



**JURISDICTIONAL SUMMARY**

**FOR THE**

**CITY OF SCOTTSDALE**

**MARICOPA COUNTY**  
**MULTI-JURISDICTIONAL**  
**HAZARD MITIGATION PLAN**  
**2021**

## *CITY OF SCOTTSDALE JURISDICTIONAL SUMMARY*

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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 2015 to assist several communities with finalizing assignments and the first draft of the updated 2021 Plan was issued in July 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.

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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 Scottsdale, 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.



## *CITY OF SCOTTSDALE JURISDICTIONAL SUMMARY*

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

Troy Lutrick  
Emergency Management Coordinator  
City Manager’s Office – Emergency Management Division  
8401 E. Indian School Rd.  
Scottsdale, AZ 85251  
Work: 480.312.1886  
Email: tlutrick@scottsdaleaz.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 Scottsdale and roles of each person. The promulgation authorities are listed at the end of the table.

<b>Name</b>	<b>Department / Division / Branch</b>	<b>Title</b>	<b>Planning Team Role / Description of Duties</b>
Troy Lutrick	Emergency Management	Emergency Manager	Team Leader; Managed all MJHMP assignment submissions
Ashley Couch	Stormwater Management	DRAINAGE/FLOOD CNTRL PROG MGR	CPRI and Most Tables and Most Worksheets
Kevin Rose	Water Administration	WATER RESOURCES ADMINISTRATOR	CPRI and Estimated replacement cost for water sites
Chris Lechner	Geographic Information Systems	GIS MANAGER	Maps, facility and site locations with longitude and latitude
Dan Worth	Public Works Administration	DIRECTOR PUBLIC WORKS	Estimated replacement cost for facility sites and Table 6-7-22
Lucas Muller	Space Planning	FACILITIES TECHNOLOGY SUPV	Estimated replacement cost for facility sites and Table 6-7-22
Scott Wilken	Maricopa Association of Governments	SENIOR PLANNING PROJECT MANAGER	Socioeconomic projections
Casey Steinke	Current Planning	Planner	Population Projections, Housing projections, Employment projections
Adam Yaron	Advance Planning	Project coordinator	Helped to find projection stats
Tim Curtis	Current Planning	CURRENT PLANNING DIRECTOR	Development worksheet and Tables 6-1-22, 6-2-22, 6-3-22
Josh Utterback	Business Development	ECONOMIC DEVELOPMENT PROG MGR	Development worksheet – Confirmed commercial development portion still valid
Erin Perreault	Advance Planning	PLANNING & DEVELOPMENT AREA DIRECTOR	Development worksheet- Tables 6-1-22, 6-2-22, 6-3-22
Judy Doyle	Budget	ACTING CITY TREASURER	Added comments for Table 6-3-22



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<b>Name</b>	<b>Department / Division / Branch</b>	<b>Title</b>	<b>Planning Team Role / Description of Duties</b>
Ryan Freeburg	Office Of The Fire Chief	ASSISTANT FIRE CHIEF	Fire code year 2015
Eliana Hayes	Plan Review	DEVELOPMENT ENGINEERING MGR	Look over Tables 6-1-22, 6-2-22, 6-3-22
Steven Powell	Public Safety Radio	RADIO ENGINEERING MANAGER	Communications locations for the excel spread sheet
Eliaine Mercado	Capital Project Management	PROJECT MANAGER SENIOR	Helped with cost for table 6-8-22
Rob Millar	Economic Development Administration	ECONOMIC DEVELOPMENT DIRECTOR	Directed me to other people who could help.
Randy Grant	Planning / Neighborhood Admin	PLAN & ECON DEV EXEC DIRECTOR	Directed me to other people who could help.
<b>PROMULGATION AUTHORITY</b>			
David D. Ortega	City Council	Mayor	Plan Promulgation
Sammy Caputi	City Council	Vice Mayor	Plan Promulgation
Tom Durham	City Council	Council Member	Plan Promulgation
Betty Janik	City Council	Council Member	Plan Promulgation
Kathy Littlefield	City Council	Council Member	Plan Promulgation
Linda Milhaven	City Council	Council Member	Plan Promulgation
Solange Whitehead	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 Scottsdale 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 Plan<sup>1</sup> 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 Scottsdale LPT further reviewed the list to reflect only those hazards that have the most impact on Scottsdale. The following table summarizes the Countywide list of hazards. The hazards selected for mitigation by Scottsdale are shown in bold type.

<sup>1</sup> State of Arizona, Division of Emergency Management, 2018, *State of Arizona Multi-Hazard Mitigation Plan*.



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Natural Hazard List for the Plan and Scottsdale	
<ul style="list-style-type: none"> <li>• Dam Inundation</li> <li>• Drought</li> <li>• Extreme Heat</li> <li>• Fissure</li> <li>• Flood</li> </ul>	<ul style="list-style-type: none"> <li>• Levee Failure</li> <li>• Severe Wind</li> <li>• Subsidence</li> <li>• Wildfire</li> </ul>

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) <sup>1</sup>. 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 Scottsdale 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 237 critical and non-critical facilities within Scottsdale with a combined replacement cost of \$1.1 billion. Replacement value for residential buildings within Scottsdale are estimated to total over \$67.7 billion. The 2015 City population estimate is 237,929. The following table summarizes the general results of the vulnerability analysis for each of the top hazards in the City.

Hazard	Exposure Estimates <sup>a</sup>		
	Critical Facilities	Residential	Population <sup>b</sup>
Dam Failure (High Hazard)	0	\$0	0
Drought	(None estimated)		237,929
Extreme Heat	(None estimated)		237,929
Fissure (High Hazard)	0	\$23.3 million	65
Flooding (High Hazard)	\$224 million (24 Structures)	\$6.5 billion	21,875
Levee Failure (High Hazard)	\$155.5 million (8 Structures)	\$7.9 billion	28,268
Severe Wind	(None estimated)		237,929
Subsidence	\$634.7 million (63 Structures)	\$27.1 billion	91,598
Wildfire (High Hazard)	\$95.3 million (25 Structures)	\$1.3 billion	4,939
<sup>a</sup> – 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.			
<sup>b</sup> – These numbers represent the total human population potentially exposed to the hazard.			

