

JURISDICTIONAL SUMMARY FOR THE CITY OF MESA

MARICOPA COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN 2021



Across the United States, natural and human-caused disasters have led to increasing levels of death, injury, property damage, and interruption of business and government services. The toll on families and individuals can be immense and damaged businesses cannot contribute to the economy. The time, money and effort to respond to and recover from these emergencies or disasters divert public resources and attention from other important programs and problems. With 62 federal or state declarations and a total of 980 other recorded events, the 26 jurisdictions contained within Maricopa County, Arizona and participating in this planning effort recognize the consequences of disasters and the need to reduce the impacts of natural and human-caused hazards. The County and jurisdictions also know that with careful selection, mitigation actions in the form of projects and programs can become long-term, cost effective means for reducing the impact of natural and human-caused hazards.

The elected and appointed officials of Maricopa County and the 25 other participating jurisdictions demonstrated their commitment to hazard mitigation in 2015 by preparing the second update of the Maricopa County Multi-Jurisdictional Hazard Mitigation Plan (2015 Plan). The 2015 Plan covered 28 participating jurisdictions and was approved by FEMA on December 22, 2015. In order to remain compliant with the congressional regulations, the county and jurisdictions must perform full plan update and obtain FEMA approval. It is noted that the Salt River Project and the Town of Paradise Valley are no longer participants in the updated Plan.

In response, the Maricopa County Department of Emergency Management (MCDEM) secured a federal planning grant and hired JE Fuller/ Hydrology & Geomorphology, Inc. to assist the County and participating jurisdictions with the update process. MCDEM reconvened a multi-jurisdictional planning team (MJPT) comprised of veteran and first-time representatives from each participating jurisdiction, and other various county, state, and federal departments and organizations such as the National Weather Service and Arizona Public Service. The MJPT met monthly beginning in July 2020 and finishing in November 2020. Subsequent "catch up" meetings were conducted through June 2021 to assist several communities with finalizing assignments and the first draft of the updated 2021 Plan was issued in September 2021. The meetings and MJPT worked in a collaborative effort to review, evaluate, and update the 2015 Plan keeping the single, consolidated multi-jurisdictional plan format and approach. The 2021 Plan will continue to guide the County, tribes and participating local jurisdictions toward greater disaster resistance in full harmony with the character and needs of the community and region.

The Plan has been prepared in compliance with Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 (Stafford Act), 42 U.S.C. 5165, as amended by Section 104 of the Disaster Mitigation Act of 2000 (DMA 2000) Public Law 106-390 enacted October 30, 2000. The Plan includes risk assessments for multiple natural hazards, a public outreach effort at two phases of the planning process, and development of a mitigation strategy that incorporates measures intended to eliminate or reduce the effects of future disasters throughout the County. The development of the various 2021 Plan elements was accomplished through a joint and cooperative venture by members of the Maricopa County MJPT, with MCDEM serving as the lead agency and primary point of contact for the planning effort.

The overall purpose of DMA 2000 was to establish a national program for pre-disaster mitigation, streamline administration of disaster relief at both the federal and state levels, and control federal costs of disaster assistance. Congress envisioned that implementation of these new requirements would result in the following key benefits:

- > Reduction of loss of life and property, human suffering, economic disruption, and disaster costs.
- Prioritization of hazard mitigation planning at the local level, with an increased emphasis placed on planning and public involvement, assessing risks, implementing loss reduction measures, and ensuring that critical services/facilities survive a disaster.
- Establishment of economic incentives, awareness and education via federal support to state, tribal, and local governments that will result in forming community-based partnerships, implementing effective hazard mitigation measures, leveraging additional non-Federal resources, and establishing commitments to long-term hazard mitigation efforts.





In general, the DMA 2000 legislation requires all local, county, and tribal governments to develop a hazard mitigation plan for their respective communities in order to be eligible to receive certain federal non-emergency mitigation funds including Hazard Mitigation Grant Program (HMGP) and Building Resilient Infrastructure and Communities Program (BRIC) [Formerly Pre-Disaster Mitigation Program (PDM)]. FEMA's Flood Mitigation Assistance Program (FMA) planning requirements are also satisfied by this plan as long as flooding is addressed.

In satisfying the regulatory requirements of DMA 2000, the primary purpose of this plan is to identify natural hazards that impact Mesa, assess the vulnerability and risk posed by those hazards to community-wide human and structural assets, develop strategies for mitigation of those identified hazards, present future maintenance procedures for the plan, and document the planning process. The Plan is generally arranged and formatted to be consistent with the 2018 State of Arizona Multi-Hazard Mitigation Plan (State Plan) and is comprised of the following major sections:

Planning Process – this section summarizes the planning process used to update the Plan, describes the assembly of the planning team and meetings conducted, and summarizes the public involvement efforts.

Community Description – this section provides an overall description of the participating jurisdictions and the County as a whole.

Risk Assessment – this section summarizes the identification and profiling of natural hazards that impact the County and the vulnerability assessment for each hazard that considers exposure/loss estimations and development trend analyses.

Mitigation Strategy – this section presents a capability assessment for each participating jurisdiction and summarizes the Plan mitigation goals, objectives, actions/projects, and strategy for implementation of those actions/projects.

Plan Maintenance Strategy – this section outlines the proposed strategy for evaluating and monitoring the Plan, updating the Plan in the next 5 years, incorporating plan elements into existing planning mechanisms, and continued public involvement.

Plan Tools – this section includes a list of Plan acronyms and a glossary of definitions.

The planning process used to review and update the 2015 Plan included the organization and use of two planning team levels. The first was a Multi-Jurisdictional Planning Team (MJPT) that was comprised of one or more representatives from each participating jurisdiction. The second was the Local Planning Team (LPT) that was comprised of various staff and officials from the specific jurisdiction.

