



JURISDICTIONAL SUMMARY

FOR THE

CITY OF GLENDALE

MARICOPA COUNTY
MULTI-JURISDICTIONAL
HAZARD MITIGATION PLAN
2021

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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 2021 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.

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

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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 Glendale, 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 Glendale:

Nicole Munson
Emergency Management Coordinator

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Fire Department
11550 W. Glendale Ave.
Glendale, AZ 85301
Work: 623.872.5023
Email: nmunson@glendaleaz.com

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

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The following table summarizes the Local Planning Team (LPT) for Glendale and roles of each person.

Name	Department / Division / Branch	Title	Planning Team Role / Description of Duties
Tim Boling	Code Compliance	Code Compliance Official	Coordinated response development for Code Compliance-specific areas
James Delaittre	Innovation and Technology	Systems Analyst	Provided current logos and City boundary information
Kelly Hargadin	Engineering	CIP/Engineering Project Manager	Coordinated response development for Engineering-specific areas
Robert Juris	Development Services / Building Safety	Building Safety Administrator	Coordinated response development for Development Services / Planning-specific areas
Jeff McMenemy	Fire / Emergency Management	Deputy Fire Chief/Emergency Manager	Provided historical knowledge and direction
James Milanese	Engineering	Budget & CIP Adminsitrator	Provided information on Capital Improvement Program for Plan Integration
Nicole Munson	Fire / Emergency Management	Emergency Services Coordinator	Coordinated citywide effort; coordinated response development for Fire-specific areas
Jessi Pederson	Economic Development	Assistant Director	Provided development trends information
Megan Ramroth	Public Facilities, Recreation & Special Events	Administrative Support Specialist	Coordinated response development for Parks-specific areas
Lisa Rastovsky-Collins	Development Services	Planning Administrator	Provided updated City boundary maps
Cecilia Romero	Public Affairs	Digital Communications Program Manager	Conducted social media efforts for public involvement
Megan Sheldon	Water Services / Environmental Services	Deputy Director	Coordinated response development for Water-specific areas; provided general input where able to
<i>PROMULGATION AUTHORITY</i>			
Jerry Weiers	City Council	Mayor	Plan Promulgation
Ian Hugh	City Council	Vice Mayor	Plan Promulgation

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Name	Department / Division / Branch	Title	Planning Team Role / Description of Duties
Ray Malnar	City Council	Council Member	Plan Promulgation
Bart Turner	City Council	Council Member	Plan Promulgation
Lauren Tolmachoff	City Council	Council Member	Plan Promulgation
Jamie Aldama	City Council	Council Member	Plan Promulgation
Joyce Clark	City Council	Council Member	Plan Promulgation

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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 Glendale utilized information developed by the LPT and county-wide hazard profile data. The results of the vulnerability analysis were compiled at both a Glendale specific community level as well as on a County-wide basis. Only Glendale data is presented in this jurisdictional summary.

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 Glendale LPT then further reduced the list to reflect only those hazards most important to Glendale. The following table summarizes the County-wide list of hazards. The hazards selected for mitigation by the City are shown in bold type.

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

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)². 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 Glendale are provided following the text of this summary.

In addition, the LPT performed a vulnerability analysis 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. The groups estimated that there are at least \$4.1 billion dollars³ worth of critical and non-critical facilities within Glendale. Using this data, the group estimated the replacement value for residential buildings within Glendale amounts to over \$24.7 billion. The 2015 City population estimate is 237,327. The following table summarizes the general results of the vulnerability analysis for each of the Plan hazards in the City.

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

² The CPRI is explained in detail in the Section 5.2.3 of the main Plan

³ This estimate is likely to be inexact as detailed replacement estimates were not available under the plan development schedule.

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Hazard	Exposure Estimates ^a		
	Critical Facilities	Residential	Population ^b
Dam Failure (High Hazard)	\$0	\$0	0
Drought	(None estimated)		237,327
Extreme Heat	(None estimated)		237,327
Fissure (High Hazard)	\$4.1 million	\$0.2 million	2
Flooding (High Hazard)	\$4.0 million (35 Structures)	\$739.5 million	3,567
Levee Failure (High Hazard)	\$25.0 million (2 Structures)	\$182,000	2
Severe Wind	(None estimated)		237,327
Subsidence	\$3.4 billion	\$19.6 billion	188,227
Wildfire (High Hazard)	\$195.5 million (22 structures)	\$66.8 million	715
^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.			
^b – These numbers represent the total human population potentially exposed to the hazard.			

The MJPT and Glendale 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**

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.

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The Glendale 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 Glendale		
Regulatory Tools for Hazard Mitigation	Description	Responsible Department/Agency
CODES	<ul style="list-style-type: none"> • 2018 International Building Code • 2018 International Residential Code • 2018 International Mechanical Code • 2018 International Existing Building Code • 2017 National Electrical Code • 2010 Americans with Disabilities Act Accessibility Guidelines and the City Code. • Fair Housing Accessibility Guidelines • 2018 International Fuel Gas Code • 2018 International Plumbing Code • 2018 International Energy Conservation Code • 2018 International Fire Code • 2018 International Property Maintenance Code • City of Glendale Sound Attenuation Standards • Maricopa Association of Governments Fireplace Standards 	<ul style="list-style-type: none"> • Building Safety • Engineering • Fire Marshalls Office
ORDINANCES	<ul style="list-style-type: none"> • City of Glendale Zoning Ordinance and associated PAD and PRD documents • Landscape Ordinance • Floodplain Ordinance • Grading and Drainage Ordinance • Sub-Division Ordinance 	<ul style="list-style-type: none"> • Building Safety • Engineering • Planning
PLANS, MANUALS, and/or GUIDELINES	<ul style="list-style-type: none"> • City Department SOP’s • City of Glendale Emergency Operations Plan • Multi-Jurisdictional Mitigation Plan • General Plan 2040 • North Valley Specific Area Plan • Glendale Centerline • Western Area Plan • West Glendale Avenue Development Plan • Commercial and Industrial Design Guidelines • Residential Design & Development Manual • Adopted State Erosion Standard • Engineer Design and Construction Standards • Middle New River Master Plan • Glendale/Peoria Drainage Master Plan Update (2011) 	<ul style="list-style-type: none"> • Emergency Management • Engineering • Planning • Water Services
STUDIES	<ul style="list-style-type: none"> • 2020 MAF 2040 Regional Transportation Plan Update • 2016 Envision Glendale 2040 General Plan • 2018 Glendale Transportation Plan 	<ul style="list-style-type: none"> • Transportation • Planning



