

# Gila River Indian Community Multi-Hazard Mitigation Plan

January 2015

4/22/2015  
Gila River Indian Community  
Office of Emergency Management



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## Executive Summary

Across the United States, natural caused disasters and emergencies have led to increasing levels of death, injury, property damage, and interruption of business and government services. As a result, the demand on families and individuals can be significant and damages to businesses can negatively impact the economy. The time, money and effort to respond to and recover from these emergencies and disasters divert resources and focus from current programs and projects. With six declared flooding emergencies within the past 20 years, the Gila River Indian Community (the "Community" or "GRIC") recognizes the consequences and the need to reduce the impact of natural caused hazards. The Community's leadership understands that mitigation actions and projects are critical to reduce costs in the long term and the impact of future emergencies and disasters to the Community.

Gila River Indian Community Officials and the Office of Emergency Management ("OEM") committed to revising the 2007 Multi-Hazard Mitigation Plan ("2007 Plan"), which is required to be updated every five years. The Community formed a Planning Team composed of experts that could contribute to mitigation actions and projects. Between September 11, 2012 to November 6, 2012, the Planning Team met formally three times to evaluate and update the 2007 Plan. As part of this process, the OEM and Planning Team members have conducted research and collaborated with stakeholders to ensure the plan is complete as possible.

As part of the process, GRIC developed and submitted an updated and revised mitigation plan for approval by the Federal Emergency Management Agency ("FEMA") that outlined the process for identifying the Community's natural hazards, and probability of occurrence and consequences of such hazards. The Planning Team chose mitigation projects to potentially reduce damage to homes and infrastructure due to these hazards. **This Plan was has been updated to reflect not only the original members and their comments, but also includes the current staff in those positions.**

An approved Multi-Hazard Mitigation Plan is required in order to be eligible for recovery funds and Hazard Mitigation Grant Program funding following a disaster. This 2014 Multi-Hazard Mitigation Plan ("2014 Plan" or "MHMP") has been prepared in compliance with Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act ("Stafford Act"), 42 U.S.C. § 5165, enacted under Section 104 the Disaster Mitigation Act of 2000. Approval of this Plan will ensure continued eligibility for available funding. **As this plan is a snapshot in time, some current issues or information is not currently listed within the plan. Any updated information will be included in future updates. However, key information or current events will be addressed as needed.**

Gila River Indian Community, a federally recognized Tribe, is organized and established as a sovereign nation pursuant to the provisions of the Indian Reorganization Act of June 18, 1934, 25 U.S.C. § 461, et seq. The GRIC recognizes the need to be in compliance with federal laws as it pertains to the context of this document; however, GRIC adheres to its Tribal constitution and sovereign government status. On \_\_\_\_\_, 2014, the Community Council formally adopted the 2014 Plan.

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**Official Record of Adoption**

**(The signed copy of the Community Council Resolution is to be placed at this location)**

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**Promulgation Authority Information**

**(Insert Community Council Names)**

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**FEMA Approval Letter**

**(FEMA approval letter to be placed upon receipt from FEMA)**

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**Record of Distribution**

**Record of Distribution**

<b>DEPARTMENT/Organization</b>	<b>POSITION</b>	<b>LIST*</b>	<b>DATE</b>
Community Council Secretary's Office	Council Secretary	P	
Community Services Department	Director	P	
Communication & Public Affairs Office	Director	P	
Cultural Resources Management Program	Director	S	
Department of Community Housing	Director	P	
Department of Environmental Quality	Director	P	
Department of Public Works	Director	P	
Department of Rehabilitation & Supervision	Chief Administrator	P	
Department of Transportation	Director	P	
Defense Services Office	Director	G	
Emergency Medical Services	Director	P	
Employment & Training Department	Director	G	
Enrollment & Census Department	Director	G	
Facilities Maintenance Department	Director	P	
Finance Department	Director	P	
Fire Department	Fire Chief	P	
Huhugam Heritage Center	Director	G	
Human Resources Department	Director	P	
Health Resources Department	Director	P	
Gila River Indian Community Utility Authority	General Manager	P	
Gila River Irrigation & Drainage District	General Manager	S	
Gila River Telecommunications, Inc.	Director	G	
Land Use Planning & Zoning Department	Director	S	
Management Information Services Department	Director	P	
Occupational Safety and Health Office	Sr. Occupational Safety Officer	S	
Office of Emergency Management	Director	P	
Office of General Counsel	General Counsel	P	
Office of the Prosecutor	Chief Prosecutor	G	
Office of Special Funding	Administrator	G	
Office of Treasurer	Treasurer	P	
Pima-Maricopa Irrigation Project	Director	S	
Police Department	Police Chief	P	
Property & Supply Department	Procurement Director	P	
Tribal Courts	Chief Judge	G	
Tribal Education Department	Director	G	
Tribal Employment Rights Office	Director	G	
Tribal Gaming Office	Executive Director	G	
Tribal Historic Preservation Office	Tribal Historic Preservation Officer	S	
Tribal Projects Development	Director	P	

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<b>Tribal Social Services</b>	<b>Director</b>	<b>S</b>	
<b>Youth Council</b>	<b>Coordinator</b>	<b>G</b>	
<b>District 1 Public Copy</b>	<b>Coordinator</b>	<b>G</b>	
<b>District 2 Public Copy</b>	<b>Coordinator</b>	<b>G</b>	
<b>District 3 Public Copy</b>	<b>Coordinator</b>	<b>G</b>	
<b>District 4 Public Copy</b>	<b>Coordinator</b>	<b>G</b>	
<b>District 5 Public Copy</b>	<b>Coordinator</b>	<b>G</b>	
<b>District 6 Public Copy</b>	<b>Coordinator</b>	<b>G</b>	
<b>District 7 Public Copy</b>	<b>Coordinator</b>	<b>G</b>	

**(P=Primary Distribution List, S=Secondary Distribution List, G=General Distribution [Public])**

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# INTRODUCTION

## **Purpose and Authority**

### **Defining Hazard Mitigation**

A hazard is any event or condition with the potential to cause fatalities, injuries, property damage, infrastructure damage, agricultural loss, environmental damage, business interruption, or other structural and financial loss. Hazard mitigation is defined as any action taken to reduce or eliminate the long term risk to human life and property from human-caused or natural hazards. As communities continue to grow, hazard mitigation will play an important role in the government's primary objective of protecting its citizens' health, safety and welfare.

The chief objective of hazard mitigation is to make human development and the natural environment safer and more resilient. Hazard mitigation generally involves altering the built environment to significantly reduce risks and vulnerability to hazards so that life and property losses can be avoided or reduced. Mitigation also includes removing the built environment from disaster prone areas and maintaining natural mitigating features, such as floodplains. Hazard mitigation makes it easier and less expensive to respond to and recover from disasters by breaking the damage and repair cycle.

Examples of hazard mitigation measures include, but are not limited to, the following:

- Development of mitigation standards, regulations, policies, and programs
- Land use/zoning policies
- Strong building codes and floodplain management regulations
- Acquisition of flood prone and environmentally sensitive lands
- Retrofitting/hardening/elevating structures and critical facilities
- Relocation of structures, infrastructure, and facilities out of vulnerable areas
- Public awareness/education campaigns
- Improvement of warning and evacuation systems

### **Benefits of hazard mitigation include:**

- Saving lives and protecting public health
- Preventing or minimizing property damage
- Minimizing social dislocation and stress
- Reducing economic losses
- Protecting and preserving infrastructure
- Less expenditures on response and recovery efforts

In 2005, a study by the National Institute of Building Sciences through its Multi-Hazard Mitigation Council, reported to Congress that money spent on reducing the risk of natural hazards is a sound investment. On average, \$1 spent on hazard mitigation saves the Nation about \$4 in future benefits. In addition, FEMA grants to mitigate the effects of floods, hurricanes, tornados, and earthquakes between 1993 and 2003 were estimated to save more than 220 lives over approximately 50 years.

## **General Plan Description**

The Community's officials recognize that natural hazards pose a significant threat at varying degrees of magnitude and frequency, to the safety and economic stability of the Community. Often, the potential reality of hazards is not fully understood or realized until a major disaster occurs. The Community understands that, without a mitigation plan, financial, environmental, cultural, and human losses will undoubtedly be high.

The Disaster Mitigation Act of 2000 ("DMA2K"), commonly known as the 2000 Stafford Act Amendments, was approved by Congress on October 10, 2000. Section 322 of the DMA2K primarily deals with hazard mitigation planning as it relates to the development of local hazard mitigation plans. The DMA2K legislation was signed into law by the President on October 30, 2000 (Public Law 106-390). The Interim Final Rule for planning provisions was initially published in the Federal Register on February 26, 2002, 67 Fed. Reg. 8844 (to be codified at 44 C.F.R. pt. 201). The Interim Final Rule was again published on October 1, 2002 to extend the planning deadline to November 1, 2004, 67 Fed. Reg. 61512. Hazard mitigation planning requirements for tribes wishing to participate as grantees under the public assistance and hazard mitigation programs are implemented pursuant to 44 C.F.R. § 201.7, which was published in the Federal Register on October 31, 2007, 72 Fed. Reg. 61552.

### **44 C.F.R. § 201.7 - Tribal Mitigation Plan**

**§ 201.7 Tribal Mitigation Plans.** The Indian Tribal Mitigation Plan is the representation of the Indian tribal government's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards.