The MJPT and Scottsdale 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:

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

<sup>1</sup> The CPRI is explained in detail in the Section 5.2.3 of the main Plan



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

<b>Legal and regulatory capabilities for Scottsdale</b>		
<b>Regulatory Tools for Hazard Mitigation</b>	<b>Description</b>	<b>Responsible Department/Agency</b>
CODES	<ul style="list-style-type: none"> <li>• 2015 International Fire Code</li> <li>• 2015 International Building Code</li> <li>• 2015 International Mechanical Code</li> <li>• 2015 International Plumbing Code</li> <li>• 2015 National Electric Code</li> <li>• 2015 International Energy Conservation Code</li> <li>• International Residential Code</li> <li>• Public Nuisance and Property Maintenance Code</li> <li>• Uniform Code for the Abatement of Dangerous Buildings</li> <li>• Uniform Housing Code</li> <li>• City Code</li> <li>• International Green Construction Code</li> </ul>	<ul style="list-style-type: none"> <li>• Fire Department</li> <li>• Public Works</li> <li>• Water Resources</li> <li>• Planning and Development Services</li> <li>• Economic Vitality</li> </ul>
ORDINANCES	<ul style="list-style-type: none"> <li>• Stormwater and Floodplain Management</li> <li>• Zoning</li> <li>• Dust Control</li> <li>• Environmentally Sensitive Lands</li> <li>• Foothills Overlay Zoning District</li> <li>• Hillside Zoning District</li> <li>• Historic Preservation</li> <li>• Land Divisions</li> <li>• Native Plant</li> <li>• Protection of Archaeological Resources</li> <li>• McDowell Sonoran Preserve – 2000</li> <li>• Noise Ordinance</li> </ul>	<ul style="list-style-type: none"> <li>• Economic Vitality</li> <li>• Planning and Development Services</li> <li>• Public Works and Water Resources</li> </ul>



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Legal and regulatory capabilities for Scottsdale		
Regulatory Tools for Hazard Mitigation	Description	Responsible Department/Agency
PLANS, MANUALS, and/or GUIDELINES	<ul style="list-style-type: none"> <li>• Design Standards and Policies Manual</li> <li>• Scottsdale General Plan 2001</li> <li>• Green Building Program</li> <li>• Transportation/Mobility Plans</li> <li>• Streetscapes Guidelines</li> <li>• Scenic Corridor Policy/Design Guidelines</li> <li>• Old Town Scottsdale Urban Design and Architectural Guidelines</li> <li>• Adopted Character Area Plans</li> <li>• Neighborhood Plans</li> <li>• Neighborhood Assemblage Policy</li> <li>• Infill Incentive District</li> <li>• Citywide Design Guidelines</li> <li>• Greater Phoenix Metro Green Infrastructure Handbook</li> <li>• Desert Parks Design Guidelines</li> <li>• Parks Recreation Master Plan</li> <li>• Public Art Master Plan</li> <li>• Historic Preservation</li> <li>• Sensitive Design</li> <li>• 2015 SFD – Standard of Coverage Evaluation</li> <li>• Community Wildfire Protection Plan (CWPP) 2019</li> <li>• Airport Master Plan</li> <li>• Economic Development Strategic Plan</li> <li>• Housing and Human 5-Year Consolidated Plan</li> <li>• Integrated Water Master Plan</li> <li>• Stormwater Master Plan</li> <li>• Tourism Strategic Plan</li> <li>• WestWorld Master Plan</li> </ul>	<ul style="list-style-type: none"> <li>• Planning and Development Services</li> <li>• Transportation and Streets</li> <li>• Community Services</li> <li>• Economic Vitality</li> <li>• Water Resources</li> </ul>
<p><b><u>Opportunities for Expansion/Improvement:</u></b> Flood mitigation within the city could be enhanced through the development of a city-wide Stormwater Master Plan and a Floodplain Management Plan to better define flood risks, mitigation strategies and floodplain management. Funding for the master plan will require city council action and approvals.</p>		

Technical staff and personnel capabilities for Scottsdale		
Staff/Personnel Resources	<input checked="" type="checkbox"/>	Department/Agency - Position
Planner(s) or engineer(s) with knowledge of land development and land management practices	<input checked="" type="checkbox"/>	Planning & Development Services – Planners, Engineers
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	<input checked="" type="checkbox"/>	Capitol Project Management-City Engineer; Planning and Development Services – Building Official, Development Engineering Manager, Stormwater Manager, Drainage and Flood Control Program Manager; Water Resources; Fire Department; Transportation/Traffic Engineer





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<b>Technical staff and personnel capabilities for Scottsdale</b>		
<b>Staff/Personnel Resources</b>	<input checked="" type="checkbox"/>	<b>Department/Agency - Position</b>
Planner(s) or engineer(s) with an understanding of natural and/or human-caused hazards	<input checked="" type="checkbox"/>	Capital Project Management-City Engineer; Planning and Development Services – Building Official, Development Engineering Manager, Stormwater Manager, Drainage and Flood Control Program Manager; Water Resources; Fire Department; Transportation/Traffic Engineer
Floodplain Manager	<input checked="" type="checkbox"/>	Stormwater Management
Surveyors	<input checked="" type="checkbox"/>	Water Resources, Planning and Development Services
Staff with education or expertise to assess the community’s vulnerability to hazards	<input checked="" type="checkbox"/>	Neighborhood Services, Human Services, Emergency Management, Development Services, Fire Department, Police Department, Public Works, Streets, Engineering, Architecture, Water Resources, Stormwater Management
Personnel skilled in GIS and/or HAZUS	<input checked="" type="checkbox"/>	IT Department, Fire Department, Police Department, Stormwater Management; Planning GIS Staff
Scientists familiar with the hazards of the community	<input checked="" type="checkbox"/>	Police Department, Water Resources, Fire Department, Stormwater Management
Emergency Manager	<input checked="" type="checkbox"/>	City Manager's Office, Fire Department,
Grant writer(s)	<input checked="" type="checkbox"/>	Office of Emergency Manager
<p><b><u>Opportunities for Expansion/Improvement:</u></b> Flood and other related hazard mitigation within the city could be enhanced through the hire of another Stormwater Engineer to assist with our extremely heavy workload in the Stormwater Management Department. The extra staff will enable the city to be more responsive to flood management requests for review and enforcement of the city’s floodplain ordinance.</p>		

<b>Fiscal capabilities for Scottsdale</b>		
<b>Financial Resources</b>	<b>Accessible or Eligible to Use (Yes, No, Don’t Know)</b>	<b>Comments</b>
Community Development Block Grants	Yes	Community Assistance Programs
Capital Improvements Project funding	Yes	May include funding for new or existing infrastructure
Authority to levy taxes for specific purposes	Yes	Requires City Council approval and citizen vote
Fees for water, sewer, gas, or electric service	Yes	Water, sewer and solid waste fees approved by City Council. Gas and electric are private/public utilities
Impact fees for homebuyers or new developments/homes	Yes	Water and sewer; one-time payments to fund construction of public facilities needed to accommodate new development
Incur debt through general obligation bonds	Yes	Requires City Council approval and citizen vote
Incur debt through special tax bonds	Yes	Can sell bonds issued by Municipal Property Corporation often supported by excise (sales) tax
Other	Yes	Expenditures are subject to state-imposed expenditure limitation law



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**Opportunities for Expansion/Improvement:**

The stormwater fee on Scottsdale potable water bills could be increased and this additional revenue could be budgeted as a dedicated funding source for the city’s Drainage and Flood Control CIP. This additional funding could also leverage matching funds from the Flood Control District of Maricopa County, which typically funds 50% of project costs.

Using the vulnerability analysis, capability assessment, and goals and objectives, the Scottsdale 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 Scottsdale.