The role of the MJPT was to work with the planning consultant to perform the coordination, research, and planning element activities required to update the 2015 Plan. Attendance by each participating jurisdiction was required for every MJPT meeting as the meetings were structured to progress through the plan update process. Steps and procedures for updating the 2015 Plan were presented and discussed at each MJPT meeting, and worksheet assignments were normally given. Each meeting built on information discussed and assignments made at the previous meeting. The MJPT representatives also had the responsibility of being the liaison to the LPT, and were tasked with the following:

- Conveying information and assignments received at the MJPT meetings to the LPT
- Ensuring that all requested worksheets were completed fully and returned on a timely basis
- Arranging for review and official adoption of the Plan

The function and role of the LPT was to:

- Provide support and data
- Assist the MJPT representative in completing each assignment
- Make planning decisions regarding plan update components
- Review the Plan draft documents

The MJPT met five times from July 2020 to November 2020, with LPT meetings convened in between as needed to complete the homework and review/update tasks assigned.





The following are the contact details for the Plan primary point of contact for the City of Mesa:

Therese Derivan
Emergency Manager
Mesa Fire and Medical Department
13 West 1st Street
Mesa, AZ 85201
Work: 480.644.3092

Email: theres.derivan@mesaaz.gov

For information purposes, the following summarizes contact details for the Plan primary point of contact for Maricopa County:

Rudy Perez Senior Planner

Maricopa County Department of Emergency Management

5636 E. McDowell Rd. Phoenix, AZ 85008 Work: 602.273.1411

Email: rudy.perez@maricopa.gov

The following table summarizes the LPT for Mesa and roles of each person. The promulgation authorities are listed at the end of the table.

	Department /		Planning Team Role /
Name	Division / Branch	Title	Description of Duties
Carlos Padilla	Water Resources	Water Resources	Provide Information and Resources
Carios i adilia	water resources	Assistant Director	directly related to Water Resources
Arif Rahman	Water Resources	Deputy Engineer	directly related to water Resources
Jake West	Water Resources	Water Resources Dept	Provide Information and Resources
		Director	directly related to Water Resources
Michael Kennedy	Water Resources	Water Treatment	Provide Information related to
		Superintendent	Water Treatment facilities and
			procedures
Mike Davis	Water Resources	Water Reclamation	Provide Information related to
		Superintendent	Water Reclamation facilities and
			procedures
Craig Sears	Water Resources	Treatment Process	Provide Information related to
		Specialist	Water Reclamation facilities and
			procedures
Fred Rustam	Parks Recreation and	Deputy Engineer	Provide Information related to
	Commercial		analysis, design, and CIPs
	Facilities		
Rob Kidder	Engineering	Assistant City Engineer	Provide Information related to
			analysis, design, and CIPs
Marc Ahlstrom	Engineering	Asst City Engineer	Provide Information related to
			analysis, design, and CIPs
Kyle Nicholson	Energy Resources	Electric Substation	Provide Information related to
•	(Electric)	Supervisor	Electrical resources
Harry Jones	Energy Resources	Energy Resources Gas	Provide Information related to
·		System Administrator	Natural Gas resources
Richard Manzo	Energy Resources	Energy Resources CIP	Provide Information related to
		Administrator	current and future CIPs
Jeff Rush	Information	IT Manager	Provide Geographic Information
	Technology Division		





	Department /		Planning Team Role /
Name	Division / Branch	Title	Description of Duties
Dee McKenzie	Information	Information	Provide Geographic Information
	Technology Division	Technology (It)	
		Solution Architect	
Nathan Kelly	Public Information	Chief Digital Officer	Assist with Public Information
	and Communications		Involvement
Jessica Brodersen	Public Information	Management Assistant	Assist with Public Information
	and Communications	II	Involvement
Rachel Prelog	Development	Senior Planner	Provides Plan Integration
	Services		information
James Johnson	Mesa Fire and	Emergency Manager	Plan review and promulgation
	Medical Department		coordination
Therese Derivan	Mesa Fire and	Emergency	MCMJHMP team member
	Medical Department	Management Captain	
Warren Sprecher	Mesa Fire and	Emergency	MCMJHMP team member
	Medical Department	Management	
		Coordinator	
	PROMU	LGATION AUTHORITY	
John Giles	City Council	Mayor	Plan Promulgation
Mark Freeman	City Council	Council Member	Plan Promulgation
Julie Spilsbury	City Council	Council Member	Plan Promulgation
Francisco Heredia	City Council	Council Member	Plan Promulgation
Jen Duff	City Council	Council Member	Plan Promulgation
David Luna	City Council	Council Member	Plan Promulgation
Kevin Thompson	City Council	Council Member	Plan Promulgation

One of the key elements to the hazard mitigation planning process is the risk assessment. In performing a risk assessment, a community determines "what" can occur, "when" (how often) it is likely to occur, and "how bad" the effects could be. According to DMA 2000, the primary components of a risk assessment are generally categorized into the following measures:

☑ Identify Hazards

☑ Profile Hazard Events

✓ Assess Vulnerability to Hazards

The risk assessment for Mesa utilized information developed by the LPT and Countywide hazard profile data. The vulnerability analysis results reported in the Plan reflect vulnerability at the community level as well as on a County-wide basis.

Following the lead of the State of Arizona, only natural hazards were considered for this update. The list of hazards in the 2015 Plan and the 2018 State Plan¹ were reviewed and compared in an initial screening that used a systematic process that considered relevance, historical significance and experience, and catastrophic potential. The result was a list of hazards that are most relevant to Maricopa County. The Mesa LPT further reviewed the list to reflect only those hazards that have the most impact on Mesa. The following table summarizes the Countywide list of hazards. The hazards selected for mitigation by Mesa are shown in bold type.

¹ State of Arizona, Division of Emergency Management, 2018, State of Arizona Multi-Hazard Mitigation Plan.