***§ 201.7(a) Plan requirement. (1) Indian tribal governments applying to FEMA as a grantee must have an approved Tribal Mitigation Plan meeting the requirements of this section as a condition of receiving non-emergency Stafford Act assistance and FEMA mitigation grants.***

The regulations state as a condition of receipt of an increased Federal share for hazard mitigation measures, the mitigation plan shall describe actions to mitigate natural hazards, risks, and vulnerabilities and establish a mitigation action plan and implementation strategy. The 2014 Plan, upon its approval by FEMA and GRIC, fulfills these requirements.

In addition, it is understood that GRIC is required to have an approved MHMP to be eligible for disaster recovery funds under the following mitigation grant programs:

- **Hazard Mitigation Grant Program (HMGP)**
  - Initiated by presidential disaster declaration
  - Mitigation Projects
  
- **Pre-Disaster Mitigation Program (PDM)**
  - Projects and planning

This 2014 Plan is arranged and prepared to satisfy Tribal level planning requirements mandated by the DMA2K. Compliance with these requirements will maintain the Community's eligibility to apply to FEMA for certain federal public assistance and hazard mitigation funds. The overall purpose of DMA2K is to amend the Stafford Act in order to establish a national program for pre-disaster mitigation, streamline

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administration of disaster relief at both the federal and state levels, and control federal costs of disaster assistance. Congress envisioned that implementation of these new requirements would result in the following key benefits:

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

In general, the DMA2K legislation requires all local, county, state, and tribal governments to develop a hazard mitigation plan for their respective jurisdiction to be eligible in receiving certain federal mitigation funds. Tribes acting as grantees under the DMA2K legislation must also have a FEMA approved multi-hazard mitigation plan in order to remain eligible for Public Assistance, Category C-G funds offered by the FEMA Public Assistance Grant Program.

In addition to satisfying the regulatory requirements of DMA2K, the Plan focuses on the following:

- Identify hazards that impact the GRIC.
- Assess the vulnerability and risk posed by those hazards to reservation-wide human and structural assets.
- Develop strategies for mitigation of those identified hazards, present future maintenance procedures for the plan, document the planning process.

Where appropriate, detailed information is documented or provided in appendices. There are also certain data sets pertaining to the Risk Assessment that are deemed "sensitive" by GRIC and are a part of this 2014 Plan by reference. The sensitive data is documented in a separate technical binder, which will remain at GRIC offices accessible by the primary point of contact and will not be submitted for FEMA review. General summaries of those specific data are provided instead.

***§ 201.7(c)(5) The plan must be formally adopted by the governing body of the Indian tribal government prior to submitting to FEMA for final review and approval.***

The 2014 Plan was initially sent to FEMA to determine if the 2014 Plan was "approvable". Based on FEMA evaluation of the 2014 Plan and subsequent updates, the 2014 Plan was processed through the Community Council. The 2014 Plan, upon Community Council approval is forwarded to FEMA for final approval to meet the requirement the 2014 Plan be approved by the Tribal government.

***§ 201.7(d)(3) Indian tribal governments must review and revise their plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities, and resubmit it for approval within 5 years in order to continue to be eligible for non-emergency Stafford Act***

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***assistance and FEMA mitigation grant funding, with the exception of the Repetitive Flood Claims program.***

#### **Update Requirements**

In addition, DMA2K requires that tribal plans be updated every five years, with each plan cycle requiring a complete review, revision, and approval of the plan at the FEMA level. This MHMP is a result of an update of the current Gila River Indian Community 2007 Multi-Hazard Mitigation Plan.

#### **Tribal Assurance**

***§ 201.7(c)(6) The plan must include assurances that the Indian tribal government will comply with all applicable Federal statutes and regulations in effect with respect to the periods for which it receives grant funding, in compliance with § 13.11(c) of this chapter. The Indian tribal government will amend its plan whenever necessary to reflect changes in tribal or Federal laws and statutes as required in § 13.11(d) of this chapter.***

The GRIC will comply with all applicable Federal statutes and regulations in effect for those periods when the GRIC receives grant funding per the DMA2K requirement under § 201.7(c)(6).

#### **Tribal Authorities**

This Plan has been prepared to compliment with the Gila River Indian Community Disaster Relief and Emergency Assistance Program and the Multi-Hazard Emergency Operations Plan. This 2014 Plan identifies hazard mitigation measures intended to eliminate or reduce the effects of a disaster within the GRIC.

#### **Gila River Indian Community Multi-Hazard Mitigation Plan**

The 2014 Plan is generally arranged and formatted to be consistent with the 2013 State of Arizona Multi-Hazard Mitigation Plan (State of Arizona Plan), tribal mitigation plan requirements under 44 C.F.R. § 201.7, and updated guidelines. The 2014 Plan is comprised of the following major sections:

**Section 1: Planning Process** – Process used to update the 2014 Plan, describes the assembly of the planning team, meetings conducted, and outlines public involvement efforts.

**Section 2: Community Description** – Description of the Community as a whole, including pertinent demographic and geographical information.

**Section 3: Risk Assessment** – Identification and profiling natural hazards that impact the Community and provides the vulnerability assessment of each hazard.

**Section 4: Mitigation Strategy** – Presentation of the capability assessment, summary of the mitigation goals and objectives, identifies actions/projects, and the implementation strategy.

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**Section 5: Plan Maintenance Strategy** – An outline of the proposed strategy for evaluating and monitoring the 2014 Plan, updating the 2014 Plan over a five year period, incorporating plan elements into existing planning mechanisms, and continued public involvement.

## **SECTION 1: PLANNING PROCESS**

***Section 1: Planning Process refers to the requirements under §§ 201.7(b), 201.7(c)(1)(i) and (ii). Under § 201.7(c)(1) states that the plan shall document the planning process used to develop the plan, including how it was prepared, who was involved, and how the public was involved.***

#### **Section Changes**

- Planning Team meeting agendas and sign-in sheets are included in the Appendix.
- 'Planning Team Role' was added to Planning Team Member listing.

#### **1.1 Planning Process Description**

An effective planning process is essential in developing and maintaining a good plan. The mitigation planning process has provided the opportunity for tribal departments, businesses, other affected stakeholders, and interested parties to be involved in the planning process and the GRIC Multi-Hazard Mitigation Plan Planning Team. The objective was to identify members who could contribute their expertise and knowledge to assist with the Multi-Hazard Mitigation Planning Process.

A total of three formal Planning Team meetings were conducted from September 2012 through October 2013. The Planning Team provided input, collected and documented data to revise the 2007 Multi-Hazard Mitigation Plan, and created a draft plan. The team had an opportunity to comment on the Plan up to the approval of the Plan. Input was received during formal meetings, ad hoc planning meetings, and e-mails. In addition, the Plan was posted in the Community's intranet and internet for review and input by GRIC Departments and the Community's residents. In the future, the Planning Team will be involved throughout the process with notes taken of all meetings.

The planning process and review of the draft were also integrated into other OEM workgroups. These groups included: Multi-Agency Coordination System (GRIC departments and other entities), Chemical-Tribal Emergency Response Commission (Community members from all seven political districts and key staff from departments throughout the GRIC).

For the purpose of this Plan, a brief overview of each formal planning meeting is provided below. These formal meetings were the genesis of work completed by the Planning Team. Agendas and sign in sheets are located in Appendix 3 (page 111).

#### **Planning Team Meeting #1**

The initial Multi-Hazard Mitigation Planning meeting occurred on September 11, 2012. The meeting served as the official kickoff for the planning process. All identified stakeholders were invited to the meeting. The meeting allowed the stakeholders to introduce themselves and discuss why they were interested in participating in the process. Key items discussed in the meeting included:

- Defining hazard mitigation.
- Discussing and agreeing to focus on natural hazards.
- Reviewing of previous plan and discussing the need for an update; agreeing the previous plan was cumbersome and included information that could not be verified.

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- Planning process to be used for updating the Plan, including public involvement, integration into other GRIC plans, and reviewing the community profile.
- Providing risk assessment process information that requires hazard identification, hazard profiling and conducting a vulnerability analysis. This included discussions on the impact and consequences for each hazard.
- Provided specific assignments to the group for the next formal meeting.

**Planning Team Meeting #2**

The second formal meeting occurred on October 9, 2012. The goal for the meeting was to gather information from the Planning Team based on Meeting #1 assignments and discussion on the Community profile and hazard profiles. Key items and discussions from Meeting #2 included:

- Reviewing of the multi-hazard mitigation process.
- Discussion of roles and responsibilities of the planning team.
- Need for public involvement.
- Process for hazard identification and agreement of defined hazard areas, community profile and hazard profiles.
- Documentation, identification and location of assets and critical infrastructure in GRIC.
- Reviewing of current comments, suggestions and edits.
- Identifying critical and non-critical facilities and infrastructure.

**Planning Team Meeting #3**

The third and final Planning Team meeting occurred on November 6, 2012. The primary goal of the meeting was to select the goals and objectives of the 2014 Plan and review the Mitigation Strategy. This required a review of previous meetings and work completed by staff. Key discussions included:

- Agreeing to critical/non-critical facilities and infrastructure for each District.
- Reviewing and revising of past and current mitigation projects.
- Revising the Mitigation Strategy.
- Selecting the goals and objectives of the 2014 Plan.
- Identifying GRIC capabilities.