**CITY OF SCOTTSDALE JURISDICTIONAL SUMMARY**

Mitigation actions and projects and implementation strategy for Scottsdale									
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	GRANITE REEF WATERSHED PHASE 2 FLOOD HAZARD MITIGATION PROJECT: Construct channel improvements, storm drain improvements, and stormwater storage basins to provide 100-year flood protection for hundreds of structures in the vicinity of Granite Reef Road between the Arizona Canal and the Salt River, then remap the floodplain to reflect these improvements, saving an estimated \$1 million in flood insurance premiums annually.	Flood	Existing	\$51,055,600	High	Drainage and Flood Control Capital Improvement Plan and Granite Reef Watershed Phase 2 Plan	June 30, 2026	Stormwater Management and Capital Project Management	Bond 2000 + Stormwater Fees + FCDMC + SRPMIC
2	RAWHIDE WASH FLOOD HAZARD MITIGATION PROJECT: Raise and/or strengthen existing floodwalls, improve scour protection for existing floodwalls, construct new floodwalls, including scour protection, and construct flood gates, from 1/3 mile north of Happy Valley Road to Pinnacle Peak Road, to provide 100-year flood protection for 850 properties in Scottsdale, then remap floodplain to reflect these improvements, saving an estimated \$500,000 in flood insurance premiums in Scottsdale annually. Project also provides benefits to Phoenix by reducing drainage infrastructure costs downstream.	Flood	Existing	\$16,000,000	High	Drainage and Flood Control Capital Improvement Plan, Pinnacle Peak West Area Drainage Master Study/Plan, and Rawhide Wash Alternatives Analysis	December 31, 2024	Stormwater Management and FCDMC	Stormwater Fees + FCDMC + City of Phoenix
3	REATA WASH FLOOD CONTROL PROJECT: Construct channel and levee improvements from Pinnacle Peak Road to WestWorld, to provide 100-year flood protection for 4600 properties, then remap floodplain to reflect these improvements, saving nearly \$3 million in flood insurance premiums annually.	Flood	Existing and New	\$35,000,000	High	Drainage and Flood Control Capital Improvement Plan, Pinnacle Peak South Area Drainage Master Study, and Reata Wash Flood Control Plan	June 30, 2026	Stormwater Management and Capital Project Management	Stormwater Fees + FCDMC



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Mitigation actions and projects and implementation strategy for Scottsdale									
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)
4	PIMA ROAD DRAINAGE CHANNEL: Construct a drainage channel on the east side of Pima Road from Happy Valley Road to Pinnacle Peak Road to provide 100-year flood protection to 56 structures and reduce the frequency and severity of flooding for an additional 73 structures.	Flood	Existing	\$8,500,000	High	Drainage and Flood Control Capital Improvement Plan	December 31, 2022	Stormwater Management and Capital Project Management	Stormwater Fees + FCDMC
5	Continue expanding our WebEOC software system to track incidents and resources in the event of an emergency.	All Hazards	Existing	Staff Time	High	None	Ongoing	Fire Department	General Fund
6	Promote the use of various cellphone warning systems and, weather radios, especially in schools, hospitals, and other locations where people congregate to inform them of the approach of severe weather events.	Dam Inundation, Extreme Heat, Flood, Levee Failure, Severe Wind	Existing	Staff Time	High	None	Ongoing	Fire Department	General Fund
7	Perform a public information campaign at the onset of the extreme heat season to help educate the public on ways to remain safe during periods of extreme heat.	Extreme Heat	Existing	Staff Time	High	Community Emergency Response Team (CERT) program.	Ongoing	Fire Department	General Fund
8	Identify, stock, and communicate locations within the community that can serve as cooling stations during times of extreme heat.	Extreme Heat	Existing	Staff Time	High	Community Emergency Response Team (CERT) program.	Ongoing	Fire Department	General Fund
9	Review and evaluate current weed control ordinance to ensure adequate provisions are in place to protect properties along the wild land urban interface.	Wildfire	Existing	Staff Time	High	Weed Control Ordinance	Ongoing	Fire Department	General Fund
10	Encourage fire buffer zones along wild land urban interface areas to mitigate damages due to wildfire.	Wildfire	Existing	Staff Time	High	None	Ongoing	Fire Department	General Fund



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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)
11	Perform Hazardous Material Response Team & Fire Code Inspection on occupancies with Hazardous Materials to ensure safe storage and use of those HAZMATS.	Hazardous Materials	Existing	Staff Time	High	None	Ongoing	Fire Department	General Fund
12	Develop partnerships to locate and operate hydration stations during extreme heat events to reduce the risk to Scottsdale citizens.	Drought	Existing	Staff Time	High	Drought Management Plan	Ongoing	Fire Department	General Fund
13	Review/Update the city's Drought Management Plan's conservation requirements to evaluate drought severity triggers and their enforcement.	Drought	Existing	Staff Time	High	Drought Management Plan	Ongoing	Fire Department	General Fund
14	Use newsletters, flyers, utility bill inserts, website notices, radio and television announcements, social media and newspaper articles to educate the public about hazards impacting the county and city, and how to be prepared in the case of a disaster event.	All Hazards	Existing	Staff Time	High	None	Ongoing	Fire Department	General Fund
15	Update Flood Insurance Rate Maps as necessary.	Flood	Existing and New	Staff Time + Variable Costs for Consultants	Medium	Stormwater and Floodplain Management Ordinance, NFIP regulations, and Area Drainage Master Studies	Ongoing	Stormwater Management	Stormwater Storage In-Lieu Fees + FCDMC
16	ROOSEVELT DRIVE STORM DRAIN: Construct a storm drain system to reduce structural flood hazards for nearly 100 properties in Scottsdale and Tempe.	Flood	Existing	\$7,520,000	Medium	Drainage and Flood Control Capital Improvement Plan	June 30, 2026	Stormwater Management and FCDMC	Stormwater Fees + FCDMC + City of Tempe



**CITY OF SCOTTSDALE JURISDICTIONAL SUMMARY**

<b>Mitigation actions and projects and implementation strategy for Scottsdale</b>									
<b>Mitigation Action/Project</b>					<b>Implementation Strategy</b>				
<b>ID No.</b>	<b>Description</b>	<b>Hazard(s) Mitigated</b>	<b>Community Assets Mitigated (Ex/New)</b>	<b>Estimated Cost</b>	<b>Priority Ranking</b>	<b>Planning Mechanism(s) for Implementation</b>	<b>Anticipated Completion Date</b>	<b>Primary Agency / Job Title Responsible for Implementation</b>	<b>Funding Source(s)</b>
17	CROSSROADS EAST PHASE 2 DRAINAGE IMPROVEMENTS: Construct a drainage channel along the east side of Pima Road from just north of Hualapai Drive to Legacy Blvd., then west to the Loop 101 Detention Basin.	Flood	Existing and New	\$8,800,000	Medium	Drainage and Flood Control Capital Improvement Plan and Crossroads East Drainage Master Plan	June 30, 2027	Stormwater Management and Capital Project Management	Stormwater Fees
18	Prepare a Stormwater Master Plan.	Flood	Existing and New	\$1,200,000	Medium	N/A	June 30, 2029	Stormwater Management	General Fund and possibly FCDMC
19	Prepare a Floodplain Management Plan consistent with the requirements of the Community Rating System, which may result in lower flood insurance premiums city-wide.	Flood	Existing and New	\$100,000	Medium	N/A	June 30, 2027	Stormwater Management	Stormwater Storage In-Lieu Fees and FEMA
20	Include addressing subsidence and fissure risk as a regular part of the land development and public works projects review and permitting.	Fissure, Subsidence	Both	Staff Time	Low	Development Review	Ongoing	Planning and Development Services and Public Works	General Fund
21	Coordinate with state and federal agencies (USGS, AZGS, ADWR, etc.) to study and map fissure activity in critical or key areas of the community so that effective mitigation or avoidance strategies can be implemented.	Fissure, Subsidence	Both	Staff Time	Low	None	Ongoing	Planning and Development Services and Public Works	General Fund