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Legal and regulatory capabilities for Glendale		
Regulatory Tools for Hazard Mitigation	Description	Responsible Department/Agency
<p><u>Opportunities for Expansion/Improvement:</u> The Water Services Department is updating its Drought Management Plan, including an evaluation of available tools and technologies to support water reduction measures for residential and non-residential customers. The plan update also involves a review of the Drought Management Ordinance (Sections 33-81 through 33-85 of City Code) for improved clarity in requirements and enforcement.</p>		

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Technical staff and personnel capabilities for Glendale		
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, Planners Engineering, Engineers Community Services
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	<input checked="" type="checkbox"/>	Engineering, Engineers Architecture, Architects Building Safety – Structural Engineers and Architects Community Services
Planner(s) or engineer(s) with an understanding of natural and/or human-caused hazards	<input checked="" type="checkbox"/>	Planning, Engineering, Water Services, Building Safety
Floodplain Manager	<input checked="" type="checkbox"/>	Engineering Dept.
Surveyors	<input checked="" type="checkbox"/>	Engineering
Staff with education or expertise to assess the community’s vulnerability to hazards	<input checked="" type="checkbox"/>	Community Services, Emergency Management, Building Safety, Fire Dept, Police Dept, Public Works, Transportation, Engineering, Architecture, Water Services
Personnel skilled in GIS and/or HAZUS	<input checked="" type="checkbox"/>	IT Department, Fire Dept, Police Dept
Scientists familiar with the hazards of the community	<input checked="" type="checkbox"/>	Police Dept, Fire Dept, Water Services, Engineering
Emergency manager	<input checked="" type="checkbox"/>	Fire Dept
Grant writer(s)	<input checked="" type="checkbox"/>	All Depts
<p><u>Opportunities for Expansion/Improvement:</u> The Water Services Department recently updated its asset management program. As part of this process, information on stormwater assets was verified. Procedures for inspection and maintenance of those assets will be enhanced to continue to mitigate flooding. Emergency Management, in coordination with the Fire Department, could enhance public information and outreach on preparedness and mitigation activities related to flooding, extreme heat, and wildfires to educate the community.</p>		

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Fiscal capabilities for Glendale		
Financial Resources	Accessible or Eligible to Use (Yes, No, Don't Know)	Comments
Community Development Block Grants	Yes	Community Services
Capital Improvements Project funding	Yes	Budget and Finance
Authority to levy taxes for specific purposes	Yes	Function of Legislation (see COG website-Appendix 18 FAQ under levy taxes)
Fees for water, sewer, gas, or electric service	Yes	Water Services Department. Budget and Finance Department
Impact fees for homebuyers or new developments/homes	Yes	Budget and Finance, Development Services
Incur debt through general obligation bonds	Yes	Budget and Finance
Incur debt through special tax bonds	Yes	Budget and Finance
<p><u>Opportunities for Expansion/Improvement:</u> Glendale will continue to evaluate the rate structures for water, sewer, storm water, and urban irrigation service as part of the annual budget process. The rate structure considers investments to support reliable access to existing water supplies as well as future conditions (population growth; drought). The City's Capital Improvement Program includes projects to ensure a reliable water supply during drought. Also, in the next few years, projects may be added for enhancements to the storm water system to mitigate flooding. In addition, the City of Glendale can consider pursuing FEMA mitigation grants for CIP and cost-beneficial projects that have been identified as having a high potential of being funded. A review of proposed projects would occur a few years in advance of the project implementation to determine the likelihood of being funded.</p>		

Using the vulnerability analysis, capability assessment, and goals and objectives allowed the Glendale LPT to develop an updated list of mitigation actions/projects with a clearly defined implementation strategy. The group evaluated each action/project and prioritized it 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 Glendale. Projects listed in *italics font* are recognized as being more response and recovery oriented, but are considered a significant part of the overall hazard management goals of the community.

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Mitigation actions and projects and implementation strategy for Glendale									
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	In partnership with The Salvation Army, provide respite care and dehydration stations. This effort mitigates loss of life during extreme temperature.	Extreme Heat	Existing	Staff time	High	N/A	On-going	Emergency Management	Donations
2	Perform a public information campaign in coordination with the City of Glendale Marketing Department and Fire Department to educate and inform citizens of safety during periods of extreme heat.	Extreme Heat	Existing	Staff time	High	N/A	On-going	Fire Department and Public Affairs / Public Information Officer	GDEM/FD Budget
3	Ordinance compliance and maintenance of property (weed/brush abatement)	Wildfire	Existing	Staff time	High	City Code	On-going	Code Compliance	General Fund Budget
4	Reduce the risk of fires to communities located against a wildland interface through participation with Maricopa County and other local jurisdictions in the development of a Community Wildfire Protection Plan (CWPP)	Wildfire	Both	Staff time	High	Healthy Forests Restoration Act of 2003 (HFRA)	2025	Emergency Management / Emergency Management Coordinator	General Fund Budget
5	Maintenance of Emergency Action Plan (EAP) of covered municipal water storage reservoir with a capacity of 12 million gallons. (Thunderbird Reservoir)	Dam Failure	Existing	Staff time	High	Regulatory Requirement	On-going	Water Services / Water Facilities Supervisor	Water Services Budget
6	Participation in the Annual ADWR inspection and survey of the Thunderbird Reservoir.	Dam Failure	Existing	Staff time	High	Regulatory Requirement	Annually	Water Services / Water Facilities Supervisor	Water Services Budget
7	Participation in annual EAP drills and tabletop exercises.	Dam Failure	Existing	Staff time	High	Regulatory Requirement	Annually	Water Services / Water Facilities Supervisor	Water Services Budget
8	Water Conservation Office conducting educational outreach to the public on best practices, via classes, flyers, website, social media	Drought	Existing	Staff time	High	Municipal Conservation Program Requirement	On-going	Water Services / Environmental Programs Administrator	Water Services Budget

