SECTION 6: MITIGATION STRATEGY

> ***§201.6(c)(3):*** *[The plan shall include…] (3) A* ***mitigation strategy*** *that provides the jurisdiction's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools. This section shall include:*
> *(i) A description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.*
> *(ii) A section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.*
> *(iii) An action plan describing how the actions identified in paragraph (c)(3)(ii) of this section will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.*
> *(iv) For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.*

The mitigation strategy provides the "what, when, and how" of actions that will reduce or possibly remove the community's exposure to hazard risks. According to DMA 2000, the primary components of the mitigation strategy are generally categorized into the following:

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

The entire 2004 Plan mitigation strategy was reviewed and updated by the MJPT, including a major re-organization of the mitigation strategy elements into this multi-jurisdictional plan format. Specifics of the changes and updates are discussed in the subsections below.

6.1 Hazard Mitigation Goals and Objectives

The 2004 Plan goals and objectives were developed using the 2004 State Plan[50] goals and objectives as a starting point. Each jurisdiction then edited and modified those goals and objectives to fit the mitigation planning vision for their community. An assessment of those goals and objectives by the MJPT and the LPT for each jurisdiction was made with consideration of the following[51]:

- Do the goals and objectives identified in the 2004 Plan reflect the updated risk assessment?
- Did the goals and objectives identified in the 2004 Plan lead to mitigation projects and/or changes an policy that helped the jurisdiction(s) to reduce vulnerability?
- Do the goals and objectives identified in the 2004 Plan support any changes in mitigation priorities?
- Are the goals and objectives identified in the 2004 Plan reflective of current State goals?

After much discussion and comparison of the 2004 Plan goals and objectives to the 2007 State Plan, the MJPT chose to completely drop the current list of goals and objectives in favor of preparing a multi-jurisdictional template of goals and objectives that are closely based on the 2007 State Plan. Reasons for the change included:

- The 2004 Plan goals and objectives were overly complicated and even confusing in some instances.
- Many of the 2004 Plan goals and objectives dealt with human-caused hazards which are no longer part of this plan.

[50] State of Arizona, 2004, *State of Arizona All Hazard Mitigation Plan*, prepared by URS.

[51] FEMA, 2008, *Local Multi-Hazard Mitigation Planning Guidance*

- The 2007 State Plan goals and objectives were much simpler and better captured the overall planning vision of the MJPT.
- Having a simpler, common set of goals and objectives for the multi-jurisdictional plan will make future assessment of the progress and achievements easier.

The result of the discussions resulted in establishing one goal and four clear objectives that will be used by all participating jurisdictions, 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.

6.2 Capability Assessment

While not required by DMA 2000, an important component of the Mitigation Strategy is a review of each participating jurisdiction's resources in order to identify, evaluate, and enhance the capacity of local resources to mitigate the effects of hazards. The capability assessment is comprised of several components:

- ✓ Legal and Regulatory Review – a review of the legal and regulatory capabilities, including ordinances, codes, plans, manuals, guidelines, and technical reports that address hazard mitigation activities.
- ✓ Technical Staff and Personnel – this assessment evaluated and describes the administrative and technical capacity of the jurisdiction's staff and personnel resources.
- ✓ Fiscal Capability – this element summarizes each jurisdiction's fiscal capability to provide the financial resources to implement the mitigation strategy.
- ✓ National Flood Insurance Program (NFIP) Participation – the NFIP contains specific regulatory measures that enable government officials to determine where and how growth occurs relative to flood hazards. Participation in the NFIP is voluntary for local governments, but the program is promoted by FEMA as a basic first step for implementing and sustaining an effective flood hazard mitigation program, and is a key indicator for measuring local capability as part of this assessment.
- ✓ Prior Mitigation Actions – the final part of the capability assessment is a summary review of prior mitigation actions and/or projects that have been completed over the last five or so years.

For this update, the MJPT reviewed the information provided in Section 8 of the 2004 Plan, and specifically Tables 8.1 – 8.4. The MJPT chose to keep the format of Tables 8.2 and 8.3 for reporting the staff/personnel and fiscal resources. Table 8.1 was modified to not only report on the regulatory capabilities, but also to summarize the codes, plans, and studies/reports used by a jurisdiction. Table 8.4 was considered to be confusing and not beneficial, and was dropped from the plan.

6.2.1 Jurisdictional Capabilities

Tables 6-1-xx summarize the legal and regulatory mitigation capability for each jurisdiction. Information provided includes a brief listing of current codes, mitigation relevant ordinances, plans, and studies/reports. Tables 6-2-xx summarize the staff and personnel resources employed by each jurisdiction that serve as a resource for hazard mitigation. Tables 6-3-xx summarize the fiscal capability and budgetary tools available to each participating jurisdiction. Each of these three tables are listed below by jurisdiction.

Table 6-1-1: Summary of legal and regulatory capabilities for Avondale

Regulatory Tools for Hazard Mitigation	Description
CODES	• 2006 International Building Code • 2006 International Residential Code • 2006 International Mechanical Code • 2006 International Plumbing Code • 2006 International Energy Conservation Code • 2005 National Electrical Code • 2003 International Fire Code
ORDINANCES	• City of Avondale Ordinances (as Adopted) & Weed Abatement Ordinance/Planning • International Property Maintenance Code (IPMC) - 302.4 • Subdivision/Zoning Ordinance • Zoning Ordinance and Subdivision Regulations 2006 – Chapter 5 Planned Area Development District
PLANS, MANUALS, and/or GUIDELINES	• General Plan/City Ordinance • Capital Improvement Project Plan • Development Guidelines and Policies • City Emergency Operations Plan • Pandemic Preparedness and Response Plan • Flood Control and Response Plan (McMicken Dam) • Nation Response Framework • State and Local Mitigation Plan (as adopted)
STUDIES	• Maricopa County Mass Evacuation Planning Group

Table 6-2-1: Summary of technical staff and personnel capabilities for Avondale		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Ken Sowers-Chief Building Official
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Sue McDermott-City Engineer
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Sue McDermott-City Engineer
Floodplain Manager	☑	Sue McDermott-City Engineer
Surveyors		
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Ken Sowers-Chief Building Official
Personnel skilled in GIS and/or HAZUS	☑	Marilyn Derosa-GIS
Scientists familiar with the hazards of the community		
Emergency manager	☑	Art Snapp-Fire
Grant writer(s)	☑	Janeen Gaskins-Grants Supervisor
Others		

Table 6-3-1: Summary of fiscal capabilities for Avondale		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric service	Yes	
Impact fees for homebuyers or new developments/homes	Yes	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Other		

Table 6-1-2: Summary of legal and regulatory capabilities for Buckeye	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2006 International Building Code • 2006 International Residential Code • 2006 International Mechanical Code • 2006 International Plumbing Code • 2005 National Electrical Code • 2006 International Fuel Gas Code • 2006 International Energy Conversation Code • 2006 International Property Maintenance Code • 2006 International Existing Building Code • 2006 International Fire Code
ORDINANCES	• Zoning Ordinance • 2009 Water Conservation Ordinance
PLANS, MANUALS, and/or GUIDELINES	• 2004 Town of Buckeye Hazard Mitigation Plan (currently being updated) • 2007 Town of Buckeye General Plan Update • 2007 Airport Master Plan • Development Code Update (currently being updated) • 2005 Parks, Trails, and Open Space Master Plan • 2008 Trails Master Plan • Site Plan Review Requirements • Capital Improvements Plan
STUDIES	• Part 150 Noise Compatibility Study • 2008 ADOT Hazardous Materials Study • MAG Regional Transportation Study • Impact Fee Study (currently being updated) • MAG Commuter Rail Study – Yuma West corridor (currently in progress) • Water / Wastewater Master Plan (currently in progress) • Transportation Master Plan (currently in progress) • Drainage Master Plan (currently in progress) • Downtown Storm Drain Improvement Plan (currently in progress)

Table 6-2-2: Summary of technical staff and personnel capabilities for Buckeye		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Planning, Planners
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Engineering, Engineers – Architecture, Architects
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Planning, Engineering, Water Services Dept, Development Services Dept
Floodplain Manager	☑	Street, Transportation Dept
Surveyors	☑	Street, Public Works, Water Services Dept
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Neighborhood Services Dept, Human Services, Emergency Management, Development Services, Fire Dept, Police Dept, Public Works, Streets, Engineering, Architecture, Water Services Dept
Personnel skilled in GIS and/or HAZUS	☑	ITD, Fire Dept, Police Dept
Scientists familiar with the hazards of the community	☑	Police Dept, Water Services Dept, Fire Dept
Emergency manager	☑	Fire Dept, Fire Chief
Grant writer(s)	☑	Every Dept
Others		

Table 6-3-2: Summary of fiscal capabilities for Buckeye		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric service	Yes	
Impact fees for homebuyers or new developments/homes	Yes	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Other		

Table 6-1-3: Summary of legal and regulatory capabilities for Carefree	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2003 International Building Code • 2002 National Electrical Code • 2003 International Mechanical Code • 1994 International Plumbing Code • 2003 International Residential Code
ORDINANCES	• Abatement Ordinance Town Code 6-1 2006 • Adult Oriented Business Town Zoning Ordinance 2006 • Dark Sky Ordinance Town Building Code 2003 • Noise Ordinance Town Code 6-2(P-23) 2006 • Town Zoning Ordinance 2003
REGULATIONS	• Zoning and Planning Addressing Regulations • Flood Control District • Dust Abatement Regulations • Town Subdivision Regulations
PLANS, MANUALS, and/or GUIDELINES	• Town Plan for Area Land Use In 2002 General Plan • 2008 Town Transportation Plan • Comprehensive Planning Amendments • Guidelines included in 2002 General Plan • Planning and Development included in 2002General Plan and 2006 Carefree Zoning Ordinances • Development Master Plan Guidelines included in Carefree 2002 General Plan • Area Drainage Master Plan completed via 2004 Maricopa County Flood Control District • Watercourse Master Plan completed via 2004 Maricopa County Flood Control District
STUDIES	• Dam Safety Studies / Emergency Action Plans 2006 • Area Drainage Master Studies • Corridor Studies 2007 Traffic Study • Emergency Routes Evaluation 2008

Table 6-2-3: Summary of technical staff and personnel capabilities for Carefree		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Planning and Development - Planners Environmental Services – Inspectors
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Planning and Development - Planners Environmental Services – Inspectors
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Planning and Development - Planners Emergency Management - Planners
Floodplain Manager		None on Staff
Surveyors	☑	Planning and Development - Planners Transportation – Engineer Patrick Neal Emergency Management – Planners

Table 6-2-3: Summary of technical staff and personnel capabilities for Carefree		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Planning and Development – GIS Staff Emergency Management – GIS Staff Sheriff's Office – Marshal Elections – Town Clerk/GIS Staff Environmental Services – GIS Staff Air Quality – GIS Staff
Personnel skilled in GIS and/or HAZUS	☑	Contract On Staff – Hydrologist Erich Korsten
Scientists familiar with the hazards of the community	☑	Emergency Management - Director/Marshal/Planners
Emergency manager	☑	Emergency Management - Marshal Fire Department – Grant writer Water Department - Manager
Grant writer(s)	☑	Planning and Development - Planners Environmental Services – Inspectors
Others		

Table 6-3-3: Summary of fiscal capabilities for Carefree		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric service	Yes	
Impact fees for homebuyers or new developments/homes	Yes	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Other		

Table 6-1-4: Summary of legal and regulatory capabilities for Cave Creek	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2003 International Building Code • 2003 International Residential Code • 1994 International Plumbing Code w/ state amendments • 2003 International Mechanical Code • 2003 International Fire Code • 2002 National Electric Code
ORDINANCES	• 2007 Cave Creek Zoning Ordinance • 2004 Cave Creek Sub-Division Ordinance • 2005 Town of Cave Creek General Plan • 2007 Town of Cave Creek Town Core and Implementation Plan
PLANS, MANUALS, and/or GUIDELINES	• 2008 Town of Cave Creek DMP Flood Response Plan • 2008 Town of Cave Creek Master Drainage Plan • 2005 Town of Cave Creek Multi-Hazard Mitigation Plan (currently being updated) • 2007 Town of Cave Creek Emergency Operations Plan • 2008 Town of Cave Creek Drought Plan • 2008 Town of Cave Creek Master Water Plan • 2008 Town of Cave Creek Water Emergency Operations Plan • 2007 Town of Cave Creek Sewer Master Plan
STUDIES	• 2006 Water Acquisition feasibility Study • 1998 Transportation Study Plan • 2004 Development Fee Study • 2009 Water Rate study • 2009 Sewage Rate Study

Table 6-2-4: Summary of technical staff and personnel capabilities for Cave Creek		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Planning and Zoning Staff. Town Engineer. Town Manager. Town of Cave Creek Building Official.
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Town of Cave Creek Building Official. Town Engineer. Town Utilities Manager.
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Planning and Zoning Staff. Town Engineer. Town Manager. Town of Cave Creek Building Official.
Floodplain Manager	☑	Town of Cave Creek Engineer
Surveyors		Out Sourced
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Town Marshal Town Engineer Utilities Manager
Personnel skilled in GIS and/or HAZUS	☑	Town Planning Staff Assistant Utilities Manager
Scientists familiar with the hazards of the community	☑	Town Engineer Town Utilities Manager

Table 6-2-4: Summary of technical staff and personnel capabilities for Cave Creek		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Emergency manager	☑	Town Marshal District Fire Chief
Grant writer(s)	☑	Staff
Others		

Table 6-3-4: Summary of fiscal capabilities for Cave Creek		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric service	Yes	
Impact fees for homebuyers or new developments/homes	Yes	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Other		

Table 6-1-5: Summary of legal and regulatory capabilities for Chandler	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2006 International Building Code • 2006 International Plumbing Code • 2006 International Mechanical Code • 2006 International Fire Code • 2006 International Residential Code • 2006 National Electric Code • Chandler Code of Ordinances (Municode.com)
ORDINANCES	• Chandler Code of Ordinances (Municode.com): Flood Plain Administration Ord. No. 2970/3311 Weed Abatement Ord No. 3879 Land Use Zoning Ord. No. 3063
PLANS, MANUALS, and/or GUIDELINES	• Engineering Standard Details and Specifications • Technical Design Manuals • Stormwater Prevention Plan • Flood Control District Floodplain Maps • Stormwater Master Plan
STUDIES	• Chandler\Gilbert Floodplain Delineation Study - Ph 1 Eastern Canal • Chandler\Gilbert Floodplain Delineation Study - Ph 2 Consolidated Canal • Chandler\Gilbert Floodplain Delineation Study - Ph 3 Union Pacific RR and Arizona Av • Higley Area Drainage Master Plan

Table 6-2-5: Summary of technical staff and personnel capabilities for Chandler		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Planning & Development – Planners
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Public Works & Planning and Development – Engineers
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Planning & Development, Public Works, Municipal Utilities – planners and engineers
Floodplain Manager	☑	Public Works
Surveyors		Public Works
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Fire Department
Personnel skilled in GIS and/or HAZUS	☑	Information technology, Public Works, Planning & Development, Fire, Police
Scientists familiar with the hazards of the community	☑	Municipal Utilities, Public Works
Emergency manager	☑	Fire Department
Grant writer(s)	☑	All Departments
Others		

Table 6-3-5: Summary of fiscal capabilities for Chandler		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric service	Yes	
Impact fees for homebuyers or new developments/homes	Yes	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Other		

Table 6-1-6: Summary of legal and regulatory capabilities for El Mirage	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• El Mirage City Code • 2006 International Building Code • 2006 International Fire Code • 2005 National Electric Code • 1997 Dangerous Building Code • 2006 International Fuel Gas Code • 2006 International Energy Conservation Code • 1997 Uniform Administrative Code

ORDINANCES	• Chapter 19 - Off Site Construction
	• Chapter 30.28 - Emergency purchases
	• Chapter 30.65-30.70 - Civil Preparedness and Disaster
	• Chapter 33 - City Court
	• Chapter 34 - Police and Fire Department
	• Chapter 50 - Water Supply System
	• Chapter 51 - Sewers
	• Chapter 52 - Sanitation
	• Chapter 53 - Storm Water Quality Protection
	• Chapter 90 - Nuisance and Neighborhood Preservation
	• Chapter 94 - Air Pollution Regulations; Dust Control
	• Chapter 96 - International Fire Code and Alarm Systems
	• Chapter 150 - Building Code – 2006; International Plumbing Code – 2006; National Electrical Code – 2005; International Mechanical Code – 2006; Dangerous Building Code – 1997; Mobile and Manufactured Housing Standards; International Energy Conservation Code – 2006; International Fuel Gas Code – 2006; Uniform Administrative Code-1997.
	• Chapter 153 - Floodplain Management
	• Chapter 154 - Zoning Code
	  • Section 21-5-13 Floodway overlay
	  • Section 21-5-14 Floodplain overlay
	  • Section 21-5-15 Airfield Impact overlay
	• Chapter 155 - Subdivisions

PLANS, MANUALS, and/or GUIDELINES	• 2003 General Plan • 2008 Emergency action Plan for El Mirage Employees • El Mirage Emergency Operations Plan • Engineering General Notes & Guidelines • Maricopa Association of Governments (MAG) Standards • District Flood Control Standard
STUDIES	• Flood Insurance Study by Flood Control District of Maricopa County • Floodplain Study by Flood Control District of Maricopa County • Dam Safety Study by Flood Control District of Maricopa County

Table 6-2-6: Summary of technical staff and personnel capabilities for El Mirage		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Community Development Director, City Engineer, City Planner
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	City Engineer, Engineering Technicians, Building Official
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	City Engineer, Building Official, Fire Chief
Floodplain Manager	☑	City Engineer
Surveyors	☑	City Engineering & Public Works staff
Staff with education or expertise to assess the community's vulnerability to hazards	☑	City Engineer, Building Official, Fire Chief,
Personnel skilled in GIS and/or HAZUS	☑	City GIS Technician, Information Technology Director
Scientists familiar with the hazards of the community		
Emergency manager	☑	Fire Chief, Police Chief
Grant writer(s)	☑	City Grants Coordinator
Others		

Table 6-3-6: Summary of fiscal capabilities for El Mirage		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric service	Yes	
Impact fees for homebuyers or new developments/homes	Yes	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Other		

Table 6-1-7: Summary of legal and regulatory capabilities for Fort McDowell Yavapai Nation	
Regulatory Tools for Hazard Mitigation	**Description**
TRIBAL CODES	• 2000 International Building Code • 2000 National Electrical Code • 2000 International Mechanical Code • 2000 International Plumbing Code • 2000 International Fire Code
TRIBAL ORDINANCES	• Floodplain Management • Hazard Abatement • Subdivision • Noise
TRIBAL REGULATIONS	• Wildfire Prevention • Addressing • Drainage/Stormwater • Site Plan Reviews • Land Use Restrictions
PLANS, MANUALS, GUIDELINES, and/or STUDIES	(SEE TRIBAL ANNEX)

Table 6-2-7: Summary of technical staff and personnel capabilities for Fort McDowell Yavapai Nation		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Planning and Development - Planners/ Planning and Building - Committee Environmental Services - Inspectors/Analysts General Managers office – General Manager Land Use - Manager Housing - Manager
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Planning and Development - Building Inspectors Flood Control - Engineers Transportation - Engineers/Consultants Environmental Services - Air/Water Quality Testers /Analysts
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Planning and Development - Planners Emergency Management - Fire Chief, Police Chief, Environmental Director, Public Works Director
Floodplain Manager	☑	Planning and Development – Director and Engineers
Surveyors		
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Planning and Development – Planners, Engineers Transportation – Engineers, Police Chief, Fire Chief, Emergency Manager Emergency Management – Police Chief, Fire Chief, Emergency Manager, Planners
Personnel skilled in GIS and/or HAZUS	☑	Planning and Development –Staff Emergency Management –Staff Police Department–Staff Fire Department - Staff Environmental Services –Staff
Scientists familiar with the hazards of the community		

Table 6-2-7: Summary of technical staff and personnel capabilities for Fort McDowell Yavapai Nation		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Emergency manager	☑	Emergency Management - General Manager, Fire Chief
Grant writer(s)	☑	All Departments – Grants and Contracts Administrator
Others		

Table 6-3-7: Summary of fiscal capabilities for Fort McDowell Yavapai Nation		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	Accessible but historically not obtained
Capital Improvements Project funding	Yes	Tribal Capital Improvement Programs funded by tribal enterprise revenue
Authority to levy taxes for specific purposes	Yes	Eligible to impose direct assessments for use of tribal lands
Fees for water, sewer, gas, or electric service	Yes	Eligible to assess Water, Sewer, Solid Waste, and Transfer station fees.
Impact fees for homebuyers or new developments/homes	Yes	Limited Use
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Other: Grants, Inter-governmental Agreements and Specific Planning and Project Grants	Yes	Eligible for federal, state, tribal directed grants and IGA's

Table 6-1-8: Summary of legal and regulatory capabilities for Fountain Hills	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2006 IBC, IRC, IPC, IMC, IECC, IFC. 2005 NEC. 97 UCADB
ORDINANCES	• Amendments to the IBC,IRC,IFC • Including fire sprinklers in all structures
PLANS, MANUALS, and/or GUIDELINES	• 2002 General Plan • 2006 Stormwater Management Plan • 1996 – Fountain Hills Area Drainage Master Plan • 1997 - Fountain Hills Area Drainage Master Plan, Emergency Access Plan and Routes Evaluation • 2001 - Emergency Action Plan for Golden Eagle Park Dam Modifications • Check lists and minimum mandatory submital documents and specifications
STUDIES	• 1994 - Fountain Hills North Floodplain Delineation Study • 1994 - Fountain Hills South Floodplain Delineation Study • 1996 - Fountain Hills Retardation Structure Emergency Action Plan • 1997 - Town of Fountain Hills, Dam Break Analysis for Golden Eagle Park Dam, Hesperus Wash Dam, Aspen Dam, North Heights Dam, Sun Ridge Canyon Dam • ISO rating for building safety

Table 6-2-8: Summary of technical staff and personnel capabilities for Fountain Hills		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Public Works/Town Engineer/Randy Harrel, PE
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Public Works/Town Engineer/Randy Harrel, PE
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Public Works/Director/Tom Ward Public Works/Town Engineer/Randy Harrel, PE
Floodplain Manager	☑	Public Works/Town Engineer/ Randy Harrel, PE
Surveyors		None
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Public Works/Director/Tom Ward
Personnel skilled in GIS and/or HAZUS	☑	CAD Services/GIS Tech/Ken Valverde
Scientists familiar with the hazards of the community		None
Emergency manager	☑	Scott LaGreca/Fire Chief Public Works/ Director/ Tom Ward
Grant writer(s)	☑	Scott LaGreca/Fire Chief Public Works/Town Engineer/ Randy Harrel, PE
Others		None

Table 6-3-8: Summary of fiscal capabilities for Fountain Hills		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	No	
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Yes	Requires citizen vote
Fees for water, sewer, gas, or electric service	No	
Impact fees for homebuyers or new developments/homes	Yes	
Incur debt through general obligation bonds	Yes	Requires citizen vote
Incur debt through special tax bonds	Yes	Requires citizen vote
Other	Yes	Local Sales Tax

Table 6-1-9: Summary of legal and regulatory capabilities for Gila Bend	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• International Building Code
ORDINANCES	• Flood Plain Management Ordinance • Subdivision/Zoning Ordinance
PLANS, MANUALS, and/or GUIDELINES	• General Plan • CIP Plan
STUDIES	• Water, streets, sewer studies • Maps (FEMA, Effective date of September 2005)

Table 6-2-9: Summary of technical staff and personnel capabilities for Gila Bend		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Town Engineer
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure		Contract personnel
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards		Contract personnel
Floodplain Manager		Managed by FCDMC
Surveyors		Contract personnel
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Public Works Director Fire Chief EMS
Personnel skilled in GIS and/or HAZUS		Contract personnel
Scientists familiar with the hazards of the community		Contract personnel
Emergency manager	☑	Public Works Director
Grant writer(s)		Contract personnel
Others		

Table 6-3-9: Summary of fiscal capabilities for Gila Bend		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric service	Yes	Water, trash and sewer fees
Impact fees for homebuyers or new developments/homes	Yes	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Other	Yes	WIFA, Rural Development

Table 6-1-10: Summary of legal and regulatory capabilities for Gilbert	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 1996 Code Town of Gilbert, Arizona • 2006 International Fire Code • 2006 International Building Code • 2006 International Residential Code • 2006 International Mechanical Code • 2006 International Plumbing Code • 2006 International Fuel Gas Code • 2006 International Energy Conservation Code • 2005 National Electrical Code • The Arizonans with Disabilities Act & Implementing Rules

ORDINANCES	• 2005 Town of Gilbert Land Development Code
	• 1987 The Flood Damage Prevention Ordinance of the Town of Gilbert, Arizona.
	  • Regulations for Construction and Alteration of Land in Special Flood Hazard Areas in the Town.
	  • Providing for Repeal of Conflicting Ordinances
	  • Providing for Severability
	  • Providing for Penalties
	  • Declaring an Emergency
	• Flood Plain Management Ordinance is Chapter 34 of Town Code

PLANS, MANUALS, and/or GUIDELINES	• 2006 Town of Gilbert Storm Water Management Program • 2009 Area Drainage Master Plan (currently underway/managed by Maricopa Flood Control District) • 2003 Gilbert Water Supply Reduction Management Plan • 2005-2011 Capital Improvement Plan • 2005/2007 Town of Gilbert Emergency Operation Plan • 2001 General Plan Town of Gilbert • 2005 Town of Gilbert Multi-Hazard Mitigation Plan (currently being updated) • 2005 Town of Gilbert Land Development Code • 2005 Town of Gilbert Public Works and Engineering Standards and Details. • Article 2 – Drainage Engineering
STUDIES	• 2005 Chandler/Gilbert Floodplain Delineation Study Phase 1 "Eastern Canal Watershed" Revised 2007. • 2008 Chandler/Gilbert Floodplain Delineation Study Phase 2 "Consolidated Canal Watershed". • 2009 Chandler/Gilbert Floodplain Delineation Study Phase 3 "UPRR/Arizona Avenue Watershed". • 2005 Flood Insurance Study for "Maricopa County, Arizona and Unincorporated Areas" Volumes 1 thru 17. • FEMA DFIRM Maps (FEMA, Effective date of September 2005) • Fissure/Subsidence Study - Chandler Heights Study Area (Includes Gilbert Area) 2007/2008. Per Ariz. Rev. Stat. § 27-152.01(3) September 21, 2006

Table 6-2-10: Summary of technical staff and personnel capabilities for Gilbert		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Development Services Department - Planner, Business Development Manager, Business Development Specialists
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Development Services Department - Construction practices – Inspection & Compliance Services Manager, Building Inspection Administrator, Senior Building Inspectors, Inspector II's, Inspector I's, Fire Inspectors, Permitting & Plan Review Manager, Senior Building Plans Examiners, Building Plans Examiner. Infrastructure – Town Engineer, Engineering/Traffic/Planning Administrator, Engineering/Planning Inspection Administrator, Traffic Engineering Inspector II's, Public Works Department – Infrastructure - Utility Field Supervisors, Senior Utility Workers, Utility Workers, Instrumentation Technician, Water Treatment Plant Mechanic, Well Technician, Lift Station Technicians, and Instrumentation Technicians
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Development Services - Associate Engineer Public Works Department - Public Works Director Fire Department - Emergency Management Coordinator
Floodplain Manager	☑	Public Works Department - Public Works Director
Surveyors		
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Gilbert Fire Department - Emergency Management Coordinator Gilbert Public Works Department - Public Works Director
Personnel skilled in GIS and/or HAZUS	☑	Support Services Department - GIS Technician I and II GIS Database Analysis, GIS Administrator
Scientists familiar with the hazards of the community	☑	Public Works Department - Water Quality Supervisor/Chemist
Emergency manager	☑	Fire Department - Emergency Management Coordinator
Grant writer(s)	☑	Fire Department - Emergency Management Coordinator, Police Department - Police Plan and Research Coordinator
Others		

Table 6-3-10: Summary of fiscal capabilities for Gilbert		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric service	Yes	Gas and electric are private/public utilities
Impact fees for homebuyers or new developments/homes	Yes	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Other		

Table 6-1-11: Summary of legal and regulatory capabilities for Glendale	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2006 International Residential Code • International Building Code • International Mechanical Code, Uniform Plumbing Code • Existing Building Code • 2005 National Electrical Code • Americans with Disabilities Act • Accessibility Guidelines and the City Code
ORDINANCES	• City of Glendale Zoning Ordinance and associated PAD and PRD documents, Landscape Ordinance • Flood Plain Ordinance • Grating and Drainage Ordinance • Sub-Division Ordinance
PLANS, MANUALS, and/or GUIDELINES	• City Department SOP's • City of Glendale Emergency Operations Plan • Multi-Jurisdictional Mitigation Plan • General Plan 2025 • 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
STUDIES	• 2003 Maricopa County Transportation Study • 2001 COG Transportation Plan • Storm Water Master Plan Update

Table 6-2-11: Summary of technical staff and personnel capabilities for Glendale		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Planning, Planners
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Engineering, Engineers – Architecture, Architects Building Safety-Structural Engineers and Architects
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Planning, Engineering, Utilities Dept., Building Safety
Floodplain Manager	☑	Engineering Dept.
Surveyors		Street, Public Works, Utilities Dept.
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Neighborhood Services Dept, Human Services, Emergency Management, Building Safety, Fire Dept, Police Dept, Public Works, Streets, Engineering, Architecture, Utilities Dept.
Personnel skilled in GIS and/or HAZUS	☑	IT Department, Fire Dept, Police Dept
Scientists familiar with the hazards of the community	☑	Police Dept, Utilities Dept., Fire Dept
Emergency manager	☑	City Manager's Office, Emergency Manager
Grant writer(s)	☑	All Depts
Others		

Table 6-3-11: Summary of fiscal capabilities for Glendale		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	Community Partnerships
Capital Improvements Project funding	Yes	Finance Department/Management and Budget
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	Utility Department
Impact fees for homebuyers or new developments/homes	Yes	Public Works Administration
Incur debt through general obligation bonds	Yes	Management and Budget
Incur debt through special tax bonds	Yes	Management and Budget
Other		

Table 6-1-12: Summary of legal and regulatory capabilities for Goodyear	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• International Building Code, 2006 • International Residential Code, 2006 • International Mechanical Code, 2006 • International Property Maintenance Code, 2006 • International Energy Conservation Code, 2006 • NFPA 70, The National Electrical Code including Annex A – G, 2006 • NFPA 99, Health Care Facilities, 2006 • ICC/ANSI A117.1 Accessible and Usable Buildings and Facilities, 2006
ORDINANCES	• Flood Damage Prevention Ordinance, 2005 • Zoning Ordinance, 2009 • Subdivision Regulations, 2008 • Engineering Design Standards and Policies Manual, 2007
PLANS, MANUALS, and/or GUIDELINES	• General Plan, 2003 • General Plan Amendments, 2004 through 2009 • Design Guidelines, 2008 • City Center Specific Plan, 2009 • Storm Water Management Plan – Amended, 2006
STUDIES	• Sonoran Valley Planning Area document, 2007 • White Tank Area Drainage Master Plan, 2003 • Waterman Wash Floodplain Delineation Study, 2006 • Rainbow Valley Area Drainage Master Plan, in progress

Table 6-2-12: Summary of technical staff and personnel capabilities for Goodyear		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Community Development – Director Engineering – City Engineer
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Community Development - Director Fire Department - Chief Building Official Engineering – City Engineer
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Fire Department - Chief Community Development - Director Fire Department – Chief Building Official Engineering – City Engineer Contract out as needed
Floodplain Manager	☑	Engineering – City Engineer
Surveyors		Contract out as needed
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Fire Department - Chief Community Development - Director Fire Department – Chief Building Official Engineering – City Engineer Contract out as needed
Personnel skilled in GIS and/or HAZUS	☑	Engineering – City Engineer Engineering – GIS Coordinator Contract out as needed

Table 6-2-12: Summary of technical staff and personnel capabilities for Goodyear		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Scientists familiar with the hazards of the community		Contract out as needed
Emergency manager	☑	Fire Department - Chief
Grant writer(s)	☑	City Administration – Grants Administrator
Others		

Table 6-3-12: Summary of fiscal capabilities for Goodyear		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	Water, sewer, and building rehabilitation projects
Capital Improvements Project funding	Yes	Annual CIP Budget Five-year CIP IGAs with FCDMC, MCDOT
Authority to levy taxes for specific purposes	Yes	Improvement Districts Community Facilities Districts
Fees for water, sewer, gas, or electric service	Yes	Adopted water and sewer connection fees and utility usage fees
Impact fees for homebuyers or new developments/homes	Yes	Adopted impact fees for water, sewer, reclaimed water, water resources, library, parks and recreation, fire, police, public works, general government, arterial streets, and regional transportation
Incur debt through general obligation bonds	Yes	Sell G.O. Bonds
Incur debt through special tax bonds	Yes	Sell Revenue Bonds, Improvement District Bonds, and Community Faculties Bonds
Cooperative Agreement Grants and Specific Planning and Project Grants	Yes	FEMA, NRCS, State Land, etc.