At the conclusion of Meeting #3, a plan of action was agreed to. This plan of action included, but was not limited to, identifying additional projects and the additional projects status as a part of this process. This required additional meetings and correspondence to finalize the 2014 Plan and Implementation Strategy that was developed and approved by the Planning Team. There were also additional projects requested as part of drafting the Plan.

**Planning Team**

The planning process identified stakeholders to participate in meetings. Each stakeholder identified was based on required information for developing the 2014 Plan and to assist in drafting the 2014 Plan based on their expertise, roles and responsibilities in the Community (see Table A). Table A identifies the Planning Team and includes; "Name, Department – Agency Title and Planning Team Role". Members whose names are in bold print were also on the Planning Team for the 2007 Plan.

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It is important to note that the names and associated departments on the planning team listed below were in place at the time of the initial team meetings. In the future, meetings and requests for information will be directed at specific Department's and current staff. The planning team is based on the information specific to the information from the respective departments and not based on the individual.

**Table A: Planning Team**

<b>Name</b>	<b>Department - Agency Title</b>	<b>Planning Team Role</b>
<b>Ann Manuel*</b> <b>Pam Thompson**</b>	Community Services - Community Services Director	<ul style="list-style-type: none"> <li>• Represented District Coordinators for Districts 1-7</li> <li>• Provided anecdotal information on historical data of each hazard</li> </ul>
<b>Roberto Jackson*</b> <b>Zuzette Kisto**</b>	Communication & Public Affairs Office - Communication & Public Affairs Director	<ul style="list-style-type: none"> <li>• Promoted and responsible for public outreach of the 2014 Plan to the public through the use of the intranet and internet.</li> </ul>
<b>Kyle Woodson*</b> <b>Dr. Teresa Rodrigues**</b>	Cultural Resources Department - Project Director	<ul style="list-style-type: none"> <li>• Provided cultural data and input into the Community Profile.</li> </ul>
<b>Ondrea Barber*</b> <b>Rudy Mix**/Will Antone**</b>	Department of Environment Quality - Environmental Quality Project Associate/Air Quality Specialist	<ul style="list-style-type: none"> <li>• Provided environmental issues as it relates to hazards for the hazard profiles.</li> </ul>
<b>Janice Anderson*</b> <b>Laverne Dallas**/Dr. Tulu**</b>	Department of Health Resources – Director/Epidemiologist	<ul style="list-style-type: none"> <li>• Provided public health information on issues regarding severe heat hazard.</li> </ul>
<b>Ross Schroeder*</b> <b>Nate Yeigh**</b>	Department of Public Works - Acting Director	<ul style="list-style-type: none"> <li>• Provided input on past and current mitigation projects related to the Department of Public Works.</li> </ul>
<b>Timothy Oliver*</b> <b>Steven Johnson**</b>	Department of Transportation - Acting Director	<ul style="list-style-type: none"> <li>• Provided input on past and current mitigation projects.</li> </ul>
<b>Kevin Knight*</b>	Emergency Medical Services – Division Chief	<ul style="list-style-type: none"> <li>• Provided research and data on deaths from heat related emergencies in GRIC.</li> </ul>
<b>Kraig Broadbent*</b>	Fire Department - Fire Inspector	<ul style="list-style-type: none"> <li>• Subject matter expert, adopted Fire Code</li> <li>• Subject matter expert and provided information on Wild land fire prone areas</li> <li>• Provided input into the Wild land fire hazard profile</li> </ul>
<b>John McVicker*</b>	Facilities Maintenance - Facility Maintenance Supervisor	<ul style="list-style-type: none"> <li>• Provided input on past or current mitigation projects.</li> </ul>
<b>Kathy Dumais*</b>	Gila River Health Care - Safety Officer	<ul style="list-style-type: none"> <li>• Provided experience and input to hazards at the hospital and healthcare issues.</li> </ul>

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<b>Name</b>	<b>Department - Agency Title</b>	<b>Planning Team Role</b>
Kathy Galloway*	GRIC Utility Authority – Gila River Indian Community Utility Authority Operations Manager	<ul style="list-style-type: none"> <li>• Provided input on Power Outage Hazards and related critical infrastructure.</li> <li>• Liaison to OEM during Power Outages.</li> </ul>
Seaver Fields*	Land Use Planning & Zoning - Civil Engineer	<ul style="list-style-type: none"> <li>• Provided GIS data for critical and non-critical facilities and infrastructure.</li> <li>• Subject matter expert on flooding hazards</li> <li>• Provided input into past and current mitigations projects.</li> </ul>
Jocelyn Young* Darin White**	Management Information Systems – Director	<ul style="list-style-type: none"> <li>• Subject matter expert in technical services and provided input on computer issues</li> </ul>
Robert Deleon* Debra Sheff**	OEM - Director / Planner II	<ul style="list-style-type: none"> <li>• Facilitated development of the 2014 Plan</li> <li>• Organized meetings, prepared agendas and presentations</li> </ul>
Shane Lindstrom*	Pima/Maricopa Irrigation Project – Agricultural Engineer	<ul style="list-style-type: none"> <li>• Provided historical data regarding the canals during flooding incidents.</li> </ul>
Kathleen Elliott* Edward Alameda**	Police Department - Police Commander	<ul style="list-style-type: none"> <li>• Provided input on impact of hazards to the community.</li> </ul>
Howard Reno* Wilford Brown**	Tribal / Capital Projects - Director	<ul style="list-style-type: none"> <li>• Provided input on current and future development</li> </ul>
Chuck Anderson*	Gaming (Casinos) - Fire Systems/Safety Manager	<ul style="list-style-type: none"> <li>• Provided input of hazards to the Casinos</li> </ul>
Dr. Nancy Selover*	Arizona State University - State Climatologist	<ul style="list-style-type: none"> <li>• Advised Planning Team on climate history and terminology</li> </ul>
Sue W Wood*	Arizona Division of Emergency Management - Hazard Mitigation Planner	<ul style="list-style-type: none"> <li>• Advised the Planning Team in the Hazard Mitigation Planning Process and served as a subject matter expert.</li> </ul>

\*Staff currently identified to represent planning team departments.

\*\*These individuals were on the original planning team and no longer represent Department.

**Gila River Indian Community Point of Contacts**

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## 1.2 Program Integration

***Under § 201.7(c)(1)(iii), the plan shall include review and incorporation, if appropriate, of existing plans, studies, and reports. Further, under § 201.7(c)(1)(iv), the Plan shall be integrated to the extent possible with other ongoing tribal planning efforts as well as other FEMA programs and initiatives.***

The Community's intention is to review existing mitigation and emergency plans to identify opportunities to integrate the plans into this 2014 Plan. The integration of other plans is an important component of the planning process and future success. By reviewing existing plans and reports, the Community can identify opportunities to integrate mitigation actions. In addition, integration provides an opportunity for consolidation of planning requirements for all tribal mitigation programs across the Community. Table B lists current resource documents reviewed and integrated to this 2014 Plan. The Planning Team determined how each of the documents can be used to identify mitigation opportunities and how the 2014 Plan planning elements can be integrated into future updates, if possible. The goal for program integration is for this updated Plan to integrate with FEMA mitigation programs and initiatives.

One example of integrating other plans into this 2014 Plan is the Flood Control Task Force of the GRIC Land Use & Zoning Department, which provided information for this 2014 Plan's Community Descriptions, Hazard Profiles and mitigation projects. Those mitigation actions and processes have been integrated into the 2014 Plan and the Community's Disaster Relief and Emergency Assistance Plan.

In addition to these localized integration of plans, studies, and reports, GRIC has adopted FEMA related programs and initiatives: National Incident Management System and reporting requirements; recent Stafford Act changes have been implemented; and local public and individual assistance processes and procedures have been aligned with FEMA requirements. Since the 2007 Plan, there have been no additional FEMA programs integrated into the Gila River Indian Community's mitigation planning process. However, we will continue to make efforts, if appropriate and possible, to integrate FEMA mitigation programs and initiatives.

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Table B: Resource Documents Reviewed and Integrated

Identified Hazard	Name of Document	Mitigation Opportunities and Integration Characteristics
Flooding	District 3 Master Drainage Plan (Land Use Planning & Zoning)	Provided an overview of potential mitigation projects within District 3.
Flooding	GRIC Reservation Wide Drainage Study	Provided a review of the water shed in the GRIC and identified potential mitigation projects.
Flooding	Santa Cruz River and Middle Gila River Watershed Reconnaissance Study	Provided a review of the Watershed in the GRIC and identified potential mitigation projects.
Wildfires	Gila River Fire Department Community Wildfire Protection Plan	Provided wild fire prone zones for mitigation planning.
Wildfires	BIA Pima Agency Wildland Management Plan and Fuels Management Plan	Provided wild fire prone zones for mitigation planning.
Severe Weather	Gila River Multi-Hazard Emergency Operations Plan	Provided hazard projects to determine mitigation projects.
Severe Weather	OEM Emergency Operations Center activation database report	Provided historical information for hazard profiles.
Severe Temperature	Gila River EOC Standard Operating Procedures	Provided job aid when responding to hazard in the community.
All Hazards above	Disaster Relief Emergency Assistance Plan	Provide guidance that hazard mitigation planning is in place in case of an emergency.
All Hazards above	District Master Plan	Provide guidance for Districts when proposing future development.