Natural Hazard List for the Plan and Mesa						
Dam Inundation Levee Failure						
 Drought 	Severe Wind					
• Extreme Heat	• Subsidence					
• Fissure	• Wildfire					
• Flood						

Profiles were developed for each of the hazards by researching and mapping historic hazardous events, obtaining other hazard mapping, analysis and studies, and in Arizona, estimating the Calculated Priority Risk Index (CPRI) ¹. Hazard profile maps for Dam Inundation (Emergency Spillway and Dam Failure), Fissure, Flooding/Flash Flooding, Levee Failure, Subsidence, and Wildfire were developed. Maps specific to Mesa are provided following the text of this summary.

A vulnerability analysis was performed to assess and evaluate the City's population and critical facility exposure risk to the identified hazards. The risk was tabulated in terms of exposure loss estimates and human population exposure. Critical facilities were individually identified by the MJPT and LPT and supplemental residential facility information was obtained from the 2010 census block residential unit data set. It is estimated that there are at least \$2.9 billion dollars² worth of critical and non-critical facilities within Mesa. Replacement value for residential buildings within Mesa are estimated to total over \$59.3 billion. The 2015 City population estimate is 467,657. The following table summarizes the general results of the vulnerability analysis for each of the top hazards in the City.

	Expo	osure Estimates ^a	
Hazard	Critical Facilities	Residential	Population ^b
Dam Failure (High Hazard)	\$0	\$0	0
Drought	(None estin	mated)	467,657
Extreme Heat	(None estin	mated)	467,657
Fissure (High Hazard)	\$5.0 million (1 Structure)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
Flooding (High Hazard)	\$5.8 million (3 Structures)	\$449.3 million	3,307
Levee Failure (High Hazard)	\$2.0 million (1 Structure)	\$8.9 million	69
Severe Wind	(None estin	mated)	467,657
Subsidence	\$2.2 billion (350 Structures)	\$42.8 billion	350,244
Wildfire (High Hazard)	\$48.2 million (29 Structures)	\$882.0 million	6,203

a — These numbers represent estimates of exposure that may result assuming all delineated hazard areas are impacted at the same time. Actual event losses may not impact the entire area during a single event.

The MJPT and Mesa LPT developed a strategy for mitigating the hazard risks identified within the City. The mitigation strategy provides the "what, when, and how" of actions that will reduce or possibly remove the City's exposure to hazard risks, and is generally categorized into the following components:

² This estimate is likely to be inexact as there were many assets that the community was unable to obtain detailed replacement estimates for the Plan development schedule.



_

b - These numbers represent the total human population potentially exposed to the hazard.

¹ The CPRI is explained in detail in the Section 5.2.3 of the main Plan



- **☑** Goals and Objectives
- **☑** Capability Assessment
- **✓** Mitigation Actions/Projects
- **✓** Implementation Strategy

The MJPT reviewed and discussed the 2015 Plan goals and objectives and compared them to the 2018 State Plan. The result of the discussions resulted in establishing one goal and four clear objectives as follows:

- **GOAL:** Reduce or eliminate the risk to people and property from natural hazards.
 - ♦ **Objective 1:** Reduce or eliminate risks that threaten life and property in the incorporated, unincorporated, and tribal jurisdictions within Maricopa County.
 - Objective 2: Reduce risk to critical facilities and infrastructure from natural hazards.
 - ♦ **Objective 3:** Promote hazard mitigation throughout the incorporated, unincorporated, and tribal jurisdictions within Maricopa County.
 - ♦ **Objective 4:** Increase public awareness of hazards and risks that threaten the incorporated, unincorporated, and tribal jurisdictions within Maricopa County.

This goal and four objectives will be used by all participating jurisdictions in the Plan

The Mesa LPT reviewed and updated the community's capability assessment regarding legal, regulatory, technical/staff, and financial resources. The following tables summarize the results:

	Legal and regulatory capabilities for M	lesa
Regulatory Tools for Hazard Mitigation	Description	Responsible Department/Agency
CODES	 2018 International Building Code 2018 International Fire Code 2017 National Electric Safety Code 2017 National Electric Code 	Development Services Fire/Medical Department
ORDINANCES	 City of Mesa Charter and Ordinances 2020 Maricopa County Flood Control Standards and Requirements 	City CouncilEngineering (Floodplain Mgr.)
PLANS, MANUALS, and/or GUIDELINES	 American Public Power Association American Gas Association COM Operations, Maintenance, Construction Practice & Emergency Plan Manual Code of Federal Regulations Title 49 Part 192 City of Mesa Detailed Electrical Standards 2019 City of Mesa Engineering & Design Standards Uniform Standard Specifications & Details for Public Works Construction 2020 2019 Mesa Standards, Details and Specifications 	 Energy Resources (Electric) Engineering Energy Resources (Gas) Water Resources (Water and Wastewater)





	Legal and regulatory capabilities for I	Mesa
Regulatory Tools for Hazard Mitigation	Description	Responsible Department/Agency
STUDIES	 City of Mesa Electrical Master Plan City of Mesa Storm Drain Master Plan 2010 City of Mesa Water System Master Plan Update 2018 City of Mesa Wastewater Master Plan Update 2018 City of Mesa Gas Master Plan 	 Energy Resources (Electric) Engineering Water Resources (Water and Wastewater) Energy Resources (Gas)

Opportunities for Expansion/Improvement:

The City of Mesa codes are regularly updated and will continue to be reviewed with minor amendments as needed on scheduled cycles. Additional measures for flooding, extreme heat and other natural disasters, should be implemented within the model codes to make room for easier and more standardized adoption. This would increase future mitigation efforts. It would be helpful to have the appropriate people available to consult on changes to make the codes more adjusted to the mitigation needs, in the event plans are updated or amended in their various cycles.

