N/A	N/A	N/A	N/A
Tornado	N/A	N/A	N/A	N/A
Tsunami	N/A	N/A	N/A	N/A
Wildfire	Significant	Significant	Significant	Significant

TABLE 10: 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 little 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

SECTION 5 | Risk Assessment

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.
- **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>

SECTION 6: 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 District 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.

The District chooses 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.

The following goals were set for this hazard mitigation plan:

1. Protect life and property.
2. Maintain continuity of essential water and sewer services.
3. Increase public awareness of the risks of loss of water/sewer service.
4. Facilitate partnerships with recognized stakeholders within the Otay Water District and implement a coordination plan between the stakeholders.
5. Protect local water supply sources.
6. Protect against environmental consequences caused by water and sewer system failure initiated by natural hazards.

6.1 Mitigation Action Evaluation

The District used the FEMA Worksheet 6.1 to help evaluate and prioritize each mitigation action being considered by the planning team. For each action, the Team evaluated 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 6 | 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											
OWD Climate Action Plan	1	0	1	1	1	1	1	1	1	1	9
Enhance recycled water use in the District.	1	0	1	1	1	1	0	1	1	1	8
Structure and Infrastructure Projects											
Seismic retrofits for District infrastructure	1	1	1	0	1	1	1	1	1	1	9
Wildfire Mitigation - Ensuring adequate defensible space around existing infrastructure	1	1	1	1	1	0	0	1	1	1	8
Natural Systems Protection											
Dam Failure - Flash Flood Control and Prevention	1	1	1	1	1	1	1	1	1	1	10
Education and Awareness Programs											
Enhance drought awareness and water conservation programs	1	1	1	1	1	1	1	1	1	1	10
Develop awareness program for San Miguel HMA to discourage vandalism	0	1	1	0	1	1	0	1	0	0	5

TABLE 11: FEMA LOCAL MITIGATION PLANNING HANDBOOK WORKSHEET 6.1 DATA.

6.2 Mitigation Action Implementation

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

The Planning Committee selected actions in a hazard mitigation action plan based on the risk assessment of identified hazards of concern and the defined hazard mitigation goals and objectives. Table 6.3 lists the recommended hazard mitigation actions that make up the action plan.

6.3 Hazard Mitigation Action Plan Matrix

The timeframe indicated in the table is defined as follows:

- Short-term = Completion within 5 years
- Long-term = Completion within 10 years

Table 6.3 – Hazard Mitigation Action Plan Matrix

Applies to New or Existing Assets	Priority	Lead Agency	Support Agency	Estimated Cost	Sources of Funding	Timeline
Action #1 – Increase recycled water use within the service area <i>Hazards Mitigated:</i> Water shortage during drought periods						
New	High	OWD	City of San Diego, RWQCB, and Sweetwater Authority	Low (\$75,000)	FEMA HMA Grants, District Funds	Short Term
Action #2 – Educate residents on water-saving techniques <i>Hazards Mitigated:</i> Water shortage during drought periods						
New	High	OWD	SDCWA, MWDC, DWR, CCEDC, HOAs, County of SD, Schools, Local Municipalities, Businesses, and Developers	Low (\$250,000)	FEMA HMA Grants, District Funds	Short Term
Action #3 – Conduct a seismic evaluation of existing critical facilities and develop an inventory of buildings that may be particularly vulnerable to earthquake damage. Prioritize the list of essential facilities to be seismically upgraded or retrofitted. <i>Hazards Mitigated:</i> Human and Property Loss						
New	High	OWD	N/A	Low (\$75,000)	FEMA HMA Grants, District Funds	Short Term
Action #4 – Conduct seismic retrofitting for critical facilities most at risk of earthquakes <i>Hazards Mitigated:</i> Human and Property Loss						
New	Medium	OWD	N/A	Medium (\$500,000)	FEMA HMA Grants, District Funds	Long Term
Action #5 – Upgrade the access road at the La Presa Potable Pump Station 10-04 <i>Hazards Mitigated:</i> Wildfire and Heavy Rainstorms						
New	Medium	OWD	N/A	Medium (\$750,000)	FEMA HMA Grants, District Funds	Short Term
Action #6 – Upgrade the access road at the Regulatory Pump Station 832-1 and 832-2 <i>Hazards Mitigated:</i> Wildfire and Heavy Rainstorms						
New	Medium	OWD	Cal Fire	Medium (\$1,500,000)	FEMA HMA Grants, District Funds	Short Term