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**1.3 Public Involvement Strategy**

The Planning Team discussed the most beneficial approach to involve the public in the process of updating the Plan. The agreed methods can be found in this section. The strategy was also revised as part of the update and approval process.

The pre-draft public involvement strategy for the 2007 Multi-Hazard Mitigation Plan revision included attending one district meeting at each District by OEM staff. Every District in the GRIC has a regularly scheduled meeting with the constituents of each District. There is a governing body for each District and is typically attended by District Community members, Community Council members, and various invited Departments.

The same public involvement process was provided during each meeting for the 2014 Plan. The OEM was responsible for presenting the Hazard Mitigation Process and the various roles by stakeholders in preparing the 2014 Plan. Community members were provided a handout describing the purpose of the Plan and given a chance to ask questions or provide comments. Community members were also advised that the 2014 Plan was placed on the internet throughout the process for their review and comments. There were no comments, questions or input at those meetings from Community members.

The dates of the District meetings were:

- District 1: October 1, 2012 at the District 1 Service Center
- District 2: February 4, 2013 at the District 2 Service Center
- District 3: August 14, 2012 at the District 3 Service Center
- District 4: July 31, 2012 at the District 4 Service Center
- District 5: August 6, 2012 at the Veterans Building in District 5
- District 6: July 16, 2012 at the District 6 Service Center
- District 7: February 25, 2013 at the District 7 Service Center

The post-draft public involvement strategy included posting a draft of the finalized 2014 Plan on the Gila River Indian Community internet and intranet websites. Adoption of the Plan will be conducted by resolution through the Community Council.

It is also important to note that the GRIC approval process includes public discussion in the adoption process through the Community Council processes. This also provides an opportunity for additional commentary by the Public and elected officials.

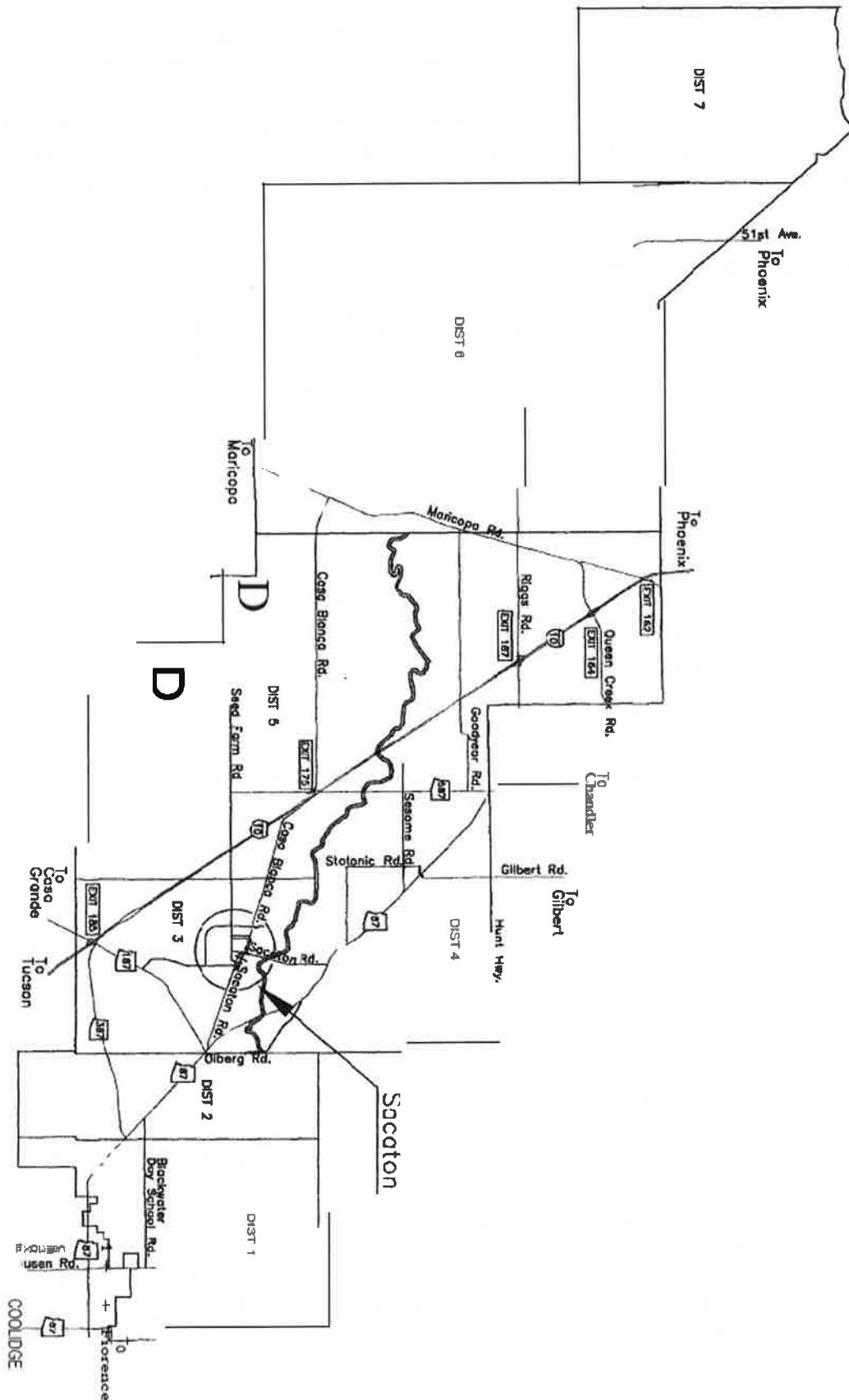
The definition of "Public" was determined with input from the Planning Team. It equates to those GRIC meetings that are open to any and all enrolled GRIC members, including members who live on and off the reservation.

## **SECTION 2: COMMUNITY DESCRIPTION**



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Figure 2: Gila River Indian Community



**Gila River Indian Community  
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The Gila River, dry because of upstream diversions, runs southeast to northwest through the center of the Reservation. The GRIC falls within the Sonoran Desert biome, where non-agricultural areas contain native grasses, shrubs, trees, and succulents. The climate is arid, with averages of 7-8 inches of rain per year. Summer high temperatures average about 110°, with lows in the high 20s and 30s in the winter.

As of September 6, 2012, the GRIC Enrollment Office indicates the Community has a total membership of approximately 21,005. A total of 12,209 members reside on the Reservation and 8,796 reside off the Reservation. Refer to Figure 3 estimating enrollment by District as provided by the GRIC Enrollment Office on 10/22/12\*.

**Figure 3: Estimated Enrolled Members**

<b>Estimated Enrolled Members (09/06/12)</b>	
District 1	1,157
District 2	523
District 3	3,080
District 4	2,264
District 5	2,206
District 6	2,316
District 7	663
Off Reservation	8,796
Total On Reservation	12,209
Total Enrolled	21,005

\* GRIC Enrollment Office on 10/22/12

According to the Demographic profile of the United States 2010 Census, there are 2,982 households, average household size is 3.8 in the GRIC and the residential total population is 11,712. The specific data is as follows (Figure 4):

**Figure 4: Enrollment Demographics**

<b>Male</b>	<b>Female</b>	<b>&lt;18</b>	<b>18 &amp; 19</b>	<b>20-34</b>	<b>35-49</b>	<b>50-64</b>	<b>65 &amp; over</b>
5538	6174	4274	473	2,557	2,112	1,621	675

Additional demographic information from the 2010 Census includes:

- There is a significant high growth rate of the surrounding areas outside of the Gila River Indian Reservation (City/County).
- The largest population group is less than 18 years old (36.5%).
- The median age is 25 years old.
- There are almost 3,000 homes in the community with an average of 4 people per home.
- 12% of all households are grandparents raising someone less than 18 years old.
- 21% of household are multi-generational, at least three generations.

### **2.1.1 Background**

The Reservation was established by an act of Congress in 1859. The Gila River Indian Community is a federally-recognized Native American government listed in the Federal Register as required by Section 104 of the Federally Recognized Indian Tribe List Act of 1994 (Pub. L. 103-454; 108 Stat. 4791, 4792), and as such is acknowledged to have the powers, privileges, and immunities available to other federally-acknowledged Native American tribes by virtue of their government-to-government relationship with the United States, as well as the governmental responsibilities, powers, and obligations of such Native American tribes. See 79 Fed. Reg. 4748.

Federally-recognized Native American tribes are sovereign nations not under the regulatory or political jurisdiction of any state of the United States. As such, the Community is not subject to the jurisdiction of the State of Arizona. It is an independent authority and operates in the best interest of the Community members.

### **2.1.2 Historical**

The Community traces its roots to the Huhugam, prehistoric Native Americans who lived and farmed in the Gila River Valley centuries ago. The Community is composed of members of two tribes, the Pima (Akimel-O'odham) and Maricopa (Pee Posh) Indians. Gila River Indian Community is one of the Four Southern Tribes, including Salt River Pima-Maricopa Indian Community, Tohono-O-odham Nation, and Ak-Chin Indian Community.