Technical staff and personnel capabilities for Mesa						
Staff/Personnel Resources	\square	Department/Agency - Position				
Planner(s) or engineer(s) with knowledge of land development and land management practices	Ŋ	Development Services				
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Ŋ	Engineering Water Resources Transportation				
Planner(s) or engineer(s) with an understanding of natural and/or human-caused hazards	V	Assistant City Engineer				
Floodplain Manager	V	Engineering				
Surveyors	V	Engineering				
Staff with education or expertise to assess the community's vulnerability to hazards	V	Police (Homeland Defense), Fire/Medical (Terrorism Liaison Officers), Energy Resources				
Personnel skilled in GIS and/or HAZUS	V	GIS Supervisor GIS Manager GIS Specialist				
Scientists familiar with the hazards of the community		N/A				
Emergency manager	$\overline{\mathbf{A}}$	Emergency Management Coordinator Assistant Chief Emergency Management				
Grant writer(s)	$\overline{\mathbf{V}}$	Grant Coordinators Office				





Technical staff and personnel capabilities for Mesa					
Staff/Personnel Resources Department/Agency - Position					
Onnovtunities for Evnancian/Improvement					

Opportunities for Expansion/Improvement:

The Emergency Management Department could work with the Community Outreach Program on targeted efforts to increase community preparedness. These efforts could focus on some of the largest hazards facing the community as identified in the hazard mitigation plan: extreme heat, wildfires, and flooding. The program could educate the public on what preemptive steps they can take to protect themselves, their property, and their community. These steps would include creating defensible space around structures, landscaping with potential flooding in mind, how to prevent heat related illness, and more. Fire Prevention is not able to complete all inspections for low to medium hazard occupancies. According to NFPA standards, two additional inspectors could increase productivity. Increasing inspections of this type of occupancies would enable the department to identify specific hazards and work to mitigate them.

Fiscal capabilities for Mesa							
Financial Resources	Accessible or Eligible to Use (Yes, No, Don't Know)	Comments					
Community Development Block Grants	Yes	May be done in conjunction with Floodplain Master Plans					
Capital Improvements Project funding	Yes	May include funding for new or existing city infrastructure					
Authority to levy taxes for specific purposes	Yes	Through city council approval					
Fees for water, sewer, gas, or electric service	Yes	As necessary, through city council approval					
Impact fees for homebuyers or new developments/homes	Yes	Impact Fees provide revenue to cover added public services					
Incur debt through general obligation bonds	Yes	CIP Bonds, storm drains, parks, streets, fire, police					
Utility revenue bonds	Yes	CIP Bonds - utilities					
Incur debt through special tax bonds	Yes	Urban Area Security Initiative , Proposition 202 (Gaming)					

Opportunities for Expansion/Improvement:

City of Mesa regularly seeks new and additional grant opportunities and other programs to support its mitigation needs. These efforts focus on mitigation of occurring hazards as well as preparing against potential hazards. Where possible, the city will continue to work in partnership with community stakeholders to identify additional sources of funding to enhance the city's abilities to implement more mitigation actions and projects, and particularly those involving innovative local partnerships/sponsorships.

Using the vulnerability analysis, capability assessment, and goals and objectives, the Mesa LPT then developed an updated list of mitigation actions/projects with an implementation strategy clearly defined. Each action/project was evaluated and prioritized based on: 1) Direct Impact on Life and/or Property; 2) Long-Term Solution; and 3) Benefit vs. Cost. The table on the following page summarizes the updated mitigation action/project list for Mesa.





Miti	Mitigation actions and projects and implementation strategy for Mesa									
	Mitigation Action/Project					Implementation Strategy				
ID No.	Description	Hazard(s) Mitigated	Community Assets Mitigated (Ex/New)	Estimated Cost	Priority Ranking	Planning Mechanism(s) for Implementation	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Funding Source(s)	
1	Maintain continuous water supply by continuing to install/replace water distribution system throughout the City of Mesa	Drought	Both	\$5-10M /yr.	High	5yr-CIP	Ongoing	Water Resources & Engineering Dept.	Bond Funding	
2	CAP (Signal Butte WTP) Phase II, expansion of water treatment plant at Elliot and Signal Butte	Drought	Both	\$92M	High	5yr-CIP	2024-2025 (estimated)	Water Resources & Engineering Dept.	Bond Funding (future)	
3	Future Reclaimed Water Line and pump stations to convey Northwest Water Reclamation Plant effluent to Gila River Indian Community in exchange of CAP water	Drought	Both	\$70-80M	High	5-yr CIP	2024	Water Resources & Engineering Dept.	Bond Funding (future)	
4	Add potable water wells and/or redrill and equip existing wells	Drought	Both	~ \$ 2 M /yr.	High	5-yr-CIP	Ongoing	Water Resources & Engineering Dept.	Bond Funding (future)	
5	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Building Permit Process	Ongoing	Development Services, Engineering Dept.	General Fund, Permit Fees	
6	Update Storm Drain Master Plan	Flood	Both	\$500,000	High	City of Mesa Storm Drain Master Plan.	Ongoing	Engineering Dept.	General Fund, Grants & future CIP budget.	
7	Perform public information campaign at the start of the extreme heat season to educate the public.	Extreme Heat	Both	Staff time & cost of supplies	High	On-going operations	At the extreme event	Fire/Medical Dept. & Public Information office.	General Fund	
8	Partner with NGO's (e.g. – The Salvation Army, church organizations, shelters, etc.) to provide respite care and hydration stations to mitigate loss of life during extreme temperature events.	Extreme Heat	Both	Staff time & cost of supplies	High	City of Mesa Emergency Operations Plan	At the extreme event	Fire/Medical Dept. & Public Information Office.	General Fund	