SECTION 6 | Develop a Mitigation Strategy

Table 6.3 – Hazard Mitigation Action Plan Matrix

Applies to New or Existing Assets	Priority	Lead Agency	Support Agency	Estimated Cost	Sources of Funding	Timeline
Action #7 – Develop dam failure flood preparedness, response, and communications plan. <i>Hazards Mitigated:</i> Flood						
New	Medium	OWD	N/A	Low (\$75,000)	FEMA HMA Grants, District Funds	Short Term
Action #8 – Create defensible space around critical structures and infrastructure <i>Hazards Mitigated:</i> Wildfire						
New	Medium	OWD	Cal Fire, US Fish & Wildlife, CA Dept Fish & Wildlife	Low (\$200,000)	FEMA HMA Grants, District Funds	Short Term
Action #9 – Develop the District’s Climate Action Plan (CAP). <i>Hazards Mitigated:</i> Flood, Wildfire, Extreme Heat, and Heavy Rainstorms						
New	Medium	OWD	N/A	Medium (\$290,000)	FEMA HMA Grants, District Funds	Short Term
Action #10 – Implement security protection for the San Miguel Habitat Management Area. <i>Hazards Mitigated:</i> Trespassing and vandalism						
New	Medium	OWD	USFWS, CDFW CA Conservation Corp	Low (\$80,000)	FEMA HMA Grants, District Funds	Short Term

SECTION 7: Keep the Plan Current

Hazard Mitigation Plan (Annex) 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 a monitoring schedule, evaluating and updating it within a 5-year cycle. These procedures help to:

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

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

7.1 Mitigation Action Progress

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

The District will track the mitigation actions for the next five-year cycle.

The Planning Team will meet at least annually to monitor implementation progress and integration of mitigation actions into other documents. As part of this evaluation process, members of the Team should review the following:

- Any hazard events that occurred within the District's boundaries in the past year, including the scale of impact.
- Mitigation activities in the Plan have been implemented and are achieving success.
- The timeline for implementing mitigation activities and whether the timeline should be amended.
- Any mitigation activities prioritized for the past year have not been completed, and why.
- The need for any new or revised mitigation actions.
- Any changes or potential for changes in funding options for mitigation activities.
- Any new scientific data or mapping that informs the information in the Plan.

SECTION 8: Appendices

REGION IX LOCAL HAZARD MITIGATION PLAN REVIEW TOOL

Updated 12/4/2019

The *Local Hazard Mitigation Plan Review Tool* demonstrates how the Local Hazard Mitigation Plan meets the regulation in 44 CFR §201.6 and offers State and FEMA Mitigation Planners an opportunity to provide feedback to the community.

- The **Regulation Checklist** provides a summary of FEMA’s evaluation of whether the plan has addressed all requirements.
- The **Plan Assessment** identifies the plan’s strengths as well as documents areas for future improvement. This section also includes a list of resources for implementation of the plan.
- The **Multi-Jurisdiction Summary Sheet** is a mandatory worksheet for multi-jurisdictional plans that is used to document which jurisdictions are eligible to adopt the plan.
- The **Hazard Identification and Risk Assessment Matrix** is a tool for plan reviewers to identify if all components of Element B are met.