Table 6-1-13: Summary of legal and regulatory capabilities for Guadalupe	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 1997 Uniform Building Code • 1994 Plumbing Code • 1997 Mechanical Code • 1997 Fire Code • 1998 Town Code of Guadalupe
ORDINANCES	• 1993 Town of Guadalupe Planning & Zoning Ordinance • 1999 Town of Guadalupe Subdivision Regulations
PLANS, MANUALS, and/or GUIDELINES	• 2009 Town of Guadalupe Multi-Hazard Mitigation Plan (in process) • 2010 Town of Guadalupe 5 year Consolidated Plan (in process) • 2007 Town of Guadalupe Emergency Operation Plan • 1991 Capital Improvement Program • 2010 Guadalupe Master Plan
STUDIES	• 2009 Town of Guadalupe Environmental Study • 2009 Town of Guadalupe Flood Plain Housing Study • 2008 ADOT Guadalupe Rd. Pedestrian Bridge & Pathway from South Mountain Park to Tempe City Line

Table 6-2-13: Summary of technical staff and personnel capabilities for Guadalupe		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Town Manager
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure		Consultant (TriCore Engineering)
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Guadalupe Fire Department
Floodplain Manager		Consultant (TriCore Engineering)
Surveyors		Consultant (TriCore Engineering)
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Town Manager
Personnel skilled in GIS and/or HAZUS	☑	Guadalupe Fire Department
Scientists familiar with the hazards of the community		NA
Emergency manager	☑	Town Mayor
Grant writer(s)	☑	Community Development, Guadalupe Fire Department
Others		

Table 6-3-13: Summary of fiscal capabilities for Guadalupe		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Don't Know	
Fees for water, sewer, gas, or electric service	Yes	Water
Impact fees for homebuyers or new developments/homes	Yes	
Incur debt through general obligation bonds	No	
Incur debt through special tax bonds	No	
Other	No	

Table 6-1-14: Summary of legal and regulatory capabilities for Litchfield Park	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2006 International Building Code • 2006 International Residential Code • 2006 International Plumbing Code • 2006 International Mechanical Code • 2003 International Fire Code • 2005 National Electric Code • 2006 International Energy Conservation Code • 2006 International Fuel Gas Code • 2008 Litchfield Park City Code update as needed
ORDINANCES	• City of Litchfield Park Zoning Code Ordinances • Weed Abatement Ordinance • Public Nuisance Ordinance • Property Maintenance Ordinance • Hazardous Material Storage and Disposal Ordinance
PLANS, MANUALS, and/or GUIDELINES	• Handbook for Arizona Communities, Floodplain Management • Storm Water Management Plan • 2008 Emergency Management Response Guidebook • 2009 Litchfield Park General Plan
STUDIES	• 2009 Flood Emergency Action Plan Exercise

Table 6-2-14: Summary of technical staff and personnel capabilities for Litchfield Park		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Planning, Planners
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Engineering, Engineers, Building, Building Inspectors
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Planning, Engineers
Floodplain Manager	☑	Engineering, Engineers
Surveyors		Contract Surveyors
Staff with education or expertise to assess the community's vulnerability to hazards		Contract Staff through MCSO and Rural Metro Fire
Personnel skilled in GIS and/or HAZUS		Contract Emergency Services
Scientists familiar with the hazards of the community		Contract Emergency Services
Emergency manager	☑	City manager, Assistant City Manager
Grant writer(s)	☑	All Departments, Individuals within each Dept.
Others		

Table 6-3-14: Summary of fiscal capabilities for Litchfield Park		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	No	No area of the City meets the basic requirements due to income.
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Yes	Requires a vote of the people.
Fees for water, sewer, gas, or electric service	No	All of these services are privately owned.
Impact fees for homebuyers or new developments/homes	Yes	We have chosen not to require impact fees of developers/builders.
Incur debt through general obligation bonds	Yes	This would be hard for us at this time because we do not have a bond rating.
Incur debt through special tax bonds	Yes	
Other	No	

Table 6-1-15: Summary of legal and regulatory capabilities for Unincorporated Maricopa County	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2006 International Building Code • 2005 National Electrical Code • 2006 International Mechanical Code • 2006 International Plumbing Code • 2006 International Residential Code
ORDINANCES	• Abatement Ordinance (P-11) • Adult Oriented Business (P-10) • Dark Sky Ordinance • Military Airport Zoning Ordinance (P-16) • Noise Ordinance (P-23) • Zoning Ordinance (P-18)
REGULATIONS	• Addressing Regulations • Drainage Regulations • Dust Abatement Regulations • Subdivision Regulations • HUD Consolidated Planning Regulations • Floodplain Regulations
PLANS, MANUALS, and/or GUIDELINES	• Area Land Use Plan • Comprehensive Plans: Planning & Development , Flood Control Dist. • Transportation Plan • Scenic Corridors • Comprehensive Planning Amendments Guidelines • Development Master Plan Guidelines • Area Drainage Master Plan • Watercourse Master Plan
STUDIES	• Flood Insurance Studies • Floodplain Delineation Studies • Dam Safety Studies / Emergency Action Plans • Fissure / Subsidence Risk Studies • Area Drainage Master Studies • Corridor Studies • Emergency Routes Evaluation

Table 6-2-15: Summary of technical staff and personnel capabilities for Unincorporated Maricopa County

Staff/Personnel Resources	☑	Department/Agency - Position
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Planning and Development - Planners Flood Control District – Engineers/Planners Transportation – Engineers/Planners Environmental Services – Inspectors
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Planning and Development - Planners Flood Control District – Engineers/Inspectors Transportation – Engineers/Surveyors Environmental Services – Inspectors Air Quality - Inspectors
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Planning and Development - Planners Flood Control District - Engineers Transportation – Engineers/Planners Emergency Management - Planners
Floodplain Manager	☑	Flood Control District – Engineers
Surveyors	☑	Flood Control District – Surveyors Transportation – Surveyors
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Planning and Development - Planners Flood Control District - Engineers Transportation - Engineers Emergency Management – Planners
Personnel skilled in GIS and/or HAZUS	☑	Planning and Development – GIS Staff Flood Control District – GIS Staff Transportation – GIS Staff Emergency Management – GIS Staff Assessor's Office – GIS Staff Sheriff's Office – GIS Staff Elections – GIS Staff Environmental Services – GIS Staff Air Quality – GIS Staff
Scientists familiar with the hazards of the community	☑	Flood Control District - Hydrologist
Emergency manager	☑	Emergency Management - Director/Planners
Grant writer(s)	☑	Emergency Management - Planner Parks –Grant writer Sheriff's Office – Grant writer Community Development – Grant writer Human Services – Grant writer Transportation - Grant writer/Fed. Aid Coordinator Flood Control District – CIP Manager
Others		

Table 6-3-15: Summary of fiscal capabilities for Unincorporated Maricopa County		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	No	A Five-year Consolidated Plan is prepared with the public adoption of an Annual Action Plan.
Capital Improvements Project funding	Yes	• FCD's CIP • County General Fund CIP • Transportation Improvement Program • Regional Transportation Plan
Authority to levy taxes for specific purposes	Yes	Improvement District, Direct Assessment Special District
Fees for water, sewer, gas, or electric service	No	Solid Waste only: Transfer station and waste tire collection fees.
Impact fees for homebuyers or new developments/homes	Yes	Limited Use
Incur debt through general obligation bonds	Yes	Lease Revenue Bonds
Incur debt through special tax bonds	Yes	
Other: Cooperative Agreement Grants and Specific Planning and Project Grants	Yes	FEMA, NRCS, State Land, etc.

Table 6-1-16: Summary of legal and regulatory capabilities for Mesa	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2006 International Building Code • 2007 National Electric Safety Code
ORDINANCES	• City of Mesa Charter and Ordinances 2009 • Maricopa County Flood Control Standards and Requirements
PLANS, MANUALS, and/or GUIDELINES	• City of Mesa Overhead Construction Manual • City of Mesa Detailed Electrical Standards • 2009 City of Mesa Engineering and Design Standards
STUDIES	• City of Mesa Electrical Load Studies • City of Mesa Storm Drain Master Plan 2009 • City of Mesa Water System Master Plan 2009 • City of Mesa Wastewater Master Plan 2009 • City of Mesa Gas Master Plan 2005

Table 6-2-16: Summary of technical staff and personnel capabilities for Mesa		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	City of Mesa Development Services
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	City of Mesa Engineering
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Assistant City Engineer City of Mesa
Floodplain Manager	☑	Engineering City of Mesa
Surveyors	☑	Engineering City of Mesa
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Wastewater Supervisor City of Mesa
Personnel skilled in GIS and/or HAZUS	☑	City of Mesa GIS Supervisor City of Mesa GIS Manager City of Mesa GIS Specialist
Scientists familiar with the hazards of the community		N/A
Emergency manager	☑	Emergency Management Coordinator Deputy Chief Emergency Management
Grant writer(s)	☑	City of Mesa Grant Coordinators Office
Others		

Table 6-3-16: Summary of 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 Flood Plain 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	
Incur debt through general obligation bonds	Yes	CIP Bonds, strom drains, electrical, parks, streets, fire, police, utilities.
Incur debt through special tax bonds	Yes	Urban Area Security Initiative , Proposition 202 (Gaming)
Other	No	

Table 6-1-17: Summary of legal and regulatory capabilities for Paradise Valley	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2006 International Building Code • 2006 International Residential Code • 2006 International Plumbing Code • 2006 International Gas Code • 2006 International Mechanical Code • 2006 International Fire Code • 2005 National Electric Code • Town Code of the Town of Paradise Valley
ORDINANCES	• Floodplain Administration Ordinance (Town Code Article 5-11) • Weed Abatement Ordinance (Town Code Article 8-1-12) • Zoning Ordinance (Town Code Article I thru Article XXV) • Hillside Ordinance (Town Code Article XXII)
PLANS, MANUALS, and/or GUIDELINES	• Paradise Valley General Plan 2003 • Town of Paradise Valley Storm Drainage Manual (3/12/87) • Capital Improvement Project Program
STUDIES	• Federal Insurance Rate Map 9/30/05

Table 6-2-17: Summary of technical staff and personnel capabilities for Paradise Valley		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Planning & Building Department – Director Engineering Department – Town Engineer
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Engineering Department – Town Engineer Building Safety Division – Building Safety Manager
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Planning & Building Department – Director
Floodplain Manager	☑	Engineering Department – Town Engineer
Surveyors		None
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Building Safety Division – Building Safety Manager
Personnel skilled in GIS and/or HAZUS	☑	Information Technology Department – IT Manager
Scientists familiar with the hazards of the community		None
Emergency manager	☑	Building Safety Division – Building Safety Manager
Grant writer(s)	☑	Planning & Building Department – Director Planning & Building Department – Senior Planner
Others		

Table 6-3-17: Summary of fiscal capabilities for Paradise Valley		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	Technically eligible but PV has no Section 8 housing or "moderate income" persons.
Capital Improvements Project funding	Yes	Capital Projects Accumulation Fund with voter approval.
Authority to levy taxes for specific purposes	Yes	Property Tax with voter approval.
Fees for water, sewer, gas, or electric service	Yes	No utilities but bill residents on Scottsdale Sewer. PV sets the rates.
Impact fees for homebuyers or new developments/homes	Yes	Pursuant to ARS approval process.
Incur debt through general obligation bonds	Yes	With voter approval.
Incur debt through special tax bonds	Yes	PV can sell bonds issued by Municipal Property Corporation.
Other		Expenditures are subject to state imposed expenditure limitation law.

Table 6-1-18: Summary of legal and regulatory capabilities for Peoria	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2006 International Building Code • 2006 International Residential Code • 2006 International Fire Code • 2006 International Mechanical Code • 2006 International Property Maintenance Code • 2005 National Electrical Code • 2006 International Plumbing Code • 2006 International Fuel Gas Code
ORDINANCES	• Zoning Ordinance
PLANS, MANUALS, and/or GUIDELINES	
STUDIES	

Table 6-2-18: Summary of technical staff and personnel capabilities for Peoria		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Planning, Planners
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Engineering, Engineers – Architecture, Architects
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Planning, Engineering, Water Services Dept, Development Services Dept
Floodplain Manager	☑	Street, Transportation Dept
Surveyors		Water Services Dept & Engineering Contract Services
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Neighborhood Services Dept, Human Services, Emergency Management, Development Services, Fire Dept, Police Dept, Public Works, Streets, Engineering, Architecture, Water Services Dept
Personnel skilled in GIS and/or HAZUS	☑	ITD, Fire Dept, Police Dept
Scientists familiar with the hazards of the community		Police Dept, Water Services Dept, Fire Dept
Emergency manager	☑	City Manager's Office, Emergency Manager
Grant writer(s)	☑	Every Dept is responsible
Others		

Table 6-3-18: Summary of fiscal capabilities for Peoria		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric service	Yes	
Impact fees for homebuyers or new developments/homes	Yes	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Other		

Table 6-1-19: Summary of legal and regulatory capabilities for Phoenix	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2006 Phoenix Building Construction Code with July 2, 2008 and April 1, 2009 Amendments • 2006 Phoenix Building Code • July 1, 1994 ADA Guidelines • 2003 ICC/ANSI A 117.1 • 2006 Phoenix Residential Code • 2006 Phoenix Existing Building Code • 2006 Phoenix Energy Conservation Code • 2006 Phoenix Mechanical Code • 2006 Phoenix Fuel Gas Code • 2006 Phoenix Fire Code • 2006 Phoenix Performance Code • 2005 National Electrical Code/NFPA-70 • 2008 National Electrical Code/NFPA-70 (effective May 1, 2009) • 2006 Uniform Plumbing Code with Phoenix Amendments • 2004 ASME A17.1 Safety Code for Elevators and Escalators with Phoenix Amendments • 2002 ASME A17.3 Safety Code for Existing Elevators and Escalators with Phoenix Amendments • 2003 ASME A18.1 Safety Code for Platform Lifts and Stairway Chairlifts • Phoenix Zoning Code • Title 14, Federal Code of Regulations - Federal Aviation Administration • Aviation Department Rules and Regulations • National Flood Insurance Program (NFIP) Regulations
ORDINANCES	• Phoenix Code of Ordinances
PLANS, MANUALS, and/or GUIDELINES	• 2001 Phoenix General Plan (beginning revision) • 2009 City of Phoenix Major Emergency Response and Recovery Plan (currently being updated) • 2009 Maricopa County Regional Multi-Hazard Mitigation Plan (currently being updated) • 2004 Design Standards Manual for Water And Wastewater Systems • 2004 Storm Water Policies and Standards • 2005 Supplement to the MAG Uniform Standard • Third-party Plan Review Policies and Standards • 2008 Aviation Department Multi-Sector General Permit Stormwater Pollution Prevention Plan • Aviation Department Wildlife Management Plan • Aviation Department Standard Operating Procedures • Metro Phoenix Area Drainage Master Plan • Hohokam Area Drainage Master Plan
STUDIES	• FEMA DFIRM Maps • Dam Safety Studies and Emergency Action Plans • 7R/25L Runway Safety Area Environmental Assessment – Conditional Letter of Map Revision • Salt River Low Flow Channel Planning Study • Flood Insurance Studies (FIS) • Levee Studies

Table 6-2-19: Summary of technical staff and personnel capabilities for Phoenix		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Planning Dept. – Principal Planner, Planner III, Village Planner & Planner II Water Services – Superintendents, Project Engineers, Civil Engineers, Project Coordinators, Principal Engineering Technicians, Principal Planners
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Street Transportation Dept. - Civil Engineers Water Services – Superintendents, Civil Engineers, Project Coordinators, Principal Engineering Technicians
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Planning Dept. – Principal Planner, Planner III, Village Planner & Planner II Water Services – Superintendents, Civil Engineers, Principal Engineering Technician, Hydrologist
Floodplain Manager	☑	Street Transportation Dept. - Civil Engineer III
Surveyors	☑	Street Transportation Dept. – Survey Teams
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Water Services – Environmental Programs Coordinator, Civil Engineers, Water Quality Inspectors
Personnel skilled in GIS and/or HAZUS	☑	Information Technology Services – Info Tech Analyst/Programmers and Info Tech Specialists Fire Dept. – Fire Protection Engineer Planning Dept. – Senior GIS Technician Police Dept. – Senior User Technology Specialist Street Transportation Dept. - Info Tech Analyst/ Programmer II and Senior GIS Technician Water Services Dept. – GIS and Senior GIS Technicians
Scientists familiar with the hazards of the community	☑	Aviation Department – Environmental Quality Specialist City Managers/Office of Environmental Programs – Environmental Quality Specialists Personnel Department – Industrial Hygienists Water Services – Chemists, Environmental Quality Specialist, Laboratory Technician, Environmental Programs Coordinator
Emergency manager	☑	City Manager's Office - Emergency Management Coordinator
Grant writer(s)	☑	Aviation Department – Planner II Fire Dept. – Volunteer Coordinator and Fire Captains Planning Dept. – Principal Planner, Planner III, Village Planner & Planner II Police Dept. – Police Research Analysts Public Transit Dept
Others		

Table 6-3-19: Summary of fiscal capabilities for Phoenix		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	Housing, Neighborhood Services, and Water Services projects
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric service	Yes	Water, Sewer, and Solid Waste Fees
Impact fees for homebuyers or new developments/homes	Yes	For new developments inside impact fee areas-zones only. The Impact Fees are charged to new developments.
Incur debt through general obligation bonds	Yes	This excludes the Water Services and Aviation Departments
Incur debt through special tax bonds	Yes	Excise (sales) taxes
Other	Yes	FAA and Arizona Dept of Transportation grants to the Aviation Department Water resources fees, Environmental fees, Improvement Districts

Table 6-1-20: Summary of legal and regulatory capabilities for Queen Creek	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• Town Code of the Town of Queen Creek • 2006 International Building Code • 2006 International Residential Code • 2006 Uniform Plumbing Code • 2006 International Mechanical Code • 2006 International Fire Code • 2006 International Property Maintenance Code • 2006 International Existing Building Code • 2006 International Energy Conservation Code • 2006 International Urban-Wildland Interface Code • 2005 National Electrical Code
ORDINANCES	• Abatement Ordinance • Adult Oriented Business • Dark Sky Ordinance • Military Airport Zoning Ordinance • Noise Ordinance • Zoning Ordinance
PLANS, MANUALS, and/or GUIDELINES	• Addressing Regulations • Drainage Regulations • Dust Abatement Regulations • Subdivision Regulations • HUD Consolidated Planning Regulations • Floodplain Regulations
STUDIES	• Town of Queen Creek General Plan 2008 • Area Land Use Plan • Comprehensive Plans: Planning & Development • Transportation Plan • Desert Foothills Plan • Comprehensive Planning Amendments Guidelines • Development Master Plan Guidelines • Area Drainage Master Plan • Watercourse Master Plan

Table 6-2-20: Summary of technical staff and personnel capabilities for Queen Creek		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Community Development – Planners/Engineers Public Works – Engineers
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Community Development – Planners/Engineers/Inspectors Fire – Fire Inspector/Plans Examiner Public Works – Engineers/Inspectors
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Community Development – Planners/Engineers Fire Department – Emergency Mgnt. Coordinator Public Works – Engineers/Inspectors
Floodplain Manager	☑	Public Works – Engineers/Inspectors

Table 6-2-20: Summary of technical staff and personnel capabilities for Queen Creek		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Surveyors		N/A
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Community Development – Planners/Engineers Fire Department – Emergency Mgnt. Coordinator Public Works – Engineers/Inspectors
Personnel skilled in GIS and/or HAZUS	☑	Information & Marketing – GIS Staff
Scientists familiar with the hazards of the community		N/A
Emergency manager	☑	Town Manager – Director Fire Department – Emergency Mgnt. Coordinator
Grant writer(s)	☑	Information & Marketing – Grant writer Fire Department – Emergency Mgnt. Coordinator Parks – Grant writers Public Works – Engineers/Project Managers
Others		

Table 6-3-20: Summary of fiscal capabilities for Queen Creek		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	A Five-year Consolidated Plan is prepared with the public adoption of annual application submittals.
Capital Improvements Project funding	Yes	Town CIP
Authority to levy taxes for specific purposes	Yes	• Fire/EMS/Law Enforcement Property Tax • Improvement Districts • Direct Assessment Special District
Fees for water, sewer, gas, or electric service	Yes	Water and sewer service
Impact fees for homebuyers or new developments/homes	Yes	• Wastewater • Parks, Trails, & Open Space • Town Buildings and Vehicles • Transportation • Library • Public Safety • Fire
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Other - Cooperative Agreement Grants and Specific Planning and Project Grants	Yes	

Table 6-1-21: Summary of legal and regulatory capabilities for Salt River Pima-Maricopa Indian Community	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2003 International Building Codes • 2003 International Fire Codes
ORDINANCES	• Salt River Pima-Maricopa Indian Community Ordinance • 1981 Zoning Ordinance
PLANS, MANUALS, and/or GUIDELINES	• Emergency Operations Plan • Tribal Emergency Response Commission Guidelines • 2006 General Use Plan
STUDIES	SEE TRIBAL ANNEX

Table 6-2-21: Summary of technical staff and personnel capabilities for Salt River Pima-Maricopa Indian Community		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Engineering and Construction Services (ECS), Community Development Department (CDD)
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	ECS, Fire Department
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	ECS, Environment Protection of Natural Resources(EPRN), CDD, Public Works
Floodplain Manager	☑	Streets, Transportation
Surveyors	☑	Public Works, ECS
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Police, Fire, Emergency Management, ECS, CDD
Personnel skilled in GIS and/or HAZUS	☑	ECS, CDD
Scientists familiar with the hazards of the community	☑	Public Works, CDD, EPRN
Emergency manager	☑	Fire Department
Grant writer(s)	☑	Grants and Contracts
Others		

Table 6-3-21: Summary of fiscal capabilities for Salt River Pima-Maricopa Indian Community		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric service	Yes	
Impact fees for homebuyers or new developments/homes	Yes	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Other		

Table 6-1-22: Summary of legal and regulatory capabilities for Salt River Project	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• North American Electric Reliability Council (NERC) Standard FAC-003-01 – Transmission Vegetation Management • 2007 National Electric Safety Code (NESC): Part two (deals with overhead electric lines). Section 1 and Section 12. • American National Standards Institute (ANSI standards) • American Society for Testing and Materials (ASTM standards) • Occupational Safety & Health Administration (OSHA standards) • Meet all Municipal Codes
ORDINANCES	• Meet Maricopa Association of Governments (MAG) specifications
PLANS, MANUALS, and/or GUIDELINES	• 2009 SRP Crisis Management Plan • 2009 SRP Business Continuity Coordination Plan • 2009 Emergency Restoration Plan, Electric System Line Maintenance • 2009 Storm Operations Manual • 2009 SRP Emergency Reservoir Operating Procedures • 2004 Maricopa County Hazard Mitigation Plan (currently being Updated) • 2009 Business Continuity Plan #2410 – Reactive Maintenance (Transmission/Distribution) • 2009 Business Continuity Plan #2415 – Line Clearing • 1997 Water Control Manual Modified Roosevelt Dam (Theodore Roosevelt Dam), Salt and Gila Rivers, Arizona – US Army Corps of Engineers, Los Angeles District • SRP Business Impact Analysis (BIA) Program. (portfolio of approximately 70+ BIAs for risk mitigation planning at SRP). • SRP Line Design Standards, Policies and Procedures • SRP Electrical Clearance Standards – based on NESC • Guidelines for Electric System Planning • Electric System Engineering Equipment Ratings • Distribution Operation Center Operating Procedures
STUDIES	• Water resources planning and management at the Salt River Project, Arizona, USA – Daniel H. Phillips & Yvonne Reinink & Timothy E. Skarupa & Charles E. Ester III & Jon A. Skindlov, Irrigation and Drainage Systems, Springer Netherlands, On line First, April 29, 2009 • Electric Power Research Institute (EPRI) studies on a variety of topics • Power Systems Engineering Research Center (PSerc) studies on various topics • Annual Distribution Planning and Operating Studies • Annual Electric System Plan

Table 6-2-22: Summary of technical staff and personnel capabilities for Salt River Project		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	• SRP Land Acquisitions Dept • SRP Property Management Dept • Line Asset Management Dept – 3 Right of Way Technicians and 1 Engineer
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	• SRP Manager, Electric System Engineering, Policies Procedures and Standards Dept • Line Asset Management Dept – 3-5 Inspectors • Line Maintenance Engineering Dept – 5 Engineers
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	• 1 Superintendent of Water Transmission & Communications • 3 Staff Scientists/Meteorologists – Water Resource Operations Dept • 1 Staff Senior Engineer (PE) – Water Resource Operations Dept • 2 Staff Senior Hydrologists – Water Resource Operations Dept • Line Asset Management Dept – 3-5 Inspectors • Line Maintenance Engineering Dept – 5 Engineers
Floodplain Manager		N/A
Surveyors	☑	• SRP Survey Department
Staff with education or expertise to assess the community's vulnerability to hazards	☑	• 1 Manager – Line Clearing Dept • 2 Utility Forester/Certified Arborists – Line Clearing Dept • SRP Business Continuity & Emergency Management Dept • Line Asset Management Dept – 3-5 Inspectors • Line Maintenance Engineering Dept – 5 Engineers
Personnel skilled in GIS and/or HAZUS	☑	• GIS Services Dept – 14 GIS Analysts • Cartographics & GIS Services Dept • Line Maintenance Engineering – 3 GIS/Design Technicians
Scientists familiar with the hazards of the community	☑	• Siting and Studies Dept - 5 Environmental Scientists • Environmental Compliance Dept – 7 Scientists • Laboratory & Field Services Dept – 6 Scientists
Emergency manager	☑	• Business Continuity & Emergency Management Dept - 1 Staff, Certified Emergency Manager (CEM) • Business Continuity & Emergency Management Dept - 2 Staff Certified Business Continuity Professionals (CBCP) • Water Resource Operations Dept – Manager • Electric System Line Maintenance Dept – 3 Managers
Grant writer(s)		N/A
Others		• Distribution Planning Department – 5 Engineers, 3 Technicians. • Distribution Operations Technical Support – 5 Operations Specialists

Table 6-3-22: Summary of fiscal capabilities for Salt River Project		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	n/a	
Capital Improvements Project funding	Yes	1. Structural Upgrade Initiative (SUI). Systematically harden 69kV assets from severe wind including upgrading to steel and adding heavy-duty steel poles to vulnerable line segments. Approx. $3 million per year 2. Wood Pole Asset Management Project (WPAMP). Inspect, treat, reinforce and replace wood poles throughout the distribution and transmission systems. Approx. $3.5 million per year 3. Capitalized Maintenance. To replace transmission structures system-wide between WPAMP cycles as needed. Approx. $0.5 million per year. 4. Storm Damage. Replace storm damaged structures with current designs, often an upgrade from the existing. 5. Various Capital Improvement and Load Growth initiatives as contained in the Electric System
Authority to levy taxes for specific purposes	No	
Fees for water, sewer, gas, or electric service	Yes	SRP Performs regular maintenance tasks on existing structures to preserve strength, functionality and public safety.
Impact fees for homebuyers or new developments/homes	n/a	
Incur debt through general obligation bonds	n/a	
Incur debt through special tax bonds	n/a	
Other	Yes	SRP Mobile Substation fleet

Table 6-1-23: Summary of legal and regulatory capabilities for Scottsdale	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2006 International Fire Code • 2006 International Building Code • 2006 International Mechanical Code • 2006 International Plumbing Code • 2005 National Electric Code • 2006 International Energy Conservation Code • International Residential Code • Public Nuisance and Property Maintenance Code • Uniform Code for the Abatement of Dangerous Buildings • Uniform Housing Code
ORDINANCES	• Zoning Ordinance • Floodplain and Stormwater Ordinance • Dust Control • Environmentally Sensitive Lands Ordinance • Foothills Overlay Zoning District • Hillside Zoning District • Historic Preservation • Subdivision Ordinance
PLANS, MANUALS, and/or GUIDELINES	• Cityshape 2020 • Scottsdale General Plan 2001 • Scottsdale Visioning • Green Building Program • Transportation/Mobility Plans • Streetscapes • Area Plans • Neighborhood Planning • Downtown Plan • Citywide Design Guidelines • Desert Areas • Historic Preservation
STUDIES	

Table 6-2-23: Summary of technical staff and personnel capabilities for Scottsdale		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Planning & Development – Planners Flood Control Planner Wastewater Planners
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Chief Engineer and General Manager, Water Services, Development Services
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Planning, Engineering, Water Services, Development Services
Floodplain Manager	☑	Stormwater Management – Planners
Surveyors	☑	Streets and Transportation Department
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Neighborhood Services, Human Services, Emergency Management, Development Services, Fire Department, Police Department, Public Works, Streets, Engineering, Architecture, Water Services
Personnel skilled in GIS and/or HAZUS	☑	IT Department, Fire Department, Police Department
Scientists familiar with the hazards of the community	☑	Police Department, Water Services, Fire Department
Emergency manager	☑	City Manager's Office Emergency Management – Homeland Security Division
Grant writer(s)	☑	Every Department
Others		

Table 6-3-23: Summary of fiscal capabilities for Scottsdale		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric service	Yes	
Impact fees for homebuyers or new developments/homes	Yes	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Other		

Table 6-1-24: Summary of legal and regulatory capabilities for Surprise	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• International Series of Codes: • 2006 Building, Plumbing, Electrical • 2006 Fire
ORDINANCES	• COS Municipal Codes: Land Development Chapter 101, • COS Municipal Codes: Buildings Chapter 105 • COS Municipal Codes: Storm Water Management Chapter 117 • COS Municipal Codes: Unified Development Code Chapter 122
REGULATIONS	• Addressing Regulations • Drainage Regulations • Dust Control Regulations • Subdivision Regulations
PLANS, MANUALS, and/or GUIDELINES	• General Plan 2030 • Area Land Use Plan • Development Master Plan Guidelines • Area Drainage Master Plan
STUDIES	• Flood Insurance Studies • Floodplain Delineation Studies • Area Drainage Master Studies • Transportation Studies • Martin Acres Flood Control Study

Table 6-2-24: Summary of technical staff and personnel capabilities for Surprise		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Planning and Development – Planners Public Works – Engineer
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Public Works - Engineers
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Planning and Development – Planners Public Works - Engineers
Floodplain Manager	☑	Contract with Flood Control District – Engineers Public Works – CFM Staff
Surveyors	☑	GIS – GIS Staff
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Planning and Development - Planners Public Works – Staff Police Dept – Staff Fire Dept - Staff
Personnel skilled in GIS and/or HAZUS	☑	GIS – GIS Staff
Scientists familiar with the hazards of the community		None
Emergency manager	☑	Fire Chief - Coordinator

Table 6-2-24: Summary of technical staff and personnel capabilities for Surprise		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Grant writer(s)	☑	Parks – Staff Police – Staff Public Works – Staff Fire Dept – Staff
Others		

Table 6-3-24: Summary of fiscal capabilities for Surprise		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Don't Know	A Five-year Consolidated Plan is prepared with the public adoption of an Annual Action Plan.
Capital Improvements Project funding	Yes	City General Fund CIP, Regional Transportation Plan
Authority to levy taxes for specific purposes	Yes	City Council
Fees for water, sewer, gas, or electric service	Yes	Solid Waste, Water, Sewer
Impact fees for homebuyers or new developments/homes	No	
Incur debt through general obligation bonds	Yes	City Council
Incur debt through special tax bonds	Yes	City Council
Other	Yes	FEMA, NRCS, State Land, etc.

Table 6-1-25: Summary of legal and regulatory capabilities for Tempe	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2006 International Building code and International Fire Code
ORDINANCES	• Weed Abatement Ordinance
PLANS, MANUALS, and/or GUIDELINES	• Tempe Emergency Operations Plan Revised October 2008 • Capital Improvement Plan, 2009-10, including Storm Drain Modifications • Economic Development Plan • General Plan
STUDIES	• Floodplain Delineation Study

Table 6-2-25: Summary of technical staff and personnel capabilities for Tempe		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Public Works/Engineering, Planning
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Public Works/Engineering Community Development/Building Safety
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Public Works/Engineering Water Utilities Department
Floodplain Manager	☑	Public Works/Engineering
Surveyors	☑	Public Works/Engineering Water Utilities Department
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Fire Department, Police Department, Community Development, Public Works/Engineering, Streets Water Utilities Department
Personnel skilled in GIS and/or HAZUS	☑	Public Works/Engineering, Field Operations Information Technology Department Fire Department Police Department Water Utilities Department
Scientists familiar with the hazards of the community		
Emergency manager	☑	Fire Department
Grant writer(s)	☑	All City Departments
Others		

Table 6-3-25: Summary of fiscal capabilities for Tempe		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Yes	Can only occur through City Council and city vote.
Fees for water, sewer, gas, or electric service	Yes	
Impact fees for homebuyers or new developments/homes	Yes	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Yes	
Other		

Table 6-1-26: Summary of legal and regulatory capabilities for Tolleson	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2006 International Fire Code • 2006 National Fire Code & Standards • 2006 International Building Code • 2006 International Mechanical Code • 2006 International Electrical Code • 2005 National Electrical Code • Tolleson City Code • 2006 International Residential Code • 2006 International Plumbing Code • 2006 International Property Maintenance Code • 2005 International Administrative Electrical Code • 2006 International Fuel Gas Code
ORDINANCES	• 463 N.S. Amending the Tolleson City Code Chapter 7 Relating to fire codes • 2009 Tolleson City Ordinances • 2008 Dust and Airborne Particulate Control • 2009 Zoning Code • 2007 Strom Water Runoff Pollution/Prevention
PLANS, MANUALS, and/or GUIDELINES	• Fire Protection Handbook, 18th edition • ANSI/IIAR 2-1999, Equipment Design, and Installation of Ammonia Mechanical Refrigerating Systems • Fire Department Plan Review Guidelines as adopted by Ordinance 463 N.S. • 2005 Tolleson General Plan • 2008 City of Tolleson Codes
STUDIES	•

Table 6-2-26: Summary of technical staff and personnel capabilities for Tolleson		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	City Manager's Office, City Planner, Engineering
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Engineering, Building Departments
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Planning, Engineering, Fire Department, Police Department, Public Works
Floodplain Manager	☑	City Manager's Office
Surveyors	☑	Street, Public Works, Engineering
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Street Department, Public Works
Personnel skilled in GIS and/or HAZUS	☑	Neighborhood Services, Emergency Services, Development Services, Fire Department, Police Department, Public Works, Engineering, Streets
Scientists familiar with the hazards of the community		Police Department, Water Services, Fire Department
Emergency manager	☑	City Manager's Office
Grant writer(s)	☑	Each Individual City Department
Others		

Table 6-3-26: Summary of fiscal capabilities for Tolleson		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	
Capital Improvements Project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric service	Yes	
Impact fees for homebuyers or new developments/homes	Yes	
Incur debt through general obligation bonds	Yes	
Incur debt through special tax bonds	Don't Know	
Other		

Table 6-1-27: Summary of legal and regulatory capabilities for Wickenburg	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2006 International Building Code • 2005 National Electrical Code • 2006 International Mechanical Code • 2006 International Plumbing Code • 2006 International Residential Code
ORDINANCES	• Dark Sky Ordinance • Noise Ordinance (P-23) • Zoning Ordinance (P-18)
PLANS, MANUALS, and/or GUIDELINES	• Addressing Regulations • Drainage Regulations • Dust Abatement Regulations • Subdivision Regulations
STUDIES	• Area Land Use Plan • Flood Response Plan • Development Master Plan Guidelines • Area Drainage Master Plan • Watercourse Master Plan

Table 6-2-27: Summary of technical staff and personnel capabilities for Wickenburg		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Planning and Development – Planners Public Works – Engineer
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure		Contract
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Planning and Development - Planners Emergency Management - Planners
Floodplain Manager		Contract with Flood Control District – Engineers
Surveyors		Contract
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Planning and Development - Planners Public Works – Staff Police Dept – Staff Fire Dept - Staff Emergency Management – Coordinator
Personnel skilled in GIS and/or HAZUS	☑	Planning and Development – GIS Staff
Scientists familiar with the hazards of the community		None
Emergency manager	☑	Emergency Management - Coordinator
Grant writer(s)	☑	Emergency Management - Coordinator Parks –Grant writer Police – Grant writer Public Works – Grant writer Fire Dept – Grant writer

Table 6-2-27: Summary of technical staff and personnel capabilities for Wickenburg		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Others		

Table 6-3-27: Summary of fiscal capabilities for Wickenburg		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	No	A Five-year Consolidated Plan is prepared with the public adoption of an Annual Action Plan.
Capital Improvements Project funding	Yes	Town General Fund CIP Regional Transportation Plan
Authority to levy taxes for specific purposes	Yes	Town Council
Fees for water, sewer, gas, or electric service	Yes	Solid Waste, Water, Sewer, Electric
Impact fees for homebuyers or new developments/homes	No	
Incur debt through general obligation bonds	Yes	Town Council
Incur debt through special tax bonds	Yes	Town Council
Other: Cooperative Agreement Grants and Specific Planning and Project Grants	Yes	FEMA, NRCS, State Land, etc.