Miti	Mitigation actions and projects and implementation strategy for Mesa									
	Mitigation Action/Project					Implementation Strategy				
ID No.	Description	Hazard(s) Mitigated	Community Assets Mitigated (Ex/New)	Estimated Cost	Priority Ranking	Planning Mechanism(s) for Implementation	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Funding Source(s)	
9	Provide links on the City of Mesa Website to sources of hazard mitigation educational materials encouraging private citizens to be prepared for hazard emergencies.	Dam Failure, Levee Failure	Both	Staff time	Low	City of Mesa Emergency Operations Plan	On-going	Fire/Medical Dept. & Public Information Office.	General Fund	
10	Participate/Conduct tabletop exercises to identify potential mitigation measures for increasing response effectiveness in the event of a dam failure.	Dam Failure, Levee Failure	Both	Staff time	Low	City of Mesa Emergency Operations Plan	Ongoing	Development Services & Engineering Dept.	General Fund	
11	Clear vegetation & wildfire fuels to create a clear space around critical structures.	Wildfire	Both	Staff time	Medium	Code enforcement & Fire Dept.	Ongoing prior & during the dry season	Fire/Medical Dept. & Development Services	General Fund	
12	Enforce burn & fireworks bans as needed during dry season. Enforce weed abatement ordinance.	Wildfire	Both	Staff time	Medium	Code enforcement & Fire Dept.	Ongoing prior & during the dry season	Fire/Medical Dept. & Development Services	General Fund	
13	Maintain/install back-up generators at critical facilities such as Fire & Police Stations, water pumping stations, sewer lift stations, etc., to provide emergency power for critical operations during power failures caused by severe wind events.	Severe Wind	Both	\$2M + staff time.	High	Fire Department Emergency Management Division	Ongoing	Water Resources, Engineering, Development Services, Parks Recreation and Community Facilities	General Fund and CIP budget	
14	Distribution Pole Maintenance & Replacement/Vegetation Management Programs	Severe Wind	Both	\$500,000	High	Annual CIP	Ongoing	Energy Resources Electric	Bond Funding (future)	
15	Include the subsidence and fissure risk as a regular part of development & public works projects review.	Fissure, Subsidence	Both	Staff time	Medium	Engineering and Design Standards	Ongoing	Development Services & Engineering Dept.	General Fund	
16	Provide links to ADWR and AZGS websites on City website to raise awareness to locations of active fissure and subsidence.	Fissure, Subsidence	Both	Staff time	Medium	Engineering and Design Standards	Ongoing	Development Services & Engineering Dept.	General Fund	





Miti	Mitigation actions and projects and implementation strategy for Mesa								
Mitigation Action/Project				Implementation Strategy					
ID No.	Description	Hazard(s) Mitigated	Community Assets Mitigated (Ex/New)	Estimated Cost	Priority Ranking	Planning Mechanism(s) for Implementation	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Funding Source(s)
17	The City of Mesa provides information to the public using the Community Emergency Notification System (CENS), also called Reverse 9-1-1. If an event occurs the 9-1-1 dispatch center in Mesa will call and provide information and/or instruction to subscribers.	Levee Failure, Dam Failure	Both	Staff time	Low	City of Mesa Communications (9-1-1 Emergency System	Ongoing	City of Mesa Communications	General Fund





As a final step in the planning process, plan maintenance procedures were developed by the MJPT to establish guidelines for maintaining, reviewing, and updating the Plan over the next five (5) years. The MJPT reviewed the current DMA 2000 rules and October 2011 FEMA guidance document and discussed a strategy for performing the required monitoring and evaluation of the Plan over the next 5-year cycle. The MJPT has established the following monitoring and evaluation procedures:

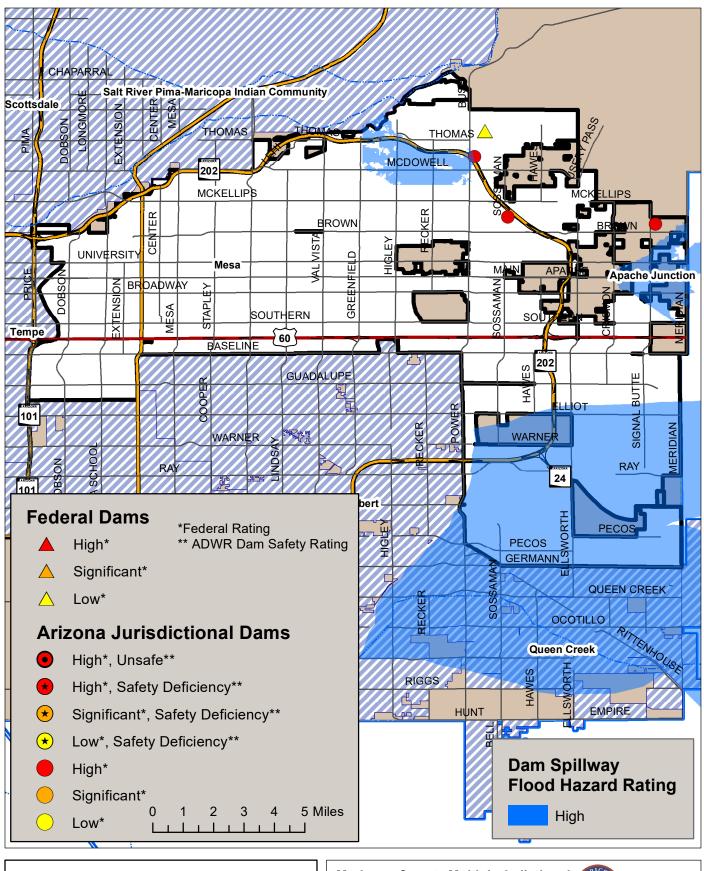
- Schedule The Plan shall be reviewed on at least an annual basis. MCDEM will take the lead to send out an email request to each jurisdiction via the MJPT on or around the month of May.
- **Review Content** Within the email request distributed by MCDEM, each of the jurisdictions will be requested to provide responses to the following questions:
- *Hazard Identification:* Have the risks and hazards changed?
- Goals and Objectives: Are the goals and objectives still able to address current and expected conditions?
- O **Policy and Program Review:** Are updates or revisions necessary for the policies and programs listed in Tables 6-1-xx of the Plan?
- Mitigation Projects and Actions: For each mitigation action/project summarized in Section 6.3.2 of the Plan:
 - Has there been activity on the project Yes or No?
 - If Yes, briefly describe what has been done and the current status of the action/project.
- **Documentation** Each jurisdiction will review and evaluate the Plan as it relates to their community and document responses to the above questions in the form of an email. MCDEM will archive email responses in a digital format and store with the Plan for incorporation during the next Plan update. Any hard copies will be included in Appendix E.