Jurisdiction: County of San Diego	Title of Plan: MJHMP OWD Annex 2023	Date of Plan: June 2023
Local Point of Contact: Emilyn B. Zuniga	Address: 2554 Sweetwater Springs Blvd Spring Valley, CA 91978	
Title: Safety and Security Specialist		
Agency: Otay Water District		
Phone Number: 619-670-2295	E-Mail: ezuniga@otaywater.gov	

State Reviewer:	Title:	Date:
Date Received at State Agency		
Date Sent to FEMA		

FEMA Reviewer:	Title:	Date:
Date Received in FEMA Region IX		
Date Not Approved		
Date Approvable Pending Adoption		
Date Approved		

SECTION 1: REGULATION CHECKLIST

INSTRUCTIONS: The Regulation Checklist must be completed by FEMA. The purpose of the Checklist is to identify the location of relevant or applicable content in the plan by element/sub-element and to determine if each requirement has been ‘Met’ or ‘Not Met.’ The ‘Required Revisions’ summary at the bottom of each element must be completed by FEMA to provide a clear explanation of the revisions that are required for plan approval. Required revisions must be explained for each plan sub-element that is ‘Not Met.’ Sub-elements should be referenced in each summary by using the appropriate numbers (A1, B3, etc.), where applicable. Requirements for each Element and sub-element are described in detail in the *Local Plan Review Guide* in Section 4, Regulation Checklist.

1. REGULATION CHECKLIST		Location in	Met	Not
Regulation (44 CFR 201.6 Local Mitigation Plans)		Plan (section and/or page number)		Met
ELEMENT A. PLANNING PROCESS				
A1. Does the plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))	a. Does the plan provide documentation of how the plan was prepared? This documentation must include the schedule or timeframe and activities that made up the plan’s development as well as who was involved.			
	b. Does the plan list the jurisdiction(s) participating in the plan that are seeking approval?			
	c. Does the plan identify who represented each jurisdiction? (At a minimum, it must identify the jurisdiction represented and the person’s position or title and agency within the jurisdiction.)			
A2. Does the plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))	a. Does the plan document an opportunity for neighboring communities, local, and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development, as well as other interested parties to be involved in the planning process?			
	b. Does the plan identify how the stakeholders were invited to participate in the process?			
A3. Does the plan document how the public was involved in the planning	a. Does the plan document how the public was given the opportunity to be involved in the planning process?			

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
process during the drafting stage? (Requirement §201.6(b)(1))	b. Does the plan document how the public’s feedback was incorporated into the plan?			
A4. Does the plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))				
A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))				
A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))	a. Does the plan identify how, when, and by whom the plan will be monitored (how will implementation be tracked) over time?			
	b. Does the plan identify how, when, and by whom the plan will be evaluated (assessing the effectiveness of the plan at achieving stated purpose and goals) over time?			
	c. Does the plan identify how, when, and by whom the plan will be updated during the 5-year cycle?			
<u>ELEMENT A: REQUIRED REVISIONS</u>				
ELEMENT B. HAZARD IDENTIFICATION AND RISK ASSESSMENT (Reviewer: See Section 4 for assistance with Element B)				
B1. Does the plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))	a. Does the plan include a general description of all natural hazards that can affect each jurisdiction?			
	b. Does the plan provide rationale for the omission of any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area?			
	c. Does the plan include a description of the type of all natural hazards that can affect each jurisdiction?			
	d. Does the plan include a description of the location for all natural hazards that can affect each jurisdiction?			
	e. Does the plan include a description of the extent for all natural hazards that can affect each jurisdiction?			
B2. Does the plan include information on previous occurrences of hazard events and on the probability of future hazard	a. Does the plan include information on previous occurrences of hazard events for each jurisdiction?			

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
events for each jurisdiction? (Requirement §201.6(c)(2)(i))	b. Does the plan include information on the probability of future hazard events for each jurisdiction?			
B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))	a. Is there a description of each hazard's impacts on each jurisdiction (what happens to structures, infrastructure, people, environment, etc.)?			
	b. Is there a description of each identified hazard's overall vulnerability (structures, systems, populations, or other community assets defined by the community that are identified as being susceptible to damage and loss from hazard events) for each jurisdiction?			
B4. Does the plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))				
<u>ELEMENT B: REQUIRED REVISIONS</u>				
ELEMENT C. MITIGATION STRATEGY				
C1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))	a. Does the plan document each jurisdiction's existing authorities, policies, programs and resources?			
	b. Does the plan document each jurisdiction's ability to expand on and improve these existing policies and programs?			
C2. Does the plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))				
C3. Does the plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))				
C4. Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii))	a. Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects to reduce the impacts from hazards?			
	b. Does the plan identify mitigation actions for every hazard posing a threat to each participating jurisdiction?			