Table 6-1-28: Summary of legal and regulatory capabilities for Youngtown	
Regulatory Tools for Hazard Mitigation	**Description**
CODES	• 2006 International Building Code. • 2006 International Residential Code. • 2006 International Plumbing Code. • 2006 International Mechanical Code. • 2006 International Fire Code. • 1999 National Electric Code. • Town Code of the Town of Youngtown • Plans to adopt 2009 version of codes in January 2010. • Town adopted various local zoning and building codes.
ORDINANCES	• 2008 Town of Youngtown Planning & Zoning Ordinance. • Town of Youngtown Floodplain Ordinance. • Various Town of Youngtown Weed & Debris Abatement ordinances. • 2008 Town of Youngtown Subdivision Zoning Regulations • Floodplain Management Ordinances adopted. • Debris Ordinances adopted.
PLANS, MANUALS, and/or GUIDELINES	• 2005 General Plan and Comprehensive Plan adopted. • 2005 Town of Youngtown Emergency Operations Plan (currently being updated). • Community Wildfire Protection Plan (Adopted by SCFD).
STUDIES	• 2008 Flood Insurance Studies • 2007 Floodplain Delineation Studies

Table 6-2-28: Summary of technical staff and personnel capabilities for Youngtown		
Staff/Personnel Resources	☑	**Department/Agency - Position**
Planner(s) or engineer(s) with knowledge of land development and land management practices	☑	Town Engineer.
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	☑	Town Engineer, and Building Inspector/Plans Reviewer.
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	☑	Town Engineer.
Floodplain Manager	☑	Primary Responsibility: FCDMC; Secondary Responsibility: Public Works Manager.
Surveyors	☑	Town Engineer's Staff.
Staff with education or expertise to assess the community's vulnerability to hazards	☑	Town Engineer; Public Works/Emergency Services Manager; Police Chief; various Staff Members.
Personnel skilled in GIS and/or HAZUS		
Scientists familiar with the hazards of the community		
Emergency manager	☑	Public Works Manager/Emergency Services Manager; Police Chief.
Grant writer(s)	☑	Town Engineer; Public Works Manager; Police Chief; various Staff Members.
Others		

Table 6-3-28: Summary of fiscal capabilities for Youngtown		
Financial Resources	**Accessible or Eligible to Use (Yes, No, Don't Know)**	**Comments**
Community Development Block Grants	Yes	Member of MCCD/CDAC Small Cities.
Capital Improvements Project funding	Yes	Local Funds.
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric service	No	Utilities, including water/sewer owned by private providers.
Impact fees for homebuyers or new developments/homes	Yes	Most of Youngtown already built out; very little new growth possible.
Incur debt through general obligation bonds	Yes	Unlikely, however, since water/sewer not owned by Town. Also, Town does not have primary property tax.
Incur debt through special tax bonds	Yes	Unlikely, however, since water/sewer not owned by Town. Also, Town does not have primary property tax.
Other		

6.2.2 Previous Mitigation Activities

During the last planning cycle many mitigation activities have been accomplished by the jurisdictions within Maricopa County. Table 6-4 provides an updated summary, by jurisdiction, of recent mitigation activities performed over the last planning cycle or generally within the last five years. Table 6-5 summarizes projects funded through federal hazard mitigation grant money such as FMA, HMGP or PDM.

SRP provided the following text description and overall summary of past mitigation activities, categorized by hazard, in lieu of line item activities for Table 6-4:

Severe Wind - For the Transmission System, SRP generally addresses strong wind and mitigates its negative effects within elements of its design process. Over the last decade the severity of wind that the structures are designed to withstand has increased. Structures that were in place before the time of the increased design criteria are also mitigated. Regularly spaced structures designed and practically tested to sectionalize localized pole failures have been installed throughout the transmission system. This has effectively contained the adverse effects of severe winds experienced during summer wind events referred to as micro bursts. More frequent use of structures more resilient to wind have also been installed in other key areas throughout the system including near electric substations, multi-line corridors with a higher density of structures and on lines serving reliability critical customers. Throughout the remainder of the system, aging structures are evaluated and ranked for replacement for several criteria including its calculated strength at various wind speeds. All wood poles are field inspected on a periodic basis for wood health, strength and general condition; with unhealthy structures budgeted and scheduled for replacement. Unhealthy structures would have been at more risk to severe wind than healthy structures.

For the Distribution System, distribution design does account for wind loading during the design process. All wood poles are field inspected on a periodic basis for wood health, strength and general condition; with unhealthy structures budgeted and scheduled for replacement. Unhealthy structures would have been at more risk to severe wind than healthy structures. In a significant effort to mitigate a multitude of possible hazards, it is important to note that over 70% of SRP's distribution system is underground and therefore not as susceptible to severe wind.

Wildfire - Line Clearing has a preventative maintenance program that clears vegetation from transmission and distribution lines. Lines are patrolled regularly and vegetation cleared to ensure vegetation does not encroach on the lines. For transmission, in addition to clearing for vertical clearance, our line clearing program also clears lower growing dense vegetation (smaller trees and brush), called "fuel clearing", in an effort to reduce the fire/smoke in the event of a wildfire to better protect the lines.

Extreme Heat - As it relates to the Distribution System, SRP has designed a looped system with multiple ties. This mitigation concept allows flexibility to re-arrange circuits prior to summer to balance loads (called summer switching), also allows dynamic operation of the distribution system to establish alternate paths in case of outages or other unforeseen events common to extreme heat situations. Mobile substations can be deployed in advance to cover and mitigate any anticipated capacity deficiencies or after-the-fact in the case of substation transformer failure. Having mobile substation capabilities mitigates chances of escalating outages.

SRP utilizes 69/12kV transformer emergency ratings. Utilizing the emergency rating typically allows loading the unit 25% higher than nominal and provides flexibility to cover for peak loads and outages, mitigating negative side effects. Outages are mitigated through continued maintenance programs. Ongoing line clearing and line patrol programs ensure necessary electrical clearance underneath and next to our lines, thus mitigating a variety of negative consequences of vegetation interfering with electrical lines. SRP also continues significant investments in capital upgrade programs. Ongoing programs such as cable replacement, feeder getaway upgrades, pad-mounted transformer replacements, #2 and 4/0 loop splits have resulted in a more modern, robust electric system.

Flooding - During the floods of 1993, local response efforts statewide were hindered by poor coordination among agencies and by lack of information about the flooding threat. As a result, state, federal and local agencies formed a Multi-Agency Task Force to address these issues. In 1997, the U.S. Army Corps of Engineers and ADWR sponsored the design and construction of the Arizona Statewide Flood Warning System (AFWS) to: 1) improve collection of real-time precipitation and river stage data; 2) strengthen or establish communication links among the agencies for better data sharing; and, 3) expand data coverage through installation of additional rain and river stage gages. The AFWS has been operating for 10 years, with a continuing increase in the network of gages. Data are available to emergency response managers (and also the public) statewide via the internet (www.afws.org) and dedicated base stations. Data are transmitted to and from a three-hub computer network located at the Phoenix, Tucson and Flagstaff NWS offices. SRP's continuing involvement with the Multi-Agency Taskforce on Flood Warning continues to be a benchmark mitigation program. The task force meets bi-monthly at SRP facilities. SRP operates and maintains the AFWS under an agreement with ADWR.

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Avondale	Elm Lane Storm Runoff Diversion	Reroute storm runoff from flooding three homes at the south end of Elm Street in Old Avondale.	$200,000	50-50 cost share between City funds and Flood Control District of Maricopa County funds	City of Avondale - Public Works Dept.	April 2009
Carefree	Carefree Fire Station No. 1	Construction of new Town fire station to provide protection to the citizens of Carefree in the event of fires, wild fires and medical emergencies. This was in place of a pre existing contract with a outside private company.	$5,000,000	General Fund	Town Administrator	Nov. 2007
Carefree	Carefree Fire Truck and Eq.	Purchase of new fire truck and equipment to supplement implementation of new station.	$400,000	General Fund	Town Administrator	2006
Carefree	Chlorine Abatement	Remove and replace hazardous water treatment chemicals with less reactive and safer solid chlorine. This abated hazardous storage sites and reduced chemical storage of any type.	$9,000	UCFD	Carefree Water Dept.	2006
Carefree	Dream Street Wash	The Dream Street wash was channelized and bridged to provide a controlled flow during flash floods and for preparation of 100 year flood events.	$950,000	CIP & General funds	Town Engineer	2007
Carefree	Fire Department Contract	Direct contract with Rural Metro to provide service to the Town of Carefree, It's citizens and visitors and to man the new station and equip.	$1.2 Mill. Annually	General Fund	Town Administrator	2007
Carefree	Fire Hydrant Project	Construction of fire hydrants and replacing supply piping to provide better water supply in case of emergency need such as structure or wild fires in areas that did not previously have the infrastructure.	$1.5 million	CIP & General funds	Town Administrator	on going
Carefree	Water Site Elimination	Some sites were eliminated to reduce targets and provide better service to the community via larger storage systems and better pumping facilities.	$5,000	UCFD	Carefree Water Dept.	2008
Carefree	Water Site Security	Fence, barrier and alarm systems for remote water facility sites.	$25,000	UCFD	Carefree Water Dept.	2006
Carefree	Water storage construction	Construction of new water storage facility. 150,000 gallon concrete lifetime storage tank to provide water to our citizens and to assist with adequate back up supplies when combined with existing facilities	$220,000	CIP & General funds	Town Administrator	2008
Cave Creek	Commissioning of New Fire Station	Rural Metro Fire took over an existing building within the jurisdiction to decrease response times to fire and emergencies.	$100,000	Rural Metro Fire Department	Rural Metro Fire Department	01/2007
Cave Creek	Drainage Master Plan	Review of all washes and flood plain delineations within town boundaries and the	$200,000	Maricopa County flood Control. Town General fund $200000	Town Engineer	12/2008
Cave Creek	Flood Response Plan	Study to determine the Town's flood prone locations, and to develop ways to mitigate severe flooding at grade crossings. Emergency Response Plan to respond to sever weather conditions resulting in or likely to result in flash flooding.	$50,000	Maricopa County flood Control. Town General fund $200000	Town Engineer	02/2007

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Cave Creek	Water Storage Tanks	Increase the Town's Water Storage Capacity to sustain the Town's water supply during drought periods as well as sustain water pressure in the event of fire and the need to utilize fire hydrants.	$20,000,000	General Fund	Utilities Department	05/2008
Chandler	Chandler\Gilbert Floodplain Delineation Study - Phase 1 Eastern Canal	This study is a re-study of approximately 11 linear miles along the Eastern Canal/RWCD Extension Canal between Baseline Rd and Riggs Rd.	N/A	Flood Control District of Maricopa County (FCDMC)	Public Works Department	on-going
Chandler	Chandler\Gilbert Floodplain Delineation Study - Phase 2 Consolidated Canal	This study is an update of the floodplain/floodway delineation performed along the Consolidated Canal.	N/A	Flood Control District of Maricopa County (FCDMC)	Public Works Department	on-going
Chandler	Chandler\Gilbert Floodplain Delineation Study - Phase 3 Union Pacific RR and Arizona Av	This study is an update of the floodplain/floodway delineation performed along the Union Pacific Railroads and portions of Arizona Ave.	N/A	Flood Control District of Maricopa County (FCDMC)	Public Works Department	on-going
Chandler	Floodplain Use Permits	On-Going approvals for floodplain use permits processed by FCDMC.	N/A	N/A	Public Works Department	on-going
Chandler	Letter of Map Revision (LOMR)	On-Going Letter of Map Revisions processed by FCDMC.	N/A	N/A	Public Works Department	on-going
Chandler	Queen Creek Basin	A 70 acre retention basin at the southeast corner of McQueen Rd and Queen Creek Rd. This retention basin is part of the recommended regional drainage plan identified in the Higley Area Drainage Master Plan. It is designed to retain 204 acre-feet of storm water runoff from the 100-year storm identified in the Higley Area Drainage Master Plan.	1500000	Flood Control District of Maricopa County (FCDMC)	Public Works Department	Oct 2009
El Mirage	El Mirage Market Place	This site development was constructed at the southwest corner of Cactus and El Mirage to bring the location into a LOMAR.	$22,565	General Engineering	Public Works Department	Feb 2009
El Mirage	Mirage Oasis	This site development was constructed at the southeast corner of Greenway and Dysart to bring the location into a LOMAR.	$44,580	Huval Engineering	Public Works Department	Oct 2008
El Mirage	Thompson Ranch South Parcel	This project was to channel and direct the Thompson Ranch Subdivision stormwater run-off through the low outfall location at the BNSF crossing.	$585,000	Thompson Ranch Dev	Public Works Department	Sept 2008
El Mirage	Vulcan Levee Phase One	This project was to channel and place a Levee from the Lizard Run Wash out fall into the Agua Fria River south past the Thompson Ranch Subdivision.	$2,323,000	Vulcan Materials	Public Works Department	May 2009
Fort McDowell Yavapai Nation	Building Code Adoptions and Revisions	Tribal government reviewed and adopted updated construction codes and standards to improve building safety during high wind and other weather events.	$60,000 to date	Tribal General Revenue	Community and Economic Development Division.	Annual Recurring

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Fort McDowell Yavapai Nation	Hazard Mitigation Identification Project	All department directors are responsible for reporting conditions that pose a potential hazard to the community to the emergency manager for mitigation analysis and possible corrective action.	$12,000 annually	Tribal General Revenue	Department Heads	Annual recurring
Fort McDowell Yavapai Nation	Mitigation Public Education	The Emergency manager and the Health Director provided numerous articles related to public safety and community health activities that could be undertaken by citizens to reduce the threat of wildfire and infectious disease spread for publication in the community newspaper and on the local web site.	$2,000 annually	Tribal General Revenue	Fire Department Emergency Manager.	Annual Recurring
Fort McDowell Yavapai Nation	Negative pressure room addition	Wassaja Memorial Health Center has designed and is building a negative pressure intake room ta accept patients possibly contaminated through exposure to hazardous materials. Completion date is early 2010.	$10,000 to date	Tribal General Revenue	Health Clinic Director	2009/2010
Fort McDowell Yavapai Nation	River Restoration/Flood Control	Yavapai Materials gravel operation and the FMYN Environmental Department designed and implemented a restoration and flood control project on the Verde River to channel high runoff through a deepened channel and divert to a man-made lake to preserve wildland habitat and prevent flooding of the mining operation.	$50,000 to date	Tribal General Revenue	Environmental manager	Annual Recurring
Fort McDowell Yavapai Nation	Waste Transfer Station	Public works department designed and built a waste transfer station to collect and sort household waste prior to delivery to landfill to prevent seepage to groundwater and isolate hazardous waste for proper disposal.	$750,000	Tribal General Revenue	Public works manager	2009/2010
Fountain Hills	Annual Wash Hazard Removal Program	Remove fire hazard and drainage problems for Town owned washes	$120,000	Town General Fund	Public Works Department	Annual/ ongoing
Fountain Hills	Golden Eagle Park Dam Modifications	The dam was raised, an auxiliary spillway was added and the emergency spillway width was increased to prevent a catastrophic flood	$525,000	Maricopa County FCD &Town CIP	Public Works Department	June 2005
Fountain Hills	Saguaro Blvd Drainage Modifications	Added catch basins and Culvert extensions to mitigate large street drainage flows	$160,000	Maricopa County FCD &Town CIP	Public Works Department	January 2003
Gila Bend	Neighborhood Improvement	Constructed curb, gutter and sidewalk to better facilitate stormwater management	$200,000	HURF	Public Works Department	2004
Gilbert	Germann Rd ridge over EMF	Bridge constructed on Germann Road over the East Maricopa Floodway.	$6,500,000	Town of Gilbert CIP	Public Works Department	January 2005
Gilbert	Higley Rd Bridge over EMF	Bridge constructed on Higley Road over the East Maricopa Floodway.	$5,750,000	Town of Gilbert CIP	Public Works Department	September 2009
Gilbert	Higley Rd Bridge over QC Wash	Bridge constructed on Higley Rd over the Queen Creek Wash as a component to the Queen Creek Rd Channelization Project	$1,100,000	Town of Gilbert CIP	Public Works Department	April 2007
Gilbert	Higley Rd Bridge over Sonoqui	Bridge constructed on Higley Rd over the Sonoqui Wash as a component to the Sonoqui Wash Channelization Project	$2,000,000	Town of Gilbert CIP	Public Works Department	July 2007
Gilbert	Pecos Rd Bridge over EMF	Bridge constructed on Pecos Road over the East Maricopa Floodway.	$5,250,000	Town of Gilbert CIP	Public Works Department	January 2005

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Gilbert	Private stormwater retention/conveyance	The Town of Gilbert has a Specific Storm Water Retention Policy found in the Public Works and Engineering Standards and Details. This policy states that, " all new developments shall provide retention for the run-off generated by the fifty-year, twenty-four-hour storm (3-inches). The area to be considered as generating runoff to be retained shall be the development itself and one-half of the right-of-way of the adjacent street(s)." As a result, a lot of stormwater retention/conveyance facilities have been put in the Town of Gilbert as part of the development process with private money.	Totals Unknown	Private Funds	Public Works Department	ongoing
Gilbert	Queen Creek Wash Channelization Project	The Town of Gilbert proposed improvements to Queen Creek Wash from Recker Road to Higley Road, including replacing the existing wash with a natural desert vegetated channel with a 100-year capacity. Improvements were previously made to the wash upstream of Recker Road, and improvements were designed and constructed for the reach of the wash downstream of Higley Road as part of the District's East Maricopa Floodway Basin projects. The Town is the lead agency for all design and construction related tasks and will own, operate and maintain the completed project.	$890,000	34% FCD ($302,600.00) 66% Developer ($587,400.00)	Public Works Department	July 2006
Gilbert	Sonoqui Wash Channelization Project	In conjunction with the towns of Gilbert and Queen Creek, the Flood Control District designed a multi-use conveyance channel capable of carrying a 100-year flood event within the channel of the Sonoqui Wash from Queen Creek Wash (west of Higley Road) to Chandler Heights Road. The channel is approximately 3.5 miles long and about 140 feet to 200 feet in width; it reduces and conveys the previous one-half-mile to three-quarter-mile wide floodplain. Most of the land required for this channel was dedicated by the adjacent developers. The project incorporated the construction of five major crossings, including bridges at Higley Road and Power Road constructed by the Town of Gilbert and Maricopa County Department of Transportation, respectively	$10,155,577	50% FCD 30% Town of Queen Creek 20% Town of Gilbert CIP ($2,313,556.18)	Public Works Department	March 2008
Glendale	Barcelona Primary School	Retention basins were installed on the upstream side of Grand Avenue in conjunction with the school improvements to contain flooding caused by the elevated roadway and adjacent railroad tracks. Installation of the basins has allowed the floodplain to be contained within the roadway and decreased the ponding depth from 2 feet to 1 foot.	$90,000	School District	Alhambra Elementary School District No. 68	August 2002

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Glendale	Bethany Home Outfall Channel	This project consisted of constructing a linear park/channel on the upstream side of the Grand Canal to convey the 100-year storm to the Agua Fria Freeway outfall channel. There is still one section to be completed, but when construction is done 745 structures within the City of Glendale and City of Phoenix will be removed from the floodplain.	$27,000,00	Flood Control/ADOT	Flood Control District of Maricopa County	June 2007
Glendale	Community Emergency Notification System (CENS)	Goal #3-2004 Mitigation Plan-Action 3.A.1 Develop the Dialogical Communicator System, a reverse 911 system that provides directional calling through the connection of the GIS System.	$160,000	HLS Grant (Plant CML-Vendor)	Phoenix Fire Dept-Maricopa Regional 911 System	February 10, 2009
Glendale	Grand Avenue at 43rd Ave and 51st Ave	Retention basins were installed on the upstream side of Grand Avenue in conjunction with intersection improvements to contain flooding caused by the elevated roadway and adjacent railroad tracks. Installation of the basins has allowed the floodplain to be contained within the roadway and decreased the ponding depth from 2 feet to 1 foot.	$20,000,000* (Entire Project Cost - Drainage Improvement Costs Unknown)	ADOT	ADOT	June 2006
Glendale	Grand Avenue at 59th Avenue	A storm drain and pumping system were installed with intersection improvements to drain ponded runoff to an upstream retention basin allowing the floodplain to be contained within the roadway and the ponding depth to be decreased from 2 feet to 1 foot.	$29,000,000* (Entire Project Cost - Drainage Improvement Costs Unknown)	ADOT	ADOT	July 2006
Glendale	Peoria subdivision bank stabilization	Approximately 3600 linear feet of gabion mattresses were installed along the New River to protect a new subdivision from the 100-year storm.	$900,000	Private Developer	Western Real Estate Investors Inc.	December 2006
Glendale	Reserve at Eagle Heights Bank Stabilization	Approximately 1500 linear feet of gabion mattresses were installed along the New River to protect a new subdivision from the 100-year storm.	$375,000	Private Developer	Western Pacific 75th Avenue LLC	June 2007
Glendale	Storm Ready	Storm Ready is a nationwide community preparedness program, sponsored by the NWS that recognizes communities who develop plans to handle all types of severe weather, from wind storms to extreme heat, as well as alert and educate citizens of potentially hazardous weather conditions.	$100,000	EMA Budget	Office of Emergency Management	August 26, 2008
Goodyear	Bullard Wash Channelization Project, Camelback Road to Indian School Road	Bullard Wash, a major regional drainageway, was channelized to mitigate the impacts of flooding through the City. The channel was sized to convey the 100-year storm and protect residential development.	$2,000,000	Private Developer	Engineering Department	June 2006
Goodyear	Bullard Wash Channelization Project, Thomas Road alignment to Virginia Street	Bullard Wash, a major regional drainageway, was channelized to mitigate the impacts of flooding through the City. The channel was sized to convey the 100-year storm and protect residential.	$1,200,000	Private Developer	Engineering Department	December 2004
Goodyear	Bullard Wash Channelization Project, Virginia Street to I-10	Bullard Wash, a major regional drainageway, was channelized to mitigate the impacts of flooding through the City. The channel was sized to convey the 100-year storm and protect residential and commercial development.	$4,000,000	Improvement District	Engineering Department	June 2009

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Goodyear	Bullard Wash Channelization Project, Yuma Road to Lower Buckeye Road alignment	Bullard Wash, a major regional drainageway, was channelized to mitigate the impacts of flooding through the City. The channel was sized to convey the 100-year storm and protect residential and commercial development, the Phoenix-Goodyear Airport, and the Goodyear Ballpark and Development Complexes.	$400,000	City CIP	Engineering Department	January 2009
Goodyear	Cotton Lane Bridge across the Gila River	Cotton Lane is a major arterial road that provides north-south access across the City. The Cotton Lane Bridge provided all-weather access across the Gila River in a 100-year storm. This bridge provided a third option in the City for crossing the Gila River.	$30,000,000	City CIP, MCDOT CIP, and Private Developers	Engineering Department	January 2008
Goodyear	McDowell Road Bridge across Bullard Wash	McDowell Road is a major arterial street that provides primary east-west access across the City. The McDowell Bridge provided all-weather access across Bullard Wash in a 100-year storm.	$3,500,000	Improvement District	Engineering Department	March 2009
Goodyear	Monte Vista Avenue Bridge across Bullard Wash	Monte Vista Avenue is a major collector road that provides east-west access between residential and commercial areas. The Monte Vista Avenue Bridge provided all-weather access across Bullard Wash in a 100-year storm.	$3,000,000	Improvement District	Engineering Department	March 2009
Goodyear	Van Buren Street Bridge across Bullard Wash	Van Buren Street is an arterial street that provides primary east-west access across the City. The Van Buren Street Bridge provided all-weather access across Bullard Wash in a 100-year storm.	$2,500,000	City CIP	Engineering Department	January 2008
Goodyear	Virginia Street Box Culvert across Bullard Wash	Virginia Avenue is a collector road that provides east-west access between residential areas. The Virginia Street Box Culvert provided all-weather access across Bullard Wash in a 100-year storm.	$800,000	Private Developer	Engineering Department	December 2004
Guadalupe	CDBG PROJECT - 2005	Building of curb/gutter and side walk in Sende Vista to mitigate street flooding and direct runoff towards flood control facilities.	190,000.00	CDBG FUNDING	Community Development	December 2005
Guadalupe	CDBG PROJECT - 2006	Building of curb/gutter and side walk in Sende Vista to mitigate street flooding and direct runoff towards flood control facilities.	200,000.00	CDBG FUNDING	Community Development	December 2006
Guadalupe	CDBG PROJECT - 2007	Building of curb/gutter and side walk in Sende Vista to mitigate street flooding and direct runoff towards flood control facilities.	281,740.28	CDBG FUNDING	Community Development	December 2007
Guadalupe	CDBG PROJECT - 2008	Building of curb/gutter and side walk in Sende Vista to mitigate street flooding and direct runoff towards flood control facilities.	73,729.00	CDBG FUNDING	Community Development	December 2008

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Litchfield Park	Litchfield Park Drainage System-Ancora Drain Phase III	The Ancora Drain project was one phase of an overall storm drain project that was designed to solve a flooding problem that was occurring in a residential portion of Litchfield Park. The project called for an extension of the drain system from Ancora Circle South to the intersection of Desert Avenue and Dorado Circle. The project increased the drain inlet capacity of the storm drain system from 20 cfs to 80 cfs. The work completed the Ancora Storm Drain system and enabled 27 homes to avoid being flooded. The completed project provided enough relief that it was able to move the previously impacted homes out of the 100 year flood plain.	$160,000	FEMA HMGP(884-3) $120,000 City General Fund $40,000	Litchfield Park, City Manager Contract Engineer: Banicki Engineering Construction Contractor: Pierson Construction Corp.	1996
Litchfield Park	Storm Drain Project phase 1	Storm drains were installed on Old Litchfield Road south from Sagebrush St. to Villa Nueva. This allowed storm run-off to be taken underground to a spill way avoiding potential flooding of residential neighborhoods.	$1.2 million	City Budget,	City Manager; Public Works, Brown Engineering and Banicki Construction	2000
Litchfield Park	Storm Drain Project Phase 2	Storm drains were installed on Neolin Ave. from Wigwam Blvd.south to Sagebrush St. and on Old Litchfield Rd. south to Sagebrush st. This allowed storm watew run-off to go underground to avoid potential flooding of residential neighborhoods.	$1.2 million	City Budget	City manager, Public Works/Planning, Brown Engineering, Banicki Construction	2004
Maricopa County	67th Avenue at the Salt River Flooding Gates	Permanent gates installed to prevent citizens from crossing the flood prone waterway.	$40,000	MCDOT Operating budget (HURF)	Transportation	July 2008
Maricopa County	Alma School Road North Bridge over the Salt River Scour Protection	River scour was endangering the stability of the structure and this project provides protection from future flood events	$1,200,000	MCDOT TIP (HURF)	Transportation	October 2005
Maricopa County	Alma School Road South Bridge over the Salt River Scour Protection	River scour was endangering the stability of the structure and this project provides protection from future flood events	$1,000,000	MCDOT TIP (HURF)	Transportation	July 2009
Maricopa County	Cotton Lane Bridge over the Gila River	New bridge providing additional access across a flood prone waterway.	$50,000,000	MCDOT TIP (HURF); Developer contributions and City of Goodyear CIP	Transportation	August 2008
Maricopa County	Dam Safety Program	The District's Dam Safety Activities, Structures Assessments and Repairs, and Dam Rehabilitation Programs provide annual maintenance, assessment, repairs, and rehabilitation of its 22 dams and various Flood retarding Structures to ensure the safety of Maricopa County residents	N/A	Dept. Budget	Flood Control District	Ongoing

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Maricopa County	Flood Control Projects FY08	The District continues to work towards the completion of flood control projects to reduce the potential for flooding in Maricopa County under its Capital Improvements Program (CIP).	$55,000,000	Dept. Budget	Flood Control District	Ongoing
Maricopa County	Floodplain Delineation Studies	The District conducts new floodplain delineation studies identifying flood hazards and restudying existing flooplain areas, to get ahead of development, develop alternatives for structural flood controls, develop Area Drainage Master Plans and Watercourse Master Plans, establish regulatory requirements for new development, and identify mitigation opportunities. From FY06 through FY09 26 studies were completed on 890 stream miles.	$20,000,000	Dept. Budget	Flood Control District	Ongoing
Maricopa County	Floodplain Regulations	The District administers the Floodplain regulations for Maricopa County in the unincorporated areas and 12 communities, ensuring that new development is protected from flooding and that adverse impacts are minimized through use limitations on floodways and other high hazard floodplains.	N/A	Dept. Budget	Flood Control District	Ongoing
Maricopa County	FPAP	Under the countywide Floodprone Properties Acquisition Program, 23 properties were acquired for structure demolition or relocation; 3 additional properties were protected by a floodwall.	$7,654,931	Dept. Budget	Flood Control District	Ongoing
Maricopa County	Old Stage Road at New River Concrete Ford	Flood gates were replaced with an all weather ford structure that allows local citizens access through a flood prone waterway.	$200,000	MCDOT Operating budget (HURF)	Transportation	September 2008
Maricopa County	Public Awareness	Increase public awareness about hazards through various media - mailings, public meetings, home shows, television commercials, internet, etc.	$5,000	Dept. Budget	Emergency Management and Flood Control District	Ongoing
Maricopa County	Storm Ready Community Recognition	Recognized by the National Weather Service in 2005 and again in 2008. In order for a community to be recognized a community must complete a set of rigorous warning criteria. One criteria is to promote the importance of public readiness through community seminars.	$2,000	Dept. Budget	Emergency Management	November 2005
Maricopa County	Storm Ready Community Recognition	Renewal of the Storm Ready Community Designation	$2,000	Dept. Budget	Emergency Management	November 2008
Maricopa County	Weather Radios	Distributed one NOAA Weather Radio All Hazards receivers to every public school in Maricopa County.	$10,000	Dept. Budget	Emergency Management	November 2007

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Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Mesa	Flood Control	City Engineering is partnering on a project with Maricopa County in east Mesa/unincorporated area near Siphon Draw Basin, with creating a large water retention basin. Finally, Engineering is developing a Storm Water Master Plan to identify areas throughout the city where water run-off during storms has or may create problems. Once the Plan is complete (July 09) the city will seek Bond funding to make suggested mitigations.	undetermined	Bonds	City of Mesa Engineering	
Mesa	Replace Power Poles along University	Since the beginning of February a CIP project to replace all wooden power poles with steel and concrete poles as well as increasing the cable size from 795 to 1152 MCM. Along University Dr between Extension Rd (800 west) and Stapley Dr (1200 east) The cost of the project is approx $2.0 million. all poles have been replaced, approx 2.5 miles.	$2,000,000	Capital Improvement Bonds	Utilities (Energy Division)	July 2009
Paradise Valley	Community Emergency Notification Systems (CENS)	The CENS was created as a method to notify citizens within a specifiable area of a local hazard. It was recently upgraded to a reverse 911 system.	$160,000	Homeland Security Grant Fund	Maricopa Region 911 Office	Feburary 2009
Paradise Valley	Doubletree Ranch Road Flood Control and Road Improvement Project	The installation of (2) 10' x 6' box culverts was done under Doubletree Ranch Road to handle the storm water from the Phoenix Mountain Preserve.	$11,000,000	Town of Paradise Valley Capital Projects Accumulation Fund & Maricopa County Flood Control District	Engineering Department	January 2005
Paradise Valley	Utility Pole Under Grounding Project	In reaction to the downing of multiple power lines and power poles during wind events, the under grounding of all electric utility was undertaken.	$40,000,000	Town of Paradise Valley Capital Projects Accumulation Fund (55%) & Arizona Public Service (45%)	Engineering Department	89% complete - 4 of 36 districts remaining
Paradise Valley	Wash Maintenance Inspection Project	To minimize the adverse effects of flooding during storm events the Town has a perpetual program of inspecting major washes every year and minor washes every other year. Property owners are notification if routine maintenance has been performed.	$100,000	Town of Paradise General Fund	Public Works Department until 2009, then Planning & Building Department	Perpetual Project
Phoenix	10th Street Wash Storm Drain Project	10th Street Wash Storm Drain Project replaced an open channel between Alice Ave and the Arizona Canal Diversion Channel with underground storm drain pipes. Goals/Objectives 5.B.3 and 5.D.2	$5,443,068	CIP/BOND & FCDMC (50/50)	FCDMC	Jun 2008