## *CITY OF SCOTTSDALE JURISDICTIONAL SUMMARY*

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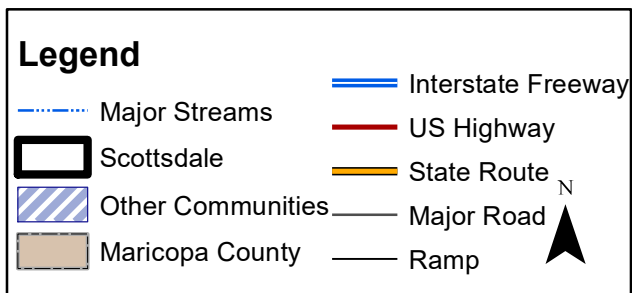
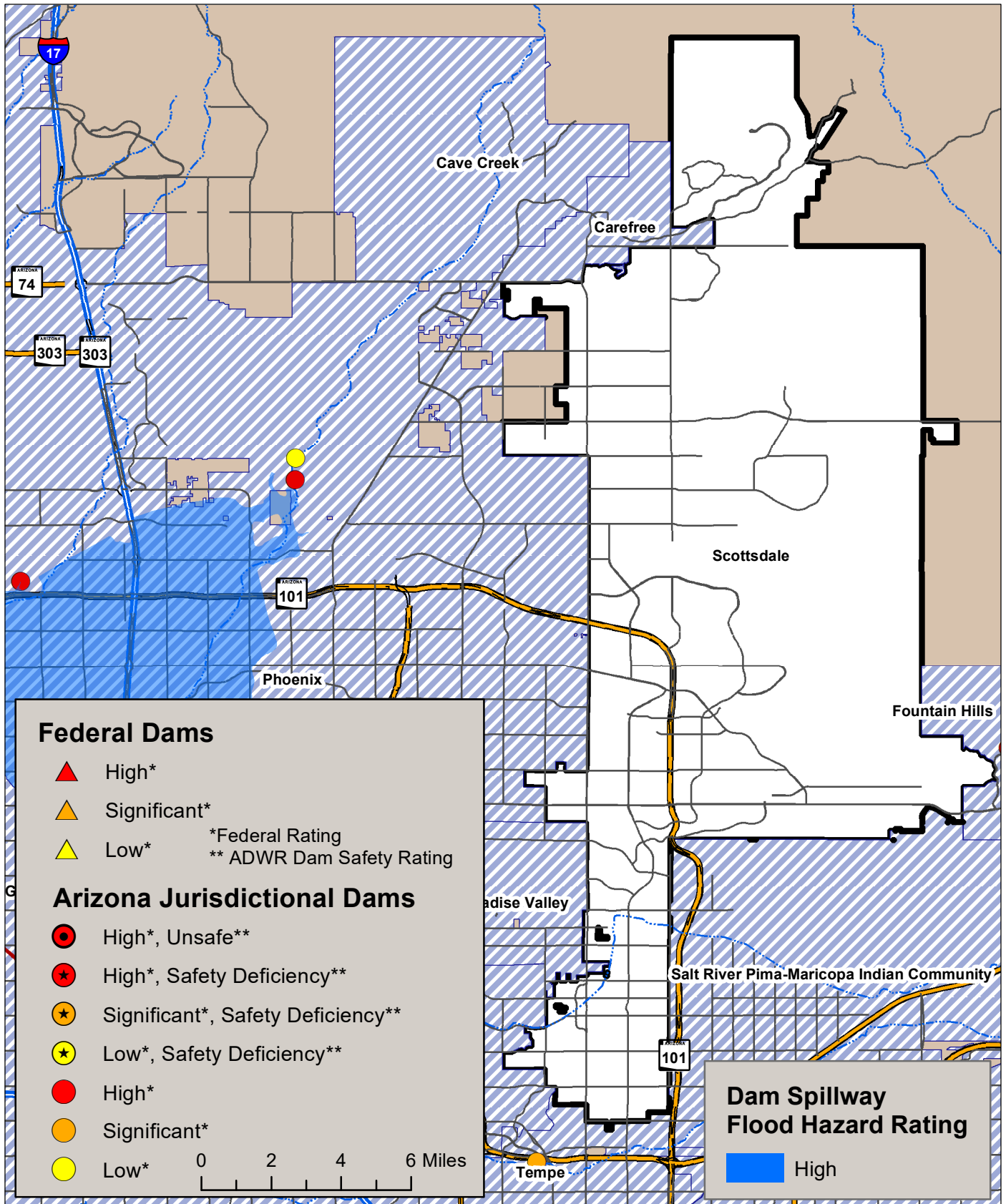
As a final step in the planning process, plan maintenance procedures were developed by the MJPT to establish guidelines for maintaining, reviewing, and updating the Plan over the next five (5) years. The MJPT reviewed the current DMA 2000 rules and October 2011 FEMA guidance document and discussed a 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?*
  - **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.