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
	c. Do the identified mitigation actions and projects have an emphasis on new and existing buildings and infrastructure?			
C5. Does the plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))	a. Does the plan explain how the mitigation actions will be prioritized (including cost benefit review)?			
	b. Does the plan identify the position, office, department, or agency responsible for implementing and administering the action, potential funding sources and expected timeframes for completion?			
C6. Does the plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii))	a. Does the plan identify the local planning mechanisms where hazard mitigation information and/or actions may be incorporated?			
	b. Does the plan describe each community's process to integrate the data, information, and hazard mitigation goals and actions into other planning mechanisms?			
	c. The updated plan must explain how the jurisdiction(s) incorporated the mitigation plan, when appropriate, into other planning mechanisms as a demonstration of progress in local hazard mitigation efforts.			
<u>ELEMENT C: REQUIRED REVISIONS</u>				
ELEMENT D. PLAN REVIEW, EVALUATION, AND IMPLEMENTATION (Applicable to plan updates only)				
D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3))				
D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))				
D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))				
<u>ELEMENT D: REQUIRED REVISIONS</u>				
ELEMENT E. PLAN ADOPTION				

1. REGULATION CHECKLIST Regulation (44 CFR 201.6 Local Mitigation Plans)	Location in Plan (section and/or page number)	Met	Not Met
E1. Does the plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))			
E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))			
<u>ELEMENT E: REQUIRED REVISIONS</u>			
OPTIONAL: HIGH HAZARD POTENTIAL DAM RISKS (Applicable to jurisdictions interested in becoming sub applicants to FEMA’s Rehabilitation of High Hazard Potential Dams (HHPD) Grant Program only)			
HHPD1. Did Element A4 (planning process) describe the incorporation of existing plans, studies, reports, and technical information for high hazard potential dams?			
HHPD2. Did Element B3 (risk assessment) address HHPDs?			
HHPD3. Did Element C3 (mitigation goals) include mitigation goals to reduce long-term vulnerabilities from high hazard potential dams that pose an unacceptable risk to the public?			
HHPD4. Did Element C4-C5 (mitigation actions) address HHPDs prioritize mitigation actions to reduce vulnerabilities from high hazard potential dams that pose an unacceptable risk to the public?			
<u>REQUIRED REVISIONS</u>			
ELEMENT F. ADDITIONAL STATE REQUIREMENTS (Optional for State Reviewers only; not to be completed by FEMA)			
F1.			
F2.			
<u>ELEMENT F: REQUIRED REVISIONS</u>			

SECTION 2: PLAN ASSESSMENT

INSTRUCTIONS: The purpose of the Plan Assessment is to offer the local community more comprehensive feedback to the community on the quality and utility of the plan in a narrative format. The audience for the Plan Assessment is not only the plan developer/local community planner, but also elected officials, local departments and agencies, and others involved in implementing the Local Mitigation Plan. The Plan Assessment must be completed by FEMA. The Assessment is an opportunity for FEMA to provide feedback and information to the community on: 1) suggested improvements to the Plan; 2) specific sections in the Plan where the community has gone above and beyond minimum requirements; 3) recommendations for plan implementation; and 4) ongoing partnership(s) and information on other FEMA programs, specifically RiskMAP and Hazard Mitigation Assistance programs. The Plan Assessment is divided into two sections:

1. Plan Strengths and Opportunities for Improvement
2. Resources for Implementing Your Approved Plan

Plan Strengths and Opportunities for Improvement is organized according to the plan Elements listed in the Regulation Checklist. Each Element includes a series of italicized bulleted items that are suggested topics for consideration while evaluating plans, but it is not intended to be a comprehensive list. FEMA Mitigation Planners are not required to answer each bullet item and should use them as a guide to paraphrase their own written assessment (2-3 sentences) of each Element.