The Akimel O'odham, called "River People", were given the name "Pima" by the Spaniards, which is still used today. During the Historic Period, Akimel O'odham and Pee Posh inhabited the Middle Gila, and farmed thousands of acres and grew crops that originally included corn and melons and at a later date, cotton, squash, wheat, and other crops. In the mid nineteenth century, miles of canals and ditches irrigated and drained large-scale field systems on the Community. Farmers diverted the waters of the Gila into canals they had constructed with the aid of only wood, bone, and stone tools, which extended for miles. The lateral canals provided the ability to divert waters to the field of crops.

Recent community history reflects a revitalization of historical farming enterprises. Specifically, the Community has constructed a modern water delivery system (the Pima-Maricopa Irrigation Project) across the Reservation.

### **2.1.3 Economy**

The Gila River Indian Community is steadily increasing and diversifying its industrial, agricultural, retail and recreational economic base. The Community currently operates three industrial parks that are home to several local and national companies. Gaming also continues to be a positive economic development activity for the Community. Wild Horse Pass, Lone Butte and Vee-Quiva are the three facilities that comprise the Gila River Casinos. Wild Horse Pass Development Authority manages the Sheraton Resort and Spa, Rawhide, and the golf course. The new Phoenix Premium Outlet Mall has brought customers from all over the Phoenix-metro area to GRIC. The golf course and resort features two world-class 18-hole golf courses and a 500-room hotel resort complex.

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The GRIC prides itself on being self-sufficient. Economic development is a focus of the tribe and includes careful planning and developing skilled employees. The Tribal Projects Department and Land Use Planning and Zoning collaborate on current and future projects.

**2.1.4 Agriculture**

The GRIC relies on a successful agriculture industry to help fund the many important programs. Today, with a firm supply of water secured through a settlement process, the Community has restored its agricultural heritage and self-sufficiency. Growing a variety of native, traditional and commercial crops, Community farms, corporate farms and individual farmers now cultivate fruits, vegetables, small grains and other crops such as cotton, alfalfa and potatoes.

**2.1.5 Manufacturing**

Lone Butte Industrial Park is managed and operated by the Lone Butte Development Corporation. The Park's prime location next to Interstate 10, minutes from Sky Harbor International Airport and close proximity to the Phoenix-Metro area, provides tenants with strategic access to the entire Southwest. Lone Butte Industrial Park accommodates warehousing, light and some heavy industries, as well as research and development, high tech firms and services. Lone Butte Industrial Park has been rated the Nation's best tribal industrial park.

**2.1.6 Gaming/Tourism**

Gaming and motor sports racing are important reasons visitors visit Gila River. The Casinos and Rawhide Western Town provide many of the recreational venues to this area. As previously mentioned, the Community owns and operates three Gila River Casinos and a resort hotel complex. Visitors can enjoy entertainment, fine dining, nightlife and gaming at three different casinos: Wild Horse Pass hotel and casino, Lone Butte Casino, and Vee Quiva Casino. Other attractions include an equestrian center, golf courses, a tribal museum, a race-car driving school, race track, and a racing-boat course.

**District General Statement**

The GRIC is made up of seven political districts for the purposes of representation and administration. Each district may elect a District Council made up of a representative from each of the villages or settlements within the district. The District Council serves as the advisory board and performs local administrative duties as assigned by the Community Council.

In recent years, GRIC has completed several building projects to upgrade, enhance infrastructures and add to the quality of life. The next several years will focus on the addition of housing stock to the Districts. To gain an understanding and look for integration into this 2014 Plan, the District Land Use documents were reviewed. This provided an opportunity to gain insights to potential future projects and potential mitigation projects.

The Community's Master Plan ("Master Plan"), which describes a plan for each district, became the Planning Team's guide to understanding land use, allocation of resources for the future, and how funding was to be potentially directed toward projects within the Districts. It is important to note that

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Master Plan was established as a guide and projects within the plan may still require policy and budgetary requirements not addressed in the Master Plan.

There are two major categories of land within GRIC: allotted lands, or lands that are held in trust by the federal government for use by individual Community members and heirs, and Community lands that are held in trust by the federal government for the Community. Almost all development on the GRIC occurs on Community land or through leases managed by the Community. While the Community retains jurisdiction, including planning authority over all lands (allotted and Community), Community investment typically occurs on Community lands.

The Master Plan was created with some basic process guidelines common to all Districts. Through conversations with elders, youth, leaders, and Members within the Districts, the Master Plan was drafted as a guide to decision making about improvements and investment in future capital projects.

**District Guidelines for the Development of a Master Plan**

- Determine whether the general area is designated for the proposed business development or the appropriate type of land use in the Master Plan.
- Examine surrounding existing development and the land use designations on the land use map.
- Consider the project in relationship to the Master Plan’s goals, objectives, and strategies. The evaluation is focused on if the potential business project would fit within the vision and desires expressed in the Master Plan.
- Determine if there are any physical characteristics such as soil conditions, stream profiles, floodplains, or cultural issues that might be environmental constraints that would impact the project’s development.
- Determine what infrastructure would be needed to support the proposed development and analyze the impact on existing infrastructure.

In addition to these guidelines, Members expressed a desire for an integrated network of roadways, transit, pathways and trails that connect to services, jobs, educational opportunities and recreational amenities safely and efficiently. Many of routes are in need of improvements, including pavement, signage and safety features.

**2.1.7 District Descriptions**

**DISTRICT 1:**

District 1 (Figure 5: District 1) is the second smallest and most Eastern District. It is named Shuckma hudag or Oos Kek, which translates to “Blackwater” and “Stick Stand.” It is roughly 53 square miles and is home to approximately 1,133 residents. As a reference to non-Community jurisdictions, the eastern boundary of District 1 is adjacent to the Town of Florence, Arizona, while the Southern boundary is adjacent to the City of Coolidge. To the North are the Johnson Ranch and Santan Heights communities. Just southeast, beyond the District’s boundaries, is the historic Casa Grande Ruins National Monument.

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Casa Grande Ruins are federally protected and historically tied to the Pima people of the GRIC. The structure was built by the Huhugam (“those who have gone”) people, who maintained a sophisticated irrigation system for hundreds of years until periods of low water caused most of the community to disperse. Those who stayed are the ancestors of the present day Pima and Papago Native Americans.

This District is impacted by a major offsite drainage system named McClellan Wash. It enters from the south impacting residences along the floodplain. Significant storms, lightning strikes and wind damage has occurred in the past 10 years. District 1 lies in the southeasterly monsoon path and is subject to more severe weather than some of the other districts.

A review of the District 1 Master Plan provided insights to future planning for the District and were deemed relevant to the Plan and strategies. This information is not inclusive of all elements of the District Master Plan.

**Economic Activities**

A key goal for the District was to expand economic and employment opportunities by pursuing economic growth and job creation strategies. An identified economic location is the re-establishment of the Blackwater Industrial Park.

**Housing**

Provide quality housing options for members in cohesive and safe neighborhoods. This would be provided by having in place options that suit the varying needs of members. A relevant strategy includes discouraging remote home sites that are away from existing infrastructure and are difficult to service.

**Natural Resources**

Preserve, maintain and enhance the natural environment and open space character of the District by protecting significant natural features and important wildlife habitats and corridors. Key strategies include identifying and protecting wildlife corridors and minimize the risk of brush fires through fire education and wash maintenance.

**Recreation**

Provide a range of amenities that allow members to be active and gather by providing and maintaining a range of recreational amenities. Specific strategies include supporting the development of a trail that connects the District core area (school, Service Center, etc.) in Blackwater to a Reservation-wide trail.