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Mitigation actions and projects and implementation strategy for Glendale									
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	Encourage permanent reduction in amount of water used for landscaping purposes through Landscape Rebate up to \$750 for residential and \$3,000 for non-residential.	Drought	New	Staff time	High	Municipal Conservation Program Requirement	On-going	Water Services / Environmental Programs Administrator	Water Services Budget/Grant
10	Update Drought Management Plan (2016) to assist in management of operations when a drought is declared.	Drought	Existing	Staff time	High	Regulatory Requirement	On-going	Water Services / Environmental Programs Administrator	Water Services Budget
11	Conduct landscape classes (promote xeriscape) to encourage use of drought-resistant landscaping	Drought	Existing	Staff time	High	Municipal Conservation Program Requirement	On-going	Water Services / Environmental Programs Administrator	Water Services Budget
12	Citywide plan to control stormwater, including identification of problem areas (drainage issues, illicit discharges, etc.). The City's Stormwater Management Plan is reviewed annually and updated as needed.	Flood	Existing	Staff time	High	Regulatory Requirement	On-going Submitted to ADEQ in 2014	Engineering / Engineering Project Manager Water Services / Environmental Program Manager	City and Water Services Budget
13	Maintain emergency generators at water and wastewater plants, water booster stations, and wastewater lift stations.	Severe Wind	Existing	Staff time	High	N/A	On-going	Water Services / Water Services Supervisor	Water Services Budget
14	Maintain emergency generators at public safety facilities, including police stations, fire stations and Glendale Regional Public Safety Training Center.	Severe Wind	Existing	Staff time	High	N/A	On-going	Various Departments	Fire Budget
15	Work with federal and state agencies, and local coalition to evaluate awareness of fissure risk zones and the problems caused by fissures.	Fissures	Existing	Staff time	High	Development Services/Planning	On-going	Planning	City Budget
16	Geological hazards addressed in General Plan and will be incorporated in the planning process for the next General Plan.	Fissures	Existing	Staff time	High	Development Services/Planning	On-going	Planning	City Budget

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Mitigation actions and projects and implementation strategy for Glendale									
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	Utilization of Development Services plans and procedures to survey and monitor elevations in the City of Glendale to determine and establish long term mitigation strategies.	Subsidence	Existing	Staff time	High	Development Services/ Engineering	On-going	Planning	City Budget
18	Development Services has utilized the risk as a regular risk of development and public work projects. The lands used for such projects are inspected for subsidence issues prior to projects starting.	Subsidence	Existing	Staff time	High	Development Services/Field Ops	On-going	Planning	City Budget
19	Inform citizens of risks associated with flood risk areas, specifically parks multi-use pathways.	Levee Failure	Existing	Staff time	High	Public Facilities, Recreation & Special Events	On-going	Public Facilities, Recreation & Special Events	City Budget
20	Work with Flood Control District of Maricopa County to determine potential effects of levee failure	Levee Failure	Existing	Staff time	High	Emergency Action Plans	On-gong	Emergency Manager and Emergency Services Coordinator / Emergency Management	City Budget
21	Participate in annual Flood Control District of Maricopa County Drill/Exercises	Levee Failure	Existing	Staff time	High	N/A	Annually	Emergency Manager and Emergency Services Coordinator / Emergency Management	City Budget
22	Enforce currently adopted building codes (2018 IBC and IRC) to mitigate damages due to severe wind events.	Severe Wind	New	Staff time	High	Building Codes / Development Review and Building Inspection Processes	On-going as needed	Building Safety	City Budget

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Mitigation actions and projects and implementation strategy for Glendale									
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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)
23	Encourage homeowners to use tie-down straps and/or anchors to secure ancillary buildings and metal awnings or porches to mitigate the potential for flying debris during severe wind events.	Severe Wind	Both	Staff time	High	Building Codes / Development Review and Building Inspection Processes	On-going as needed	Building Safety	City Budget
24	Use website and social media sources to raise public awareness to the impacts of flood and severe winds associated with monsoon season.	Flood, Severe Wind	Both	Staff time	High	N/A	On-going and seasonal	Emergency Management	City Budget

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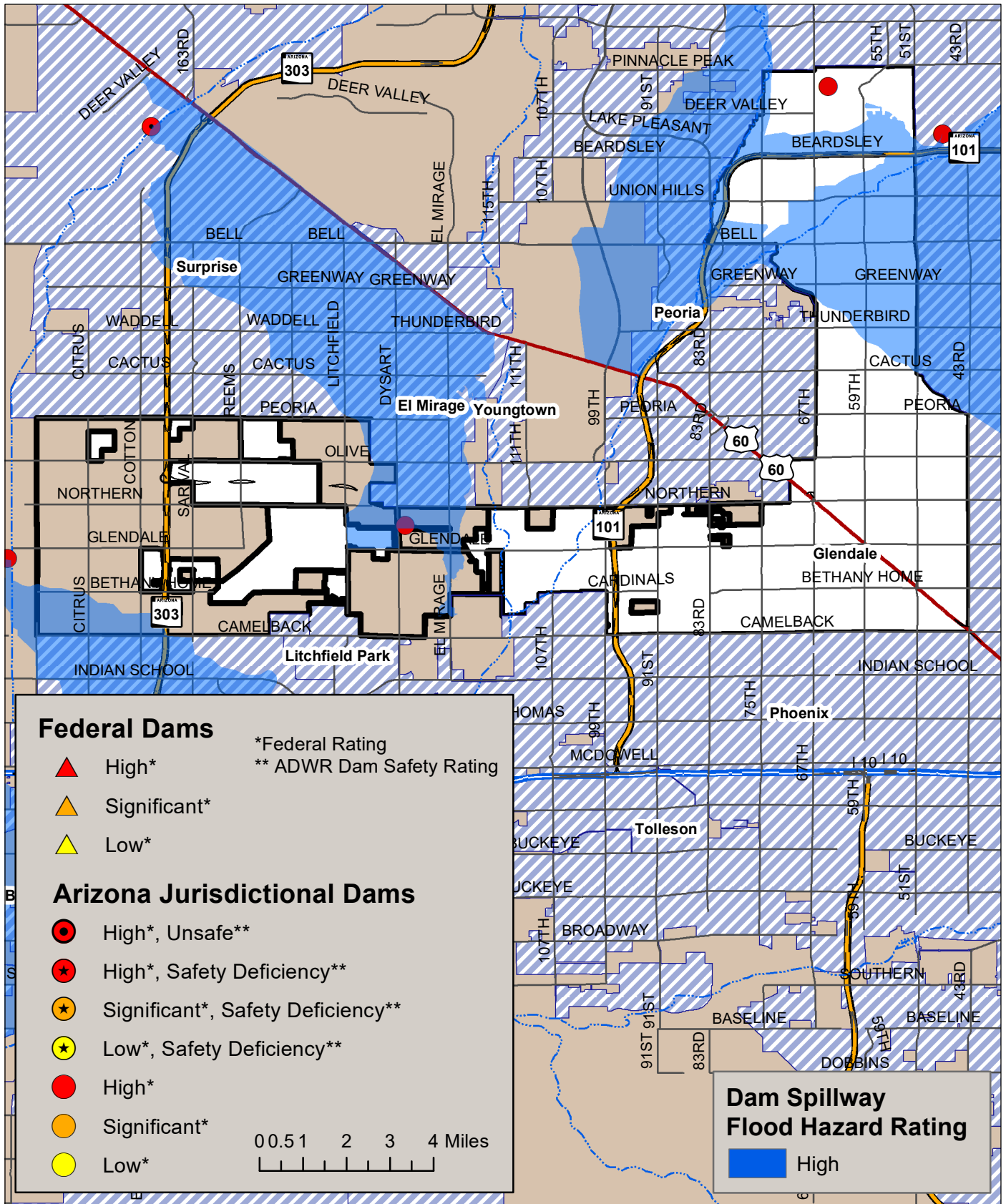
As a final step in the planning process, plan maintenance procedures were developed by the MJPT to establish guidelines for maintaining, reviewing, and updating the Plan over the next five (5) years. The MJPT reviewed the current DMA 2000 rules and October 2011 FEMA guidance document and discussed a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