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Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Phoenix	23rd Ave WWTP-Security Upgrades	Installation of fencing, card readers, cameras and conversion to one ton chlorine gas containers. Goal 11, Objective 11.A	$10,200,000	CIP WS90200034	Water Services Department	July 2006
Phoenix	24th Ave/Camelback Road Detention basin and Storm Drain Project	24th Ave/Camelback Road Detention basin and Storm Drain Project purchased 28 homes and constructed a detention basin. Goals/Objectives 5.B.3 and 5.D.2	$11,098,757	CIP/BOND & FCDMC (75/25)	Street Transportation Department	Nov 2008
Phoenix	24th St WTP-Security Upgrades	Installation of fencing, card readers, cameras, and other security facilities at the plant. Goal 11, Objective 11.A	$8,600,000	CIP WS85290019	Water Services Department	July 2008
Phoenix	26th Ave/Verde Lane Detention Basin and Storm Drain Project	26th Ave/Verde Lane Detention basin and Storm Drain Project purchased 26 homes and constructed a detention basin. Goals/Objectives 5.B.3 and 5.D.2	$8,770,505	CIP/BOND & FCDMC (50/50)	Street Transportation Department	Jun 2007
Phoenix	64th Street Security Improvements	Upgrade the existing wall and gates at the reservoir site to provide additional security measures. Goal/Objective 11	$3,000,000	CIP WS85800005	Water Services Department	Ongoing
Phoenix	91st Ave WWTP-Security Upgrades	Installation of fencing, card readers, cameras, and conversion to one ton chlorine gas containers. Goal 11, Objective 11.A	$9,200,000	CIP WS90100073	Water Services Department	Feb 2009
Phoenix	9th Avenue Storm Drain Project	9th Ave Storm Drain Project constructed storm drain pipes between West Park Dam principal outlet to the Arizona Canal Diversion Channel. Goals/Objectives 5.B.3 and 5.D.2	$4,499,925	CIP/BOND & FCDMC (50/50)	Street Transportation Department	Dec 2008
Phoenix	Arizona Water and Wastewater Agency Response Network (AZWARN)	Development of statewide water and wastewater emergency response network. Goal/Objective 11.A	$5,000	Operating Funds	Water Services Department	March 2008
Phoenix	Bethany Home Road Outfall Channel (BHOC) - Reach B	Bethany Home Road Outfall Channel, Reach B project purchased demolished approximately 72 floodprone properties and constructed a multi-use detention basin. This meandering multi-use detention basin is also used as a park feature, which runs along the Grand Canal between 67th Ave and 73 Ave. Goals/Objectives 5.B.3 and 5.D.2	$20,588,967	CIP/BOND, FCDMC & Glendale (25/50/25)	FCDMC	Aug 2007
Phoenix	Clean Air Act - Risk Management Plan - General Duty Clause	Staff conducted facility assessments to identify storage or use of hazardous materials that may be released beyond the property boundary and impact the public. The volume of hazardous materials was reduced at one facility, materials were moved at another facility, and a management plan will be conducted at another facility. Goal/Objective 10.A.1 and 10.C.2		Operating Funds	Aviation Department	April 2009
Phoenix	Critical RCEP Improvements at Remote Facilities	This project is the implementation of the first year of critical improvements identified in the Lift Station and Odor Control Station RCEP study. It includes upgrades at 9 lift stations to correct regulatory deficiencies. Goal 10, Objective 10.C	$597,500	CIP WS90400054	Water Services Department	May 2009 (Design)
Phoenix	Customer Service Yard Security Improvements	Upgrade the existing wall and gates at customer service area yard #1 and #4 and install a fire life safety system at area yard #4. Goal/Objective 11	$650,000	CIP WS85800009	Water Services Department	Ongoing

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Phoenix	Customer Services Pay station-Security Upgrades	Installation of cameras, bullet proof glass, etc. Goal 11, Objective 11.A	$1,000,000	CIP WS85700049	Water Services Department	July 2006
Phoenix	Dam Safety Program	Between 2004 and 2009, three separate Dam Safety related projects have been completed. These projects primarily dealt with Jurisdictional and non-jurisdictional dams within the City of Phoenix boundary. Goals/Objectives 5.C.1, 5.C.2, and 5.C.3	$3,088,269	CIP/BOND & FCDMC (50/50)	Street Transportation Department	June 2006 - June 2009
Phoenix	Deer Valley WTP-Security Upgrades	Installation of fencing, card readers, cameras, and other security facilities at the plant. Goal 11, Objective 11.A	$1,500,000	CIP WS85260020	Water Services Department	December 2008
Phoenix	Elevation Certificate Program	Various-Between 2004 and 2009, numerous elevation certificate projects have been completed. These projects help reduce or eliminate flood insurance requirements for structures located within the Special Flood Hazard Area (SFHA). Goals/Objectives 5.B.1 and 5.B.3	$435,399	CIP/BOND	Street Transportation Department	FY 2004-FY2009
Phoenix	Environmentally Preferable Purchase Program	Coordinated with Finance Department on five environmental standard and special terms and conditions for contracts. Coordinated for environmental language to be added to contracts. This was approved by City Council Resolution 20519 in 2007. Goal/Objective 10.A.2		Operating Funds	City Manager/ Office of Environmental Programs	2005-2007
Phoenix	Environmentally Preferable Purchase Program	Developed EPP training module for P2 University. Goal/Objective 10.A.2		Operating Funds	City Manager/ Office of Environmental Programs	2005
Phoenix	Environmentally Preferable Purchase Program	Product Evaluation Teams demonstrate green products in six categories. Goal/Objective 10.A.2		Operating Funds	City Manager/ Office of Environmental Programs	2007
Phoenix	Environmentally Preferable Purchase Program	Collaborated with ASU on green (EPP) purchasing. Goal/Objective 10.B.1		Operating Funds	City Manager/ Office of Environmental Programs	2008
Phoenix	Hazardous Waste Management	Staff were trained on safe handling of hazardous wastes including: recordkeeping and inspections for universal waste, batteries, PCB ballasts, mercury containing equipment, and hazardous waste accumulation areas. Goal/Objective 10.C.1		Operating Funds	Aviation Department	June 2008
Phoenix	Lake Pleasant WTP DBO	Installation of fencing, card readers, cameras, and other security facilities with the construction of the new plant. Goal 11, Objective 11.A	$218,000,000	CIP WS85350004	Water Services Department	July 2007

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Phoenix	Laveen Area Conveyance Channel (LACC) Project	Laveen Area Conveyance Channel is a 5.8 miles long, approximately 200' wide meandering multi-use flood control facility. It provides protection from flooding to the South Phoenix/Laveen area between 43rd Ave and the Salt river. The flood control facility, which is jointly used as a park feature runs along Baseline Road alignment and confluences with the Salt River west of 75th Ave. Goals/Objectives 5.B.3 and 5.D.2	$20,759,394	CIP/BOND & FCDMC (50/50)	FCDMC	Jul 2007
Phoenix	Lift Station 42 Security Upgrades	Installed new gates, anti-climb appurtenances, entry control systems, intrusion detection systems and electronic surveillance equipment. Goal 11, Objective 11.A	$627,500	CIP WS90400040	Water Services Department	July 2009
Phoenix	Lift Station 43 Security Upgrades	Installed new gates, anti-climb appurtenances, entry control systems, intrusion detection systems and electronic surveillance equipment. Goal 11, Objective 11.A	$981,000	CIP WS90400041	Water Services Department	January 2009
Phoenix	Lift Station 44 Security Upgrades	Designed a new gate, access control system, and anti-climb appurtenances. Goal 11, Objective 11.A	$400,000	CIP WS90NA0484	Water Services Department	December 2008 (Design)
Phoenix	Lift Station 46 Security Upgrades	Installed new gates, anti-climb appurtenances, entry control systems, intrusion detection systems and electronic surveillance equipment. Goal 11, Objective 11.A	$393,000	CIP WS90400043	Water Services Department	June 2009
Phoenix	Lift Station 47 Security Upgrades	Installed new anti-climb appurtenances. Goal 11, Objective 11.A	$18,100	CIP WS90400044	Water Services Department	November 2008
Phoenix	Lift Station 51 Structural Repairs	This relatively new pump station experienced severe settlements due to existing soil conditions adjacent to the canal. This project provided necessary repairs and replacement of backfill to prevent future settlements. Goal/Objective 9	$1,600,000	CIP WS90400022	Water Services Department	6/1/2009
Phoenix	Lift Station 53 Security Upgrades	Designed a new gate, anti-climb appurtenances, and intrusion detection systems. Goal 11, Objective 11.A	$70,600	CIP WS90400046	Water Services Department	December 2008 (Design)
Phoenix	Lift Station 55 Security Upgrades	Designed a new gate, access control system, and anti-climb appurtenances. Goal 11, Objective 11.A	$205,000	CIP WS90NA0486	Water Services Department	December 2008 (Design)
Phoenix	Lift Station 56 Security Upgrades	Designed a new access control system and new anti-climb appurtenances. Goal 11, Objective 11.A	$150,000	CIP WS90NA0485	Water Services Department	December 2008 (Design)
Phoenix	Lift Station 57 Security Upgrades	Designed a new gate, anti-climb appurtenances, and intrusion detection systems. Goal 11, Objective 11.A	$65,000	CIP WS90400047	Water Services Department	November 2008
Phoenix	Lift Station 61 Security Upgrades	Installed new anti-climb appurtenances. Goal 11, Objective 11.A	$17,700	CIP WS90400048	Water Services Department	November 2008
Phoenix	Lift Station 62 Security Upgrades	Installed new anti-climb appurtenances. Goal 11, Objective 11.A	$5,500	CIP WS90400049	Water Services Department	November 2008
Phoenix	Lift Station 64 Security Upgrades	Installed new gates, anti-climb appurtenances, entry control systems, intrusion detection systems and electronic surveillance equipment. Goal 11, Objective 11.A	$855,000	CIP WS90400042	Water Services Department	January 2009

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Phoenix	Lift Station Security Improvements	Provided design for various security improvements at 12 wastewater lift stations. Improvements were constructed under separate project numbers. In addition, provided security improvement guidelines and standard specifications for remote facilities. Goal 11, Objective 11.A	$1,050,000	CIP WS90800003	Water Services Department	May 2009
Phoenix	Local Drainage Program	Various-Between 2004 and 2009, numerous local drainage projects have been completed. These projects reduce and/or eliminate localized drainage problems. Goal/Objective 5.D.2	$15,154,444	CIP/BOND	Street Transportation Department	FY 2004-FY2009
Phoenix	Low Flow Channel Construction and Maintenance	Low Flow Channel was reconstructed to maintain flows and provide connectivity from I-10 to SR143, minimize and avoid wildlife attractants and assist with channel flow. Goal/Objective 5.D.2		CIP	Aviation Department	June 2007
Phoenix	Pollution Prevention Program	Petroleum based products identified for substitution; aqueous-based parts washers first effort. Mercury containing products identified for substitution; lamps and thermometers eliminated. Goal/Objective 10.A.1		Operating Funds	City Manager/ Office of Environmental Programs	2005
Phoenix	Pollution Prevention Program	Chlorine packaging in water treatment plant operations reduced from tanker to cylinder size. Goal/Objective 10.A.1		Operating Funds	City Manager/ Office of Environmental Programs	2007
Phoenix	Pollution Prevention Program	Explosive potential products identified for substitution or elimination per CAA 112r. Goal/Objective 10.A.1		Operating Funds	City Manager/ Office of Environmental Programs	2008
Phoenix	Pollution Prevention Program	Sustainable Cities Network initiated for cities to review and comment on best practices. Goal/Objective 10.B.1		Operating Funds	City Manager/ Office of Environmental Programs	2009
Phoenix	Pollution Prevention Program	Train approximately 500 employees each year on hazardous materials. Goal/Objective 10.C.1		Operating Funds	City Manager/ Office of Environmental Programs	2004-2009
Phoenix	Pollution Prevention Program	Conduct approximately 100 assessments at City departments each year for compliance and P2 opportunities. Goal/Objective 10.C.2		Operating Funds	City Manager/ Office of Environmental Programs	2004-2009
Phoenix	Real Time Water Quality Monitoring	Installation of monitoring equipment at raw water and in water distribution system. Goal/Objective 10	$3,000,000	CIP WS85800007	Water Services Department	ongoing

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Phoenix	Regulatory Compliance Excellence Program	Installation of various improvements at 88 water remote facilities to ensure compliance with current safety regulations. This project will primarily improve health and safety of City staff and prevent/minimize damage in case of an emergency or problem involving one of these chemicals used at water remote facilities. Goal/Objective 10	$750,000	CIP WS85010029	Water Services Department	January 2009
Phoenix	Remote Sites Security Study	Conducted a system wide vulnerability analysis of wastewater remote facilities to determine appropriate measures for securing the facilities. The study also prioritized the facilities based on criticality and location and provided a phased plan for implementing the recommended improvements. Goal 11, Objective 11.A	$647,000	CIP WS85800005	Water Services Department	October 2006
Phoenix	Repetitive Loss Program	26th Ave/Verde Lane project has purchased and demolished five repetitive loss properties. This activity was performed as a part of the detention basin project. Five (5) properties were eliminated from the RL list provided by FEMA. Goal/Objective 5.D.1	$809,178	CIP/BOND & FCDMC (50/50)	Street Transportation Department	Jan 2006
Phoenix	Sanitary Sewer Flow monitoring and Inflow/Infiltration Pilot Study	Inspection of sanitary sewer system to find sources infiltration and inflow (I/I) into the system. Determine methods to reduce I/I which can cause local surcharging, overflows, damage pipes, and also reduce peak wet weather flows to treatment plant. Perform pilot project to plug holes in manhole covers to determine effectiveness in reducing inflow from this source. Goal/Objective 7	$7,200,000	CIP WS90500159	Water Services Department	Feb 2010
Phoenix	Sanitary Sewer Relief & Replacement Program - Project #3 - 52nd Street - Cholla St South to the Indian Bend Wash	This project involved the installation of approximately 2,000 linear feet of 42-inch diameter sewer line along 52nd Street from Cholla Road to the Indian Bend Wash. The new sewer line replaced an existing overcapacity 27-inch sewer line in 52nd Street. The existing 27-inch line was removed and the new 42-inch line was installed in the same location. The main project was to replace existing Sanitary Sewers with sewers of larger diameter, but as an ancillary project, we re-graded a drainage channel (on the southern edge of the project boundary) to drain stormwater out of a cul-de-sac on 52nd St, and into the Indian Bend Wash. Previously the cul de sac would flood in wet weather and encroach on adjacent homes. Goal/Objective 7	$1,500,000	CIP WS90500164	Water Services Department	Jan 2006
Phoenix	Security Improvements - Remote Facilities	Installed new walls, gates, entry control systems, intrusion detection systems and electronic surveillance equipment at 2 lift stations. Goal 11, Objective 11.A	$1,311,600	CIP WS90800002	Water Services Department	October 2008

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Phoenix	Spill Prevention Controls and Countermeasures Plans - Wastewater Remote Facilities	Prepare Spill Prevention Controls and Countermeasures Plans for all the Lift Stations Remote facilities. Goal/Objective 10	$50,000	CIP WS90700043	Water Services Department	Dec 2005
Phoenix	Spill Prevention Controls and Countermeasures Plans - Water Remote Facilities	Prepare Spill Prevention Controls and Countermeasures Plans for all the Booster Stations Remote facilities. Goal/Objective 10	$50,000	CIP WS85700074	Water Services Department	12/1/2005
Phoenix	Storm Water Pollution Prevention Plans and Spill Prevention, Control and Countermeasures Plans	Prepare Storm Water Pollution Prevention Plans, Storm Water Management Plans and Spill Prevention Control and Countermeasures Plans for water and wastewater treatment facilities. Goal/Objective 10	$100,000	Operating Funds	Water Services Department	June 2009
Phoenix	Summer Respite Program	The City of Phoenix Human Services Department provides services and respite to the homeless at the Campus Day Resource Center. City staff continues to provide training and information regarding heat assistance to faith-based community partners. The partners provide hydration stations, heat refuge, and wellness checks for the elderly and/or disabled individuals. The City of Phoenix coordinates with St. Mary's Food Bank to serve as the water collection and distribution point during summer months. The Public Information Office coordinates with Maricopa County to provide education and media response. Information regarding the collection of summer respite items is publicized on the "on-hold" message on the City phone system, news releases on the City web page, articles in the employee newsletter, and in the City water bill Notes. Goal/Objective 7.A.1 Educate the public on the dangers of severe weather through various media, web links and outreach programs	N/A	N/A	Human Services, Public Information Office, Emergency Management, Maricopa County, and faith-based organizations	Annual continuing effort
Phoenix	Tres Rios Full Scale	The Tres Rios project includes 4.5 miles of flood control levees to be constructed from 105th Ave to the Aqua Fria River on the north bank of the Salt river. The second phase of the levee from 115th Ave to 123rd Ave. was completed. Goal/Objective 5	$5,500,000	CIP WS90140006	Water Services Department	11/1/2008
Phoenix	Union Hills WTP-Security Upgrades	Installation of fencing, card readers, cameras, and conversion to one ton chlorine gas containers. Goal 11, Objective 11.A	$7,200,000	CIP WS85320011 and WS85320013	Water Services Department	June 2009
Phoenix	Val Vista WTP-Security Upgrades	Installation of fencing, card readers, cameras, and conversion to one ton chlorine gas containers. Goal 11, Objective 11.A	$10,500,000	CIP WS85230021 and WS85230028	Water Services Department	November 2008

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Phoenix	Wastewater Collection Lift Station and Odor Control Station Regulatory Compliance and Excellence Program (RCEP) Study	Conducted a system wide study of 35 wastewater collection lift stations and odor control facilities to determine compliance with environmental, health, and safety codes, regulations, and standards. Additionally, the study provided recommendations for implementation of best practices (the Excellence portion of the study) in the delivery, handling, and storage of chemicals at each site. The final deliverable included a phased Capital Improvement Program to complete all compliance issues in two-years and all excellence recommendations in 8 years. Goal 10, Objective 10.C	$187,000	CIP WS90400026	Water Services Department	September 2007
Phoenix	Water Distribution System and Wastewater Collection System Hardening	This project provided for hardening of the electrical units through installation of heat wrap tape and insulation at water remote facilities. Goal/Objective 7	$1,242,438	Water Services	Water Services Department	June 2009
Phoenix	Water Resources Plan and Groundwater Management Plan	The Water Services Department has developed two key plans that address drought-related shortages, and is finalizing a third. The 2005 Water Resources Plan (WRP) considers the implications of varying shortage scenarios due to long-term drought in our source watersheds. This plan also considers various growth levels to reflect a range of water demands. The WRP presents 12 key strategies for further strengthening the City's water supply portfolio to better withstand severe long-term drought. The second plan, a "Groundwater Management Plan" identifies options and costs for expanding our well network to assist in meeting demands during shortage. A third plan, a "Demand Management Plan" is seeking to ensure that: 1) water uses become more efficient over time to reduce drought vulnerability; 2) demands can successfully curtailed with as few impacts as possible to the economy and lifestyles; and 3) water saved by customers can be preserved to the highest degree possible for use during times of shortage. Goal/Objective 8.A	$1,500,000	Water Overhead	Water Services	March, 2006 (WRP) and January 20090 (GWMP, Phase I)]
Phoenix	Well Construction and Improvements	As part of the effort to implement the Water Resources Plan and the Groundwater Management Plan, the City has embarked on a program to install new wells and rehabilitate others to increase our capability of supplying water during shortages. An Aquifer Storage and Recovery (ASR) well was recently completed as the first of what may be several similar wells. An ASR well allows for the underground storage of excess water supplies when available, and also allows the same well to "recover" the water during shortages. Goal/Objective 8.B	$10,000,000	Water CIP	Water Services	March, 2009
Queen Creek	Box Culvert: Crismon and Ocotillo Roads	Replaced a single culvert with 6 culverts to control local flooding. The project cost was shared between the developers of the Nauvoo Station and Crismon Heights developments.	Unknown	Development community	Community Development Department	2008

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Queen Creek	Box Culvert: Ocotillo Road and Railroad Crossing	Replaced a single culvert with 6 culverts to control local flooding. The project cost was shared between the Town of Queen Creek and the developer of the Nauvoo Station development.	$479,750 (Town share=$268,935)	Town CIP and development community	Public Works Department	December 2007
Queen Creek	Channelization: Crismon Road at Queen Creek Road	Channelized sheet flows to box culvert.	Unknown	Development community	Community Development Department	2008
Queen Creek	Channelization: Queen Creek Road at Langley Gateway	Channelized sheet flows to box culvert.	Unknown	Development community	Community Development Department	2008
Queen Creek	Ellsworth Loop Road: New Ellsworth Loop Road Bridge over Queen Creek Wash	Constructed new 6 lane bridge over Queen Creek Wash.	$5,000,000	Improvement District	Transportation Department	October 2007
Queen Creek	Ellsworth Loop Road: New Ellsworth Loop Road Underpass	Constructed new 6 lane underpass under railroad tracks.	$20,000,000	Improvement District	Transportation Department	June 2008
Queen Creek	New Chandler Heights Road Bridge over Sonqui Wash	Constructed new 4 lane bridge to replace dip crossing.	$225,000 (Town share)	MCDOT and Town CIP	Public Works Department	April 2008
Queen Creek	New Power Road Bridge over Queen Creek Wash	Constructed new 6 lane bridge to replace existing 2 lane bridge.	$200,000 (Town share)	MCDOT and Town CIP	Public Works Department	July 2004
Queen Creek	New Sossaman Road Bridge over Queen Creek Wash	Constructed new 4 lane bridge to replace dip crossing with culverts.	$1,500,000	FCDMC, MCDOT, and Town CIP	Public Works Department	March 2005
Queen Creek	Queen Creek Wash Channelization Project: Power Road to Hawes Road	The reach of Queen Creek Wash through the Town of Queen Creek was channelized to mitigate the impacts of flooding through the Town. The channel was sized to convey the 100-year storm and effectively removed 19 homes from the flood hazard area. Habitat removed during project construction was mitigated in 2 new locations.	$4,500,000	FCDMC and Town CIP	Public Works Department	September 2006
Queen Creek	Santo Vallarta Channelization	Channelized sheet flows within the Santo Vallarta development from the San Tan Mountains.	Unknown	Development community	Community Development Department	2008
Queen Creek	Sonoqui Wash Channelization Project: Higley Road to Chandler Heights Road	The reach of Sonoqui Wash through the Towns of Gilbert and Queen Creek was channelized to mitigate the impacts of flooding through the towns. The channel was sized to convey the 100-year storm and effectively removed 11 homes from the flood hazard area. Habitat removed during project construction was mitigated off site.	$4,800,000	FCDMC, Town CIP, and Town of Gilbert	Public Works Department	February 2008

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Scottsdale	Floodplain Acquisition Program	Develop a floodplain acquisition program for major wash corridors north of the CAP canal to ensure an effective and efficient drainage network is maintained and/or is provided as future development occurs.	$2,366,600	Bond 2000	Stormwater Management Division	December 2009
Scottsdale	Granite Reef Watershed	To provide 100 year flood protection and to eliminate the existing FEMA A zone designation which carries a mandated need for flood insurance for the moderately priced homes in the Granite Reef Wash corridor south of Thomas Road and to improve drainage conditions for locations between Osborn and Thomas Road to approximately a 10-year level of protection.	$42,504,100	Bond 2000, General Fund, FCD Contribution, Contributions	Stormwater Management Division	June 2011
Scottsdale	McDowell Drive Corridor Drainage Improvements	The goal of the project is to eliminate flooding up to the 10-year event for this established neighborhood. The total watershed area is approximately 0.9 square miles.	$3,759,624	Bond 2000	Stormwater Management Division	September 2008
Scottsdale	Neighborhood Stormwater Management Improvements	Provide as-needed drainage improvements, which address localized drainage and flooding problems.	$3,993,500	General Fund, In-Lieu Fees	Stormwater Management Division	June 2006
Scottsdale	North Scottsdale Road Corridor Drainage Project	The goal of the project is to eliminate flooding up to the 10-year event for this highly developed residential and commercial area and to protect Scottsdale Road from off-site flows.	$9,895,100	Bond 2000, General Fund, FCD Contribution	Stormwater Management Division	September 2008
Scottsdale	Pima Road Drainage System	Design and construct open channel and storm drain improvements, in conjunction with major roadway improvements, to collect and route stormwater flows in the Pima Road corridor southerly to the intersection with the "new" Union Hills Drive. Flows will then be routed westerly to the planned Loop 101 detention basin.	$6,398,800	Bond 2000, General Fund	Stormwater Management Division	Feburary 2010
Scottsdale	South Scottsdale Road Drainage Corridor	Construction of a storm drain and lateral connections to alleviate street flooding in Scottsdale Road and provide localized drainage improvements in neighborhoods along the west side of the corridor.	$2,967,200	Bond 2000	Stormwater Management Division	July 2009
Scottsdale	Upper Camelback Wash Watershed	The goal of this project is to, as much as feasible, reduce flooding for this major wash corridor. The benefiting area is highly developed with a mix of single-family, multi-family and commercial properties. The total watershed area north of Shea Boulevard is approximately 2.6 square miles.	$15,745,000	Bond 2000, General Fund, FCD Contribution	Stormwater Management Division	April 2012
Scottsdale	Wet Crossing Replacement Study	The city has 70 wet wash crossings on arterial roadways north of the CAP. Although current design standards call for dry crossings for arterial roadways, there is no program to replace existing wet crossings in our current CIP. This project involves hiring a consultant to develop a cost estimate and proposed schedule for replacement of these 70 crossings.	$120,000	General Fund	Stormwater Management Division	June 2008

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Tempe	Bridge Maintenance	On-going preventative maintenance/inspection program to ensure safety and structural integrity of all bridges in Tempe - funds are used to make required repairs	300,000/Year	CIP	Public Works Department	ongoing
Tempe	Chlorine conversion	Conversion from chlorine gas to sodium hypochlorite for disinfection at water treatment plants. Reduce risk from terrorist act.	$9,000,000	CIP	Water Utility Department	ongoing
Tempe	Fire Admin Security	Bollards and security cameras.	$114,000	SHSGP grant	Fire	May 2009
Tempe	Overhead Utility Undergrounding project	This project is to bury overhead powerlines from the Rio Salado to Tempe St. Lukes hospital, to strengthen/harden the power supply to the hospital in case of emergency.	total project cost estimated at $4.5M - approximately $1.5M expended to date.	CIP	Public Works Department	ongoing
Tempe	Rio Salado Channelization	As part of the construction of Tempe Town Lake, the river bed was channelized…	can provide	CIP	Public Works Department	mid 90's but can get date
Tempe	Storm Drain Improvements	Annual program to identify projects to mitigate flooding situations on arterial streets, residential areas, etc. Recent projects include the intersection of Broadway Rd. and McClintock Dr., and a section of neighborhood near Rural Rd. and Guadalupe Rd.	approx. $300,000/yr.- $1.4M over 5 years	CIP	Public Works Department	ongoing
Tempe	Water Utility Dept. Security Improvements	Numerous enhancements to the physical security provisions at the water treatment plants	$3,500,000	CIP	Water Utility Department	ongoing
Tolleson	Up-dating of codes	Up-dated the city code, residential code, plumbing code, zoning codes, city ordinances, storm water runoff pollution/prevention, and the general plan.	N/A	N/A	All city department and staff	2006 - 2009
Wickenburg	Floodway Property Buy-Out	Town purchased one parcel near Hassaympa River and Jack Burden Road	$70,000	FEMA	Public Works	December 2007
Wickenburg	Storm Ready	Recognized by the National Weather Service in 2005 and again in 2008. In order for a community to be recognized a community must complete a set of rigorous warning criteria. One criteria is to promote the importance of public readiness through community seminars.	$5,000 staff time	County	Emergency Management	November 2007
Wickenburg	Weather Radios	Distributed one NOAA Weather Radio All Hazards receivers to every public school in Maricopa County.	Grant - $50,000	County	Police Department	November 2007

Table 6-4: Summary of previous mitigation activities for Maricopa County jurisdictions

Jurisdiction	Project Name	Project Description	Project Cost	Funding Source	Responsible Department	Completion Date
Youngtown	Connecticut Avenue Stormwater Mitigation Project	Stormwater collected into the alley just north of Connecticut Avenue and east of 112th Drive, overwhelming the drain capacity and thereby flooding homes along Connecticut Avenue south of the alleyway. The Town of Youngtown removed approximately five-inches of a rise just west of drain and created a water channel to relieve pressure on drain to remove water. Town also reworked outlet at 114th Avenue, providing even more relief. Due to layout of overall area, problem was not completely removed, but remediated approximately 65 percent of pre-project levels.	$35,000	Town CIP and HURF funds.	Public Works Department	March 2009

Table 6-5: Summary of previous projects in Maricopa County receiving federal mitigation grant funding

Applicant	Project Title	Project Type	Year Begun	Year Ended	Total Cost	75% Fed Cost	25% Non-Fed Cost	Program
UNKNOWN	Allenville Relocation	Relocation	1979	1982	$3,800,000.00	$2,850,000.00	$950,000.00	ADEM/HUD
City of Litchfield Park	884-3, Litchfield Park Drainage System	Correction of storm drainage problems	1995	1996	$160,000.00	$120,000.00	$40,000.00	HMGP
Town of Fountain Hills	977-04, Saguaro Catch Basins	Correction of storm drainage problems	1995	2000	$28,600.00	$21,450.00	$7,150.00	HMGP
Maricopa County DOT	977-07, Union Hills Bridge @ New River	Four lane bridge at New River	1996	1997	$1,800,000.00	$1,350,000.00	$450,000.00	HMGP
City of Phoenix Water Dept.	977-08, 91st Avenue WWTP	Erosion control	1997	2000	$2,500,000.00	$1,875,000.00	$625,000.00	HMGP
Maricopa County FCD	1347-5, Aquila Acquisition	Acquisition	2001	2008	$732,975.00	$549,731.25	$183,243.75	HMGP
Maricopa County	1347-5-4R MCFCD	Acquisition and Demolition	2001	2005	$977,300.00	$732,975.00	$244,325.00	HMGP
Maricopa County	1422-2-4P Maricopa	Mitigation Plan	2002	2004	$106,806.00	$80,104.50	$26,701.50	HMGP

6.2.3 National Flood Insurance Program Participation

Participation in the NFIP is a key element of any community's local floodplain management and flood mitigation strategy. Maricopa County and all 24 incorporated jurisdictions participate in the NFIP at varying levels. The Fort McDowell Yavapai Nation and Salt River Pima-Maricopa Indian Community do not currently participate in the NFIP. Salt River Project is not organized like a municipality and does not regulate development, and therefore is not a participant in the NFIP either.

Joining the NFIP requires the adoption of a floodplain management ordinance that requires jurisdictions to follow established minimum standards set forth by FEMA and the State of Arizona, when developing in the floodplain. These standards require that all new buildings and substantial improvements to existing buildings will be protected from damage by the 100-year flood, and that new floodplain development will not aggravate existing flood problems or increase damage to other properties. Maricopa County and some other communities, have adopted standards that are more stringent than the federal minimum to ensure better flood mitigation practices. As a participant in the NFIP, communities also benefit from having Flood Insurance Rate Maps (FIRM) that map identified flood hazard areas and can be used to assess flood hazard risk, regulate construction practices and set flood insurance rates. FIRMs are also an important source of information to educate residents, government officials and the private sector about the likelihood of flooding in their community. Table 6-6 summarizes the NFIP status and statistics for each of the jurisdictions participating in this Plan.

Table 6-6: Summary of NFIP status and statistics for Maricopa County and participating jurisdictions

Jurisdiction	Community ID	NFIP Entry Date	Current Effective Map Date	Number of Policies	Amount of Coverage (x $1,000)	Floodplain Management Role
Maricopa County	040037	7/2/1979	9/30/2005	2,274	$505,030	Provides floodplain management for the Unincorporated County and the City/Towns noted below.
Avondale	040038	6/15/1979	9/30/2005	48	$12,143	Provides in-house floodplain management
Buckeye	040039	2/15/1980	9/30/2005	40	$8,132	Floodplain management provided by the Flood Control District of Maricopa County
Carefree	040126	7/2/1979	9/30/2005	16	$5,106	Floodplain management provided by the Flood Control District of Maricopa County
Cave Creek	040129	6/9/1988	9/30/2005	98	$25,737	Floodplain management provided by the Flood Control District of Maricopa County
Chandler	040040	7/16/1980	9/30/2005	246	$55,745	Floodplain management provided by the Flood Control District of Maricopa County
El Mirage	040041	12/1/1978	9/30/2005	13	$4,000	Floodplain management provided by the Flood Control District of Maricopa County
Fountain Hills	040135	2/10/1994	9/30/2005	31	$8,081	Provides in-house floodplain management
Gila Bend	040043	12/4/1979	9/30/2005	13	$1,751	Floodplain management provided by the Flood Control District of Maricopa County
Gilbert	040044	1/16/1980	9/30/2005	265	$85,712	Provides in-house floodplain management
Glendale	040045	4/16/1979	9/30/2005	139	$37,074	Provides in-house floodplain management

Table 6-6: Summary of NFIP status and statistics for Maricopa County and participating jurisdictions

Jurisdiction	Community ID	NFIP Entry Date	Current Effective Map Date	Number of Policies	Amount of Coverage (x $1,000)	Floodplain Management Role
Goodyear	040046	7/16/1979	9/30/2005	83	$22,091	Provides in-house floodplain management
Guadalupe	040111	4/1/1994	9/30/2005	2	$113	Floodplain management provided by the Flood Control District of Maricopa County
Litchfield Park	040128	8/19/1988	9/30/2005	7	$2,210	Floodplain management provided by the Flood Control District of Maricopa County
Mesa	040048	5/15/1980	9/30/2005	316	$78,331	Floodplain management provided by the Flood Control District of Maricopa County
Paradise Valley	040049	5/1/1980	9/30/2005	96	$33,947	Provides in-house floodplain management
Peoria	040050	11/17/1978	9/30/2005	229	$65,028	Provides in-house floodplain management
Phoenix	040051	12/4/1979	9/30/2005	5,231	$1,093,805	Provides in-house floodplain management
Queen Creek	040132	7/22/1992	9/30/2005	32	$8,668	Floodplain management provided by the Flood Control District of Maricopa County
Scottsdale	045012	9/21/1973	9/30/2005	8,358	$2,076,400	Provides in-house floodplain management
Surprise	040053	12/15/1978	9/30/2005	124	$36,590	Floodplain management provided by the Flood Control District of Maricopa County
Tempe	040054	8/15/1980	9/30/2005	189	$44,823	Provides in-house floodplain management
Tolleson	040055	1/16/1980	9/30/2005	53	$12,403	Floodplain management provided by the Flood Control District of Maricopa County
Wickenburg	040056	1/5/1978	9/30/2005	81	$14,540	Provides in-house floodplain management
Youngtown	040057	11/15/1978	9/30/2005	5	$846	Provides in-house floodplain management
Fort McDowell Yavapai Nation	Not a participant in the NFIP					
Salt River Pima-Maricopa Indian Community	Not a participant in the NFIP					

6.3 Mitigation Actions/Projects and Implementation Strategy

Mitigation actions/projects (A/P) are those activities identified by a jurisdiction, that when implemented, will have the effect of reducing the community's exposure and risk to the particular hazard or hazards being mitigated. The implementation strategy addresses the "*how, when, and by whom?*" questions related to implementing an identified A/P.