**Capital Improvement Plan**

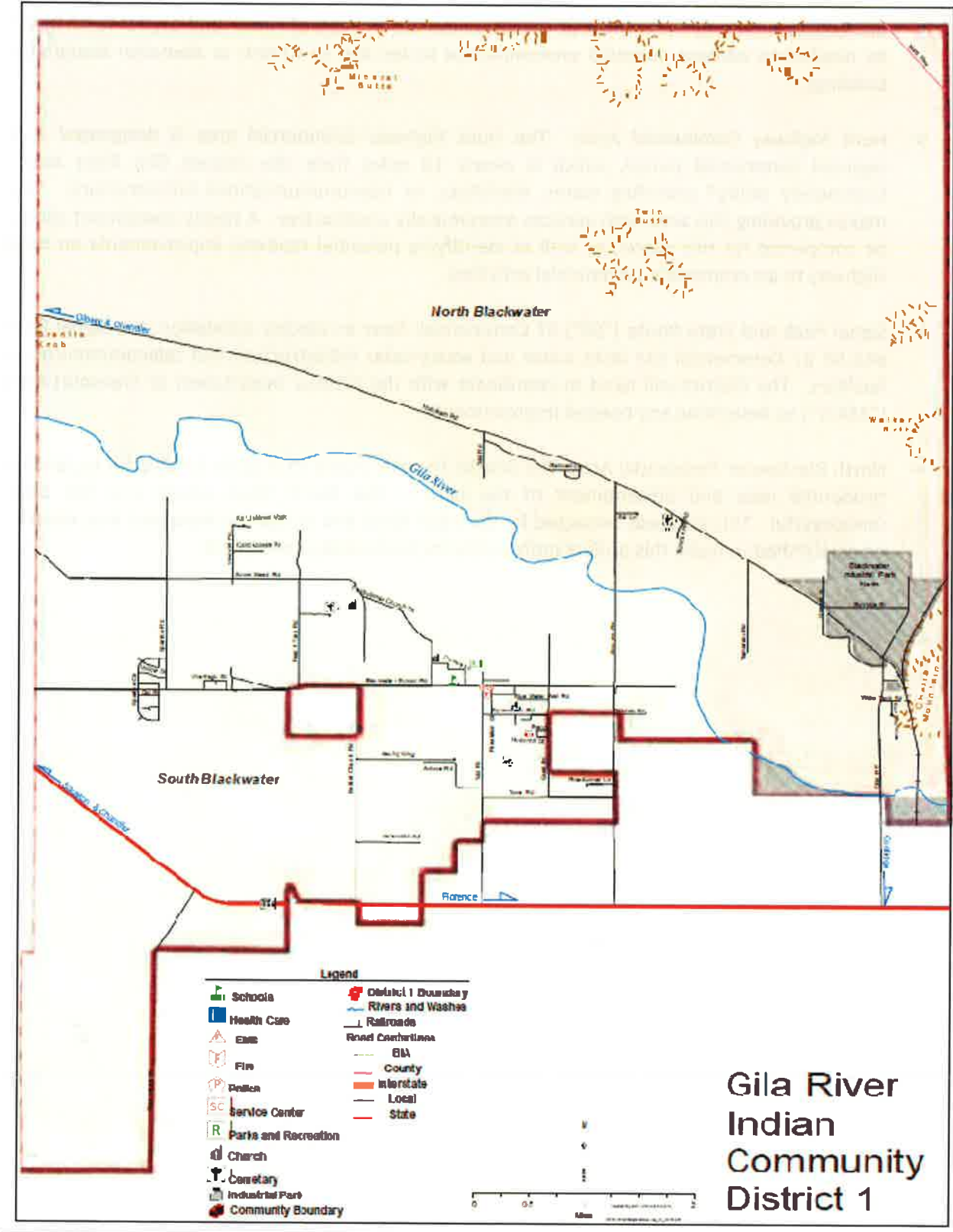
The Master Plan is intended to outline a future land use plan in order to encourage where future development occurs. As part of the process, members identified several key infrastructure projects. The following Capital Improvements Plan projects are intended only to provide potential capital projects and insights to future development.

**Priority Projects for District 1**

- **Blackwater Industrial Park:** Most of the roadways are in need of repair and capital funding will be needed to address potential environmental issues and to refurbish or demolish abandoned buildings.
- **Hunt Highway Commercial Area:** The Hunt Highway Commercial area is designated as a regional commercial parcel, which is nearly 10 miles from the nearest Gila River Indian Community utility? providing water, electricity, or telecommunications infrastructure. This makes providing this area with services economically unattractive. A needs assessment should be completed for this parcel, as well as identifying potential roadway improvements on Hunt Highway to accommodate commercial activities.
- **Signal Peak and State Route ("SR") 87 Commercial:** Near an electric substation, the Signal Peak and SR 87 Commercial site lacks water and wastewater infrastructure and telecommunication facilities. The District will need to coordinate with the Arizona Department of Transportation ("ADOT") to determine any needed improvements.
- **North Blackwater Residential Area:** The District has attempted to acquire funding for expanding residential uses and development of the park in the North Black village and has been unsuccessful. This area was impacted by the 1983 flood and mitigation measures may need to be established to make this project more viable for Community investment.

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Figure 5: District 1



**DISTRICT 2:**

District 2 (Figure 6: District 2) encompasses 32 square miles and is named Hashan Kek, or “Saguaro Stand.” This District contains about 500 residents. The Olberg Bridge and Sacaton Dam located within this District are a reminder of the rich history and culture of the Akimel O’odham and Pee Posh tribes. At the time of their construction in the 1920’s, they were considered substantial engineering projects. Water and farming have long been a tradition and a central part of life for the people of Hashan Kek. District 2 has similar flood, storm damage and wild fire threats that affect other districts. Primary impacts are associated with flooding from the Gila River and McClellan Wash.

The Master Plan Framework presents the District’s planning and development guidelines and the basis for the Community’s evaluation of future development proposals and planning efforts.

**Economic Activities**

The District desires to create sustainable economic development by maximizing the Community’s economic competitiveness. A strategy to accomplish this includes investing in the maintenance and development of the District’s infrastructure to support and attract businesses. In addition, look to potential economic opportunities on SR 87 while minimizing impact on District 2. This can be accomplished by encouraging development of an activity center at SR 87 and SR 387 that would provide retail and commercial opportunities and encourage development efforts along SR 87 with ADOT and adjacent Districts.

In addition, the District continues to support the Community’s agricultural heritage by utilizing resources gained through the water settlement to support continued and expanded agricultural enterprises within District 2.

**Housing**

The District desires to provide quality housing options that suit the varying needs of its members. This includes discouraging “scattering” home sites that are distant from existing infrastructure. Also, by implementing a housing maintenance program would protect the existing housing stock.

**Natural Resources**

The District wishes to preserve, maintain and enhance the natural environment and open space character of the GRIC District 2 area as a living resource, making sure that development harmonizes with, supports, and does not degrade its natural character. A key strategy includes minimizing risk of brush fires through fire education and riverbed/wash maintenance.

**Recreation**

The District would like to protect areas of historical significant for future generations by identifying and preserving historic landscapes and structures of the early inhabitants from within the District.

**Capital Improvement Plan**

The Master Plan is intended to outline a future land use plan in order to help promote where future development occurs. As part of the process, District Members identified several key infrastructure projects. This Capital Improvement Plan outlines key capital projects and delineates potential infrastructure improvements associated with those capital projects.

**Priority Projects for District 2**

**District 2 Multi-Purpose Service Center:** The previous Service Center was small and not large enough to handle celebrations or events. In 2012, the District received funding and completed a new module that contains kitchen facilities as an interim fix. The new Multipurpose Service Center was recently opened and was constructed adjacent to the District's ball park. The new District 2 Multi-Purpose Center has been praised for its views and beauty.

**Commercial Center Development:** The District desires to have retail services in close proximity. The District has identified three areas that could be developed for retail. Two of these facilities are designated as "local commercial" that could provide stores, gas stations, shops, and services. The first local commercial site is shown at approximately SR 87 and SR 187. This site could be jointly developed with the District 3 community. The second local commercial site is located at approximately SR 87 and Blackwater School Rd. The third local commercial site is within a "mixed use" area located at SR 87 and SR 387. Each site is located with transportation access. The priority projects for District 2 are for future development. The District still needs to determine what type of facilities will be built on District 2 land.

**Flood Control Improvements:** Historically, District 2 has experienced tremendous flooding events. Based on the Gila River Indian Community Reservation-Wide Drainage Study, the following key improvements should be developed to manage flood issues:

- Implement flood improvements at and near the Sacaton Flats subdivision at Hashan Kehk and Mish Ki roads.
- Address drainage issues that impact District 2 particularly at the intersection of Olberg Road and SR 87.
- Identify and implement solutions to repair and rehabilitate the McClellan Wash levee and drainage channel.
- Minimize off-Reservation flooding.

**Olberg Road Paving Improvements:** The paving improvements would be to Olberg Road from SR 87 north to the Gila River (approximately 11,000 lineal feet) and include repair and maintenance to the historic Olberg Bridge (paving improvements, landscape and multiuse trail).



**DISTRICT 3:**

District 3, (Figure 7: District 3) with about 3,100 residents, has the highest population on the Reservation. District 3 contains the village of Sacaton and the headquarters of tribal government. Sacaton was named after the famous giant Sacaton grass that once grew in the Gila River valley. Sacaton has grown over time and now is home to a Dialysis Center, Governance Center, Fire Station, Head Start facility, Residential Program for Youth, Domestic Violence Center, Hospital, and a Women's Health Building. In the O'odham language, Sacaton is known as Ge e Ke or "Big House," which is largely because of its historical importance as the unofficial capital of the Community. Though it is one of the smaller districts (approximately 42 square miles in size), it has always been the center of commerce and government activity for the tribe. Today, the tribal government operates in the Governance Center building, which houses many tribal departments and serves as the meeting place for tribal council and government officials.

District 3 will retain and reinvigorate the close-knit village of Sacaton and provide new opportunities for Community Members to reconnect with each other.

The Master Plan Blueprint reflects a desire to improve Member's health and "quality of life" by delineating land uses that are suitable, creating new jobs and economic activities, and providing opportunities for District Members to engage in healthy lifestyle and leisure choices.

The following goals, objectives, and strategies present the District's planning and development guidelines in the Master Plan. They provide the basis for the Community's evaluation of future development proposals and planning efforts.

**Economic Activities**

District 3 Members recognize the opportunity that the Interstate 10 corridor brings for commercial development. Providing commercial development on the edge of the District will make it easily accessible for District Members, provide jobs close to home, and attract shoppers from adjacent communities, but be far enough away that the traffic generated from the commercial activity will not affect the Sacaton area. The strategy will include a mixed use commercial developments on the perimeter of the Reservation (I-10/SR 187 interchange) to minimize disruption in the interior of the District.

In addition, District 3 wishes to revitalize downtown Sacaton as a vibrant and pedestrian-friendly mixed use neighborhood by revitalizing or clearing the old Community, State, Federal and utility entity office and storage yard for reuse as small local commercial or residential infill within the mixed-use neighborhood.