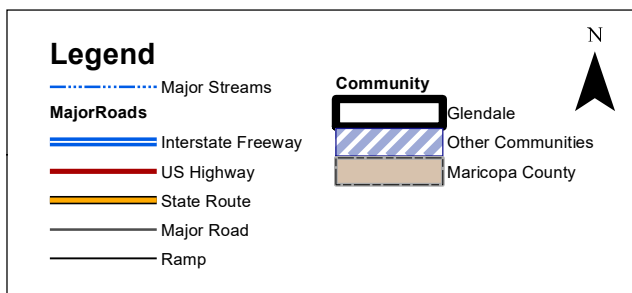
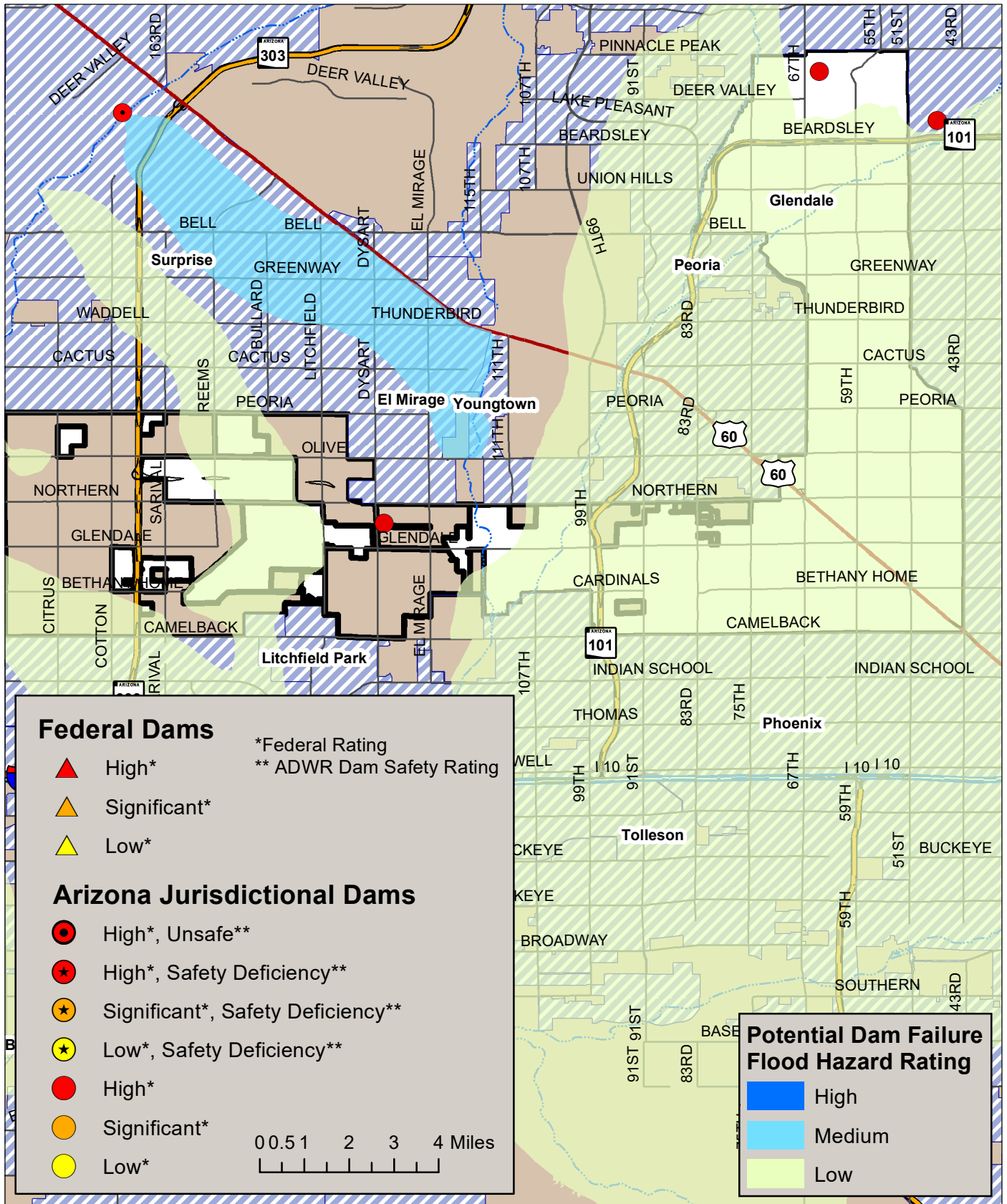
Legend