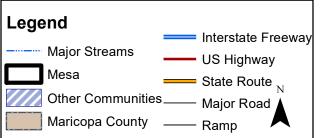
A formal presentation of the review material will be presented to a jurisdiction's council or board only if a major update to the Plan is proposed prior to the next five year update.

At the five year update, the following actions will be taken:

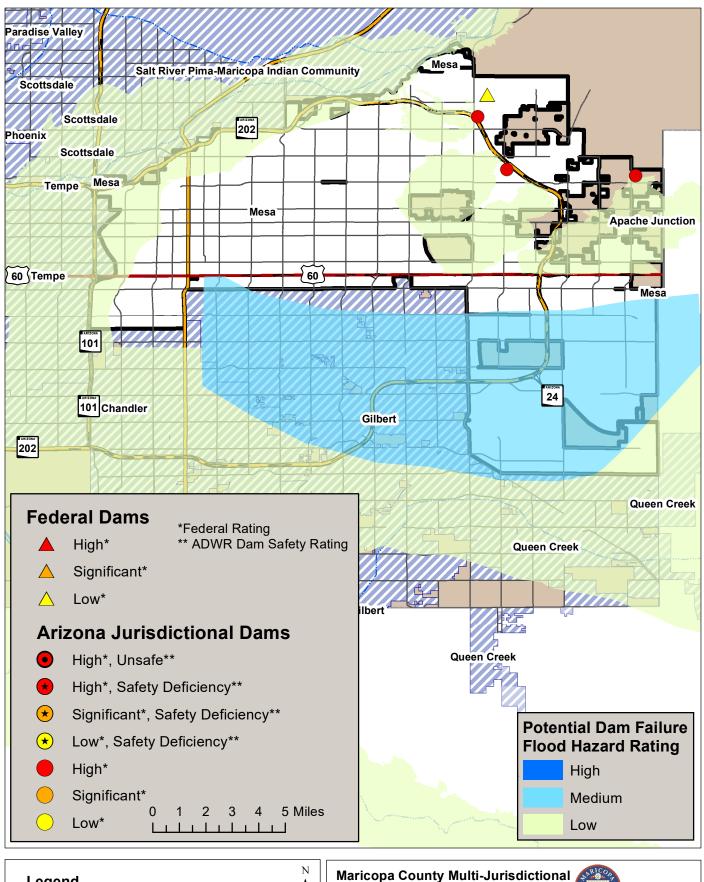
- ✓ One year prior to the plan expiration date, the MJPT will re-convene to review and assess the materials accumulated in Appendix E of the Plan.
- ✓ The MJPT will update and/or revise the appropriate or affected portions of the plan and produce a revised plan document.
- ✓ The revised plan document will be presented before the respective councils and boards for an official concurrence/adoption of the changes.
- ✓ The revised plan will be submitted to DEMA and FEMA for review, comment and approval.