The update process for defining the new list of mitigation A/Ps for the Plan was accomplished in three steps. First, an assessment of the actions and projects specified in Section 8 of the 2004 Plan was performed, wherein each jurisdiction reviewed and evaluated their jurisdiction specific list. Second, a new list of A/Ps for the Plan was developed by combining the carry forward results from the assessment with new A/Ps. Third, an implementation strategy for the combined list of A/Ps was formulated. Details of each step and the results of the process are summarized in the following sections.

6.4.1 Previous Mitigation Actions/Projects Assessment

The MJPT and LPT for each jurisdiction reviewed and assessed the actions and projects listed in Table 8-8 of their 2004 Plan (except SRP). The assessment included evaluating and classifying each of the previously identified A/Ps based on the following criteria:

STATUS		***DISPOSITION***	
Classification	Explanation Requirement:	Classification	Explanation Requirement:
"***No Action***"	Reason for no progress	***"Keep"***	None required
"***In Progress***"	What progress has been made	***"Revise"***	Revised components
"***Complete***"	Date of completion and final cost of project (if applicable)	***"Delete"***	Reason(s) for exclusion.

Any A/P with a disposition classification of "Keep" or "Revise" was carried forward to become part of the new A/P list for the Plan. All A/Ps identified for deletion were removed and are not included in this updated plan. The results of the assessment for each of the 2004 Plan A/Ps is summarized by jurisdiction in Tables 6-7-xx.

Table 6-7-1: Summary of Avondale assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
3B3	Water/Wastewater Department Security	Enter into a contract for a full assessment of the water/ wastewater departments for security of systems.	• City Manager, Public Works Director • N/A • N/A	In progress	Keep	Contractor has completed COOP for water dept. training is on going
3B2	Citywide Security Review	Complete citywide security review.	• City Manager, Public Works Director, Fire Dept., Police Dept. • N/A • N/A	In progress	Keep	City SOP/EOP under review and being updated
2A5	ICS Training	Complete mid to upper management training for ICS and other related training.	• Fire Chief, City Manager • N/A • N/A	In progress	Keep	Safety/risk tracking NIMS and ICS training for management
2A4	Site Safety Partnering	Partner with Phoenix International Raceway and other stakeholders in matters of site safety.	• Fire Chief • N/A • N/A	In progress	Keep	TLO will update the TVA for PIR
2A6	School Safety	Partner with public school systems to update school safety.	• Fire Chief • N/A • N/A	No action	Keep	Staffing shortages, will try in the fall
2B1	Emergency Alerts	Enhance the City of Avondale's capabilities to alert its citizens in time of emergency (English and Spanish).	• Fire Chief/Emergency Manager, City Manager • N/A • N/A	No action	Keep	No funding
3B5	EOC Upgrade	Upgrade the current EOC and recommend the construction of a new and more secure facility.	• Fire Chief/Emergency Manager, City Manager, City Engineer • N/A • N/A	No action	Keep	No funding

Table 6-7-1: Summary of Avondale assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
8A4	PPE Equipment	Provide PPE for chemical and biological agent protection to all members of the department.	• Police Chief, Fire Chief • N/A • N/A	Complete	Delete	6-15-09 $15.500 grant funded
8A5	CERT Training	Provide CERT training to all citizens and city groups upon request.	• Fire Chief • N/A • N/A	In progress	Keep	On going
B2	Grant Funding for Safety	Seek grants and other funding to promote the safety of Avondale and its citizens.	• Fire Chief • N/A • N/A	In progress	Keep	Ongoing process
3B4	Hire Emergency Planner	Hire a full time civilian emergency planner/manager (FY 04/05).	• Fire Chief • N/A • N/A	No action	Delete	No funding/hiring freeze

Table 6-7-2: Summary of Buckeye assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.C.1	Fire Code Official	Hire fire code enforcement officials/inspectors	• Fire Chief, Town Engineer • N/A • N/A	Complete	Delete	July 2007: Hired Fire Prevention Specialist to conduct code enforcement and review all fire plans and inspectors.
2.C.2	Life Safety	Conduct annual life safety inspections	• Fire Chief • N/A • N/A	In progress	Revise	Initiated by fire inspector with ongoing training to the fire crews.

Table 6-7-2: Summary of Buckeye assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• **Lead Agency** • **Proposed Cost** • **Proposed Comp Date**	Status	Disposition	Explanation
4.C.1	Town Communication	Communicate Town needs better at the County and State level	• Fire Chief (Emergency Manager) • N/A • N/A	Complete	Keep	Public Safety Executive Partnership.
4.A.1	Hazard Mitigation Planning	Continue to support the Hazard Mitigation Plan by making sure the Town is represented on related committees.	• Fire Chief (Emergency Manager) • N/A • N/A	In progress	Keep	Currently in revision.
5.B.3	Storm Protection	Implement storm deployment protection procedures (local)	• Fire Chief (Emergency Manager) • N/A • N/A	In progress	Keep	Standard Operating Procedures development. Implementation and execution of CERT and Teen CERT program.
6.A.1	Fire Breaks	Meet with flood control and state land to develop cut fire breaks at key locations in the Gila River	• Town Engineer, FCDMC • N/A • N/A	In progress	Keep	Working in conjunction with the Maricopa County on CWPP Plans.
5.B.2	Drainage Improvements	Provide/improve water drainage systems.	• Public Works Director • N/A • N/A	In progress	Keep	Working in conjunction with the Maricopa County on CWPP Plans.
11.A.3	Enforce Codes	Enforce fire codes, require compliance	• Fire Chief (Emergency Manager) • N/A • N/A	In progress	Keep	Continue and update versions of code compliance.
8.A.1	Water Conservation	Develop water conservation plan.	• Town Manager, Town Engineer • N/A • N/A	In progress	Keep	Critical Resource Planning.

Table 6-7-3: Summary of Carefree assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.B.1	Drainage Master Plan	Develop a Drainage Master Plan that will identify potential drainage hazards, solutions, budgets and prioritization.	• Zoning Director, Town Council • N/A • N/A	In Progress	Keep	Drainage Master Plan Developed in General Plan as well as Maricopa County Flood Control District 2007 Flood Response Plan. Cost is not determined as planning is ongoing use staff hours and resources.
4.A.3	Culvert/Bridge Construction	Encourage bridge or culvert construction where roads are in locations susceptible to flooding.	• Town Manager, Contractor • N/A • N/A	In Progress	Keep	Dream Street Bridge completed 2007 at cost of $950,000.00. Other construction and crossing projects ongoing as time and budget permits.
3.B.1	Evacuation Strategy	Further develop a Mass Evacuation strategy for the Town of Carefree.	• Town Marshall, Sherriff's Office • N/A • N/A	Completed	Keep	Evacuation Strategy determined in Cooperation with MCSO and Carefree Fire (Rural Metro) for both specific and mass evacuation. Cost of flan was not determined as it drew on staff hours and resources. Plan is subject to ongoing revision

Table 6-7-4: Summary of Cave Creek assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
3.B.1	Evacuation Strategy	Coordinate with Maricopa County Department of Emergency Management to develop a Mass Evacuation strategy for Cave Creek.	• Emergency Management, Rural Metro, MCSO, Marshal • N/A • N/A	Complete 08/2007 $6200	Delete	Updated Town of Cave Creek Emergency Operations Plan. Subscribed to CodeRed Mass Notification System.
3.B.2	Evacuation Plan	Coordinate with Maricopa County Department of Emergency Management to develop a Mass Evacuation plan for Cave Creek.	• Emergency Management, Marshal • N/A • N/A	Complete 08/2007	Delete	Included in the updated Emergency Operations Plan, August 2007

Table 6-7-4: Summary of Cave Creek assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
6.B.1	Subdivision Fire Access	Ensure that subdivision regulations for new subdivisions ensure adequate access for fire trucks.	• Planning and Zoning Director, Engineering • N/A • N/A	Complete	Delete	All new subdivisions must meet all Engineering and all subdivision ordinances, which require Emergency Vehicle / Fire Department Access as per National Standards as developed by the IFC.
7.A.2	Enforce Building Codes	Ensure building codes for construction are enforced to prevent roof damage from high winds.	• Planning and Zoning Director, Engineering Director (PW) • Marshal • N/A • N/A	Complete	Keep	All Building permits are required to be inspected by our Building Safety Staff and meet all IBC Standards
8.B.2	Water Infrastructure Investigation	Investigate the possibility of adding a water facility and infrastructure on the west side of Cave Creek.	• Engineering Director, Utilities Manager • N/A • N/A	Complete 5/2008 $4 Million	Keep.	Over 3.5 Million Gallons of Water Storage was added, as well as new pumping stations on the west side of town.
5.A.1	Drainage Master Plan	Work with The Flood Control District of Maricopa County (FCDMC) on Drainage Master Plan for Cave Creek to evaluate and mitigate flood hazards in the Town (FCDMC).	• Planning and Zoning Director, Town Engineer • N/A • N/A	Complete 12/08	Delete	Drainage Master Plan as well as a Flood Response Plan were completed
1.B.1	Review Building Codes	Review existing building codes to determine if they adequately protect new development in hazard areas. Where feasible and necessary, modify codes to help mitigate hazards imposed on such development within the limits of state statutes, while also respecting private property rights.	• Planning and Zoning, Building Official • N/A • N/A	Complete	Delete	Building Codes are continuously reviewed for updates, and modifications where required.
5.A.3	Bridge/Culvert Construction	Encourage bridge or culvert construction for major arterial road in locations susceptible to flooding.	• Planning Director, Town Engineer, Town Manager • N/A • N/A	Complete 07/07	Delete	A feasibility study was included in the Drainage Master Plan, on adding an all weather crossings at certain problematic crossings. The residents affected most were surveyed and chose to NOT add all weather crossings

Table 6-7-4: Summary of Cave Creek assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.C.2	Fire Inspections	Town Fire Marshal routinely inspects commercial structures	• Rural Metro Fire Department • N/A • N/A	Complete Annual	Keep	All Commercial structures located within the town boundaries are inspected on an annual basis.
1.A.1	Review General Plan	Review the existing Cave Creek general plan and zoning ordinance to determine how these documents help limit development in hazard areas. Modify with additional guidelines, regulations, and land use techniques as necessary within the limits of state statutes, while also respecting private property rights.	• Planning Director • N/A • N/A	In Progress	Keep	The Town's General Plan is a living document and reviewed on a regular basis.

Table 6-7-5: Summary of Chandler assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.A.2	Maintain General Plan Safety Elements	Maintain the currency of the safety element of the Chandler General Plan, and monitor its effectiveness at preventing and mitigating hazards.	• City Manager, City Council, Planning Director • N/A • N/A	Complete	Keep	The City of Chandler General Plan will be reviewed and updated on a regular basis to assure that it continues to meet the needs of the City.
1.D.3	Safe Industry Development	Seek to develop industry that is safety compliant and sited in suitable locations; avoid over-saturation of hazardous materials industries.	• Fire Chief, Emergency Manager, Planning Director • N/A • N/A	Complete	Delete	The mitigation strategy will no longer include HAZMAT or other human-caused hazards.
2.A.1	Make HMP Available to Public	Promote availability of the City of Chandler Hazard Mitigation Plans (HMGP) in an understandable format to civic and private groups.	• Fire Chief • N/A • N/A	Complete	Keep	The City will continue to promote the HMGP to civic and private groups.

Table 6-7-5: Summary of Chandler assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
7.A.2	Enforce Building Codes	Continue to ensure through proper planning, zoning and building codes that all safety measures are in place for new building construction and placement.	• City Manager, City Council, Planning Director • N/A • N/A	Complete	Keep	The City will continue to update codes to the newest versions, and add amendments to the codes where appropriate to ensure the safety of new building construction.
8.A.1	Drought Management Plan	In October of 2003, the City of Chandler adopted a Drought Management Plan. This plan has been implemented to reduce the impacts of potential drought.	• Water Resources Manager, Fire Chief, Emergency Manager • N/A • N/A	Complete	Keep	Although the plan was written in 2003, it continues to meet the needs of the City, and will be updated as appropriate in the future.
8.B.1	Maintain Water Portfolio	Continue to maintain a diverse water portfolio. Minimize any reductions to existing supplies by protecting and secure existing water rights, completing Indian water rights settlements, and meeting environmental requirements of water resources. Maximize the use of existing assets to ensure adequate water supply is available through groundwater wells, surface water diversions, use of recharged water, and encouraging the use of reclaimed water for appropriate purposes. Seek and utilize alternative water supplies (CAP excess water, reclaimed water, saline/brackish groundwater, support the Arizona Water Bank) to increase resource reliability and mitigate drought severity.	• Water Resources Manager, Fire Chief, Emergency Manager • N/A • N/A	Complete	Keep	Maintaining a diverse City water portfolio is vital to ensure adequate water is available as the City continues to grow, and to be able to mitigate the severity of a drought.
11.A.1	Maintain HMIS and HMMP	All facilities located within the City of Chandler utilizing hazardous chemicals are required to submit an electronic Hazardous Materials Inventory Statement (HMIS) or Hazardous Materials Management Plan (HMMP). These are evaluated and placed into three different Permit categories. All industry will also comply with all current adopted fire codes.	• Fire Chief, Emergency Manager • N/A • N/A	Complete	Delete	The mitigation strategy will no longer include HAZMAT or other human-caused hazards.

Table 6-7-5: Summary of Chandler assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
11.F.1	ECS Electronic Reporting	Chandler Fire Department is partnering with the State of Arizona and Environmental Compliance Solutions (ECS) to enhance the electronic reporting system the State is currently using. This enhancement is a link between the State and ECS software (which is internet and CD based) that once the information is completed in the Software all the Industries (who are using the ECS Software) would need to do is click the submit button to the State. This would automatically send the Tier II report to the State of Arizona.	• Fire Chief, Emergency Manager • N/A • N/A	Complete	Delete	The mitigation strategy will no longer include HAZMAT or other human-caused hazards.
12.A.2	Human-Caused Incident Plan	Create and maintain an internal document that gives direction to all city personnel in case of a human-caused incident.	• Fire Chief, Emergency Manager • N/A • N/A	Complete	Delete	The mitigation strategy will no longer include HAZMAT or other human-caused hazards.
12.B.3	Vulnerability Assessment	Each Lead City Department will rank the vulnerability of existing assets, with assistance from the Emergency Management Workgroup, and implement protection plans with the highest vulnerability being implemented first.	• Fire Chief, Emergency Manager, City Manager • N/A • N/A	In Progress	Keep	Two Fire Department members have been assigned to complete Threat Vulnerability Assessments (TVA's) for buildings/assets located within the City in conjunction with the Emergency Management Workgroup. This will be an on-going project with higher vulnerability buildings/assets being completed first.

Table 6-7-6: Summary of El Mirage assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation

Table 6-7-6: Summary of El Mirage assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.A.1	Adopt Zoning Ordinance	Adopt zoning ordinances prohibiting new development in 100-year flood plain.	• Planning/Zoning Department, Public Works, City Council • N/A • N/A	Complete	Revise	Change the text to reflect an annual review
1.B.2	Develop Building Codes	Develop building codes to manage new and existing assets from flooding.	• Public Works • N/A • N/A	Complete 10/07	Revise	Change the text to reflect an annual review and update as needed
3.A.1	Multi-Agency Coordination	Participate in multi-agency coordination efforts to ensure cooperative plans.	• City Emergency Manager • N/A • N/A	In progress	Keep	Ongoing process. El Mirage is an active participant in the Maricopa County Hazard Mitigation planning
4.B.1	Multi-Agency Planning	Take active role in multi-agency plan and actions for flood mitigation (pro-active).	• City Emergency Manager, Public Works • N/A • N/A	Complete	Keep	Review annually
4.A.1	Protection Device Plan	Develop plan to install man-made protection devices where needed.	• City Emergency Manager, Public Works, City Engineer • N/A • N/A	Complete	Revise	Revise to focus the action on flood
7.B.1	First Responder Training	Train First Responders and other select city staff in hazard materials mitigation.	• City Emergency Manager, Emergency Services • N/A • N/A	Complete	Keep	Annual refresher training is conducted
7.B.2	HAZMAT Training	Train with and support other local agencies in higher level of HAZMAT. Mitigation.	• City Emergency Manager, Emergency Services • N/A • N/A	In Progress	Delete	This and 7.B.1 are duplicating each other.

Table 6-7-6: Summary of El Mirage assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
5.A.2	Obtain Weather Equipment	Obtain equipment needed for weather watching, forecasting and reporting.	• City Emergency Manager, Emergency Services • N/A • N/A	Complete	Delete	Weather station equipment has been installed in fire station 121.
5.A.1	Staff Education	Educate staff on latest information on accurate prediction and warnings for severe weather.	• City Emergency Manager • N/A • N/A	Complete	Delete	Staff received training
5.D.1	Problem Identification	Coordinate efforts with other local agencies to I.D. problem areas and plans for mitigation.	• City Engineer, City Emergency Manager, Emergency Services, Public Works • N/A • N/A	In Progress	Keep	Review as needed

Table 6-7-7: Summary of Fort McDowell Yavapai Nation assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1A1	Floodplain Management	Prohibit building in flood plain and river.	• Economic Development Division • $15,000 annual staff time • N/A	In progress	Keep	Ongoing program with tribal restrictions on floodplain development.
1A2	Flood Management Coordination	Pursue relationship with Maricopa County Flood Control District to improve flood management program.	• Economic Development Division • N/A • N/A	No action	Delete	Flood control is managed by U.S. Corp of Engineers and Tribal laws.

Table 6-7-7: Summary of Fort McDowell Yavapai Nation assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1B1	Development in Hazard Areas	Review existing building codes, modify or adopt codes to prevent development in hazard areas.	• License and Property Use Department • $5,000 annual staff time • N/A	In progress	Keep	Existing tribal ordinances prohibit development in hazard areas.
1C1	Comprehensive Plans, Zoning and Building Codes	Identify and mitigate hazards associated with new and existing developments through plan reviews to ensure plan/code compliance.	• Planning and Development Department • $20,000 annual staff time • N/A	In progress	Keep	All proposed development is reviewed by Planning Advisory Board and building officials.
2A1	Funding Mitigation Actions	Pro-actively pursue pre-disaster and hazard mitigation grants.	• Economic Development Division • $10,000 annual staff time • N/A	In progress	Keep	Grant administrator advises department heads of available grants, and assists with grant proposals.
2B2 2B3	Mitigation Public Education	Publish suggested mitigation actions through print media and community website.	• Events/Media Relations Department • $2,000 annual staff time • N/A	In progress	Keep	Mitigation suggestions are routinely published in the monthly tribal newspaper
3A1 3A2	River Restoration	Continue restoration projects along river. Limit development along river.	• Environmental Department • $50,000 to date • N/A	In progress	Keep	Bald eagle nesting sites and wetlands habitat are monitored by the tribal environmental department.
4A1 4A2	High-Risk Area Access	Create access, and map the access to high-risk areas. Provide weed abatement services in high risk areas.	• Public Works Department • $ 45,000 annually • N/A	In progress	Keep	Maps are updated when new roads are built, or development requires improved access. Weed abatement is provided annually by public works department.

Table 6-7-7: Summary of Fort McDowell Yavapai Nation assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
5A2	Severe Weather	Ensure building codes are enforced to prevent damage from high winds.	• Planning and Development Department • $40,000 annual staff time • N/A	In progress	Keep	Currently utilizing the 2000 International Building Code.
5B1	Infrastructure Protection	Periodic assessments of infrastructure to strengthen infrastructure against affects of severe weather.	• Economic Development Division • N/A • N/A	No action	Delete	Managed by public utility companies.
6A3	Public Health Nuisance	Facilitate abatement, prevention and investigation of public health nuisance conditions, illegal dumping activities and the storage and handling of potentially infections material and locations.	• Environmental Department • $15,000 annual staff time • N/A	In progress	Keep	Illegal dumping is monitored by environmental and public works departments. Infectious waste is managed by health department and fire department.
6B1	Infestation and Disease	Coordinate training, planning, and communications to provide the community with information to combat the affects of infestations and diseases.	• Health Department • $12,000 annual staff time • N/A	In progress	Keep	Information is distributed to the public through the tribal website and monthly newspaper.
7A1 7C1	TERC	Continue to ensure the involvement of industry, fire, law enforcement and other key players in the Tribal Emergency Response Committee (TERC).	• Emergency Management • N/A • N/A	No action	Delete	TERC has been inactive for an extended period.
7A2 7B1 7B2 7D1 7D2	Hazardous Materials Management	Train first responders to Operational level. Develop emergency plans for facilities handling hazmat. Provide emergency response guidebooks to fire and law enforcement personnel. Follow MCDOT/ADOT guidelines.	• Fire Department • $15,000 annual staff time • N/A	In progress	Keep	All fire department first responders are currently trained to operations level. Guidebooks are up-to-date. Other programs are ongoing.
8A1 8A2 8A3	Human Caused Hazards	Promote WMD training for all employees. Support Urban Area Security Initiative. Promote and expand programs aimed at family preparedness.	• Emergency Management • N/A • N/A	No action	Delete	WMD training is a low priority based on short staff and other priorities.

Table 6-7-7: Summary of Fort McDowell Yavapai Nation assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
8B2	CBRN Emergency Response	Encourage Ft. McDowell Public Health to develop and exercise their capabilities to respond to and support a chemical, biological or radiological event.	• Emergency Management • $5,000 to date • N/A	No action	Revise	Response plans are being incorporated into the tribal emergency response plan.
8B1 8B3	Asset Protection	Lead Community Departments will be responsible for creating plans to protect existing assets within their area of responsibility.	• Fire Chief-Emergency Manager, Other Departments • $30,000 staff time to date • N/A	In progress	Keep	Program is on-going. Assett protection plans are included as annexes to tribal emergency operations plan.

Table 6-7-8: Summary of Fountain Hills assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.A.2	Review General Plan and Ordinances	Establish periodic monitoring and review of the Town General plan and zoning ordinances to determine effectiveness at preventing and mitigating hazards. Based on the results, amend as necessary.	• Planning Department, Planning Commission, Town Council • N/A • N/A	In Progress	Keep	This is an ongoing annual project
4.A.2	Channel and Storm Drain Development	The Town will continue development of channels and storm drains, similar to those built over the years in the Town for flood protection.	• Public Works Director • N/A • N/A	In Progress	Keep	This is an ongoing annual project
5.B.1	Brush Removal	Establish standards for the clearing of brush on town owned lands that are subject to wildfires.	• Public Works Director • N/A • N/A	Complete	Keep	N/A

Table 6-7-8: Summary of Fountain Hills assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
6.A.3	Enforce Building Codes	Ensure building codes for construction are strengthened to prevent roof damage from high winds.	• Chief Building Official, Building and Safety Department • N/A • N/A	Complete	Keep	N/A
8.A.1	Risk Management Planning	Continue to ensure the involvement of industry, fire, law enforcement and other key players in the Town's Risk Management Plan and an Emergency Response Plan for each of the 18 pump stations.	• Sanitary District General Manager • N/A • N/A	Complete	Delete	The Town has completed the project over the last planning cycle.

Table 6-7-9: Summary of Gila Bend assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.A.2	Review General Plan and Zoning Ordinance	Establish periodic monitoring and review of the Town's general plan and zoning ordinance to determine effectiveness at preventing and mitigating hazards. Based on the results, amend as necessary.	• Planning Commission, Town Council • N/A • N/A	No action	Keep	
5.A.3	Construction Compliance	Ensure enough compliance inspectors are available to ensure construction compliance.	• Public Works Department, Town Council • N/A • N/A	No action	Keep	
5.B.2	APS Coordination	Coordinate with Arizona Public Service to promote metal power utility poles used in new transmission line construction and used as replacements for existing wooden poles when indicated or install the lines underground.	• Local Utility Co (APS) • N/A • N/A	No action	Keep	

Table 6-7-9: Summary of Gila Bend assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
7.A.1	HAZMAT Training	Ensure all volunteer Fire Department responders are trained at a hazmat awareness level.	• Town Volunteer Fire Department • N/A • N/A	No action	Delete	HAZMAT is no longer one of the hazards in the plan.
8.C.1	Limit Development near Luke Air Force Base	Provide Town leadership role in support of efforts to limit development in the departure and approach corridors for Luke Air Force Base.	• USAF, Planning Commission, Town Council • N/A • N/A	No action	Delete	Not considered a mitigation action of natural hazards.

Table 6-7-10: Summary of Gilbert assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.A.1	Master Planning	Through proactive adoption of applicable master plans, land uses and developmental agreements	• Planning Department, Planning Commission, Town Council • N/A • N/A	In Progress	Keep	The Town currently uses 2006 International Codes. Future plan is to review and adopt 2010 codes in Jan 2010 that become effective July 2010. Update should reflect Development Services as Lead Agency, proposed costs is staff time and proposed completion date is Jan 2010.
2.B.2	Mitigation Brochure	Develop a mitigation brochure with information that is vital to the those needs in the community	• Managers Office, Public Works Department, Maricopa County, Local Business Groups, Local Utility Service Providers • N/A • N/A	No Action	Delete	Due to budget constraints this has been and will remain difficult to develop. However, a Mitigation page will be developed for the website highlighting relevant information. In addition we can make use of the FCD brochure that includes specific Gilbert information.

Table 6-7-10: Summary of Gilbert assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
3.A.4	Mitigation Links on Town Website	Website links form Town of Gilbert Home page to Maricopa County mitigation sites	• Technology Services • N/A • N/A	In Progress	Keep	Facilitate the development of a town webpage that will provide relevant mitigation information to the community. Update should reflect Emergency Management as Lead Agency with cost being staff time and a completion date of June 2010.
4.A.2	East Valley Mitigation Stakeholders	Establish an East Valley group of stakeholders to address improvements in mitigation areas specific to the needs of the East Valley Community	• Manager Office, Emergency Management (Local), Local Business Groups, Local Utility Service Providers • N/A • N/A	In Progress	Keep	We have worked closely with Maricopa County Flood Control District on numerous mitigation projects specific to East Valley. East Valley Emergency Manager (including utilities) meets bi-monthly to discuss East Valley Emergency Mgt topics. Update should reflect ongoing meetings with East Valley stakeholders to address any potential needs or improvement in mitigation. Lead agency being only Emergency Management and costs being staff time.
7.B.1	Infrastructure Redundancies	System redundancies to critical infrastructure	• Public Works, Fire & Police, Local Utility Services • N/A • N/A	No Action	Delete	The team found the action to be too vague, unfamiliar to current staff and not implemented and chose to delete it.
8.A.1	Water Supply Reduction	Implement the appropriate stage of the water supply reduction Management Plan as adopted (May 2003)	• Managers Office, Town Staff • N/A • N/A	In Progress	Keep	This plan was developed and adopted in 2003. The plan has been and will continue to be used as appropriate during drought conditions to mitigate drought impact on public water supply. Update should reflect a continued and ongoing use of Water Conservation Plan, Public Works as Lead Agency with proposed costs being only staff time.

Table 6-7-11: Summary of Glendale assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
3.A.1	Reverse 9-1-1	Continue to work on developing the Dialogical Communicator System, a reverse 9-1-1 system that provides directional calling through the connection of the GIS system.	• Fire Dept. Chief, Police Dept. Chief, Deputy City Manager for Public Works • N/A • N/A	Complete	Delete	Project completion date was February 10, 2009. The project cost was $160,000.
3.B.1	Evacuation Strategy	Develop a mass evacuation strategy for the City of Glendale.	• Fire Dept. Chief, Police Dept. Chief • N/A • N/A	Complete	Delete	The City of Glendale's mass evacuation strategy is in line with Maricopa County's Evacuation Strategy. Phase I of this plan was completed in July 2004 and Phase II was completed in December 2006.
10.A.1	Industry, Fire, Law Enforcement Involvement	Continue to ensure the involvement of industry, fire, law enforcement and other key players in the City of Glendale.	• Fire Dept. Chief, Police Dept. Chief, Deputy City Manager for Public Works • N/A • N/A	No Specific Action	Delete	Undetermined outcome, no specific output

Table 6-7-12: Summary of Goodyear assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.A.1	Review Codes and Ordinances	Review existing codes and ordinances to determine how these documents help limit development in hazardous areas.	• Community Development Director, Fire Chief • Staff time • July 2007	Complete	Delete	Codes have been updated to 2006 series of international codes.

Table 6-7-12: Summary of Goodyear assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
2.A.2	Explore Funding Sources	Explore variety of funding sources.	• Fire Chief/Emergency Manager, Grant Administrator • Staff time • N/A	Complete	Delete	Staff position and internal operating procedures have been implemented.
2.A.3	Promote Mitigation Programs	Promote and share mitigation programs with state, county, local jurisdictions, and private, civic, and non-profit organizations.	• Fire Chief/Emergency Manager • Staff time • N/A	In progress	Keep	On-going coordination process with agencies and organizations continues.
3.A.2	Secure City Water	Secure and protect the city water supply from outside, outsource contamination: a) Install supervisory control valves and data acquisition system. b) Install valve locks. c) Site specific physical infrastructure security measures.	• Fire Chief/Emergency Manager, Public Works Director • Staff time • N/A	In progress	Keep	a) SCADA project under construction; scheduled completion in fourth quarter 2009. Future phases will be constructed based as funds become available. b) Valve locks are planned for a new water transmission line anticipated to be installed in 2009-2010. c) Perimeter wall improvements were competed at several sites in 2009. Enhanced security measures will be installed at other sites in the future as funds become available.
3.A.7	Storm Water Management	Storm water management program.	• Fire Chief/Emergency Manager, Public Works Director, City Engineer • Staff time • September 2008	Complete	Delete	Storm Water Management Plan was adopted in 2003 and amended in 2006. Annual Reports are submitted to ADEQ every September.
5.A.2	Public Outreach in the Urban Interface	Distribute information to persons applying for building permits in urban interface areas.	• Fire Chief/Emergency Manager, Community Development Director • Staff time • 2005	Complete	Delete	Information is distributed to builders with the issuance of building permits and through regularly held developer advisory forums. Proposed development plans are sent to Maricopa County and adjacent municipalities for comments and coordination.

Table 6-7-12: Summary of Goodyear assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
5.A.4	Public Outreach in City Newsletter	Provide information in city newsletter.	• City PIO, Fire Chief/Emergency Manager • Staff time • N/A	Complete	Delete	Staff position and internal operating procedures have been implemented.
6.A.2	Public Outreach on City Web Page	Provide information on what is needed in the event of an emergency, through the city web page, newsletters, and other media outlets.	• City PIO, Fire Chief/Emergency Manager • Staff time • N/A	Complete	Delete	Internal operating procedures for dissemination have been implemented.
6.C.1	Emergency Notification System	Develop a City wide emergency notification system.	• City PIO, Fire Chief/Emergency Manager • Staff time • 2005	Complete	Delete	Currently have CENS available to make notifications.

Table 6-7-13: Summary of Guadalupe assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
2.B.2	Stormwater Education Implementation	Implement the education and mitigation actions as outlined in the Town's Stormwater Management Plan.	• Town Engineer/Town Council • N/A • N/A	In progress	Revised	New Town Engineer on board. Project would need to be revised to complete it.
4.A.1	Stormwater Management Plan Notification	The Town will continue working on a cooperative effort to notify developers of the Town's Stormwater Management Plan and floodplain regulations early on in the development process.	• Town Manager, Town Engineer, Town Inspector • N/A • N/A	Completed	Deleted	Completed for 2009

Table 6-7-13: Summary of Guadalupe assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.A.2	Review General Plan and Ordinance	Establish periodic monitoring and review of the Town of Guadalupe's general plan and zoning ordinance to determine effectiveness at preventing and mitigating hazards. Based on the results, amend as necessary.	• Town Inspector • N/A • N/A	In progress	Revised	Town Inspector reviews every six month to ensure compliance.
8.A.1	HAZMAT Training	Increased training of hazardous material team members and first responders.	• Fire Department • N/A • N/A	Completed	Deleted	Firemen are trained annually. Completed for 2009.

Table 6-7-14: Summary of Litchfield Park assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.A.1	Building prohibited map	Define area on map to prohibit building, require specific sign-off by Luke AFB for all plans in the area.	• City Manager • N/A • N/A	Complete	Keep	Litchfield Park boundaries are set and we have no room to grow.
2.B.1	Regional Organization Memberships	Encourage City staff to become members of regional organizations to share in regional efforts and solutions to local and regional problems.	• City Manager • N/A • N/A	In Progress	Keep	This is always a process we wish to follow to remain current in our information.
5.A.1	Storm drain system	Develop and maintain a proper storm drain system to accommodate storm run-off.	• Engineering Dept • N/A • N/A	In Progress	Keep	Storm Drain plan is almost complete. There have been three phases completed and there remains one more phase. The engineering Dept is now the lead dept.
5.A.2	Tree pruning	Keep street trees properly pruned.	• Public Works • N/A • N/A	In Progress	Keep	This is an annual process that is a part of maintenance for our trees that will never end.
7.C	Hazardous material replacement products	Develop a policy to replace the use of hazardous materials with other products as soon as a safe, reliable source is available and proven to be as effective.	• Public Works/Planning • N/A • N/A	In Progress	Keep	This is an ongoing process that we are constantly reviewing. Public Works and Planning Dept. is now the lead dept.

Table 6-7-15: Summary of Unincorporated Maricopa County assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1	Floodprone Properties Acquisition Policy	FCDMC staff will implement the recently adopted Floodprone Properties Acquisition Policy that defines existing programs for acquisition and relocation especially in situations where a few structures need to be removed from the floodway and floodplain. Floodproofing is included in this policy.	• Flood Control District • Project Dependent • Ongoing	In progress	Keep	Number of properties selected for acquisition, relocation and floodproofing.
2	Area Drainage Master Plans	The FCDMC will continue working with County Planning and Development on a cooperative effort to notify developers of Area Drainage Master Plans (ADMP's) and floodplain regulations early on in the development process.	• Flood Control District • Staff Time • Ongoing	In progress	Revise	The FCDMC will continue working with County Planning and Development on a cooperative effort to notify developers of Area Drainage Master Plans (ADMP's), Watercourse Master Plans and floodplain regulations early on in the development process.
3	ITS	Develop and install Intelligent Transportation System (ITS)	• Transportation • $1 million • November 2009	Completed in 2008	Delete	Not related to natural hazard mitigation
4	Database	Develop and maintain a database of schools, hospitals and other key facilities within a one-mile radius of HAZMAT facilities and make that database available to responders to incidents at those facilities.	• Emergency Management • $15,000 • November 2009	Completed in 2006	Delete	Not related to natural hazard mitigation
5	Prevent Child Drowning	Promote child drowning prevention programs throughout the County.	• Emergency Management • $5,000 • November 2009	No Action	Delete	Not related to natural hazard mitigation. Activities conducted by public safety agencies.