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

N

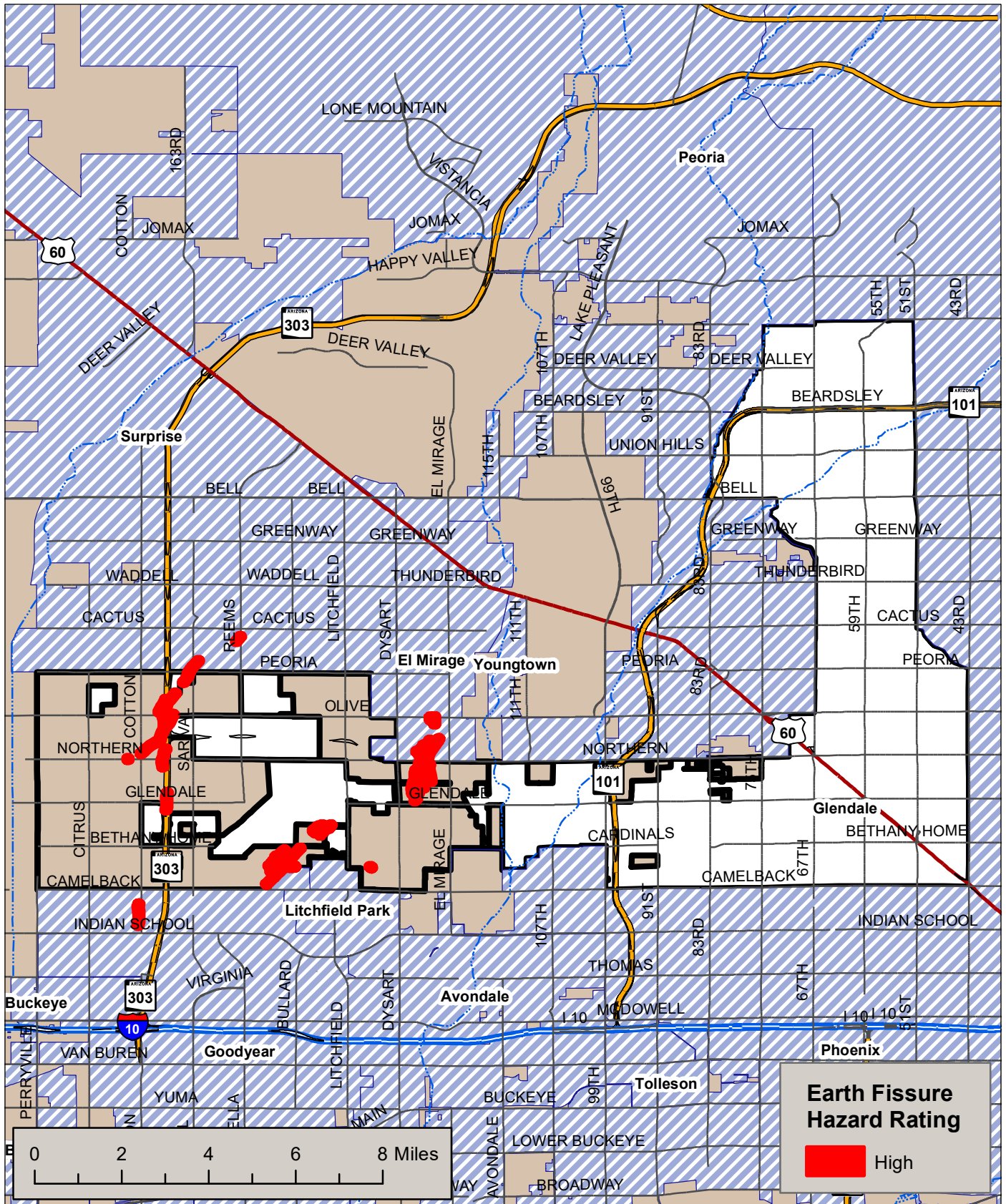
Maricopa County Multi-Jurisdictional Hazard Mitigation Plan

Map #1D11
City of Glendale
Dam Spillway
Flood Hazard Map
as of Sept 2020



Maricopa County Multi-Jurisdictional Hazard Mitigation Plan

Map #2D11
City of Glendale
Potential Dam Failure Flood Hazard Map
as of Sept 2020



Legend


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

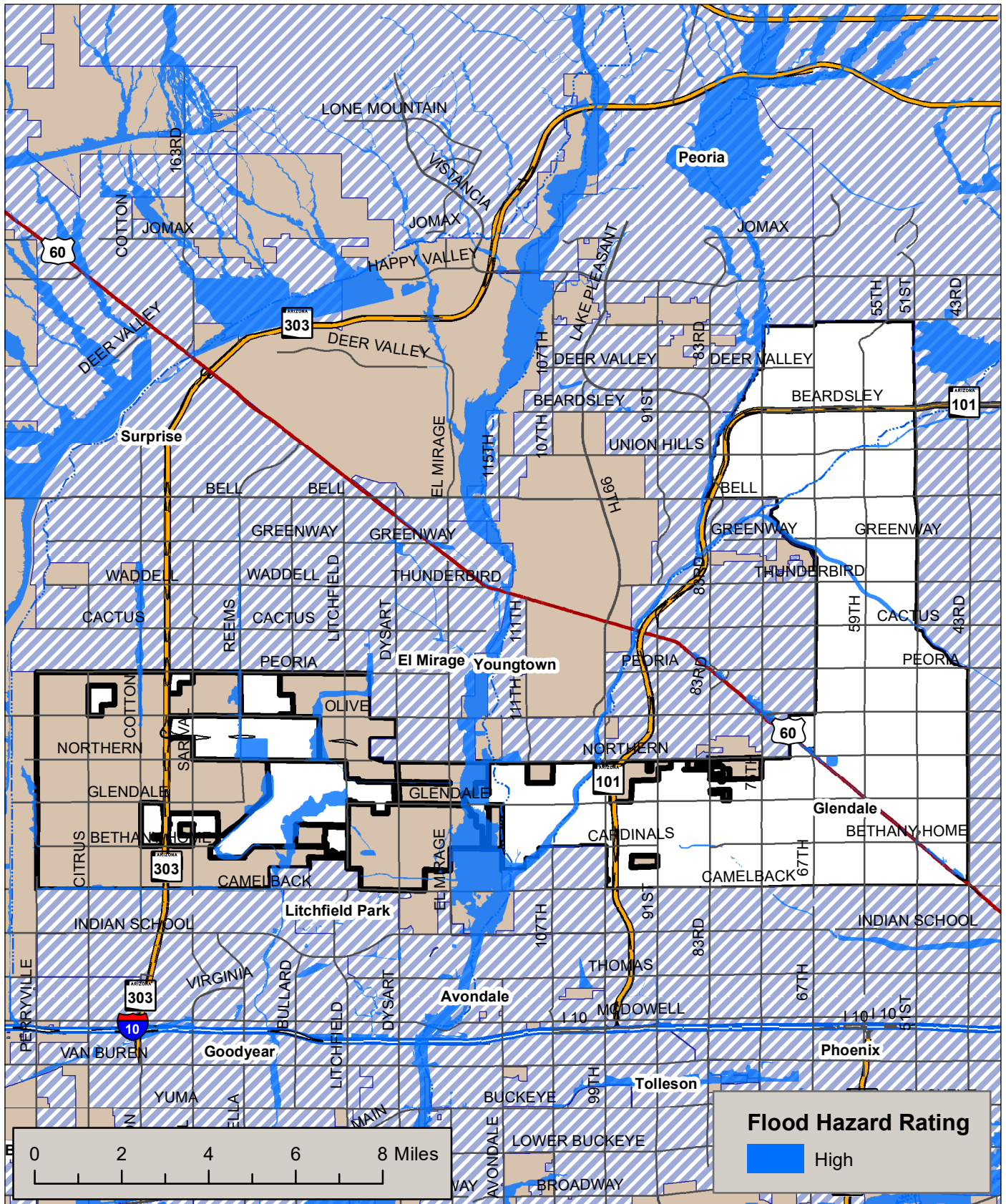
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Maricopa County Multi-Jurisdictional Hazard Mitigation Plan