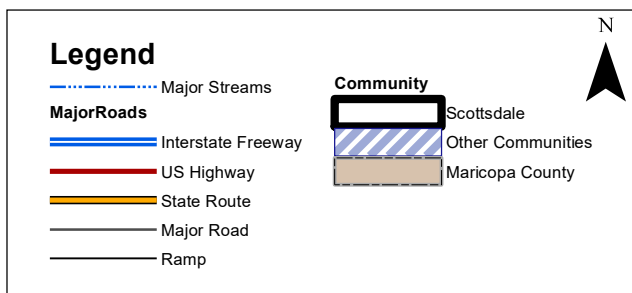
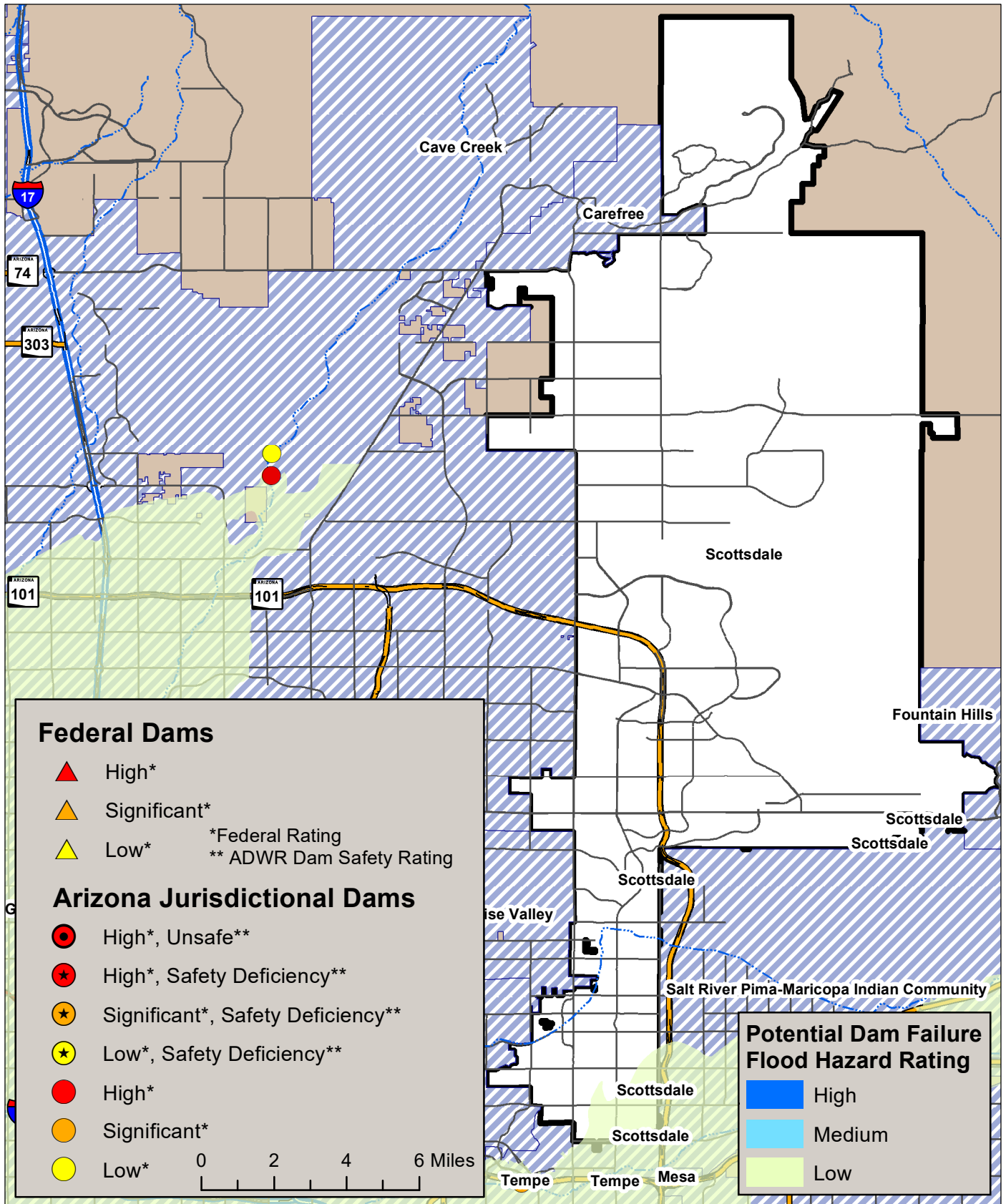
Maricopa County Multi-Jurisdictional Hazard Mitigation Plan




**CITY OF SCOTTSDALE**

Map #1D21  
City of Scottsdale  
Dam Spillway  
Flood Hazard Map  
as of Sept 2020




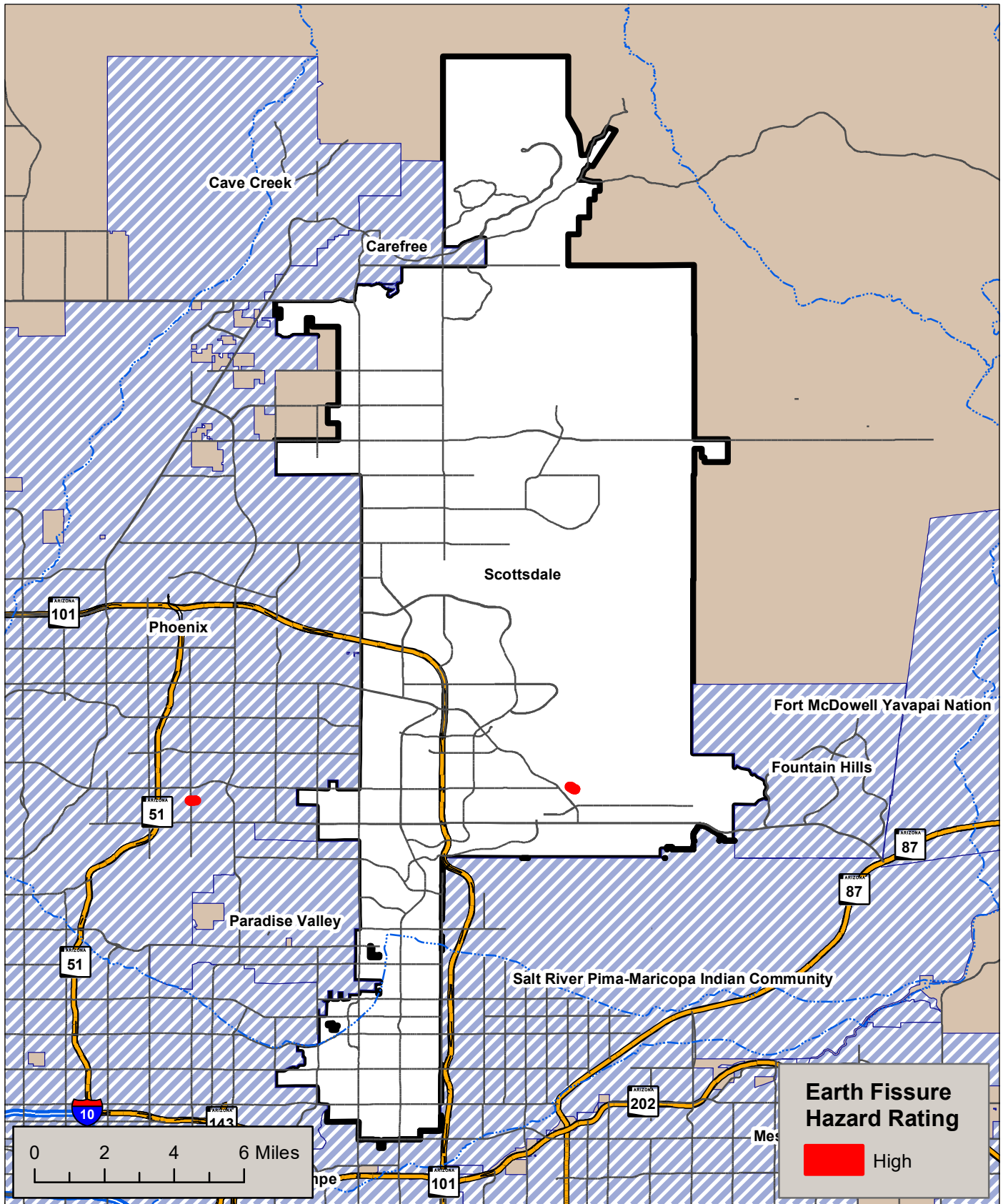


**Maricopa County Multi-Jurisdictional Hazard Mitigation Plan**









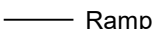



**Map #2D21**  
**City of Scottsdale**  
**Potential Dam Failure Flood Hazard Map**  
 as of Sept 2020





**Legend**

	Maricopa County		Interstate Freeway
	Scottsdale		US Highway
	Other Communities		State Route
	Major Streams		Major Road
			Ramp