Table 6-7-15: Summary of Unincorporated Maricopa County assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
6	Building Codes	Review existing building codes to determine if they adequately protect new development in hazard areas. Where feasible and necessary, modify codes to help mitigate hazards imposed on such development within the limits of state statutes, while also respecting private property rights.	• Planning and Development • $5,000 + staff time • November 2009	In Progress	Keep	Building codes regarding military base hazard mitigation is complete other codes are on-going.
7	Bridge and Box culverts Inspection Program	Maricopa County Department of Transportation will inspect and monitor all structures (bridges and box culverts) under their control on a semi-annual basis.	• Transportation • $150,000 • November 2009	In Progress	Keep	1068 Number of inspections conducted since 2004.
8	Research Microburst	Pursue partnerships with the National Weather Service and State Universities to research the prediction of microburst.	• Emergency Management • $50,000 • December 2009	No action	Delete	No action due to unavailable funding. Delete: Not related to hazard mitigation

Table 6-7-15: Summary of Unincorporated Maricopa County assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
9	Environmental and Epidemiological Surveillance Activities	Conduct and enhance environmental and epidemiological surveillance activities in those areas identified as being of high public health importance and related to environmental factors such as; air quality, drinking water/public water systems and water/wastewater treatment plant operations, food safety and protection and vector control activities. Surveillance activities must include the identification of vulnerabilities and environmental factors that may contribute to the transmission of the communicable diseases associated with the operation and presence of these facilities in Maricopa County, as well as the implementation of preventative action which may be applied to reduce or eliminate the potential for transmission of communicable illnesses. Develop and improve the system of coordination and communication of these findings, trends and observations with other federal, state and local agencies that have similar or related interest.	• Public Health • $100,000 • November 2009	In progress	Delete	Recommend deletion due to this item is not related to natural hazard mitigation. This item is covered under public health management practices and policies.
10	Luke AFB	Provide County leadership role in support of efforts to limit development in the departure and approach corridors for Luke Air Force Base.	• Emergency Management • $100,000 • November 2009	No Action	Delete	Emergency management has not had the resources to take a primary role. Recommend deletion due to this item is covered under the County's strategic priorities.

Table 6-7-15: Summary of Unincorporated Maricopa County assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
11	GIS Data and Information	Through the Maricopa County Regional Leadership program, establish Maricopa County as a central source for regional geographic information system data and information.	• Assessor's Office • $500,000 • November 2009	Complete	Delete	Action accomplished and this item is covered under the County's strategic priorities.
12	Bridge/Culvert Construction	Encourage bridge or culvert construction where roads are in locations susceptible to flooding.	• Transportation • $ 7M • November 2009	In Progress	Keep	Number of projects completed = 10
13	CERT Teams	Provide program direction in support and development of Community Emergency Response Teams (CERT) teams.	• Emergency Management • $100,000 • November 2009	In Progress	Delete	17 teams have been formed since 2004. Delete: Not related to natural hazard mitigation

Table 6-7-16: Summary of Mesa assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.A.1	Update General Plan	Update the City of Mesa General Plan every five years	• Planning, City Council • N/A • March 2009	Completed	Delete	Project is reviewed annually and revised every 10 years. (Due March 2011).
3.A.1	Fund storm/sewer projects	Continue to design, prioritize and fund storm sewer projects as needed in the City of Mesa.	• Development & Sustainability Div, City Manager, City Council • ??? Million + • N/A	In Progress	Delete	Several storm drain projects in N/E & S/E Mesa are in various stages of design and construction. No longer an action item.

Table 6-7-16: Summary of Mesa assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
5.A.1	Maintain certification	Emergency Management Division will work to maintain our certification as a "Storm-ready Community".	• Fire Department, Developmental Services, General Services • N/A • May 2009	In Progress	Delete	Conducted a Storm Watcher class and will seek to host at least one annually. Determined to be more preparedness and response.
6.A.3	Water resource portfolio	Continue to develop and protect a diverse water resources portfolio.	• Water Resources Dept • N/A • N/A	In Progress	Delete	Department has been reorganized, A Water Resources Director has been placed to manage both potable and wastewater.
7.A.2	Immunizations	City of Mesa Fire Department will continue to provide immunizations.	• Fire Department • $20,000 • August 2009	In Progress	Delete	The City is committed to continue providing immunizations to citizens and first responders. No longer a primary hazard.
7.A.3	Test drinking water	City of Mesa Water Department will continue to test and treat drinking water.	• Water Resources • >$70,000 • N/A	In Progress	Delete	Drinking water is tested on an annual and continuous basis. Not really mitigation, so will be dropped
7.B.1	Surveillance	Increase surveillance at water treatment facility.	• Utilities, Police, Fire • >$1,000,000.00 • August 2008	In Progress	Delete	Surveillance equipment and monitors were installed after the Threat, Vulnerability Assessments were complete at the water treatments sites. Relates more to human-caused hazards and will be dropped
9.A.2	Mitigate terrorism	City of Mesa Emergency Management will continue to work with partners on the County, State, and Federal level to mitigate the effects of terrorism in the City of Mesa.	• Fire, Police • N/A • N/A	In Progress	Delete	Seek funding sources to continue Target Hardening projects. Relates more to human-caused hazards and will be dropped
9.B.3	Identify at-risk assets	Identify funding and secure assets most at risk.	• Fire, Police, City Manager, City Council • N/A • N/A	In Progress	Delete	Over the past 5 yrs several million dollars have been spent on target hardening and site security. This effort will continue through Homeland security funding. Relates more to human-caused hazards and will be dropped

Table 6-7-16: Summary of Mesa assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
8.A.1	Training	Increased training of hazardous material team members, Bomb Technicians, SWAT Team and all first responders.	• Fire, police • >1,000,000 • N/A	In Progress	Delete	100 + first responders have been certified and completed continuing education over the past 60 months. More response and preparedness so will be dropped.

Table 6-7-17: Summary of Paradise Valley assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.B.1	Building Codes	Adopt the most current International Building Codes for use by the Town.	• Town Council, Town Planning, Community Development • N/A • N/A	Complete	Keep	2006 editions of the International Building Codes were effective on July 1, 2007. Building Codes are updated every three years so the 2009 codes will be adopted in 2010.
1.A.1	General Plan	Update the Town's General Plan to include goals and policies to limit development in identified hazard areas.	• Town Council, Town Planning, Community Development • N/A • N/A	Complete	Delete	The General Plan, in the Zoning Ordinance, has been updated in 2005 to limit develop in identified hazard areas.
1.A.2	Zoning Ordinance	Update the Zoning Ordinance with provisions to regulate and restrict development in identified hazard areas.	• Town Council, Town Planning, Community Development, Engineering Department • N/A • N/A	Complete	Delete	The Zoning Ordinance has been updated in 2005 to limit develop in identified hazard areas.
4.A.5	Maintain Washes	Public Works Department to ensure that washes are maintained in a debris free condition through a regular inspection program.	• Public Works Department • N/A • N/A	In Progress	Revise	A perpetual item that has been assumed by the Building Safety Department.

Table 6-7-17: Summary of Paradise Valley assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
4.B.1	Channelization	Engineering Department - Continued development of designated floodplain channelization.	• Engineering Department • N/A • N/A	No action	Delete	The Town Engineer has determined that there is no need for any channelization.
6.A.1	Underground Utilities	Engineering Department – Continue the under grounding project for existing utilities on major roads thereby eliminating utility poles.	• Town Council, Engineering Department, Neighborhoods, Utility Department, Contractor • N/A • N/A	In Progress	Keep	Project is 86% complete.
5.A.1	Inspect Washes	Public Works Department – Conduct regular inspections of washes and take corrective action by enforcing existing ordinances to prevent a corridor for wildfires.	• Public Works, Rural Metro Fire Department • N/A • N/A	In Progress	Revise	A perpetual item that has been assumed by the Building Safety Department.
8.A.1	Emergency Operations Plan	Police Department, Emergency Management Unit – Ensure the Emergency Operations Plan is current.	• Town Council, Police Department • N/A • N/A	Complete	Revise	The Emergency Manager position has been transferred from the Police Department to the Building Safety Department.
2.A.1	Educate Public	Educate and inform residents, businesses and visitors by conduct a media campaign, via local newspaper and the Town Reporter to publicize ways to mitigate disasters including steps that they can protect themselves.	• Police Department • N/A • N/A	In Progress	Revise	The Public Education function has been transferred from the Police Department to the Building Safety Department.

Table 6-7-17: Summary of Paradise Valley assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
2.B.1	Communications	All Departments - Maintain effective communications with state, county and local government agencies by the various Town departments within their respective responsibility.	• Town Manager, Management Department, Engineering Department, Community Development, Public Works, Police Department • N/A • N/A	In Progress	Keep	A perpetual item that requires consistent participation.

Table 6-7-18: Summary of Peoria assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1D1	GIS Mapping	Include all identified hazardous conditions in GIS mapping to include floodways, high wind areas, subsidence areas, hazardous materials, etc.	• IT, Engineering Department • N/A • N/A	In progress	Keep	GIS staff will continue to updates maps
4B3	Local Training	Train key city staff on appropriate actions and measures.	• Safety Coordinator, Emergency Coordinator • N/A • N/A	In progress	Keep	EM staff will continue to train City employees as required
3A3	Regional Training	Participate in regional training opportunities as well as Emergency Operations Command exercises within City to prepare for emergencies.	• T Safety Coordinator, Emergency Coordinator • N/A • N/A	In progress	Keep	As available the City staff will participate in regional exercises

Table 6-7-18: Summary of Peoria assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
9A1	Fire Dept. Training	All Fire Department personnel should be trained at Operations level, currently command staff are trained at Operations – rest of personnel are trained at awareness level. Plan to provide additional levels of training by 2005	• Fire Chief, Training Officer • N/A • N/A	In progress	Keep	Due to staffing changes this is an ongoing issues
9A1	Police Dept. Training	Police Department personnel should be trained at Operations level, currently command staff are trained at Operations – rest of personnel are trained at awareness level. Plan to provide additional levels of training by 2005	• Fire Chief, Training Officer • N/A • N/A	In progress	Keep	Due to staffing changes this is an ongoing issues
10B2	Security Plans	Develop security plans for key assets and infrastructure	• Utilities and Public Works Department, Emergency Management Coordinator, Police Department • N/A • N/A	Complete	Delete	TLO's have completed security plans for key sites
5C1	Development Control	Control development in flood areas	• Engineering Department • N/A • N/A	In progress	Keep	Performed as a regular part of the development review process
6C2	Flood-Proof Measures	Encourage flood-proof measures through building design	• Community Development • N/A • N/A	In progress	Keep	Performed as a regular part of the development review process
8A3	PSAs	Maintain Public Service Announcements (PSAs) broadcast on Channel 11. Fliers produced and distributed to residents.	• Public Information Manager • N/A • N/A	In progress	Keep	PSAs are aired on a regular basis

Table 6-7-18: Summary of Peoria assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• **Lead Agency** • **Proposed Cost** • **Proposed Comp Date**	Status	Disposition	Explanation
	Drought	Research identified data limitations effecting the relative vulnerability of assets from drought	• GIS, Water Resources Division • N/A • N/A	In progress	Keep	Work with city and county departments to determine affects to the city of an extended drought
2A2	Mitigation Brochure	City Public Information Office to develop mitigation brochure and to coordinate Speakers Bureau.	• Public Information Officer • N/A • N/A	No Action	Delete	PIO was unaware of this action was not ready to move forward.

Table 6-7-19: Summary of Phoenix assessment of previous plan cycle mitigation actions/projects

Action Item	Name	Description	• **Lead Dept/Function** • **Proposed Cost** • **Proposed Comp Date**	Status	Disposition	Explanation
1.A.1	Revise General Plan	Revise and ratify the General Plan by the voters every 10 years	• **Lead:** Planning Dept. • **Cost:** General Fund • **Date:** 2010	In Progress Due 2010	Keep	Planning every ten years revises the General Plan based on State Statutes. The Planning Commission recommends and the City Council approves the updated General Plan. The General Plan Map is a guide to identify where future build-out areas might or might not occur.
1.A.2	Update General Plan	Update the General Plan (every ten years) annually, particularly the Safety Element	• **Lead:** Planning Dept • **Cost:** General Fund • **Date:** 2010	In Progress	Delete	Planning every ten years revises the General Plan based on State Statutes…. Same as 1.A.1

Table 6-7-19: Summary of Phoenix assessment of previous plan cycle mitigation actions/projects

Action Item	Name	Description	• Lead Dept/Function • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.B.1	Update Building Codes	Update and adopt a revised building code	• **Lead:** Development Services Dept. (DSD) • **Cost:** General Fund • **Date:** 2006 & 2008	Complete	Keep	2006 Phoenix Building Construction Code, Building Code, Residential Code, Existing Building Code, Energy Conservation Code, Mechanical Code, Uniform Plumbing Code and 2008 National Electrical Code were all adopted. DSD has the responsibility to revise, update, and adopt the building codes. The Planning Department plays an advisory role only.
1.C.1	Zoning Compliance	Continue to insure that zoning stipulations are met before construction permits are issued and that zoning is compatible with the General Plan	• **Lead:** Development Services Dept. (DSD)/Review • **Secondary:** Planning Dept/Advise & provide re-zoning hearings & ZA hearings • **Cost:** General Fund • **Date:** Ongoing	In Progress	Keep	This is a dynamic ongoing process that changes with each permit review. The permit reviews are made by DSD's staff following the zoning ordinance as a rule book & will not issue a permit unless all zoning stipulations are met prior to construction (if any stips). Planning staff at the zoning counter help customers with zoning & General Plan information; set up appointments for re-zoning hearings and zoning adjustment (ZA)/use permit hearings. The re-zoning & ZA hearings are adjudicated by an impartial contract officer hired by the Planning Dept. Contract Officers can add stipulations if the case is approved. The Planning Commission & City Council review & approve the hearing officer findings (both can add stipulations), & the Board of Adjustment reviews the appeals & can overturn the findings.

Table 6-7-19: Summary of Phoenix assessment of previous plan cycle mitigation actions/projects

Action Item	Name	Description	• Lead Dept/Function • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.D.1	Open Space	Continue to include in the General Plan policies that protect the natural flow regimes of washes and designate areas for Open Space. Continue to identify flood-prone areas that are potentially hazardous on the General Plan Map as Preserves or Open Space.	• **Lead:** Parks & Recreation • **Secondary** Planning • **Cost:** General Fund • **Date:** 2010	In Progress	Revise	The General Plan's Open Space Element provides policies and recommendations to preserve lands with greater than 10% slope, promote natural drainage areas and native vegetation by maintaining the natural flow regimes, and limit commercial activities to only the authorized use by the Parks & Recreation Board in these preserve areas. It also promotes adjacent land management strategies by allowing homeowners to clear brush that could create a fire hazard on their lands (using fire-breaks at least 10 feet wide). Parks and Recreation along with other departments coordinate a strategy for future land acquisitions to hold lands as open space and/or as park areas. The General Plan Map is a guide to identify where future build-out areas might or might not occur.
1.D.2	Setbacks and Buffers	Continue to apply zoning rules that require setbacks and buffers. The Planning Commission will add stipulations to mitigate specific conditions on each rezoning, or zoning adjustment hearing	• **Lead:** Development Services Dept./Review • **Secondary:** Planning/Advise & provide re-zoning hearings and ZA hearings • **Cost:** General Fund • **Date:** Ongoing	In Progress	Revise	This is a dynamic ongoing process that changes with each permit review. ….Same as 1.C.1

Table 6-7-19: Summary of Phoenix assessment of previous plan cycle mitigation actions/projects

Action Item	Name	Description	• Lead Dept/Function • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.E.1	Data Sharing and Communications	Coordinate data sharing and development communication within City departments	• **Lead:** Development Services • **Secondary:** Planning • **Cost:** General Fund • **Date:** 2010	In Progress	Keep	Data Limitations: 1) When land already has the proper zoning entitlements, Planning does not always know immediately when and where developments may occur because a given development did not go through the re-zoning or ZA process. Action Item: 2) Planning & DSD made some recent changes in reporting Preliminary Permits directly to GIS staff in Planning. Planning GIS staff: (as of January 1, 2009), now add all the new prelim data to a shape file for the purpose of tracking potential future developments geo-spatially.
2.A.1	Public Involvement	Solicit public input on the General Plan during public meetings.	• **Lead:** Planning Dept. • **Cost:** General Fund • **Date:** 2009 through 2010	In Progress	Keep	Several public meetings soliciting input will be conducted in 2009. Planning submits a draft of the General Plan to Village Planning Committees (VPCs) for comment and/or approval in 2009. VPCs have "advisory" powers of approval, not final approval.
2.A.2	Publish General Plan	Publish the Safety Element along with the text of the whole General Plan on the web.	• **Lead:** Planning • **Cost:** General Fund • **Date:** Was on-line throughout the past 10 year period. New plan will be published in 2010	In Progress	Revise	The General Plan Safety Element is readily available in pdf format along with all of the other chapters in the General Plan. The Safety Element addresses Soil and Geologic Hazards, Fire Hazards and other man-made hazards.

Table 6-7-19: Summary of Phoenix assessment of previous plan cycle mitigation actions/projects

Action Item	Name	Description	• Lead Dept/Function • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
9.A.1	General Plan Development Guidelines	Continue to insure the General Plan precludes development from geologically hazardous areas has policies that address developments on or down-gradient of geologically hazardous or flood-prone areas	• **Lead:** Planning • **Cost:** General Fund • **Date:** 2010	In Progress	Revise	The General Plan's Safety Element provides policies to protect the community from soil contamination, failure erosion and geologic instability. The General Plan's Natural Resources Conservation Element provided policies that address the protection from flooding & erosion, natural vegetation preservation and other wildlife issues.

Table 6-7-20: Summary of Queen Creek assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
5.B.1	Sonoqui Wash FDS	Sonoqui Wash Floodplain Delineation Study – Determine the extent of the floodplain and submit to FEMA for review.	• FCDMC, Public Works • N/A • N/A	In Progress	Revise	FCDMC has completed the Floodplain Delineation Study for the main portion of the Sonoqui Wash. Revise description to address study for the Sonoqui Wash East Branch.
7.B.3	Overhead Utility Structures	Overhead Utility Structures – Underground existing overhead utility structures to protect assets from damage caused by felled structures and wires.	• Public Works, Local Utility Service • N/A • N/A	In Progress	Revise	A number of projects have been completed since 2004. Revise description to reflect identified projects.
5.A.1	Sonoqui Wash HMP	Extend Sonoqui Wash Hydraulic Master Plan into Pinal County to the headwaters of the drainage basin.	• Pinal County, Public Works, FCDMC • N/A • N/A	In Progress	Keep	Smaller design projects have been completed to address local flooding issues but a complete HMP has not been undertaken.
5.A.4	Channels and Basins	Projects to develop channels and retention basins along Queen Creek Wash and Sonoqui Wash.	• Public Works, FCDMC • N/A • N/A	In Progress	Revise	A number of channelization projects have been completed since 2004. Revise description to reflect identified projects.

Table 6-7-20: Summary of Queen Creek assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
4.A.1	GIS	Develop Geographical Information System (GIS)	• Community Development, Public Works, Parks and Recreation Department • N/A • N/A	Complete	Delete	Basic GIS system is operational with two administrators assigned.
3.B.1	Town EOP	Continue to develop Town Emergency Operations Procedures	• MCDEM, Town Council, Public Works, Community Development, Administrative Department • N/A • N/A	Complete	Delete	Town EOP was updated and approved in September 2007.

Table 6-7-21: Summary of Salt River Pima-Maricopa Indian Community assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.A.1	General Plan	Community Development Department to update general plan	• Community Development, Tribal Council • N/A • N/A	Complete	Delete	General plan was updated and adopted by Tribal Council in December of 2006.
2.A.1	Public Campaign	Community Relations to work on public campaign	• Emergency Manager • N/A • Ongoing	In progress	Keep	Public campaign has been put in place and will be an ongoing project. Efforts include numerous newspaper articles, website developed, presentations to Tribal Council, emergency preparedness brochures mailed to every home in the Community.

Table 6-7-21: Summary of Salt River Pima-Maricopa Indian Community assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
2.B.1	Neighborhood Outreach	Fire and Police to work with neighbors through meetings (quarterly)	• Fire Chief, Police Chief • N/A • Ongoing	In progress	Keep	Emergency Manager has presented emergency preparedness presentation at numerous neighborhood meetings, senior citizen meetings. This effort will continue and will be an ongoing effort.
3.A.1	TERC Training	Hold Tribal Emergency Response Commission (TERC) training regarding hazard mitigation principles	• Fire Chief, Police Chief • N/A • N/A	Complete	Delete	Tribal Emergency Response Commission is meeting on a regular basis and Mitigation actions are incorporated into the meetings.
3.B.1	Hazard Mitigation Plans	Emergency manager to develop hazard mitigation plans	• Fire Chief, Tribal Council • N/A • N/A	In progress	Delete	With a full time emergency manager now in place in the Community, coordination with local, regional, state, and federal agencies is taking place on a daily basis. SRPMIC is represented at all emergency management meetings in our region. These mitigation efforts will continue and are now part of the Community's Emergency Management Program.
5.A.1	Plan Development	Community Development Department, Engineering and Construction Services, and Public Works to develop plan	• Fire Chief, Tribal Council • N/A • N/A	No action	Delete	Staff and resources are not available at this time to commit to this project, and with the recent economic impact to our Community, this lack of resources will remain for some time.
7.D.1	Building Surveys	Engineering and Construction Services and Community Development Department to survey buildings and develop list	• Fire Chief, Tribal Council, ECS Director, Community Development, Public Works • N/A • N/A	No action	Delete	Staff and resources are not available at this time to commit to this project, and with the recent economic impact to our Community, this lack of resources will remain for some time
9.A.1	Public Health Plan	Public Health and Cultural and Environmental to develop a plan	• Fire Chief, Tribal Council, Public Health Director, Cultural Director • $20,000 • N/A	Complete	Delete	A Pandemic Emergency Response Plan was completed in 2008.

Table 6-7-21: Summary of Salt River Pima-Maricopa Indian Community assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
10.A.1	Hazardous Materials Survey	Fire Department to develop a hazardous materials survey	• Fire Chief • N/A • January 2010	In progress	Keep	Building surveys are being completed by fire department. Emergency Management is meeting with fire department to increase the efficiency of Tier ll reporting. This project will enhance our knowledge and record keeping as it relates the hazardous chemicals that are stored in our Community.
11.A.1	Emergency Plan	TERC and the Emergency Manager will work on a comprehensive list to be used in preparation of a plan	• Fire Chief • N/A • N/A	Complete	Delete	Emergency Operations Plan was updated in 2008. A detailed list is not needed at this time for this plan. This may be considered in the future if additional staff resources change are available for this effort.

Table 6-7-22: Summary of Scottsdale assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.A.1	Review Ordinances	Continue to review plans and ordinances	• Planning and Development • N/A • Continuous	In Progress	Keep	This is a continuous process where ordinances are reviewed and revised in applicable.
1.B.1	Review Codes	Review codes and procedures	• Planning and Development • N/A • Continuous	In Progress	Keep	This is a continuous process where coded are reviewed and revised in applicable.

Table 6-7-22: Summary of Scottsdale assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
2.A.1	City Council Support	City Council will support actions that will reduce the possibility of damage and losses due to floods.	• City Council, Planning and Development, Water Resources Manager • N/A • N/A	In Progress	Keep	N/A
2.B.1	Planning	Work with current planning department and builders	• Planning and Development, Local Builders • N/A • N/A	In Progress	Keep	
3.A.1	Drought Management	Implement Council-adopted drought management plan as required.	• City Council, Water Resources Manager • N/A • N/A	Complete	Delete	This was accomplished through the City Major Emergency Operations Plan and the City's Continuity of Operations Plan
3.B.1	Drought Impacts	Incorporate drought-related impact on facilities into existing emergency response plan.	• City Council, Water Resources Manager • N/A • N/A	Complete	Delete	This was accomplished through the City Major Emergency Operations Plan and the City's Continuity of Operations Plan
3.C.1	Arizona Drought Task Force	Participate in Governor's Arizona Drought Task Force to insure that impacts on City of Scottsdale are considered.	• City Council, Water Resources Manager • N/A • N/A	In Progress	Keep	This is a continuous process.
3.C.2	Coordination	Coordinate with Water Resources Department to implement drought management plan as appropriate.	• City Council, Water Resources Manager • N/A • N/A	Complete	Delete	This was accomplished through the City Major Emergency Operations Plan and the City's Continuity of Operations Plan
3.C.3	Water Conservation	Continue participation in ongoing joint water conservation information programs.	• City Council, Water Resources Manager • N/A • N/A	In Progress	Keep	This is a continuous process.

Table 6-7-22: Summary of Scottsdale assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
3.D.1	Survey Assets	Conduct survey of City assets and property to determine vulnerability in case of water supply shortage. Modify City emergency management and drought management plans as necessary.	• City Council, City Manager, Water Resources Manager • N/A • N/A	Complete	Delete	This was accomplished through the City Major Emergency Operations Plan and the City's Continuity of Operations Plan

Table 6-7-23: Summary of Surprise assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
2.A.1	PDM Funding	Seek availability of funding sources for pre-disaster mitigation and hazard mitigation	• Finance Department, Public Works Department, Emergency Management, City Council • N/A • N/A	*(None Provided)*	*(None Provided)*	*(None Provided)*
5.A.2	Flood Facilities	Develop program and coordinate actions with FCDMC to access, mitigate, upgrade and redesign flood facilities.	• Public Works Department, Local Utilities • N/A • N/A	*(None Provided)*	*(None Provided)*	*(None Provided)*
5.A.5	Infrastructure Construction Program	Develop program that identifies bridge and culvert construction in flood susceptible areas	• Public Works • N/A • N/A	*(None Provided)*	*(None Provided)*	*(None Provided)*

Table 6-7-23: Summary of Surprise assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.A.1	Development Guidelines	Access and update guidelines that limit development in hazard areas	• Planning Department/Commission, City Council • N/A • N/A	*(None Provided)*	*(None Provided)*	*(None Provided)*
3.A.2	Reverse 911 System	Develop and implement reverse 911 system within the city	• Emergency Services, City Council • N/A • N/A	*(None Provided)*	*(None Provided)*	*(None Provided)*
7.B.1	Severe Weather Vulnerabilities	Develop a program to perform periodic assessments that identifies vulnerabilities to severe weather within the city	• Emergency Services, Public Works, Planning Department • N/A • N/A	*(None Provided)*	*(None Provided)*	*(None Provided)*

Table 6-7-24: Summary of Tempe assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1A1	General Plan	Maintain City General Plan	• City Manager • N/A • N/A	Complete	Delete	The General Plan is continually reviewed as a regular process.
2A1	Public Education	Continue with Public Education programs through Project Impact	• Fire Chief • N/A • N/A	Complete	Delete	Project Impact was completed in 2004.
2C3	CERT Program	Maintain CERT Program	• Fire Chief • N/A • N/A	In Progress	Keep	Ongoing program with over 200 people trained.

Table 6-7-24: Summary of Tempe assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
2D1	Publicize State Programs	Seek Funding to publicize State Programs	• Fire Chief • N/A • N/A	Complete	Delete	Accomplished with Project Impact
2E1	City Codes	Maintain existing City Codes	• City Manager, All City Departments • N/A • N/A	Complete	Delete	City Codes are continually reviewed as a regular process.
3A1	Workshop Funding	Seek funds for workshops and conferences	• Fire Chief • N/A • N/A	In Progress	Keep	Will continue to seek funding as available.
5A1	Flood Control	Maintain existing Flood Control systems	• Public Works, Water Utilities • N/A • N/A	In Progress	Keep	City of Tempe Public Works and Water Utilities continually seek to improve storm runoff capabilities. City code requires through Development Services on-site storm water retention.

Table 6-7-24: Summary of Tempe assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
7A1	Drought Management Plan	The City of Tempe Water Utilities Department has a comprehensive set of planning documents that outline future water systems operations, including specific drought contingency plans and water system operations during drought cycles. Planning documents include the 1997 Tempe Water Resources Plan (updated in 2002), the 1999 Tempe Integrated Water System Master Plan, and the 2002 Drought Management Strategy Plan. Tempe has implemented a number of measures from these plans to diversity the City's water resources and to lessen the impact of drought on our community. Tempe will continue to develop additional groundwater storage and recovery programs to significantly reduce potential drought impacts. These efforts include storing, CAP water and reclaimed water in aquifers for future recovery (over 85,000 acre-feet stored since the mid-1990s), and capital improvement projects to add new municipal wells and increase recovery well pumping capacity.	• Water Utilities • N/A • N/A	In Progress	Keep	Tempe recognizes that our region is experiencing drought conditions. Tempe actively promotes drought management plans with partnerships with other municipalities and agencies.
8A1	Emergency Management Plan	Maintain Emergency Management Plan	• Fire Chief • N/A • N/A	In progress	Keep	The City Emergency Management Plan is revised at least once every two years, most recently in October 2008 to ensure NIMS compliance.
9B1	Maintain HAZMAT	Maintain HAZMAT	• Fire Chief • N/A • N/A	In progress	Keep	The Hazardous Materials Response Team is an ongoing program.
9F1	Maintain Cameo and ECS	Maintain Cameo and ECS	• Fire Chief • N/A • N/A	In progress	Keep	CAMEO and ESS are integral components of emergency response and emergency management.

Table 6-7-25: Summary of Tolleson assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.B.3	Education Public Officials	Educate public officials on the need of mitigation plan.	• Fire Chief • N/A • N/A	In Progress	Keep	This is a continuous process to keep all old and new officials aware of any changes.
5.D.1	Flood Control	Installing more drains, require more retention areas, and elevate property.	• Building Department Director, Planning Director • N/A • N/A	In Progress	Keep	Continuous with any new developments and building coming into the city.
2.E.1	Building Codes	Review existing building codes to determine if they adequately protect new development in hazard areas.	• Building Department Director • N/A • N/A	In Progress	Keep	Continuous with the any new developments and building coming into the city.

Table 6-7-26: Summary of Wickenburg assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1	By Pass	Encourage ADOT and MCFCD to work with the Town to design the proposed bypass around downtown Wickenburg with the dual purpose of efficiently moving traffic and protecting the adjacent neighborhoods from the 100 year flood events on the Hassayampa River and Sols Wash.	• Planning and Zoning • $15 million • Dec 2009	In progress	Revise	Sols Wash was completed in March 2009.
2	Neighborhood Maintenance Ordinance	Develop and recommend adoption of a neighborhood maintenance ordinance to mitigate fire hazards in residential areas.	• Planning and Zoning • $5,000 + staff time • July 2010	In Progress	Keep	
3	Setback Ordinance	Develop and recommend adoption of a code that will require a minimum setback from regulatory floodways and washes.	• Planning and Zoning • $5,000 + staff time • December 2010	In progress	Keep	

Table 6-7-26: Summary of Wickenburg assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
4	Public Education	Develop a section of the Town's webpage to address hazard mitigation measures that may be employed by home and business owners	• Emergency Management • $10,000 + staff time • Dec 2014	In Progress	Keep	
5	Camera Security	Investigate the possibility of installing cameras at the Town's well sites, waste water treatment plants and other critical infrastructure elements.	Police $50,000 December 2014	In progress	Delete	No funding available. Project not related to natural hazard mitigation.

Table 6-7-27: Summary of Youngtown assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
7.D.3	WMD Awareness Training	Train all Public Works and Law Enforcement in First Responder Weapons of Mass Destruction (WMD) awareness	• Town Manager • N/A • N/A	In Progress	Keep	All personnel were trained in NIMS 700 & 800 & ICA 100 & 200. Additionally supervisors and managers are being trained in ICA 300 and 400 as appropriate to position. New hires are trained after initial training or during FTO. Training updated during in-service as needed.
7.D.4	1st Responder Equipment	Provide Police and Public Works with 1st Responder protective equipment.	• Council • N/A • N/A	Complete	Delete	Purchased with funds from DHS grant to City of Glendale for West Valley agencies. Action item complete, but equipment will be replaced/upgraded as necessary.
8.C.1	Development Guidelines	Provide Town leadership role in support of efforts to limit development in the departure and approach corridors for Luke Air Force base.	• Council, Mayor • N/A • N/A	Complete	Keep	Council and management have made numerous policy statements in support of these efforts. Mayor, Town Manager and other management personnel sit as members of various committees.

Table 6-7-27: Summary of Youngtown assessment of previous plan cycle mitigation actions/projects

ID	Name	Description	• Lead Agency • Proposed Cost • Proposed Comp Date	Status	Disposition	Explanation
1.A.1	Master Plan	Adopt the new Master Plan. Modify with additional guidelines, regulations, and land use techniques as necessary within the limits of state statutes, while also respecting private property rights.	• Mayor Council • N/A • N/A	Complete	Keep	New master plan adopted, but will be revised from time to time as needed.
3.B.2	Shelter-in-Place Educational Program	Develop a Shelter-in-Place Educational program	• Town Administration • Police Staff • Emergency Manager	No Action	Keep	No action taken. Program will be developed as part of emergency operations plan.
5.C.2	Website Development	Promote the availability of information from county webpage.	• Town Manager • IT Consultant • Cost estimate $6,000	In Progress	Keep	Link will be included on Home Page of new Town website now under development and scheduled to be on-line by second-quarter of FY2010.
5.C.1	Weather Radios	Encourage the use of weather radios, especially in schools, rest homes, convalescent homes, retirement centers and other locations where people congregate to inform them of the approach of severe weather.	• Town Manager • Emergency Manager • Code Compliance	No Action	Keep	Will be included in upcoming article in Youngtown Village Reporter on various emergency operations plans being implemented in Town.
6.A.1	Xeriscaping	Mandate, where Appropriate, the use of xeriscaping or desert landscaping in all Town projects.	• Town Council • N/A • N/A	Complete	Delete	Mandate not enacted, however Town recommends low/no-water landscaping in Building Safety and Code Compliance brochures.