Map #3D11
City of Glendale
Earth Fissure Hazard Map
as of Sept 2020






Legend


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

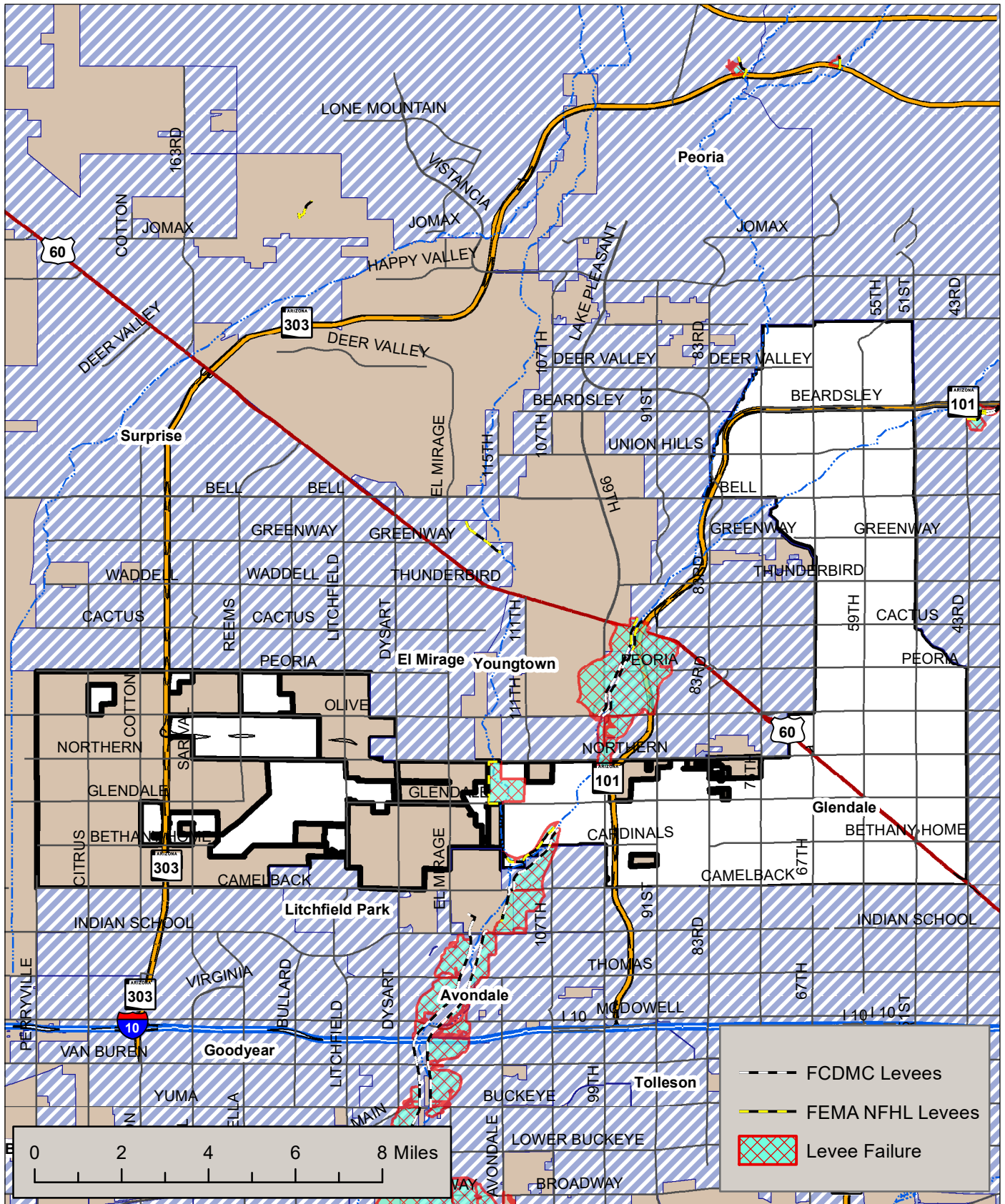
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Maricopa County Multi-Jurisdictional Hazard Mitigation Plan