The Plan Assessment must not reiterate the required revisions from the Regulation Checklist or be regulatory in nature and should be open-ended and to provide the community with suggestions for improvements or recommended revisions. The recommended revisions are suggestions for improvement and are not required to be made for the Plan to meet Federal regulatory requirements. The italicized text should be deleted once FEMA has added comments regarding strengths of the plan and potential improvements for future plan revisions. It is recommended that the Plan Assessment be a short synopsis of the overall strengths and weaknesses of the Plan (no longer than two pages), rather than a complete recap section by section.

Resources for Implementing Your Approved Plan provides a place for FEMA to offer information, data sources and general suggestions on the plan implementation and maintenance process. Information on other possible sources of assistance including, but not limited to, existing publications, grant funding or training opportunities, can be provided. States may add state and local resources, if available.

A. Plan Strengths and Opportunities for Improvement

This section provides a discussion of the strengths of the plan document and identifies areas where these could be improved beyond minimum requirements.

Element A: Planning Process

How does the Plan go above and beyond minimum requirements to document the planning process with respect to:

- *Involvement of stakeholders (elected officials/decision makers, plan implementers, business owners, academic institutions, utility companies, water/sanitation districts, etc.);*
- *Involvement of Planning, Emergency Management, Public Works Departments or other planning agencies (i.e., regional planning councils);*
- *Diverse methods of participation (meetings, surveys, online, etc.); and*
- *Reflective of an open and inclusive public involvement process.*

Element B: Hazard Identification and Risk Assessment

In addition to the requirements listed in the Regulation Checklist, 44 CFR 201.6 Local Mitigation Plans identifies additional elements that should be included as part of a plan's risk assessment. The plan should describe vulnerability in terms of:

- 1) *A general description of land uses and future development trends within the community so that mitigation options can be considered in future land use decisions;*
- 2) *The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas; and*
- 3) *A description of potential dollar losses to vulnerable structures, and a description of the methodology used to prepare the estimate.*

How does the Plan go above and beyond minimum requirements to document the Hazard Identification and Risk Assessment with respect to:

- *Use of best available data (flood maps, HAZUS, flood studies) to describe significant hazards;*
- *Communication of risk on people, property, and infrastructure to the public (through tables, charts, maps, photos, etc.);*
- *Incorporation of techniques and methodologies to estimate dollar losses to vulnerable structures;*
- *Incorporation of Risk MAP products (i.e., depth grids, Flood Risk Report, Changes Since Last FIRM, Areas of Mitigation Interest, etc.); and*
- *Identification of any data gaps that can be filled as new data became available.*

Element C: Mitigation Strategy

How does the Plan go above and beyond minimum requirements to document the Mitigation Strategy with respect to:

- *Key problems identified in, and linkages to, the vulnerability assessment;*
- *Serving as a blueprint for reducing potential losses identified in the Hazard Identification and Risk Assessment;*
- *Plan content flow from the risk assessment (problem identification) to goal setting to mitigation action development;*
- *An understanding of mitigation principles (diversity of actions that include structural projects, preventative measures, outreach activities, property protection measures, post-disaster actions, etc);*
- *Specific mitigation actions for each participating jurisdiction that reflects their unique risks and capabilities;*
- *Integration of mitigation actions with existing local authorities, policies, programs, and resources; and*
- *Discussion of existing programs (including the NFIP), plans, and policies that could be used to implement mitigation, as well as document past projects.*

Element D: Plan Update, Evaluation, and Implementation (Plan Updates Only)

How does the Plan go above and beyond minimum requirements to document the 5-year Evaluation and Implementation measures with respect to:

- *Status of previously recommended mitigation actions;*
- *Identification of barriers or obstacles to successful implementation or completion of mitigation actions, along with possible solutions for overcoming risk;*
- *Documentation of annual reviews and committee involvement;*
- *Identification of a lead person to take ownership of, and champion the Plan;*
- *Reducing risks from natural hazards and serving as a guide for decisions makers as they commit resources to reducing the effects of natural hazards;*
- *An approach to evaluating future conditions (i.e. socio-economic, environmental, demographic, change in built environment etc.);*
- *Discussion of how changing conditions and opportunities could impact community resilience in the long term; and*
- *Discussion of how the mitigation goals and actions support the long-term community vision for increased resilience.*