**Housing**

Historically, District 3 has been the location where Community homes have been built to temporarily house displaced Members or Members from other Districts who were waiting for their homes to be built. Temporary housing situations can sometimes last for years. Routinely cited by District Members is the need for flexibility in the housing design and floor plans, as individual family needs are different. There was also a strong desire for a return to a more traditional O'odham home and neighborhood

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design and less “engineered and production” design. This would be assisted by providing assistance to Members wanting to refurbish and reuse existing buildings and/or home sites and ensuring they incorporate environmentally sensitive design features, energy efficiency and low maintenance.

**Natural Resources**

The Master Plan goal for District 3 is to preserve, maintain and enhance the natural environment and open space character of the Gila River Indian Community area as a living resource. District 3 wants to ensure development supports, and does not degrade, its natural character.

The Master Plan preserves the corridor along the Gila River. The Gila River was once a large riparian area enjoyed by families; however, clearing of vegetation has left the river banks scarred. The Master Plan also preserves much of the Sacaton Mountains and its steep slopes and cultural areas so that Members can enjoy the unspoiled beauty of the mountains. District Members desire the reintroduction of the native mesquite and cottonwood vegetation within the desert and along the Gila River.

**Recreation**

Water is an important cultural element and it is the primary reason for proposing a new District park (Olberg Recharge Lake/Park) south of the Gila River near Olberg Road. The Community has water from the Arizona Water Settlement Act that needs to be used and not wasted. A large recharge lake, when designed correctly, is an environmentally sensitive and sustainable way to address the Community’s water requirements while creating a wildlife refuge, fishing amenity and picnic area for Members to enjoy.

The Master Plan proposes a second District park (Service Center Park) in conjunction with the existing District Service Center and extending west to Sacaton Road and north to the Gila River.

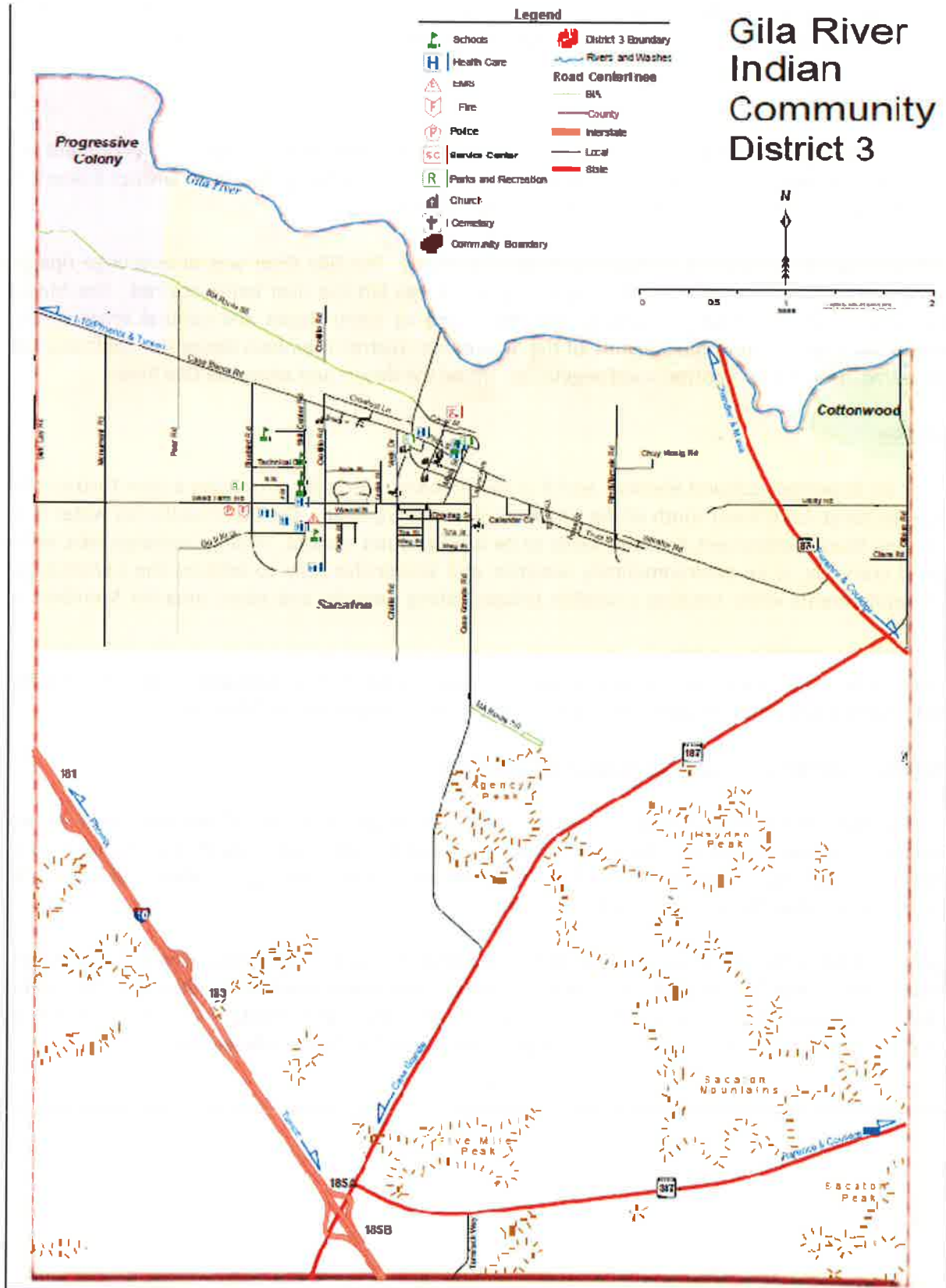
**Capital Improvement Plan: Priority Projects for District 3**

The Seed Farm Road Improvements would be in conjunction with the development of a new interchange at Interstate 10 and Seed Farm Road. The added interchange would benefit District 3 by providing a direct route from Interstate 10 to the Community. A roadway design study will need to be initiated to determine the specific design and costs.

The proposed North Sacaton Road Improvements involves the resurfacing and widening of Sacaton Road from Casa Blanca Road north to the Gila River. A design study would need to be initiated to determine the specific roadway improvement design and costs. Additionally, a park master plan would need to be undertaken to determine the feasibility, cost and programming for the park development.

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Figure 7: District 3



**DISTRICT 4**

District 4 (Figure 8: District 4), also known as the Santan District, is large and unique in that it is comprised of seven distinct villages: Santan (upper and lower), Stotonic, Chandler Heights, Gila Butte, Goodyear, and East Lone Butte Village. The Santan mountain range played a role in the history of District 4 as do many other aspects of the land surrounding the community. District 4 is 120 square miles and has seen the greatest amount of industrial growth relative to other districts.

District 4 boundaries contain an array of world-class sports and recreation venues, as well as a host of tribal, commercial, and agricultural businesses that are owned and operated by the Community. Areas of concern include the possible hazardous materials due to the Fertizona plant and accidents along Interstate 10 corridor and other roads. District 4 is particularly susceptible to the monsoon storm damage because of the southerly monsoon weather patterns and lack of protection from the mountains.

District 4 wishes to balance opportunities for local economic development in conjunction with a public transit system will provide families the means to improve their lifestyle while also continuing to teach traditional values and recognize the cultural heritage of the Pima Indians. Members desire community-oriented projects focused around the Service Center with sensitive and fair distribution of the improvements to the four village zones. Members seek opportunities to enhance family values, influence decisions regarding public improvements for schools, streets, subdivisions, parks, trails, and the ability to provide a safe environment for family events. Above all, District 4 desires to protect their quiet, rural lifestyle and agricultural heritage, while providing an economic future based on traditional values.

**Economic Activities**

District 4 seeks to become economically diverse to create sustainable economic development. A key strategy includes identifying viable parcels with frontage on Interstate 10, Loop 202, SR 347, SR 587, SR 87, and along major arterial roads including Riggs Road, Queen Creek Road, Kyrene Road and McClintock Road.