Map #4D11
City of Glendale
Flood Hazard Map
as of Sept 2020





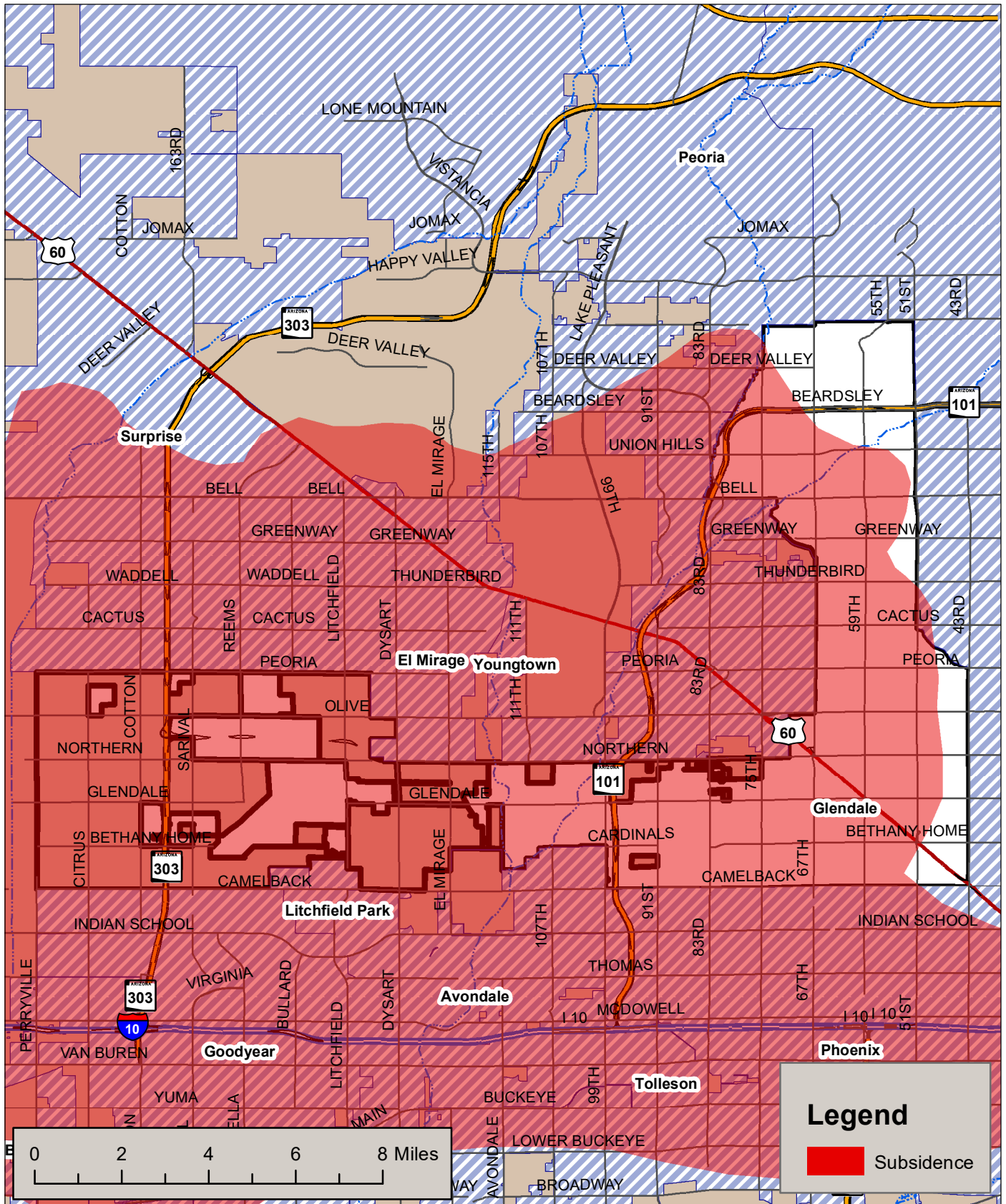
Legend

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

N

Maricopa County Multi-Jurisdictional Hazard Mitigation Plan

Map #5D11
City of Glendale
Potential Levee Failure
Flood Hazard Map
as of Sept 2020




Legend


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

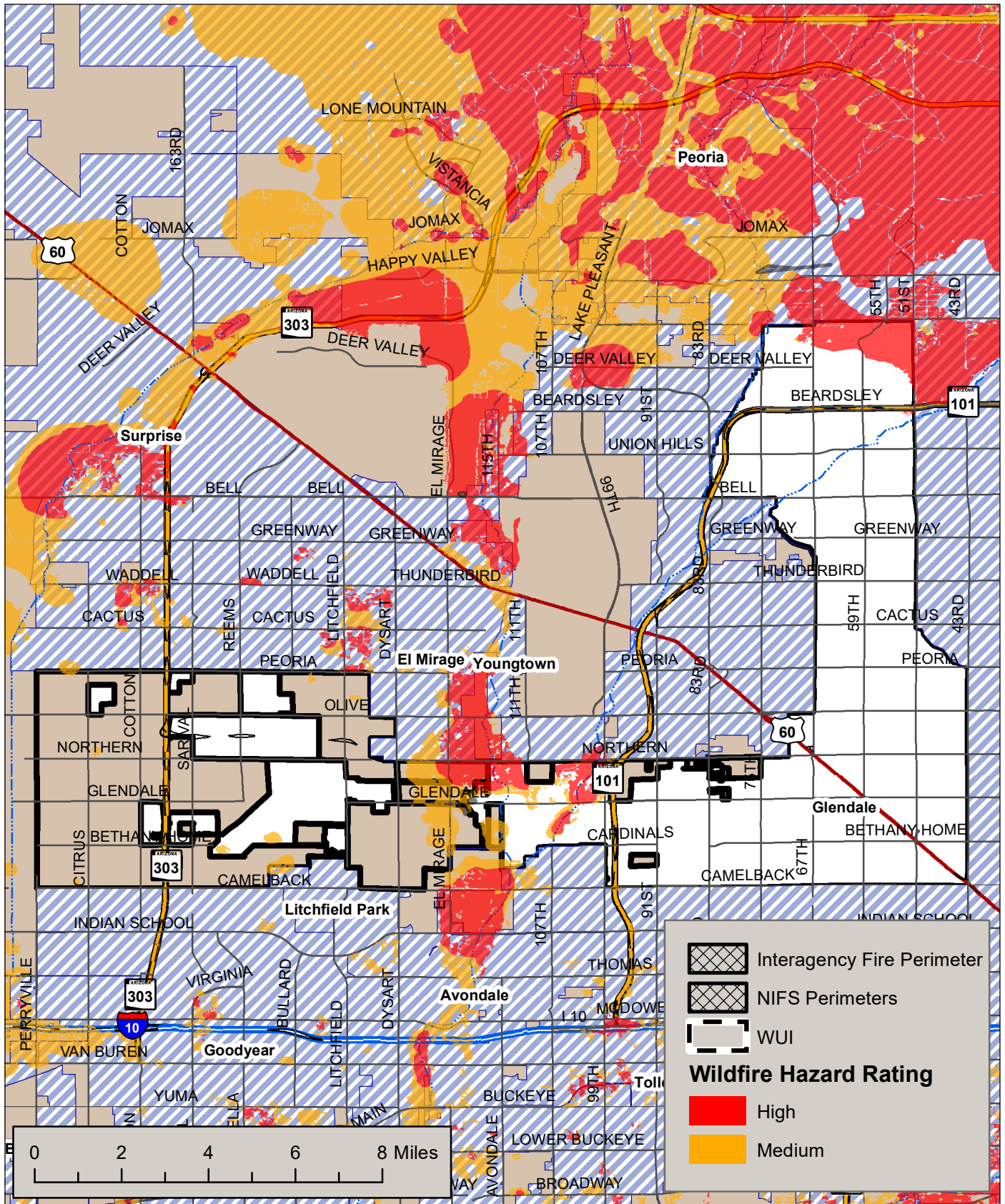
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Maricopa County Multi-Jurisdictional Hazard Mitigation Plan