B. Resources for Implementing and Updating Your Approved Plan

This resource section is organized into three categories:

- 1) Guidance and Resources
- 2) Training Topics and Courses
- 3) Funding Sources

Guidance and Resources

Local Mitigation Planning Handbook

<https://www.fema.gov/media-library/assets/documents/31598>

Beyond the Basics

<http://mitigationguide.org/>

Mitigation Ideas

<https://www.fema.gov/media-library/assets/documents/30627>

Plan Integration: Linking Local Planning Efforts

<https://www.fema.gov/media-library/assets/documents/108893>

Integrating Disaster Data into Hazard Mitigation Planning

<https://www.fema.gov/media-library/assets/documents/103486>

Integrating Historic Property and Cultural Resource Considerations into Hazard Mitigation Planning

<https://www.fema.gov/ar/media-library/assets/documents/4317>

Community Rating System User Manual

<https://www.fema.gov/media-library/assets/documents/8768>

U.S. Climate Resilient Toolkit

<https://toolkit.climate.gov/>

2014 National Climate Assessment

<http://nca2014.globalchange.gov/>

Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation

http://ipcc-wg2.gov/SREX/images/uploads/SREX-All_FINAL.pdf

FY15 Hazard Mitigation Assistance Unified Guidance

<https://www.fema.gov/media-library/assets/documents/103279>

Climate Resilient Mitigation Activities for Hazard Mitigation Assistance

<https://www.fema.gov/media-library/assets/documents/110202>

Training

More information at <https://training.fema.gov/emi.aspx> or through your State Training Officer

Mitigation Planning

IS-318 Mitigation Planning for Local and Tribal Communities

<https://training.fema.gov/is/courseoverview.aspx?code=is-318>

IS-393 Introduction to Hazard Mitigation

<https://training.fema.gov/is/courseoverview.aspx?code=is-393.a>

G-318 Preparing and Reviewing Local Plans

G-393 Mitigation for Emergency Managers

Hazard Mitigation Assistance (HMA) Grant Programs

IS-212.b Introduction to Unified HMA

<http://www.training.fema.gov/is/courseoverview.aspx?code=IS-212.b>

IS-277 Benefit Cost Analysis Entry Level

<http://www.training.fema.gov/is/courseoverview.aspx?code=IS-277>

E-212 HMA: Developing Quality Application Elements

E-213 HMA: Application Review and Evaluation

E-214 HMA: Project Implementation and Programmatic Closeout

E-276 Benefit-Cost Analysis Entry Level

GIS and Hazus-MH

IS-922 Application of GIS for Emergency Management

<http://www.training.fema.gov/is/courseoverview.aspx?code=IS-922>

E-190 ArcGIS for Emergency Managers

E-296 Application of Hazus-MH for Risk Assessment

E-313 Basic Hazus-MH

Floodplain Management

E-273 Managing Floodplain Development through the NFIP

E-278 National Flood Insurance Program/ Community Rating System

Potential Funding Sources

Hazard Mitigation Grant Program

POC: FEMA Region IX and State Hazard Mitigation Officer

Website: <https://www.fema.gov/hazard-mitigation-grant-program>

Pre-Disaster Mitigation Grant Program

POC: FEMA Region IX and State Hazard Mitigation Officer

Website: <https://www.fema.gov/pre-disaster-mitigation-grant-program>

Flood Mitigation Assistance Grant Program

POC: FEMA Region IX and State Hazard Mitigation Officer

Website: <https://www.fema.gov/flood-mitigation-assistance-grant-program>

Emergency Management Performance Grant Program

POC: FEMA Region IX

Website: <https://www.fema.gov/emergency-management-performance-grant-program>

**SECTION 3:
MULTI-JURISDICTIONAL SUMMARY SHEET**

INSTRUCTIONS: For multi-jurisdictional plans, this summary sheet must be completed by listing each participating jurisdiction that is eligible to adopt the plan.

MULTI-JURISDICTION SUMMARY SHEET					
#	Jurisdiction Name	Jurisdiction Type	Eligible to Adopt the Plan?	Plan POC	Email
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