6.4.2 New Mitigation Actions / Projects and Implementation Strategy

Upon completion of the assessment summarized in Section 6.4.1, each jurisdiction's LPT met and developed new A/Ps using the goals and objectives, results of the vulnerability analysis and capability assessment, and the planning team's institutional knowledge of hazard mitigation needs in the community. The A/Ps can be generally classified as either structural or non-structural. Structural A/Ps typify a traditional "bricks and mortar" approach where physical improvements are provided to effect the mitigation goals. Examples may include channels, culverts, bridges, detention basins, dams, emergency structures, and structural augmentations of existing facilities. Non-structural A/Ps deal more with policy, ordinance, regulation and administrative actions or changes, buy-out programs, and legislative actions. For each A/P, the following elements were identified:

- **ID No.** – a unique alpha-numeric identification number for the A/P.
- **Description** – a brief description of the A/P including a supporting statement that tells the "what" and "why" reason for the A/P.
- **Hazard(s) Mitigated** – a list of the hazard or hazards mitigated by action.
- **Community Assets Mitigated** – a brief descriptor to qualify the type of assets (existing, new, or both) that the proposed mitigation A/P addresses.
- **Estimated Costs** – concept level cost estimates that may be a dollar amount or estimated as staff time.

Once the full list of A/Ps was completed to the satisfaction of the LPT, the team then set to work developing the implementation strategy for those A/Ps. The implementation strategy addresses the *"priority, how, when, and by whom?"* questions related to the execution and completion of an identified A/P. Specific elements identified as a part of the implementation strategy included:

- **Priority Ranking** – each A/P was assigned a priority ranking of either "High", "Medium", or "Low". The assignments were subjectively made using a simple process that assessed how well the A/P satisfied the following considerations:
  - A favorable benefit versus cost evaluation, wherein the perceived direct and indirect benefits outweighed the project cost.
  - A direct beneficial impact on the ability to protect life and/or property from natural hazards.
  - A mitigation solution with a long-term effectiveness
- **Planning Mechanism(s) for Implementation** – where applicable, a list of current planning mechanisms or processes under which the A/P will be implemented. Examples could include CIPs, General Plans, Area Drainage Master Plans, etc.
- **Anticipated Completion Date** – a realistic and general timeframe for completing the A/P. Examples may include a specific target date, a timeframe contingent upon other processes, or recurring timeframes.
- **Primary Agency and Job Title Responsible for Implementation** – this would be the agency, department, office, or other entity and corresponding job title that will have responsibility for the A/P and its implementation.
- **Funding Source** – the source or sources of anticipated funding for the A/P.

Tables 6-8-xx summarize the updated mitigation A/P and implementation strategy for each participating Plan jurisdiction. Projects listed in *italics font* are recognized as being more response and recovery oriented, but are considered to be a significant part of the overall hazard management goals of the community.

Table 6-8-1: Summary of mitigation actions and projects and implementation strategy for Avondale

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)**
6	Enhance the Community Center's abilities to serve as cooling station during times of extreme heat.	Extreme Heat	New	$150,000	High	Engineering review/plans approval	2011	Emergency Manager / Building Official / Social Services	General Funds, Grants
1	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	Medium	Staff Training Floodplain Regulations	Annual-Ongoing	Planning/City Planner	General Fund Permit Fees
2	Partner with Phoenix International Raceway and other stakeholders in matters of site safety of open air seating . to mitigate potential damages or failures due to microburst winds.	Severe wind	Both	$100,000	Medium	Engineering review, plans approval	2013	Planning/planner-Engineering/City Engineer-Fire Marshal/Inspector	Public/private-Grants
3	*Enhance the City of Avondale's capabilities to alert its citizens in time of emergency via radio, internet and texting (English and Spanish) to mitigate losses to human life during a natural disaster.*	*All Hazards*	*New*	*$140,000*	*Medium*	*Staff training, I.T. support/public outreach*	*2012*	*Emergency Manager/I.T. Public info officer.*	*General funds, Grants*
4	*Upgrade the current EOC and recommend the construction of a new and more secure facility.*	*All Hazards*	*Both*	*$250,000*	*Medium*	*Current standards (NFPA) plans review*	*2014*	*Emergency Manager/I.T. Fire Marshal, Police/ Field Ops*	*General Funds , Grants.*
5	*Provide CERT training to all citizens and city groups upon request.*	*Extreme Heat, Severe Wind, Drought, Flood, Wildfire.*	*Both*	*Staff time*	*Low*	*Staff Training, Community volunteers*	*2011*	*Emergency Manager, Public educator.*	*Ongoing grant funding.*
7	Partner with Maricopa County Flood Control to provide channelization of the Agua Fria and Gila rivers.	Flooding	New	Unknown	Low	Planning, City Engineer/ Floodplain Regulations	2016	Planner/Emergency Manager. FCDMC	Grants

Table 6-8-2: Summary of mitigation actions and projects and implementation strategy for Buckeye

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training Floodplain Regulations	Annual-Ongoing	Water resource Director /Damon DeQuenne/ Floodplain Administrator	General Fund Permit Fees
7	Meet with flood control and state land to develop cut Wildfire breaks at key locations in the Gila River	Wildfire/Flood	Both	Staff time	High	Participation into Maricopa County Wild land urban interface planning project/ Create West valley interface task force. Work with MCDEM and county flood control in establishing program development	On going/ Implement into Wildfire Department 5 year Strategic Planning	Fire Department / Fire Chief	General fund
10	Develop water conservation plan.	Flood/Drought	Both	Staff time	High	Create and establish plan with adoption of Town Ordinances. Meet the guidelines of Arizona Dept of Water Resources	Submitted for initial start of 1-1-20010	Water Resource Department Director/ Damon DeQuenne	Enterprise funds

Table 6-8-2: Summary of mitigation actions and projects and implementation strategy for Buckeye

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)
2	Conduct annual life safety inspections	Wildfire	New	Staff time	Medium	Formal induction into Wildfire Department Strategic Plan/ Formalization of Wildfire Prevention Division/ Community Development and Code Enforcement enacted as new division under Wildfire Department	On going with formalization approved with Town staff and council	Wildfire Department/ Wildfire Chief	General Fund
4	Enhance communication of Town needs at the County and State level	Flood/ Wildfire / Severe Wind	New	Staff time	Medium	Establish Liaison positions from town to State legislature, State Fusion Centers, MCDEM, Water fusion group, MAG and other multi jurisdictional task force work groups	On going with Staff and Council approval, subject to local strategic planning groups	Town wide with department head approvals/Supported by Mayor and Town Managers	General Fund
5	Continue to support the Hazard Mitigation Plan by making sure the Town is represented on related committees.	Flood/ Wildfire / Severe Wind	New	Staff time	Medium	Establish Liaison positions from town to State legislature, State Fusion Centers, MCDEM, Water fusion group, MAG and other multi jurisdictional task force work groups	On going with Staff and Council approval, subject to local strategic planning groups	Town wide with department head approvals/Supported by Mayor and Town Managers	General Fund

Table 6-8-2: Summary of mitigation actions and projects and implementation strategy for Buckeye

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)
6	Implement Sever Wind deployment protection procedures (local)	Severe Wind/Flood	Both	Staff time and use of volunteers	Medium	Establish Public Safety Executive Partnership with Pubic Works, Wildfire, and Police. Incorporate CERT program for the Town and implement SOP for operational guidelines	On going with PSEP group formalized/ CERT implementatio n by 1-1-2010	Police Chief/ Fire Chief/ Pubic Works Director/Water Resource Director/ Assistant Town Manager	General Fund/ UASI and SHSGP funding via ADHS/DHS
8	Provide/improve water drainage systems.	Flood	Both	Staff time	Medium	Implemented into General plan in association with Maricopa County Flood control	Part of 5 year master plan with 2011 goal	Public works/ Scott Lowe	CIP monies
9	Enforce Fire codes, require compliance	Wildfire	Both	Staff time/ new position ($50,000)	Medium	Established adoption of International Fire Code 2006, employ additional Fire Prevention Specialist	Adopt into 5 year Fire Department Strategic Plan along with Fee Code study	Fire Department / Fire Chief	General fund/permit fees
11	Participate with Maricopa County and other jurisdictions in the development of a Community Wildfire Protection Plan (CWPP)	Wildfire	Both	Staff time	Medium	Participate in multijurisdiction al wildfire protection planning program	2010	Fire Department / Fire Chief	General fund

Table 6-8-3: Summary of mitigation actions and projects and implementation strategy for Carefree

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood Damage	Both	Staff time	High	Staff Training Floodplain Regulations	Annual-Ongoing	FCDMC / Floodplain Mgmt and Services Division /Floodplain Administrator Mike Tibbett / Chief Building Inspector	General Fund, Permit Fees
2	Develop a Drainage Master Plan that will identify potential drainage hazards, solutions, budgets and prioritization.	Flood	Both	Staff Time	High	Staff Conferences. Study Drainage issues. Make recommendation for projects. Implement projects as funded	Annual – Ongoing	MichaelTibbett / Chief Building Inspector Erich Korsten / Hydrologist and Engineer Patrick Neal / ROW Engineer	General Fund, Permit Fees, Grants if Available
7	Continue development of water storage, treatment and delivery systems to provide adequate water during times of drought	Drought	Both	Specific project dependant	High	Carefree Water Company and Governing Board	Annual – Ongoing	Stan Francom Director of Carefree Water Company	Water Co. Budget and available grants
3	Encourage bridge or culvert construction where roads are in locations susceptible to flooding.	Flood	Both	Staff Time and studies unless actual project developed and then cost are to be determined per project.	Medium	Staff Conferences. Study Drainage issues. Make recommendation for projects. Implement projects as funded	Annual – Ongoing	MichaelTibbett / Chief Building Inspector Erich Korsten / Hydrologist and Engineer Patrick Neal / ROW Engineer	General Fund, Permit Fees, Grants if Available

Table 6-8-3: Summary of mitigation actions and projects and implementation strategy for Carefree

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	*Further develop a Mass Evacuation strategy for the Town of Carefree.*	*Fire or other Natural Disaster*	*Both*	*Staff Time*	*Medium*	*Staff / Agency Conferences*	*Annual – Ongoing*	*Carefree Emergency Manager / Cave Creek Emergency Manager Fire Chief American Red Cross*	*General Fund*
5	Site and install additional signage for wash crossings as well as sand bags to warn and discourage vehicular movements through these areas during flooding events	Flood	Both	$20,000.00	Medium	Marshal's Office and Public Works	Less than five years with in funding	Marshal and Director of Public Works	General Fund
6	Perform brush cutting and median maintenance with Town right-of-way to mitigate fuel sources for wildfire.	Wildfire	Both	$10,000.00	Medium	Public works	Annual – Ongoing	Public Works	General Fund, Streets Budget

Table 6-8-4: Summary of mitigation actions and projects and implementation strategy for Cave Creek

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training, Floodplain Regulations	Annual-Ongoing	FCDMC / Floodplain Mgmt and Services Division /Floodplain Administrator	General Fund, Permit Fees
3	Investigate the possibility of adding a water facility and infrastructure on the west side of Cave Creek.	Drought	Both	$27 million	High	Land is Acquired. Design, Build, Fund project.	2011	Cave Creek Utilities Manager	General Fund, GRANT FUNDING
6	Develop and Implement A Community Wildfire Protection Plan	Wildfire	Both	Staff time, RMFD time, County Emergency Mgmt Time	High	Development of A Community Wildfire Prevention Program.	Ongoing, within 24 months goal.	Maricopa County Emergency Management, Town Marshal	General Fund, Seek Grants
2	Ensure building codes for construction are enforced to prevent roof damage from high winds.	Severe Wind	Both	Staff time	Medium	Continuing education of Building Safety staff. Stringent enforcement of Building Codes	Annual Ongoing	Cave Creek Building Official	General Fund, Permit fees
4	Town Fire Marshal routinely inspects commercial structures	Fire	Both	RMFD time	Medium	Continued Site Inspections via RMFD	Annual Ongoing	RMFD Building Official	General Fund
7	Public Information Campaign to help educate the general public on ways to remain safe during periods of extreme heat	Extreme Heat	Both	Staff time	Medium	Public Information Campaign, utilizing government mailings, website and print media	Ongoing	Town Marshal	General Fund

Table 6-8-4: Summary of mitigation actions and projects and implementation strategy for Cave Creek

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)
5	Review the existing Cave Creek general plan and zoning ordinance to determine how these documents help limit development in hazard areas. Modify with additional guidelines, regulations, and land use techniques as necessary within the limits of state statutes, while also respecting private property rights.	Flooding	Both	Staff Time	Low	Continuing Review of existing Zoning Ordinances.	Annual Ongoing	Town Zoning Administrator, Town Engineer, FCDMC	General Fund

Table 6-8-5: Summary of mitigation actions and projects and implementation strategy for Chandler

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training Floodplain Regulations	Annual-Ongoing	Public Works/ City Engineer	General Fund
2	Maintain the currency of the safety element of the Chandler General Plan, and monitor its effectiveness at preventing and mitigating hazards.	Drought Extreme Heat Flood Severe Wind	Both	Staff time	High	Review and Update of the General Plan on a regular basis	Annual Ongoing	Planning/ Planning Director	General Fund
3	Promote availability of the City of Chandler Hazard Mitigation Plans (HMGP) in an understandable format to civic and private groups.	Drought Extreme Heat Flood Severe Wind	Both	Staff time	High	City Emergency Management Group (EMG) to review progress bi-annually	Annual Ongoing	Fire Department/ Asst. Chief	General Fund
4	Continue to ensure through proper planning, zoning and building codes that all safety measures are in place for new building construction and placement.	Flood Severe Wind	New	Staff time	High	Continue to update codes to the newest versions, and add amendments where appropriate	Annual Ongoing	Planning/ Planning Director	General Fund

Table 6-8-5: Summary of mitigation actions and projects and implementation strategy for Chandler

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)
6	Continue to maintain a diverse water portfolio. Minimize any reductions to existing supplies by protecting and secure existing water rights, completing Indian water rights settlements, and meeting environmental requirements of water resources. Maximize the use of existing assets to ensure adequate water supply is available through groundwater wells, surface water diversions, use of recharged water, and encouraging the use of reclaimed water for appropriate purposes. Seek and utilize alternative water supplies (CAP excess water, reclaimed water, saline/brackish groundwater, support the Arizona Water Bank) to increase resource reliability and mitigate drought severity. Continue to implement the City's Drought Plan.	Drought	Both	Staff time	High	Continue to maintain a diverse City water portfolio by reviewing and updating on a regular basis	Annual Ongoing	Municipal Utilities, Public Works/municipal Utilities Director	Enterprise Fund. Impact Fees
7	Each Lead City Department will rank the vulnerability of existing assets, with assistance from the Emergency Management Workgroup, and implement protection plans with the highest vulnerability being implemented first.	Drought Extreme Heat Flood Severe Wind	Both	Staff time	High	Emergency Management Group (EMG) to develop process, and timeline. Monitor progress	Annual Ongoing	Fire Department/ Asst. Chief	General Fund
5	Continue to ensure that the City of Chandler Drought Management Plan is updated to meet the needs of the City to mitigate drought severity.	Drought	Both	Staff time	Medium	Continue to review and update the plan as appropriate	Annual Ongoing	Municipal Utilities/ Municipal Utilities Director	Enterprise Fund

Table 6-8-6: Summary of mitigation actions and projects and implementation strategy for El Mirage

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training Floodplain Regulations	Annual-Ongoing	City Engineer Maricopa County Flood Control	General Fund, Permit Fees
2	Review zoning ordinances prohibiting new development in 100-year flood plain on an annual basis.	Flood	Both	Staff time	High	Staff Training Floodplain Regulations	Annual-Ongoing	City Engineer Maricopa County Flood Control	General Fund, Permit Fees
5	Take active role in multi-agency plan and actions for flood mitigation (pro-active).	Flood	Both	Staff time	High	Candidate Assessment Report Meetings	On going	City Engineer Maricopa County Flood Control	General Fund
6	Develop plan to install man-made flood protection devices where needed.	Flood	Both	Staff time	High	Consultants, City Engineer, Maricopa County Flood Control	On going	City Engineer Maricopa County Flood Control	General Fund, Impact Fees Grants
6a	Install box culvert at the Cactus Rd & El Mirage Rd Crossing and perform channelization in the Lower El Mirage Wash	Flood	Both	$6 million	High	Consultants, City Engineer, Maricopa County Flood Control	July 2013	City Engineer Maricopa County Flood Control	General Fund, Impact Fees Grants
9b	Recharge of groundwater with CAP water to ensure the community water supply in the event of a drought.	Drought	Both	$950,000	High	Coordinate water allocation with CAP	Annual	Water Superintendent	Enterprise Fund
3	Review annually and update existing building codes to manage new and existing assets from flooding.	Flood	New	$5,000	Medium	Review of code changes annually and on the ICC code revision cycle	On going	Building Official City Engineer City Planner Maricopa County Flood Control	General Fund
4	Participate in multi-agency coordination efforts to ensure cooperative plans.	Multi-Hazard	Both	Staff time	Medium	Local, County, State Emergency Planning Meetings	On going	Fire Chief	General Fund

Table 6-8-6: Summary of mitigation actions and projects and implementation strategy for El Mirage

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)**
7	*Train First Responders and other select city staff in hazard materials mitigation.*	*HAZMAT*	*Existing*	*Staff time*	*Medium*	*Initial and Annual refresher training*	*On going*	*Fire Chief*	*General Fund*
8	Coordinate efforts with other local agencies to I.D. problem areas and plans for mitigation.	Multi hazard	Both	Staff time	Medium	Local, County, State Emergency Planning Meetings	On going	Fire Chief	General Fund
9c	Interconnect water system with other water purveyors to ensure the community water supply in the event of a drought.	Drought	Both	$2,400	Med	Coordinate with other water purveyors	July 2013	Water Superintendent	Enterprise fund
9a	Develop a conservation education program to ensure the community water supply in the event of a drought.	Drought	Both	$2,000	Low	Design and produce printed materials in English & Spanish	Annual	Water Regulator Coordinator	Enterprise Fund
10	*Educate the public on actions to take and resources available to address community needs following a severe wind event.*	*Severe Wind*	*Existing*	*$2,000*	*Low*	*Design and produce printed materials in English & Spanish*	*Annual*	*Fire Chief*	*General Fund, Grants*
11	Educate the public on actions and resources to protect residents that do not have adequate ways to cool their homes in the event of an Extreme Heat Event	Excessive Heat	Existing	$2,000	Low	Design and produce printed materials in English & Spanish	Annual	Fire Chief	General Fund, Grants

Table 6-8-7: Summary of mitigation actions and projects and implementation strategy for Fort McDowell Yavapai Nation

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	Prohibit building in flood plain and river area to maintain channel and protect riparian area .	Flood damage to structures, business and wildlife habitat.	Both	Staff time for plan review. $15,000 annually	High	Staff training and cooperation with Army Corp of Engineers and County Flood Control District.	Annual / recurring	Community and Economic Development Division / Planning manager.	Tribal General Revenue Funds
9	Facilitate abatement, prevention and investigation of public health nuisance conditions, illegal dumping activities and the storage and handling of potentially infections material and locations.	Groundwater contamination / spread if infectious diseases.	Both	$750,000	High	Waste transfer station is under development.	2010	Community and Economic Development Division / Public Works Manager	Tribal General Revenue and Bond Funds
4	Pro-actively pursue pre-disaster and hazard mitigation grants to supplement tribal expenses associated with mitigation activities.	All hazards mitigated with grant funds obtained.	Both	Determined by required matching funds. $10,000 annually	Medium	Contract and Grants Administrator oversight.	Annual / Recurring	All Department Directors.	Matching funds from tribal general revenue funds.
5	Publish suggested mitigation actions through print media and community website to reduce potential for wildfire and heat related medical emergencies .	Wildfire and threat to population from drought/extreme heat.	Both	Staff time. $2,000 Annually	Medium	Timely information distributed through newspaper and local website.	Annual / Recurring	Fire Department / Emergency Manager	Tribal General Revenue Funds
6	Continue restoration projects along river and limit development along river to protect wetlands, threatened species habitat and protect business from flooding.	Flooding of gravel and concrete business. Natural resource/wetlands habitat destruction.	Existing	Staff time and enterprise equipment and labor. $50,000 Annually	Medium	Projects are a cooperative effort of tribal environmental department, U.S.EPA, and others.	Annual / Recurring	Environmental Department / Environmental manager	Tribal General Revenue Funds
7	Create access, and map the access to high-risk areas. Provide weed abatement services in high risk areas to reduce risk of wildland fire.	Large area wildland fire damage to environment.	Existing	Staff time and $30,000 annually	Medium	Cooperative effort by MCDOT, Tribal Public Works Department, and Fire Department.	Annual / Recurring	MCDOT and FMYN Public Works Department / Public Works Manager	MCDOT and Tribal General Revenue Funds

Table 6-8-7: Summary of mitigation actions and projects and implementation strategy for Fort McDowell Yavapai Nation

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)**
10	Coordinate training, planning, and communications to provide the community with information to combat the affects of infestations and diseases.	Spread of infectious disease and pandemic.	Both	Staff time for medical clinic personnel and newspaper staff. $12,000 annually	Medium	Articles written by medical staff, distributed by newspaper and local internet site.	Annual / Recurring	Health Center/ Medical Director	Tribal General Revenue / Indian Health Service
11	*Train first responders to Operational level. Develop emergency plans for facilities handling hazmat. Provide emergency response guidebooks to fire and law enforcement personnel. Follow MCDOT/ADOT guidelines.*	*Spread of hazardous materials into groundwater. Control of airborne hazardous vapors to populated areas.*	*Both*	*Staff time for plan development and first responder training. $15,000 annually*	*Medium*	*All firefighters will maintain operations level response training. ERG's have been distributed. MCDOT/ADOT policies are tribal guidelines.*	*Annual / Recurring*	*Fire Department / Fire Chief*	*Tribal General Revenue Funds*
12	*Encourage Ft. McDowell Public Health to develop and exercise their capabilities to respond to and support a chemical, biological or radiological event.*	*Contamination of emergency medical personnel, vehicles, and facilities.*	*Both*	*$10,000*	*Medium*	*Contamination / isolation room is currently being built at the tribal clinic.*	*2010*	*Health Center/ Medical Director*	*Indian Health Service*
13	Lead Community Departments will be responsible for creating plans to protect existing assets within their area of responsibility.	All that apply to each department	Both	$12,000 annually	Medium	Plan development and protection programs are ongoing within each department	Annual / Recurring	Tribal departments/ Department Directors through the Emergency Manager.	Tribal General Revenue Funds and Grants
2	Review existing building codes, modify or adopt codes to prevent development in hazard areas.	Structure damage from severe winds and flooding.	New	Staff time. $5,000 annually	Low	Staff training	Annual / Recurring	Community and Economic Development Division / Planning Project Manager	Tribal General Revenue Funds

Table 6-8-7: Summary of mitigation actions and projects and implementation strategy for Fort McDowell Yavapai Nation

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)
3	Identify and mitigate hazards associated with new and existing developments through plan reviews to ensure plan/code compliance.	Structure damage from flooding, wildfire and severe winds.	Both	Staff time $20,000 annually	Low	Plan reviews by staff and on-site inspections.	Annual / Recurring	Community and Economic Development Division / License and Property Use Manager	Tribal General Revenue Funds
8	Ensure building codes are enforced to prevent damage from high winds.	Damage to homes and tribal businesses.	Both	Staff time 40,000 annually	Low	Building plan reviews and on-site inspections by staff.	Annual / Recurring	Community and Economic Development Division / Chief Building Inspector	Tribal General Revenue Funds

Table 6-8-8: Summary of mitigation actions and projects and implementation strategy for Fountain Hills

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training, Floodplain Regulations	Annual-Ongoing	Public Works Dept/ Town Engineer - Floodplain Administrator	Town Budget, Permit Fees
2	Maintain washes in Town by removing excessive brush and trim trees to reduce the threat of wildfire	Wildfire	Both	$120,000/ yr	High	Staff Review	Annual-ongoing	Open space and landscape Specialist	Town Budget
6	Ashbrook Wash Improvements to include larger culverts, grading, vegetation reduction	Flood	Existing	$1.5 M	High	Staff, Flood Control Dist Grant application	2014	Public Works Director, Town Engineer	Flood Control Dist. Grant
3	Enforce Building Codes to prevent roof damage from high winds.	Severe Winds	Both	Staff Time	Medium	Staff Training Building Codes	Annual-ongoing	Town Building Official	Permit Fees
4	Review General Plan and Ordinances for mitigating hazards.	Flood, Severe Wind, Drought, Extreme Heat	Both	Staff Time	Medium	Staff review and training	Annual-ongoing	EM Director, Public Works Director	Town Budget
5	Channel and Storm Drain Development	Flood	Both	Staff Time	Medium	Staff review	Annual-ongoing	Public Works Director, Town Engineer	Town Budget

Table 6-8-9: Summary of mitigation actions and projects and implementation strategy for Gila Bend

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training, Floodplain Regulations	Annual-Ongoing	FCDMC / Floodplain Mgmt and Services Division /Floodplain Administrator	General Fund Permit Fees
2	Pursue a mutual aid compact with county and state agencies to assist the Town with hazard mitigation.	Flood, Severe Winds, Wildfire	Both	Staff Time	Medium	None	Annual-Ongoing	Town Administration / Town Manager	N/A
3	Develop a public awareness campaign to educate Town residents about natural hazards impacting the community	Flood, Severe Winds, Wildfire	Both	$1,000	Medium	None	FY 2011	Town Emergency Manager	General Fund
4	Develop and construct measures to mitigate flooding along Sand Tank and Scott Avenue Washes	Flood	Both	$5 million	High	Town CIP and FCDMC CIP	FY 2014	Public Works / Director FCDMC	FCDMC Funds Grant Funds

Table 6-8-10: Summary of mitigation actions and projects and implementation strategy for Gilbert

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training Floodplain Regulations	Annual-Ongoing	Floodplain Administrator	General Fund Permit Fees
2	Proactive adoption of applicable master plans, land uses and developmental agreements.	Flood	New	Staff Time	High	Coordination with County Flood Control & Chapter 34 of Town Code	Ongoing	Associate Engineer/Permit & Plans Review Manager	General Fund
5	Implement the appropriate stage of the water supply reduction Management Plan as adopted (May 2003) to reduce water use.	Heat	Both	Staff Time	High	Coordination with Salt River Project, the Arizona Project, & AZ Department of Water Resources.	Ongoing	Water Resource Coordinator & Town Manager	General Fund
6.	Gilbert will continue to participate in the Community Rating System (CRS) program and get credit for the various activities that assist property owners in receiving reduced insurance premiums.	Flood	Both	Staff Time	High	Coordination with Flood Control District of Maricopa County	Ongoing	Floodplain Administrator	General Fund
8.	Work closely with FCDMC – Dam Safety to stay abreast of current mitigation efforts and timelines at Powerline FRS (a category 1 rating).	Flood	Both	Staff Time	High	Coordination with Flood Control District -Dam Safety	Ongoing	Floodplain Administrator/ Emergency Management Coordinator	General Fund
3	Provide pertinent weather and hazard mitigation information to the public by providing local weather service and Maricopa County Hazard Mitigation links from Town of Gilbert Home page.	Heat/Flood/ Wind	Both	Staff Time	Medium	Work with webmaster identify links	December 2010	Emergency Management Coordinator	General Fund
4	Establish an East Valley group of stakeholders to address improvements in mitigation areas specific to the needs of the East Valley Community.	Heat/Flood/ Wind	Both	Staff Time	Medium	Work with East Valley Emergency Managers	Ongoing	Emergency Management Coordinator	General Fund
7.	Promote the use of weather radios, especially in schools, hospitals and other locations where people congregate to inform them of the approach of severe weather.	Heat/Flood/ Wind	Both	Staff Time	Medium	Website, media newsletter, and outreach	Ongoing	Emergency Management Coordinator	General Fund

Table 6-8-11: Summary of 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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training Floodplain Regulations Building Code Regulations	Annual-Ongoing	Building Safety/Engineering	General Fund, Permit Fees
2	Storm Drain Project-Northern Ave. 47th Ave-63rd Ave. Co-locating water main	Flood	Existing	15 million 3.5 million	High	Construction Projects already in progress	12/2010	Engineering/Utilities Utilities	CIP/MC Flood Control District CIP
3	Storm Drain Project-67th Ave, Frier Drive to Orangewood Ave. This project addresses localized flooding hazards.	Flood	Existing	$350,000 for construction and $30,000 to $35,000 for Construction Administration.	High	Waiting for approval		Engineering	mitigation grant application has been submitted
4	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	Facilities Staff	On-going	Emergency Management	Donations

Table 6-8-12: Summary of mitigation actions and projects and implementation strategy for Goodyear

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training Floodplain Regulations	Annual-Ongoing	City Engineer, Community Development Director	General Fund Fees
3	Secure and protect the city water supply from outside, outsource contamination: a) Install supervisory control valves and data acquisition system. b) Install valve locks. c) Site specific physical infrastructure security measures.	Contamination of city water supply	Both	$415,000	High	Staff Training Project design coordination	Q4, 2009	Fire Chief/Emergency Manager, Public Works Director	General Fund CIP
2	Promote and share mitigation programs with state, county, local jurisdictions, and private, civic, and non-profit organizations.	Multi-Hazards	Both	Staff time	Medium	Inter-agency coordination Staff Training	Annual-Ongoing	Fire Chief/Emergency Manager	General Fund Grants
4	Determine the feasibility of hydration station and refuge in the city.	Extreme Heat	Both	Staff time/ Volunteers	Medium	Staff training Project manager Inter agency coord.	Q4, 2010	Fire Chief/Emergency Manager	General Grants

Table 6-8-13: Summary of mitigation actions and projects and implementation strategy for Guadalupe

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training Floodplain Regulations	Annual-Ongoing	FCDMC / Floodplain Mgmt and Services Division /Town Manager/Town Inspector	General Fund Permit Fees
2	Implement the education and mitigation actions as outlined in the Town's Stormwater Management Plan.	Flood	Both	Staff time	Medium	Staff Training Stormwater General plan	Annual-Ongoing	Town Manager	General Fund
3	Establish periodic monitoring and review of the Town of Guadalupe's general plan and zoning ordinance to determine effectiveness at preventing and mitigating hazards. Based on the results, amend as necessary.	Multi-Hazard	Both	Staff time	Medium	Review G.P./Zoning with Town Manager and Town Inspector bi-yearly	Annual - Ongoing	Town Inspector	General Fund Permit Fees

Table 6-8-14: Summary of mitigation actions and projects and implementation strategy for Litchfield Park

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training, Floodplain Regulations	Annual-Ongoing	Planning Dept. /Floodplain Administrator	General Fund, Permit Fees
2	Review plan for final phase of City Flood control project in preparation to go out for bids.	Flood	Both	To be determined	High	Staff review, Engineering review, Bid process	Within five years	Planning and Engineering Dept/ Chief Engineer	Grant, General Fund
3	Review hazard Mitigation Plan for areas that can be updated in accordance with current warning measures that are now available through the national Weather Bureau and the Maricopa County Emergency Services.	Extreme Heat	NA	Staff time	High	Staff Training	Annual-Ongoing	Community Services/Emergency Management Coordinator	General Fund

Table 6-8-14: Summary of mitigation actions and projects and implementation strategy for Litchfield Park

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)
5	Encourage City staff to become members of regional organizations to share in regional efforts and solutions to local and regional problems.	General Hazard Mitigation	Both	Staff Time	High	Staff Training	Annual - Ongoing	Community Services/ Emergency Management Coordinator	General Fund
6	Develop a policy to replace the use of hazardous materials with other products as soon as a safe, reliable source is available and proven to be as effective.	HAZMAT	Both	Staff Time	High	Staff Training	Ongoing	Public Works/ Operations Coordinator	General Fund
4	Review building permits for compliance with International Building Code for structure compliance to endure severe winds and electrical strikes.	Severe Winds, Lightning Strike	Both	Staff Time	Medium	Staff Training, Building regulations	Annual- Ongoing	Planning Dept/Building Code Enforcement Officer	General Plan

Table 6-8-15: Summary of mitigation actions and projects and implementation strategy for Unincorporated Maricopa County

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	Inspect and monitor all structures (bridges and box culverts) under their control on a semi-annual basis.	Flood	Both	$150,000	High	Transportation Plan	On-going	MCDOT / Engineers	HURF
5	Encourage bridge or culvert construction where roads are in locations susceptible to flooding.	Flood	New	$7 million	High	Transportation Plan	On-going	MCDOT / Senior Planner	HURF

Table 6-8-15: Summary of mitigation actions and projects and implementation strategy for Unincorporated Maricopa County

6	Review building permits to ensure that unincorporated Maricopa County residents and the 12 communities for which the District performs floodplain management duties are safe from flooding by meeting the NFIP requirements for development within a Special Flood Hazard Area through enforcement of Floodplain Regulations.	Flood	Both	Staff Time	High	Floodplain Regulations	On-going	FCDMC / Floodplain Administrator	Flood Control Secondary Property Tax
7	Develop a Community Wildfire Protection Plan to identify actions that will reduce the risk of wildfires to communities within wildland-urban interface zones.	Wildfire	Both	$150,000	High	Community Wildfire Protection Plan	November 2010	Emergency Management / Director	State Forestry Grant
8	Complete and start Area Drainage Master Studies/Plans to identify flooding hazards and mitigation solutions.	Flood	Both	Project-Dependent	High	Comprehensive Plan	On-Going	FCDMC / Chief Engineer & GM	Flood Control Secondary Property Tax
9	Complete and start delineations/re-delineations to identify flooding hazards.	Flood	Both	Project-Dependent	High	Comprehensive Plan	On-Going	FCDMC / Chief Engineer & GM	Flood Control Secondary Property Tax
10	Operate and maintain flood control structures operated and maintained by FCDMC in order to prevent structural failure and to maintain their primary function.	Flood / Dam and Levee Failure	Both	Project-Dependent	High	Comprehensive Plan	On-Going	FCDMC / Chief Engineer & GM	Flood Control Secondary Property Tax
12	Update the Flood Control District of Maricopa County 2009 Comprehensive Floodplain Management Plan and Program to set the framework in mitigating flood hazards.	Flood	Both	Staff Time	High	Comprehensive Plan	FY 2013	FCDMC / Chief Engineer & GM	Flood Control Secondary Property Tax
13	Cloud Rd. & Sossaman Rd. Basin and Outlet. Construct a flood control basin and outlet to mitigate flooding hazard to existing homes.	Flood	Existing	$4,000,000 (concept-level est.)	High	5-yr CIP	Funding-dependent (Target: 2012)	FCDMC / CE&GM in partnership with the Town of Queen Creek	Flood Control Secondary Property Tax
14	Sonoqui Wash Channelization (Main Branch). Channelize an existing wash to contain flood flows, protecting existing homes.	Flood	Existing	$4,000,000 (concept-level est.)	High	5-yr CIP	Funding-dependent (Target: 2012)	FCDMC / Chief Engineer & GM	Flood Control Secondary Property Tax
15	Oak Street Basin and Storm Drain. Construct a basin and storm drain to mitigate flooding hazards to existing and future homes.	Flood	Both	$4,000,000 (concept-level est.)	High	5-yr CIP	Funding-dependent (Target: 2012)	FCDMC / CE&GM in partnership with the City of Mesa	Flood Control Secondary Property Tax