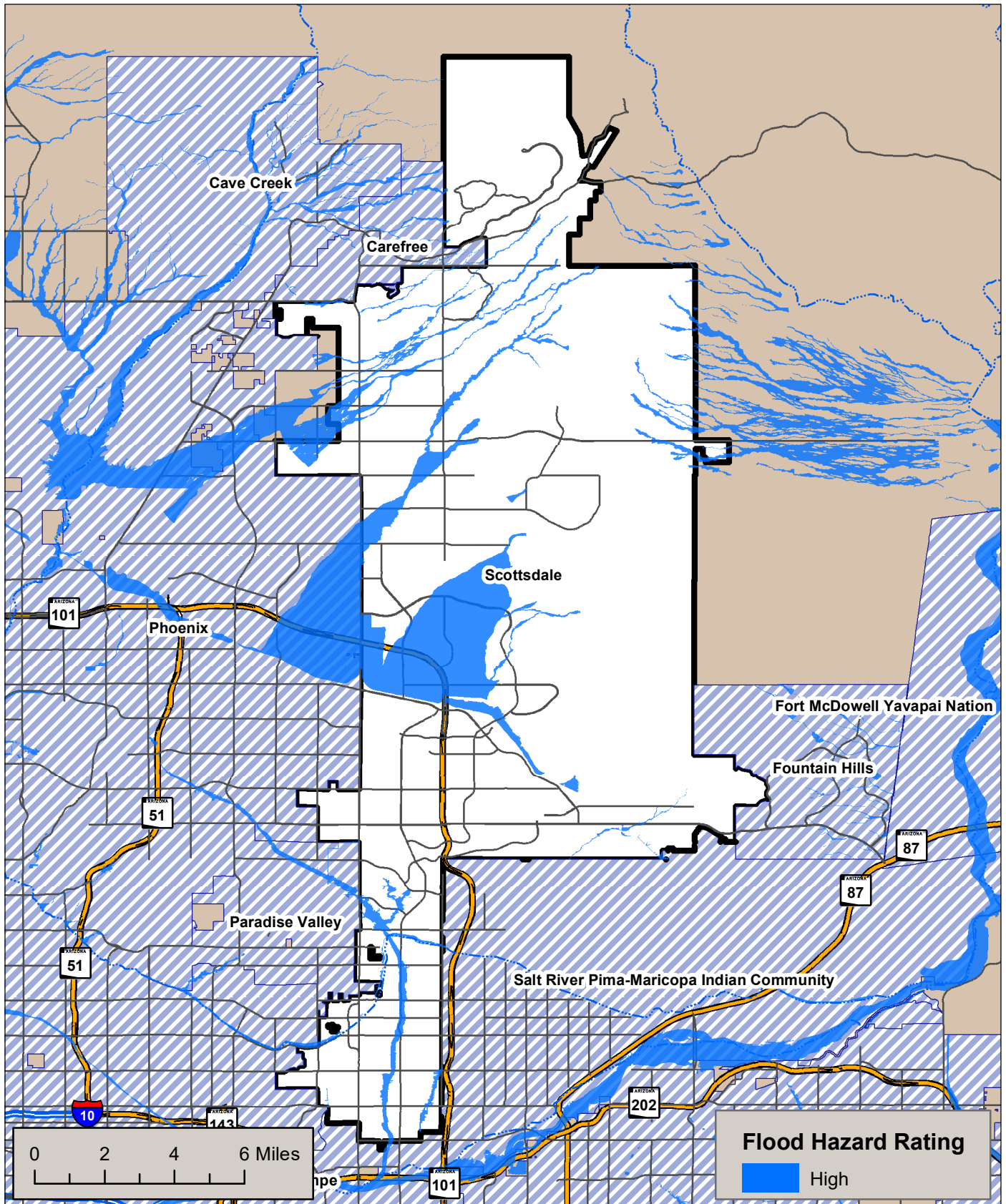
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**Maricopa County Multi-Jurisdictional Hazard Mitigation Plan**



**CITY OF SCOTTSDALE**  
ALTOUR

**Map #3D21**  
**City of Scottsdale**  
**Earth Fissure Hazard Map**  
**as of Sept 2020**




**Legend**

	Major Streams		Interstate Freeway
	Scottsdale		US Highway
	Other Communities		State Route
	Maricopa County		Major Road
			Ramp

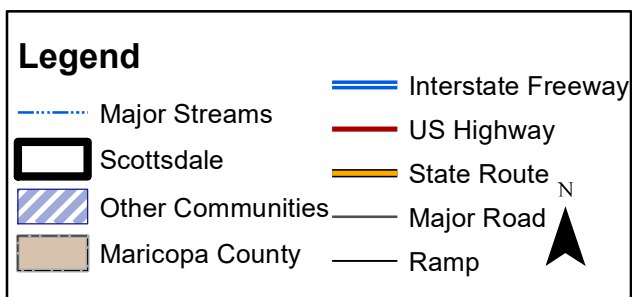
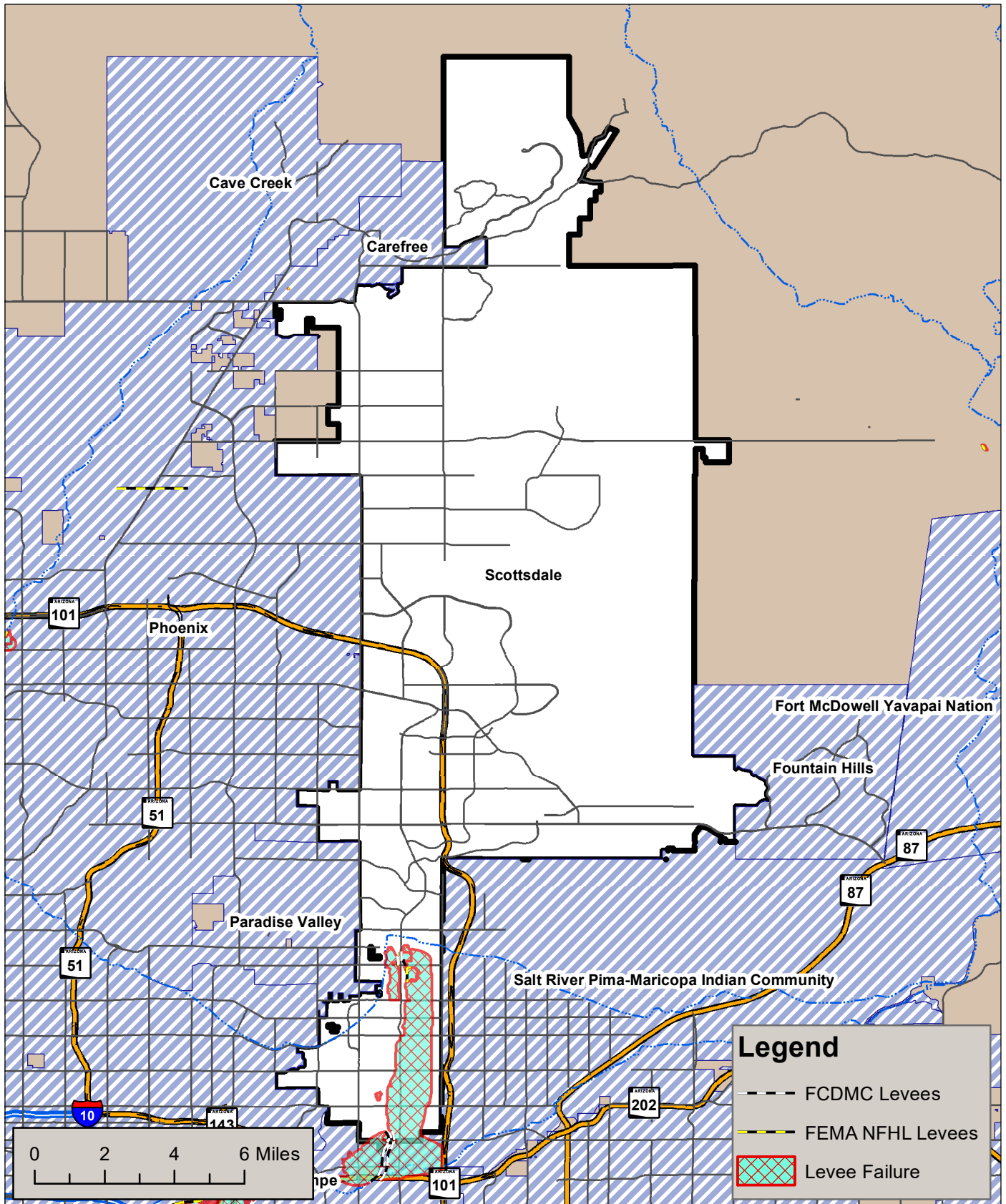
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**Maricopa County Multi-Jurisdictional Hazard Mitigation Plan**