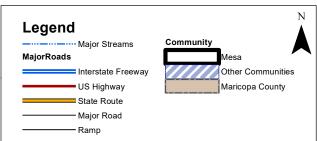








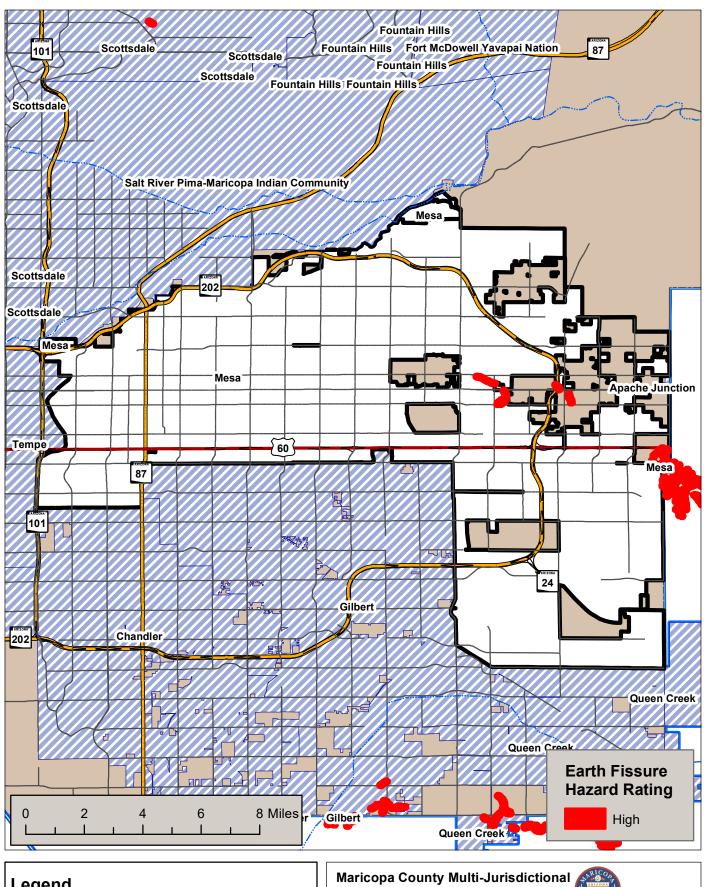




Maricopa County Multi-Jurisdictional Hazard Mitigation Plan

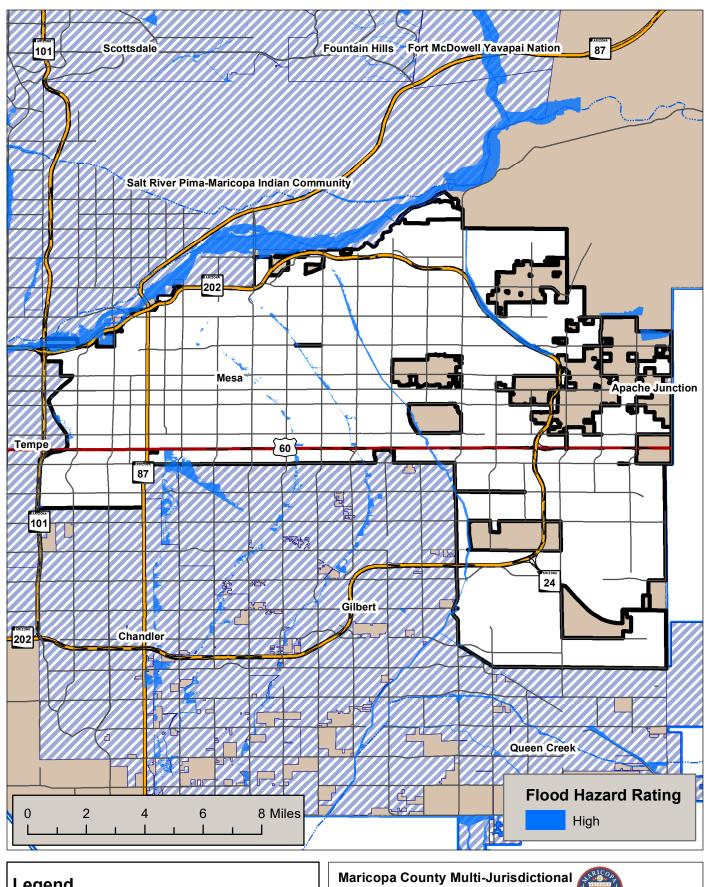


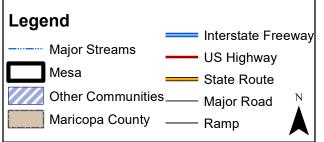
Map #2D15 City of Mesa Potential Dam Failure Flood Hazard Map as of Sept 2020