Map #6D11
City of Glendale
Subsidence Hazard Map
as of Sept 2020







Legend

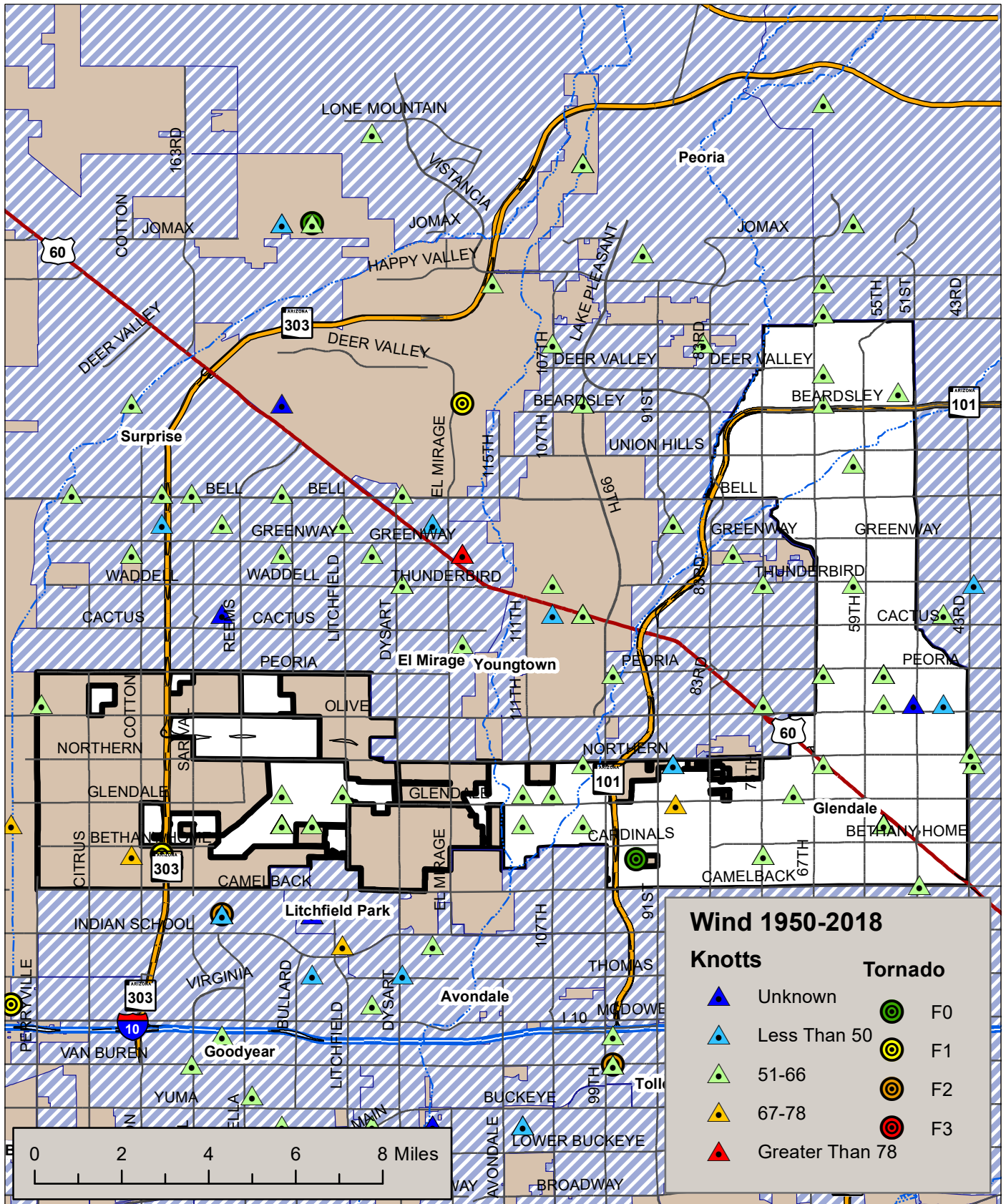
	Major Streams		Interstate Freeway
	Glendale		US Highway
	Other Communities		State Route
	Maricopa County		Major Road
			Ramp

Maricopa County Multi-Jurisdictional Hazard Mitigation Plan



Map #7D11
City of Glendale
Wildfire Hazard Map
as of Sept 2020







Legend

- Interstate Freeway
- Major Streams
- ▭ Glendale
- ▨ Other Communities
- ▩ Maricopa County
- US Highway
- State Route
- Major Road
- Ramp

Maricopa County Multi-Jurisdictional Hazard Mitigation Plan



Map #8D11
City of Glendale
Severe Wind Hazard
Map as of Sept 2020



2021 Maricopa County Multi-Jurisdictional Hazard Mitigation Plan

CITY OF GLENDALE, an Arizona
municipal corporation

Kevin R. Phelps, City Manager

ATTEST:

Julie K. Bower, City Clerk (SEAL)

APPROVED AS TO FORM:

Michael D. Bailey, City Attorney