**CITY OF SCOTTSDALE**  
ALTOUR


**Map #4D21**  
**City of Scottsdale**  
**Flood Hazard Map**  
**as of Sept 2020**

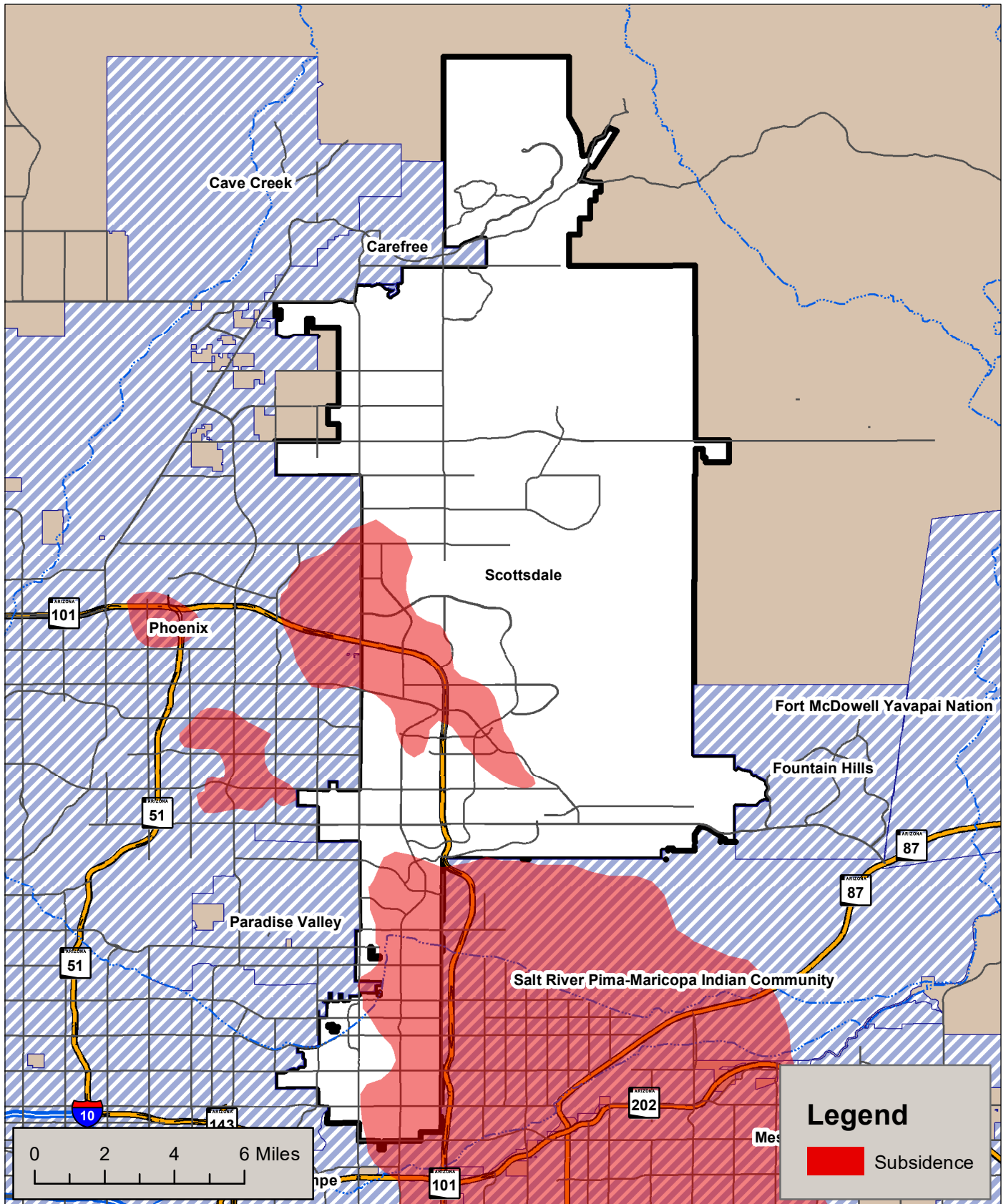


**Maricopa County Multi-Jurisdictional Hazard Mitigation Plan**



**Map #5D21**  
**City of Scottsdale**  
**Potential Levee Failure**  
**Flood Hazard Map**  
**as of Sept 2020**







**Legend**

	Major Streams		Interstate Freeway
	Scottsdale		US Highway
	Other Communities		State Route
	Maricopa County		Major Road
			Ramp