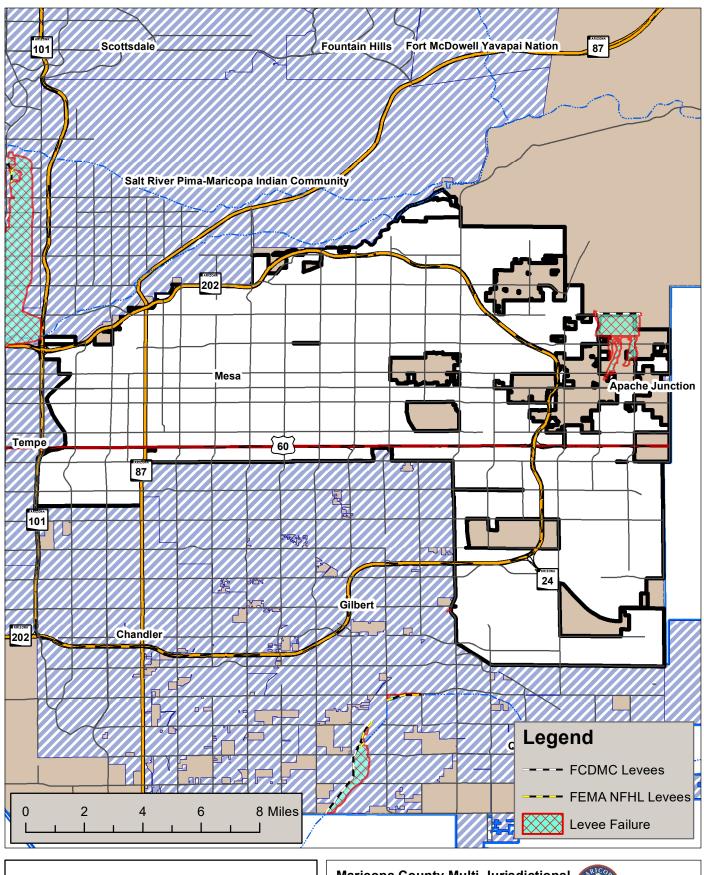


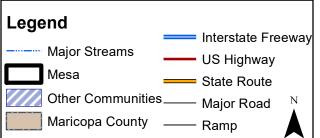


mesa-az



Map #4D15 City of Mesa Flood Hazard Map as of Sept 2020

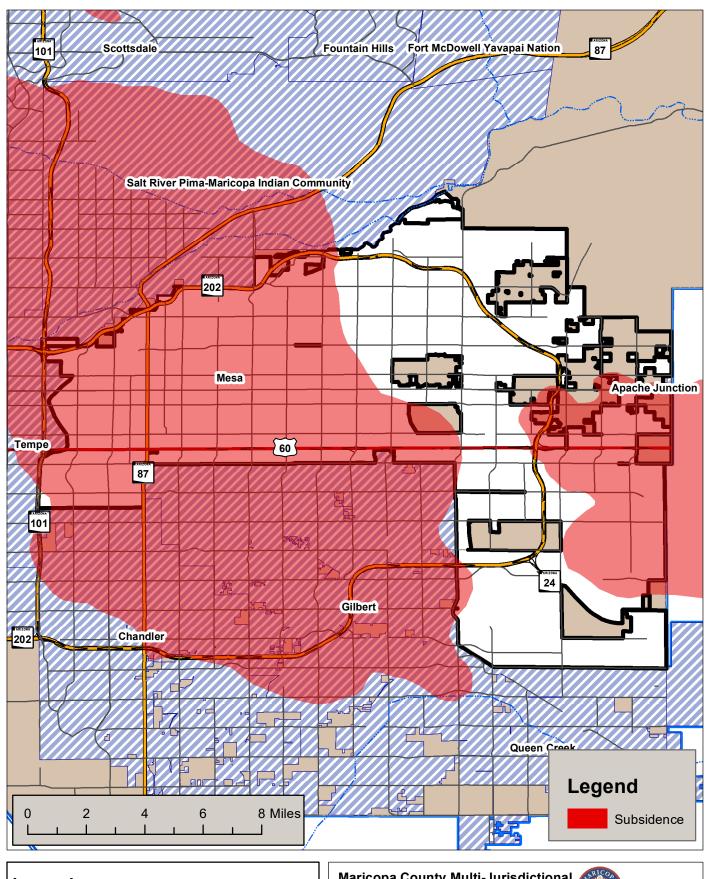


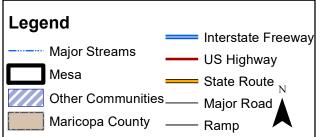


Maricopa County Multi-Jurisdictional Hazard Mitigation Plan

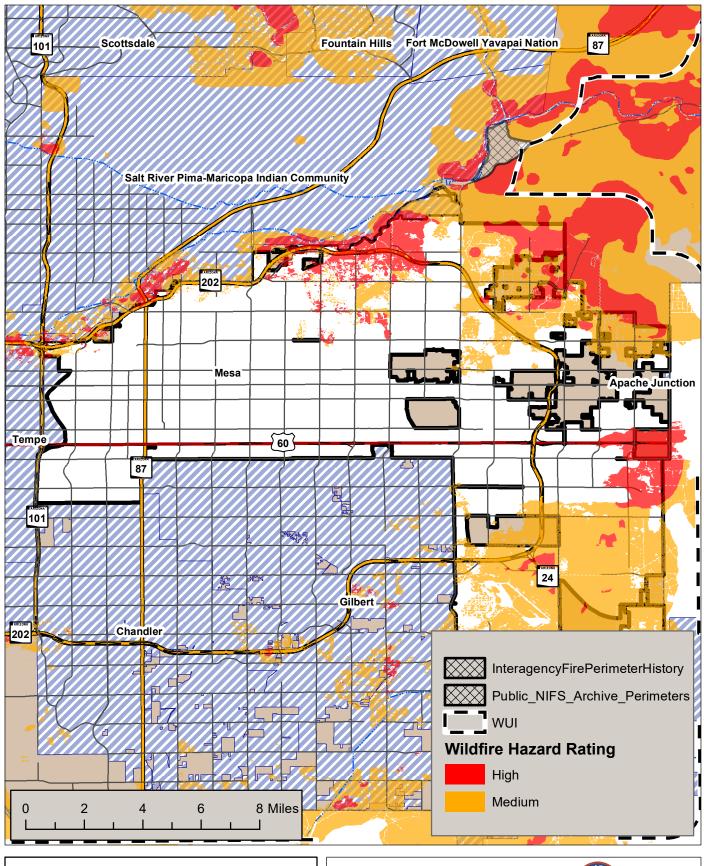


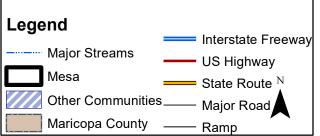
Map #5D15 City of Mesa Potential Levee Failure Flood Hazard Map as of Sept 2020







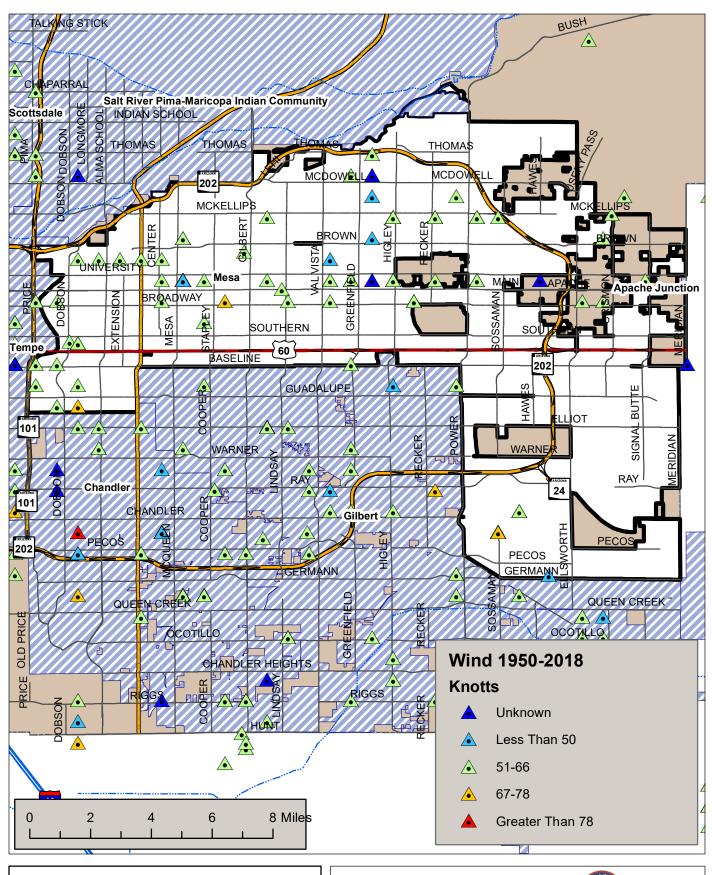


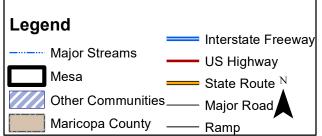


Maricopa County Multi-Jurisdictional Hazard Mitigation Plan



Map #7D15 City of Mesa Wildfire Hazard Map as of Sept 2020







Map #8D15 City of Mesa Severe Wind Hazard Map as of Sept 2020