Table 6-8-15: Summary of mitigation actions and projects and implementation strategy for Unincorporated Maricopa County

16	Ellsworth Rd. & McKellips Rd. Basin and Storm Drain. Construct a basin and storm drain to mitigate flooding hazards to existing and future homes.	Flood	Both	$4,000,000 (concept-level est.)	High	5-yr CIP	Funding-dependent (Target: 2013)	FCDMC / CE&GM in partnership with the City of Mesa	Flood Control Secondary Property Tax
17	Arcadia Area Drainage Improvements (Phase I). Construct flood control infrastructure to mitigate flooding hazards to existing homes.	Flood	Existing	$4,000,000 (concept-level est.)	High	5-yr CIP	Funding-dependent (Target: 2014)	FCDMC / CE&GM in partnership with the City of Phoenix	Flood Control Secondary Property Tax
19	Flood Control Capital Improvement Program. Construct facilities to mitigate flooding hazards to residents of Maricopa County.	Flood	Both	$60M / yr.	High	5-yr CIP	Ongoing	FCDMC / Chief Engineer & GM	Flood Control Secondary Property Tax
20	Design and construct new bridge and scour protection at Gilbert Road over the Salt River.	Flood	Existing	$15M	High	5-yr CIP	June 2012	MCDOT / Engineer	HURF
21	Design and construct scour protection for existing bridge over the Gila River on Old U.S. Highway 80.	Flood	Existing	$1M	High	5-yr CIP	Jan 2011	MCDOT / Engineer	HURF
1	Floodprone Properties Assistance Program. Acquire property and relocate residents from flood hazard areas, or protect homes from flooding hazards through floodproofing.	Flood	Both	Project dependent	Medium	Floodprone Properties Assistance Program	On-going	FCDMC / Chief Engineer & GM	Flood Control Secondary Property Tax
2	Continue working with County Planning and Development on a cooperative effort to notify developers of Area Drainage Master Plans (ADMP's) and floodplain regulations early on in the development process.	Flood	New	Staff Time	Medium	Area Drainage Master Plan	On-going	FCDMC / Chief Engineer & GM	Flood Control Secondary Property Tax
3	Review existing building codes to determine if they adequately protect new development in hazard areas. Where feasible and necessary, modify codes to help mitigate hazards imposed on such development within the limits of state statutes, while also respecting private property rights.	Flood Severe Wind	New	Staff time	Medium	Building Codes	On-going	Planning and Development, Development Services / Senior Planner	Permit Fees
11	Continue public education program to assist residents in recognizing potential flooding and erosion hazards and inform them on how to reduce risk to life and property.	Flood	Both	Staff Time	Medium	Comprehensive Plan	On-Going	FCDMC / Chief Engineer & GM	Flood Control Secondary Property Tax

Table 6-8-15: Summary of mitigation actions and projects and implementation strategy for Unincorporated Maricopa County

18	Gila River Bank Stabilization (Citrus Rd. to Perryville Rd.). Construct bank protection along the north bank of the Gila River to contain flooding hazards and limit river migration to protect existing infrastructure and homes.	Flood	Both	$4,000,000 (concept-level est.)	Medium	5-yr CIP	Funding-dependent (Target: 2013)	FCDMC / Chief Engineer & GM	Flood Control Secondary Property Tax
22	Work with federal and state agencies, and local coalitions to elevate awareness of fissure risk zones and the problems fissures may cause.	Fissure	Both	Staff Time	Medium	None	Ongoing	Planning and Development Services / Senior Planner	General Fund

Table 6-8-16: Summary of 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	Broadway Rd Storm Drain Project, 76th to 84th St (partnering with MCFCD)	Flood	Both	$3.5 million	High	Strom Drain Master Plan	Aug 2012	City Engineering/ Floodplain Administrator	Bonds
2	Completion of the City of Mesa Storm Drain Master Planning document	Flood	Both	$600,000	High	Storm Drain Master Plan	June 2009	City Engineering	Bonds
3	Construct two potable water wells to supplement the City water supply	Drought	Both	$20 million	High	Water Distribution Master Plan	July 2014	City Engineering	Bonds
4	Maintain continuous water supply by continuing to install water distribution systems throughout the City of Mesa	Drought	Both	$10 million annually	High	Water Distribution System Master Plan	Ongoing	City of Mesa Water Resources Division, Engineering	Bond funds Impact Fees
5	CAP, reservoir, pump and future treatment plant at Elliot and Ellsworth	Drought	Both	$100 million	High	Water Distribution System Master Plan	July 2014	Engineering	Bonds
6	Identify and construct the first phase recommended by the Va Shly'Ay Akimel Salt River Ecosystem Restoration Project in partnership with SRPMIC and Army Corp of Engineers	Flood (Erosion)	Both	Unknown	High	City of Mesa Master Plan	July 2014, 1st construction phase	Engineering	Bonds, grants

Table 6-8-16: Summary of 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)
7	Replace power poles between Country Club and Extension along University with 69 KV steel and concrete poles (phase 2)	Severe Wind	Both	$4.0 million	High	City of Mesa Electric Master Plan	July 2010	Engineering	Bonds
8	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	City of Mesa Master Plan,	Annual-Ongoing	Engineering Dept / Floodplain Administrator	General Fund, Permit Fees

Table 6-8-17: Summary of mitigation actions and projects and implementation strategy for Paradise Valley

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	Review building permit applications for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training Floodplain Regulations	Annual-Ongoing	Engineering Department	General Fund, Permit Fees
4	Continue the under grounding project for existing utilities on major roads thereby eliminating utility poles.	Severe Wind	Both	$3,800,000	High	Capital Improvement Program	2014	Engineering Department	Capital Improvement Fund
2	Adopt the 2009 International Codes (Building, Residential, Mechanical, Plumbing & Electrical) for use by the Town.	Severe Wind Subsidence	New	Staff time & $2,000 for books	Medium	Staff & Contractor Training	July 1, 2010	Building Safety Division	General Fund, Permit Fees
3	Conduct regular inspections of washes to ensure that they are maintained in a debris free condition.	Flood	Both	Staff time	Medium	Not Applicable	Annual-Ongoing	Building Safety & Public Works Departments	General Fund
5	Conduct regular inspections of washes and take corrective action by enforcing existing ordinances to prevent a corridor for wildfires.	Wildfire	Both	Staff time	Medium	Not Applicable	Annual-Ongoing	Building Safety & Public Works Departments	General Fund
6	*Update the current Emergency Operations Plan.*	*Drought Extreme Heat Flood Severe Wind Subsidence Wildfire*	*Both*	*Staff time*	*Medium*	*Not Applicable*	*Ongoing*	*Building Safety Division, Emergency Management Unit*	*General Fund*
8	Maintain effective communications with state, county and local government agencies by the various Town departments within their respective responsibility.	Drought Extreme Heat Flood Severe Wind Subsidence Wildfire	Both	Staff time	Medium	Not Applicable	Ongoing	All Departments	General Fund
7	Educate and inform residents, businesses and visitors by conducting a media campaign, via local newspaper to publicize ways to mitigate disasters including steps that they can protect themselves.	Drought Extreme Heat Flood Severe Wind Subsidence Wildfire	Both	Staff time	Low	Not Applicable	Annual-Ongoing	Building Safety Department	General Fund

Table 6-8-18: Summary of mitigation actions and projects and implementation strategy for Peoria

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training Floodplain Regulations	Annual-Ongoing	Planning and zoning Administrator	General Fund Permit Fees
2	Work with the Maricopa County Flood Control District to determine potential effects of a flash flood or flood affecting the city. Also provide sandbags and sand as required.	Dam Failure	Both	Staff time	High	Staff training	Ongoing	Emergency Manager	General funds
3	Assist with the revision of a water conservation plan for mitigating the impact of a drought on the public water supply.	Drought	Both	Staff time	High	Staff training	Ongoing	Emergency Manager	General funds
4	Work with the Maricopa County Flood Control District to determine potential effects of a flash flood or flood affecting the city. Also provide sandbags and sand as required.	Flooding	Both	Staff time	High	Staff training	Ongoing	EM, GIS, Public Works, Fire & Police Department	General funds
5	Work with the Maricopa County Flood Control District to determine potential effects of a levee failure.	Levee Failure	Both	Staff time	High	Staff training	Ongoing	EM, GIS, Public Works, Fire & Police Department	General funds
6	Encourage a fire buffer along wild land-urban interface areas.	Wildfire	New	Staff time	High	Staff training	Annual	EM, GIS, Public Works, Fire & Police Department	General funds
7	Include all identified hazardous conditions in GIS mapping to include floodways, high wind areas, subsidence areas, hazardous materials, etc.	All	Both	Staff time	High	Staff training	Ongoing	GIS	General funds
8	*Train key city staff on appropriate actions based on the Emergency Operations Plan.*	*All*	*New*	*Staff time*	*High*	*Staff training*	*Ongoing*	*Emergency Management*	*General funds*
9	*Participate in regional training opportunities as well as Emergency Operations Command exercises within City to prepare for emergencies.*	*All*	*Both*	*Staff time*	*High*	*Staff training*	*Ongoing*	*Emergency Management*	*General funds*

Table 6-8-18: Summary of mitigation actions and projects and implementation strategy for Peoria

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)**
10	*All Fire Department personnel should be trained at Operations level, currently command staff are trained at Operations – rest of personnel are trained at awareness level. Plan to provide additional levels of training by 2005*	*All*	*Existing*	*Staff time*	*High*	*Staff training*	*On going*	*Fire Chief*	*General funds*
11	*Police Department personnel should be trained at Operations level, currently command staff are trained at Operations – rest of personnel are trained at awareness level. Plan to provide additional levels of training by 2005*	*All*	*Existing*	*Staff time*	*High*	*Staff training*	*On going*	*Police Chief*	*General funds*
12	Control development in flood areas	Flood	Existing	Staff time	High	Staff training	On going	Planning and zoning	General funds
13	Encourage flood-proof measures through building design	Flood	Existing	Staff time	High	Staff training	On going	Community Development	General funds
14	Maintain Public Service Announcements (PSAs) broadcast on Channel 11. Fliers produced and distributed to residents.	All	Existing	Staff time	High	Staff training	On going	Communications and Public Affairs	General funds
15	Research identified data limitations effecting the relative vulnerability of assets from drought	Drought	Existing	Staff time	High	Staff training	On going	Emergency Management	General funds

Table 6-8-19: Summary of mitigation actions and projects and implementation strategy for Phoenix

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations	Flood	Both	Staff time	High	Staff training; Floodplain Regulations; NFIP regulations	Annual - ongoing	Street Transportation / Floodplain Manager	General Fund
2	Continue to include in the General Plan policies that protect the natural flow regimes of washes and designate areas for Open Space and Preserves	Flood; Dam Failure	Both	Staff time	High	Land acquisition and natural resource protection	Annual - ongoing	Parks and Recreation / PPPI Administrator	Phoenix Parks Preserves Initiative; General Fund; Bonds
3	Storm Drain CIP Program. Construct drainage facilities to mitigate flooding hazard to residents of the City.	Flood	Both	Variable	High	5 Year CIP	Ongoing	Street Transportation Department/ Deputy Street Transportation Director	2006 Bond Program; future grant funds
4	Coordinate data sharing and development communication within City departments through documentation in GIS	Flood; Extreme Heat	New	Staff time	High	GIS	Annual - ongoing	Planning Department / Planning Researcher	General Fund
5	Summer Respite Program to network with faith-based organizations to provide heat relief with hydration, respite efforts, and wellness checks for the affected population as needed	Excessive Heat	N/A - people	Donations totaling $70,000 annually	High	Heat Relief Network meetings (occur prior to the summer months)	Annual - ongoing	Human Services / Deputy Human Services Director	Corporate, community, and faith-based contributions
6	Revise 2002 Drought Response Plan and Ordinance	Drought*	Both	Staff time	High	Drought Response Plan and Ordinance	March 2010	Water Services / Principal Water Resources Planner	Water Fund
7	Develop and execute a water use curtailment outreach program	Drought*	Both	Staff time	High	Water Services staff	Dec 2012	Water Services / Principal Water Resources Planner	Water Fund
8	Revise and ratify the General Plan every ten years	Flood	Both	Staff time	Medium	State statute; Smart Growth requirement	2010	Planning / Planning Manager	General Fund

Table 6-8-19: Summary of mitigation actions and projects and implementation strategy for Phoenix

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	Update and adopt a revised building code	Flood; Severe Wind; Excessive Heat	Both	Staff time; Materials	Medium	Staff training; Community outreach; Plan review	Annual - ongoing	Development Services / Assistant Director	Permit fees
10	Continue to insure zoning stipulations are met before construction permits are issued, and zoning is compatible with the zoning ordinance	Flood; Excessive Heat	Both	Staff time	Medium	Zoning Ordinance; Staff training; Plan review	Annual – ongoing	Development Services / Deputy Director	Permit fees

*Drought conditions will not always necessitate customer water use curtailment as ample stored water may be available. Curtailment actions would only be implemented due to actual or impending water shortages.

Table 6-8-20: Summary of mitigation actions and projects and implementation strategy for Queen Creek

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training Floodplain Regulations	Annual-Ongoing	Town/ Community Development Dept/Floodplain Administrator	General Fund Permit Fees
2	Sonoqui Wash East Branch Floodplain Delineation Study – Determine the extent of the floodplain and submit to FEMA for review.	Flood	Both	Staff time	High	Sonoqui Wash Floodplain Delineation Study	2011	FCDMC/ Floodplain Mgmt and Services Division/ Floodplain Administrator	N/A
6	Construct Box Culvert at Sonoqui Wash East Branch: Ellsworth and Riggs Roads	Flood	Both	$750,000	High	CIP	Fall 2010	Town/Public Works CIP Division/CIP Project Manager	MCDOT IGA RRSCM Fund General Fund Developer Contributions

Table 6-8-20: Summary of mitigation actions and projects and implementation strategy for Queen Creek

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)
7	Construct Box Culvert at Sonoqui Wash: Ellsworth and Empire Roads	Flood	Both	$3,500,000	High	CIP	Fall 2010	Town/Public Works CIP Division/CIP Project Manager	MCDOT IGA RRSCM Fund General Fund Developer Contributions
8	Sonoqui Wash Channelization Project: Phase IIA Chandler Heights Road to Ellsworth Road	Flood	Both	$17.7 mil.	High	CIP	Fall 2010	FCDMC	FCDMC IGA
9	Sonoqui Wash Channelization Project: Phase III Riggs Road to Empire Road	Flood	Both	$15 mil.	High	FCDMC CIP	2012	FCDMC	FCDMC
11	New Riggs Road Bridge over Sonoqui Wash	Flood	Both	$4,000,000	High	MCDOT CIP	Mid-2011	MCDOT	MCDOT
3	Review Queen Creek Wash Drainage Master Plan from Ellsworth Road to Rittenhouse Road	Flood	Both	Staff time	Medium	Queen Creek Wash Drainage Master Plan	2013	Town/ Community Development Dept./Floodplain Administrator	General Fund
5	Design and construction of the Cloud Road & Sossaman Road Drainage Basin	Flood	Both	$6,500,000	Medium	CIP	Design: Fall 2010 Construction: TBD	Town/Public Works CIP Division/CIP Manager	General Fund FCDMC IGA
12	New Ocotillo Road Bridge over Queen Creek Wash between Power and Recker Roads	Flood	Both	$2,500,000	Medium	CIP	2012	Town/Public Works CIP Division/CIP Project Manager	General Fund LTAF Gilbert IGA
13	Conduct small area drainage master plan for the San Tan Foothills Area	Flood	Both	$75,000	Medium	CIP	2013	Town/ Community Development Dept/Floodplain Administrator	General Fund Grant
14	Install water level sensors at dip crossings of the Sonoqui Wash at Sossaman and Power Roads	Flood	Both	$100,000	Medium	CIP	2013	Town/Public Works CIP Division/CIP Project Manager	General Fund Grant

Table 6-8-20: Summary of mitigation actions and projects and implementation strategy for Queen Creek

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)
15	Underground 12Kv lines on all four legs of the Ocotillo and Hawes Roads intersection	Severe Wind	Existing	$400,000	Medium	N/A	2013	Town/Public Works CIP Division/CIP Project Manager	SRP Aesthetic Funds
4	Extend the Sonoqui Wash Hydraulic Master Plan into Pinal County to the headwaters of the drainage basin.	Flood	Both	Staff time	Low	Sonoqui Wash Hydraulic Master Plan for Maricopa County	2014	Pinal County/ Floodplain Administrator	General Fund
10	Sonoqui Wash Channelization Project: Phase IIB Ellsworth Road to Crismon Road	Flood	Both	$14.5 mil	Low	CIP	2014	Town/Public Works CIP Division/CIP Project Manager	General Fund
16	Construct fire breaks around the north face of the San Tan Mountains to prevent entry into the Box Canyon Area	Wildfire	Both	$700,000	Low	CIP	2014	Town/Fire Dept/Public Safety Manager	Emergency Services Fund

Table 6-8-21: Summary of mitigation actions and projects and implementation strategy for Salt River Pima-Maricopa Indian Community

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)**
3	Fire Department to develop a hazardous materials survey to identify hazardous chemicals being stored in the flood zones. This would allow us to ensure that they are properly stored and secured for floods that may impact the facility where they are stored.	Flood	New	N/A	High	Tribal Emergency Response Commission	April 2010	Fire Department	N/A
1	*Community Relations in coordination with Emergency Management to conduct public outreach/education on all hazards emergency preparedness for Community members. Community members that are educated on what to do in a disaster will reduce the loss of life and property in a disaster.*	*All natural hazards*	*Existing*	*$10,000*	*Medium*	*Tribal Emergency Response Commission*	*Ongoing*	*Emergency Management*	*Grants, SRPMIC operating budget*
2	Conduct study to determine how to environmental and efficiently reduce the fire load in the river/preserve area to minimize the impact of a wildfire in this area. Current area is overgrown and has high potential for fire that would expand to populated areas.	Wildland fire	New	$100,000	Medium	Fire Department strategic plan, Tribal Emergency Response Commission	January 2012	Fire Department	BIA Forestry, grants

Table 6-8-22: Summary of mitigation actions and projects and implementation strategy for Salt River Project

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	Continue electric system design as a looped system with multiple ties which is done to allow flexibility to re-arrange circuits prior to summer to balance loads commonly seen during extreme heat conditions.	Extreme Heat	Both	Staff Time (O&M)	High	- Annual Distribution Planning and Operations Studies - 2009 Electric System Plan (FY 2009/2010 – 2014/2015)	Ongoing	- System Operations - Engineering & Construction Svcs - Electric System Operations & Maint	Annual Operating Budget
3	Cable replacement program, feeder getaway upgrades, pad-mounted transformer replacement program, #2 and 4/0 loop splits; to mitigate outages during peak load times during extreme heat conditions.	Extreme Heat	Both	Staff Time (O&M)	High	2009 Electric System Plan (FY 2009/2010 – 2014/2015)	Ongoing	- System Operations - Engineering & Construction Svcs - Electric System Operations & Maint	Annual Operating Budget
4	SRP continuously monitors weather, runoff and reservoir conditions on the Salt and Verde watersheds as they affect reservoir operations and maintains a high level of preparedness of its reservoir emergency operations staff. In addition, SRP is actively involved with the Multi-Agency Taskforce on Flood Warning and operates the Arizona Statewide Flood Warning System under contract with the ADWR. The purpose of the flood warning system is to reduce the loss of life and property and manage water resources efficiently by providing appropriate information via a high-speed data collection and dissemination network to local entities and Federal Agencies, and further enhance the system to complement our mission to save lives and protect property.	Flood	Both	Staff Time (O&M)	High	General Plan	Ongoing	- Water Information Technology Services (WITS) operates the Arizona Statewide Flood Warning System	Annual Operating Budget
5	SRP maintains a variety of mitigation programs on the Transmission and Distribution system to mitigate the effects and susceptibility to severe wind events such as; pole inspection program, pole replacement program, pole reinforcement program and stopper-pole program. (The SRP distribution system is 80% underground and, by design, thus mitigates a multitude of possible hazards).	Severe Wind	Both	Staff Time (O&M)	High	2009 Electric System Plan (FY 2009/2010 – 2014/2015)	Ongoing	- System Operations - Engineering & Construction Svcs - Electric System Operations & Maint	Annual Operating Budget

Table 6-8-22: Summary of mitigation actions and projects and implementation strategy for Salt River Project

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)
6	SRP Line Clearing maintains an ongoing preventative maintenance program that clears vegetation from transmission and distribution lines which are regularly patrolled and cleared of vegetation to prevent encroachment upon lines, thus mitigating a variety of hazards associated with vegetation interfering with electrical lines. This program also clears lower growing dense vegetation (smaller trees and brush) called "fuel clearing" to reduce fire/smoke in the event of a wildfire.	Wildfire	Both	Staff Time (O&M)	High	2009 Electric System Plan (FY 2009/2010 – 2014/2015)	Ongoing	- System Operations - Engineering & Construction Svcs - Electric System Operations & Maint	Annual Operating Budget
2	Maintain fleet of mobile substations to deploy in advance to cover and mitigate any anticipated capacity deficiencies, thus mitigating chances of escalating outages.	Extreme Heat	Both	Staff Time (O&M)	Medium	- Annual Distribution Planning and Operations Studies - 2009 Electric System Plan (FY 2009/2010 – 2014/2015)	Ongoing	- Transportation Services - Electric System Operations & Maint	Annual Operating Budget

Table 6-8-23: Summary of 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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training Floodplain Regulations	Annual-Ongoing	Public Works	General Fund Permit Fees
2	Maintain a Drought Management Plan in conjunction with SRP & APS to lessen the impact of drought.	Drought	Both	Staff Time	High	Training / Implementation	Ongoing	Public Workers & Water Resources	General Fund
3	UPPER CAMELBACK WASH WATERSHED Construct open channel and culverts to safely convey stormwater in the vicinity of 92nd St from Shea to Sweetwater Rds.	Flood	Both	6,442,200	High	Funding	06/30/2010	Public Works	Capital Improvement / General Fund
4	GRANITE REEF WATERSHED Construct a large storm drain down south Pima Road to the Salt River to collect stormwater and remove the flood zone from approximately 1000 structures.	Flood	Both	4,580,600	High	Funding	02/28/2011	Public Works	Capital Improvement / General Fund
5	PIMA ROAD DRAINAGE SYSTEM Collect neighborhood and roadway flows as part of north Pima Road roadway improvements and channelize it around existing development	Flood	Both	$4,962,925	High	Funding	06/30/2010	Public Works	Capital Improvement / General Fund
6	AUTOMATED FLOOD WARNING SYSTEM - NORTH AREA Collects real time rainfall and runoff data to notify emergency services and for road closures.	Flood	New	194,400	High	Funding	06/30/2011	Public Works	General Fund
7	Encourage Fire buffer zones along wild land urban interface areas to mitigate damages due to wildfire	Wildfires	Both	Staff Time	High	Training / Education	Ongoing	Fire Department	General Fund
8	*Perform Hazardous Material Response Team & Fire Code Inspection on Occupancies with Hazardous Materials to ensure safe storage and use of those HAZMATS*	*All Hazards*	*Both*	*Staff Time / Equipment*	*Medium*	*Training / Equipment*	*Ongoing*	*Fire Department*	*General Fund*

Table 6-8-23: Summary of 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)
9	Develop partnerships to locate and operate hydration stations during extreme heat events to reduce the risk to Scottsdale citizens	Extreme Heat	Both	Staff Time	Medium	Partnerships	Ongoing	Human Services	General Fund / Donations
10	*Continue expanding our ESS software system to track resources in the event of an incident/ event.*	*All Hazard*	*Both*	*Staff Time*	*Medium*	*Training*	*Annual - Ongoing*	*Fire Department*	*General Fund*
11	*Maintain and continue expanding our community emergency response team training.*	*All Hazard*	*Both*	*Staff Time*	*Medium*	*Training*	*Ongoing*	*Fire Department*	*General Fund*

Table 6-8-24: Summary of mitigation actions and projects and implementation strategy for Surprise

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	Reduce the impact of flooding in Section 10 (Martin Acres) area of City of Surprise. Construct a new conveyance channel from south of U.S. 60 to provide drainage away from Martin Acres.	Flood	Both	$4,571,000	High	Floodplain Regulations	Annual-Ongoing	FCDMC / Floodplain Mgmt and Services Division /City of Surprise Floodplain Administrator	G.O. Bonds Impact Fees
2	Reduce the risk of fires to communities within wildland-interface zones by participating in the development of a community wildfire protection plan.	Wildfire	Both	Staff Time	High	Community Wildfire Protection Plan Planning Process	November 2010	MCDEM, Surprise Fire Department	State Forestry Grant
4	Develop program and coordinate actions with FCDMC to access, mitigate, upgrade and redesign flood facilities.	Flood	Both	Staff Time	High	Studies & Regulations	Ongoing	FCDMC / Surprise Floodplain Administrator, Engineers	General Fund

Table 6-8-24: Summary of mitigation actions and projects and implementation strategy for Surprise

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)
5	Develop program that identifies bridge and culvert construction in flood susceptible areas	Flood	Both	Staff Time	High	Studies & Regulations	Ongoing	Surprise Floodplain Administrator, Engineers	General Fund
3	Seek availability of funding sources for pre-disaster mitigation and hazard mitigation	All	Both	Staff Time	Medium	Grant Policy	Ongoing	City grant writers	General Fund

Table 6-8-25: Summary of mitigation actions and projects and implementation strategy for Tempe

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	$10,000 Staff time/Annual Expense	High	Staff Training, Floodplain Regulations, Review of permits	Annual-Ongoing	Public Works/City Engineer	Permit Fees
4	Complete Tempe Royal Palms Sub-division 12 storm drainage system modifications	Flood	Existing	$500,000	High	Staff oversight and contractors for work.	July 1, 2010	Public Works/City Engineer	Capital Improvement Project Bond Funds

Table 6-8-25: Summary of mitigation actions and projects and implementation strategy for Tempe

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)
5	The City of Tempe Water Utilities Department has a comprehensive set of planning documents that outline future water systems operations, including specific drought contingency plans and water system operations during drought cycles. Planning documents include the 1997 Tempe Water Resources Plan (updated in 2002), the 1999 Tempe Integrated Water System Master Plan, and the 2002 Drought Management Strategy Plan. Tempe has implemented a number of measures from these plans to diversity the City's water resources and to lessen the impact of drought on our community. Tempe will continue to develop additional groundwater storage and recovery programs to significantly reduce potential drought impacts. These efforts include storing, CAP water and reclaimed water in aquifers for future recovery (over 85,000 acre-feet stored since the mid-1990s), and capital improvement projects to add new municipal wells and increase recovery well pumping capacity.	Drought	Both	$25,000 Staff Time/ Annual Expense	High	Staff Training and time to maintain/update plans	Annual-Ongoing	Water Utilities/Water Utilities Manager	Enterprise Fund
6	*Maintain Emergency Management Plan*	*All hazards*	*Both*	*$2,500 Staff Time*	*High*	*Annual Review of Plan to ensure compliance with NIMS and make any needed revisions*	*Annual-Ongoing*	*Fire Department/ Special Operations Deputy Chief*	*General Fund*
7	*Maintain Hazardous Materials Response Team and First Responder Training and conduct Fire Code Inspections on Occupancies with hazardous materials*	*Hazardous Materials*	*Both*	*$87,000 Staff Time/Equipment*	*High*	*Provide inspections and weekly training*	*Annual-Ongoing*	*Fire Department/ Special Operations Deputy Chief and Fire Marshal*	*General Fund*
9	Maintain levee protection with Maricopa County Flood Control District in Salt River	Flood	Both	$20,000 Staff Time	High	Develop and review projects on as needed basis	Annual-Ongoing	Public Works/City Engineer	General Fund

Table 6-8-25: Summary of mitigation actions and projects and implementation strategy for Tempe

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)**
10	Miscellaneous Flood Control and Storm Drainage Projects	Flood	Both	$300,000 Staff Time and Project Costs	High	Areas are continually evaluated and projects are developed to mitigate storm drainage problems	Annual-Ongoing	Public Works/City Engineer	Capital Improvement Projects, Bond Funds
2	*Maintain CERT Program*	*All hazards*	*Existing*	*$5,000 Staff Time/ Annual Expense*	*Medium*	*Quarterly Training for existing members and new member classes two times per year*	*Annual-Ongoing*	*Fire Department/ Special Operations Deputy Chief*	*Grant funds and General Fund*
8	*Maintain Cameo and ESS*	*All hazards*	*Both*	*$3,000 Staff Time*	*Medium*	*Ensure that GIS is integrated with CAMEO and ESS reflects available resources*	*Annual-Ongoing*	*Fire Department/ Special Operations Deputy Chief*	*General Fund*
11	Participate with outside agencies to distribute bottled water and provide education about hazards associated with extreme heat	Extreme Heat	Non-Structural	$1,000 of Staff Time	Medium	Partnering with the Community Action Network and Salvation Army Programs	Annual-Ongoing	Water Utilites Dept. and Fire Dept./WUD Mgr and Fire Chief	General Fund, Donations
3	*Seek funds for workshops and conferences, including National Incident Management System and Arizona Emergency Management Association Conferences*	*All hazards*	*Both*	*$2,500 Staff Time/Annual Expense*	*Low*	*Attend annual training classes and conferences*	*Annual-Ongoing*	*Fire Department/Fire Chief*	*General Fund*

Table 6-8-26: Summary of mitigation actions and projects and implementation strategy for Tolleson

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training Floodplain Regulations	Annual-Ongoing	FCDMC / Floodplain Mgmt and Services Division /Floodplain Administrator	General Fund Permit Fees
5	Installing more storm drains and retention areas to reduce impact of flooding on the community. Goes along with new and better codes.	Flood	Both	Unknown. Depends on site	High	Flood plan Regulations, Drainage knowledge	On-going	Engineer, Building Director	General Fund, Bonds, Grants, Permit Fees
2	Provide sand and bags at different locations around the city for citizens to pick up.	Flood	Both	Staff Time Sand at app $100 per ton	Medium	Staff Time	Periodical On-going	Public Works Director	General Fund
4	Educate public officials on the need of the mitigation plan.	All Hazards	Both	Staff Time	Medium	Staff Time, Class Space, Individual availability	On-going	Fire Chief, Division Fire Chief	N/A
3	Continue to review plans and update codes and ordinances within the city limits.	Flood and Severe Wind	Both	Staff Time	Low	Research and planning	Periodical On-going	Building Dept. City Senior Staff	General Fund

Table 6-8-27: Summary of mitigation actions and projects and implementation strategy for Wickenburg

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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training Floodplain Regulations	Annual-Ongoing	FCDMC / Floodplain Mgmt and Services Division /Floodplain Administrator	General Fund Permit Fees
2	Remove vegetation in washes that bisect streets within town limits to reduce wildfire hazard and improve stormwater conveyance capacities.	Flood Wildfire	Existing	$50,000	Medium	CWPP	Annual-Ongoing	Public Works / Director	General Fund

Table 6-8-28: Summary of mitigation actions and projects and implementation strategy for Youngtown

Town of Youngtown: Mitigation Action/Project					Town of Youngtown: 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	Review building permits for compliance with Floodplain Ordinance and NFIP regulations.	Flood	Both	Staff time	High	Staff Training Floodplain Regulations	Annual-Ongoing	Public Works Department / Building Inspector/Plans Reviewer	General Fund, Permit Fees
2	*Train all Public Works and Law Enforcement in First Responder Awareness: Weapons of Mass Destruction (WMD).*	*Terrorism; Wildfire*	*Both*	*Staff time*	*High*	*NIMS Training ICS 100 & 200 and NIMS 700 & 800 for all staff members; additionally ICS 300 for supervisory personnel and ICS 400 for all management-level employees*	*Annual-Ongoing*	*Public Works Department / Emergency Services Manager; Police Department / Police Chief*	*General Fund, Permit Fees*

Table 6-8-28: Summary of mitigation actions and projects and implementation strategy for Youngtown

Town of Youngtown: Mitigation Action/Project					Town of Youngtown: 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)
3	Provide Town leadership role in support of efforts to limit development in the departure and approach corridors for Luke Air Force base.	Wildfire, Transportation Accident	Both	Staff time	High	Regional planning committees, including MAG, Westcorp and ad-hoc groups	On-going	Town Management / Mayor, Town Manager and Public Works Manager	General Fund
6	Promote the availability of information from county webpage.	Multi-Purpose	Both	Staff time	High	Write-up in *Youngtown Village Reporter* and link on Town website	Initially NLT December 31, 2009; thereafter on-going	Emergency Services Manager / Town Webmaster	General Fund
4	Adopt the new Master Plan. Modify with additional guidelines, regulations, and land use techniques as necessary within the limits of state statutes, while also respecting private property rights.	Flood, Severe Wind	New	$2,500, plus Staff time	Medium	Regional planning committees, including MAG, Westcorp and ad-hoc groups	June 30, 2011	Public Works Department / Building Inspector/Plans Reviewer & Code Compliance Officer & Public Works Manager	General Fund, Grants
5	Develop a Shelter-in-Place Educational program.	Multi-Purpose	Both	Less than $1,000, plus Staff time	Medium	Review similar programs in other communities; work program to meet local needs	Initially NLT March 31, 2010; thereafter on-going as needed	Youngtown Police Services / Police Chief	General Fund, Grants
7	Encourage the use of weather radios, especially in schools, rest homes, convalescent homes, retirement centers and other locations where people congregate to inform them of the approach of severe weather.	Flood, Severe Wind	Both	Staff time	Low	Write-up in *Youngtown Village Reporter* and link on Town website	Initially NLT December 31, 2009; thereafter on-going	Emergency Services Manager / Town Webmaster	General Fund