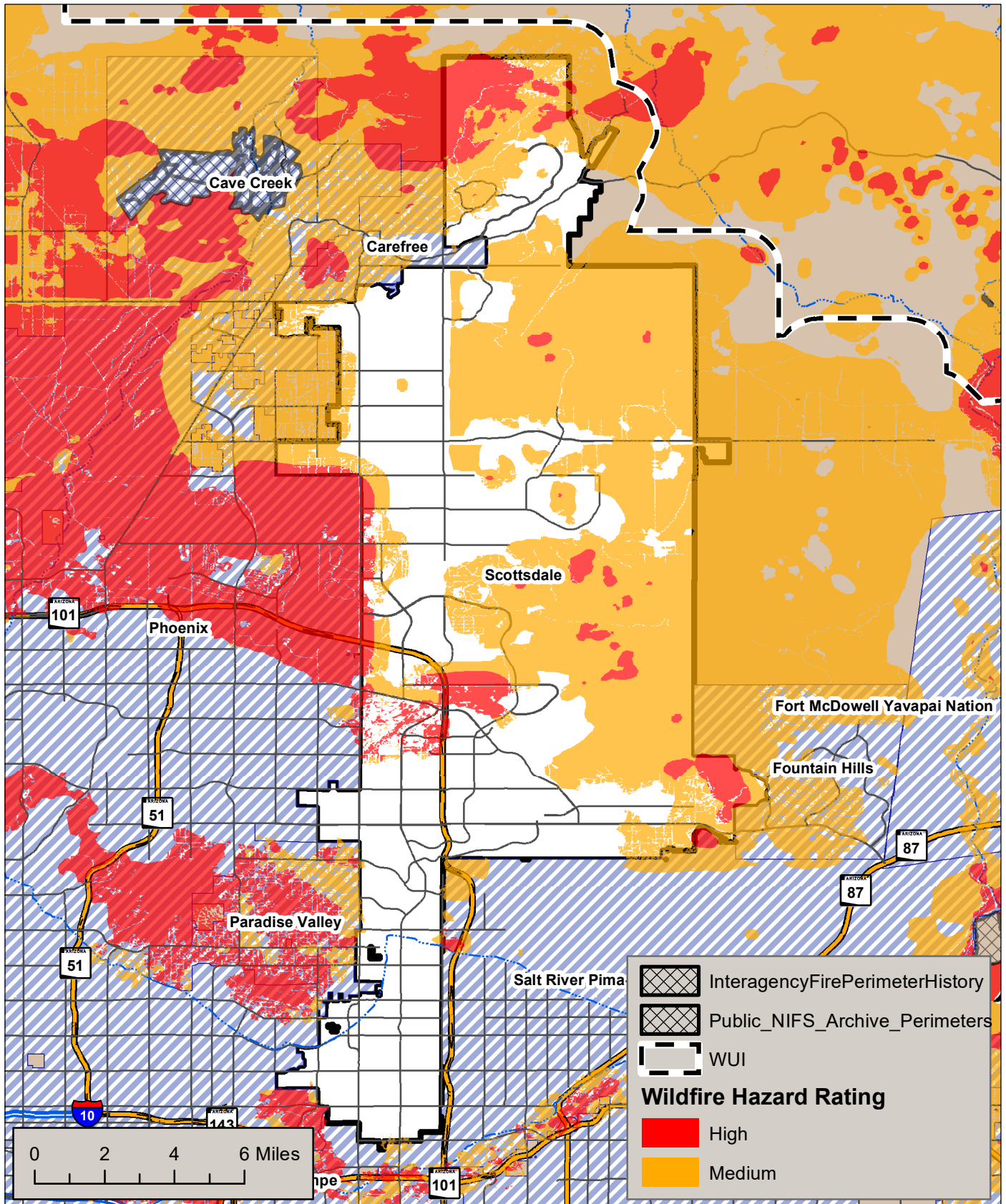
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**Maricopa County Multi-Jurisdictional Hazard Mitigation Plan**



**CITY OF SCOTTSDALE** 


**Map #6D21**  
**City of Scottsdale**  
**Subsidence Hazard Map**  
 as of Sept 2020



**Legend**

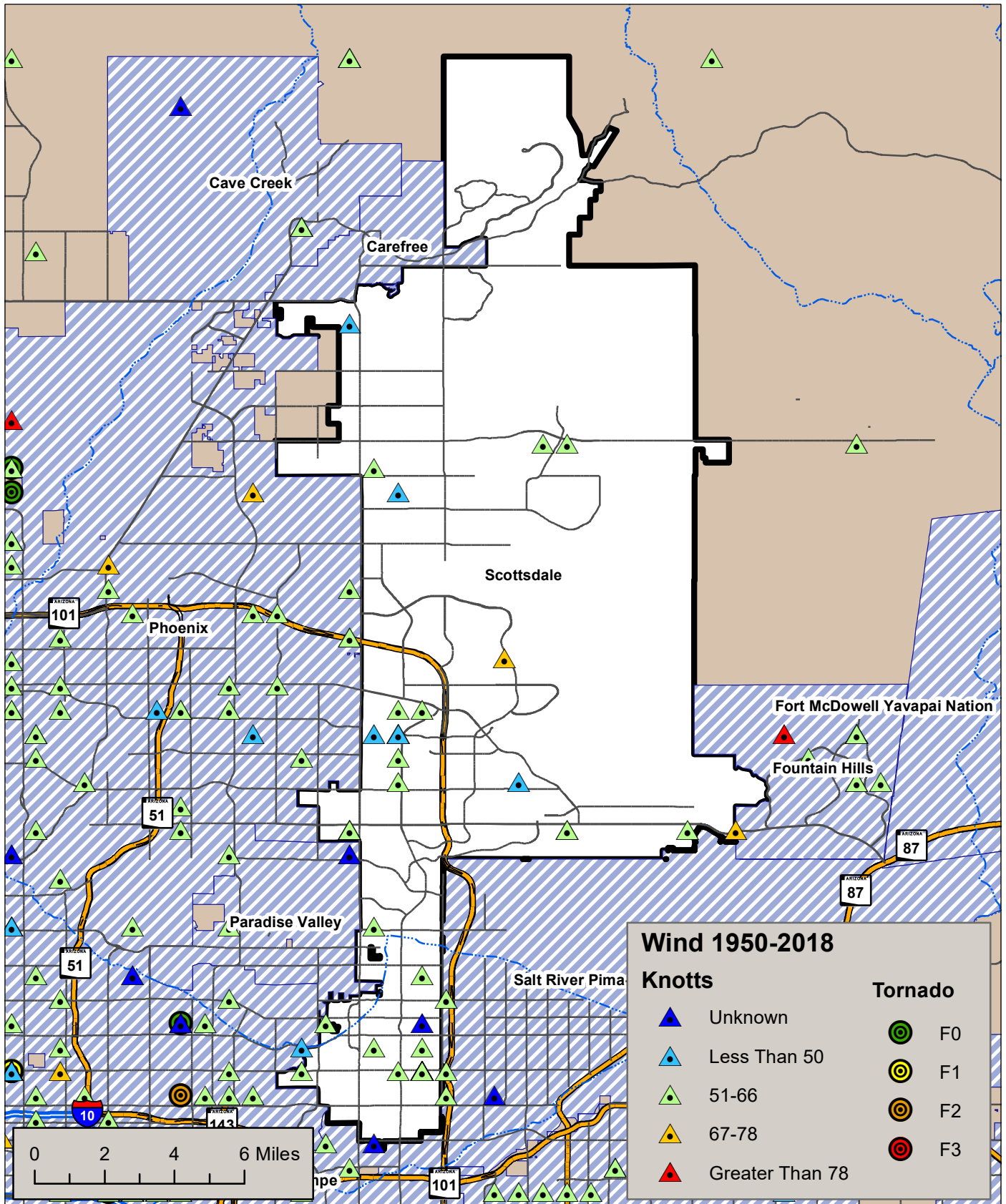
- Interstate Freeway
- Major Streams
- US Highway
- State Route
- Major Road
- Ramp
- Scottsdale
- Other Communities
- Maricopa County

**Maricopa County Multi-Jurisdictional Hazard Mitigation Plan**



**CITY OF SCOTTSDALE**


**Map #7D21**  
**City of Scottsdale**  
**Wildfire Hazard Map**  
**as of Sept 2020**



**Legend**

	Interstate Freeway
	Major Streams
	Scottsdale
	Other Communities
	Maricopa County
	US Highway
	State Route
	Major Road
	Ramp

Maricopa County Multi-Jurisdictional Hazard Mitigation Plan



**CITY OF SCOTTSDALE**

Map #8D21  
City of Scottsdale  
Severe Wind Hazard  
Map as of Sept 2020