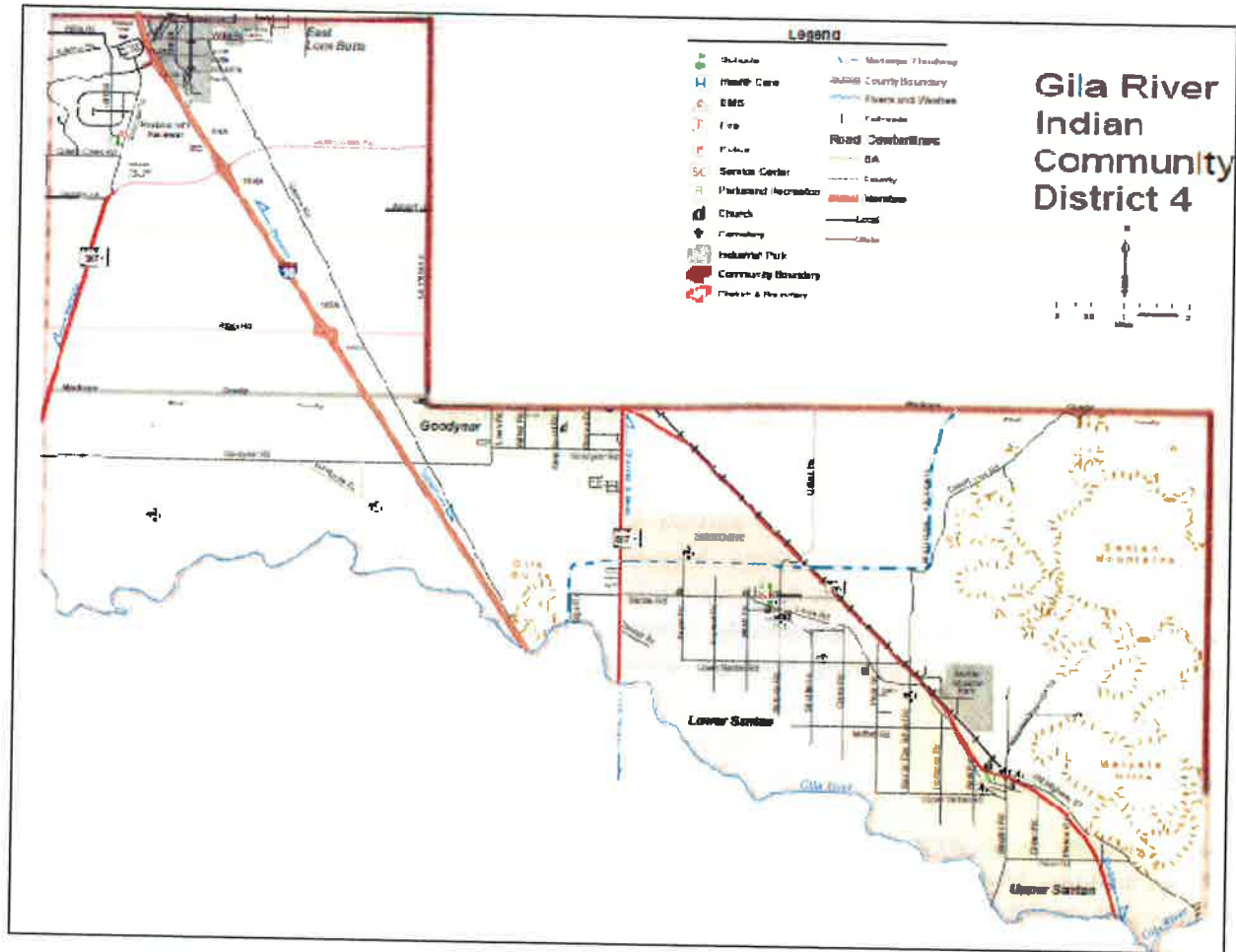
**Natural Resources**

The District seeks to preserve, maintain and enhance the natural environment and open space character in the area. This can be best accomplished by protecting significant natural features and important wildlife habitats and corridors.

**Capital Improvement Plan: Priority Projects for District 4**

A District priority is to develop an activity center at Interstate 10 & Riggs Road to generate employment opportunities. Prime freeway exposure and regional arterial access only require utility services to take advantage of its market potential. District 4 wishes to promote an activity center at SR 347 & Riggs Road. The SR 347 provides the primary north-south circulation route for the city of Maricopa to access the greater Phoenix Metropolitan area.

Figure 8: District 4



## **DISTRICT 5**

District 5 (Figure 9: District 5) is roughly 102 square miles and has a population of 2,183 Community members. The district is commonly known as Casa Blanca or Vah ki which translates into English as “house that goes into the ground”. District 5 contains six villages: Sweet Water, Bapchule, South Casa Blanca, West Casa Blanca, Sacate and Wet Camp.

The northern boundary is defined by the Gila River bank; the southern boundary abuts the cities of Casa Grande and Maricopa. District 5 continues to be the center of agricultural production of the Pima and Maricopa tribes. Faced with an arid environment, the Huhugam, ancient ancestors of the Pima created irrigation systems hundreds of years before Euroamerican settlement within Arizona. The many miles of canals built allowed them to grow corn, beans, squash, and melons along the Gila River. Their ingenuity yielded significant results. Today, modern versions of the ancient irrigations systems allow Gila River Farms, founded by the Community in the 1960s, to produce crops such as cotton, alfalfa, citrus, olives, wheat and barley on nearly 35,000 acres of land with approximately 130,000 acres of additional agricultural land available to cultivate. In the ancient tradition, farmers continue to adapt by making the transition to modern farming equipment to expedite the harvesting of these diverse crops. According to the Gila River Indian Community Utility Authority, District 5 lies in the westerly storm path and is subject to more storm damage than some other districts. This is based on number of incidents related to the electrical infrastructure.

The following presents the District’s planning and development guidelines in the Master Plan and have been considered relevant for consideration in the 2014 Plan:

### **Economic Activities**

The District wishes to maximize GRIC’s economic competitiveness by creating sustainable commerce and employment. A key strategy includes investing in the maintenance and development of the Community’s infrastructure to support and attract businesses. In addition, District 5 wishes to support and encourage economic activity on the Interstate 10 Corridor by supporting transportation system improvements along the Interstate 10 Corridor and encouraging placement of retail facilities and commercial amenities along Interstate 10.

### **Housing**

The District wishes to establish housing guidelines for placement and development that provide quality housing options taking into consideration home sites that are distant from existing infrastructure.

### **Capital Improvement Plan: Priority Projects for District 5**

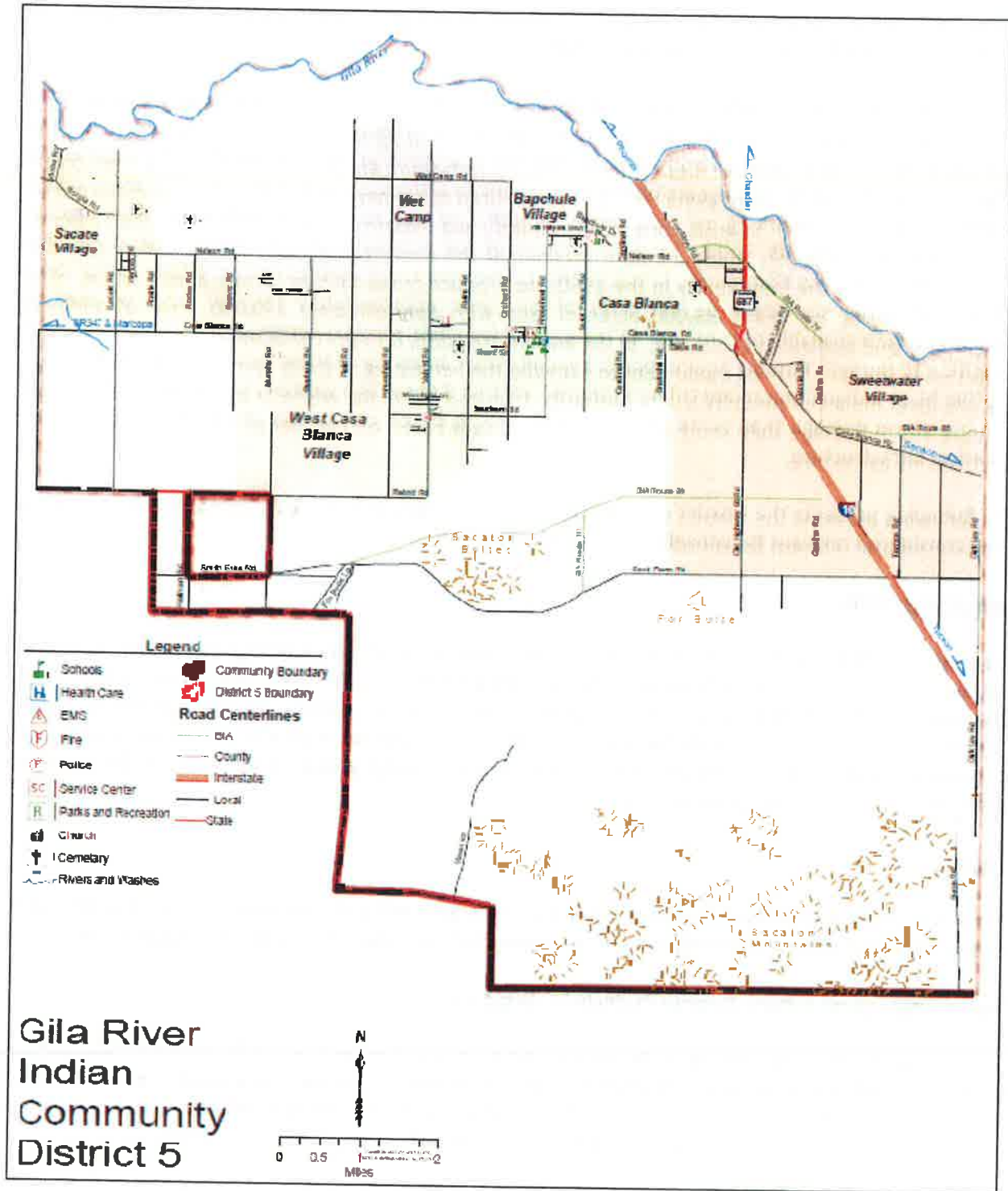
A key economic development opportunity for District 5 and the Community is the Interstate 10/Casa Blanca Road/SR 587 Interchange. If plans for the reconstruction of the interchange are completed, a capital program to expand basic infrastructure will need to be implemented to enhance business development. District 5 and the Community should coordinate closely with the ADOT on this project.

Another potential business development area adjacent to the John Deere Testing Facility has been identified and will be known as the Casa Blanca Road Business Development Area. To increase the

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feasibility of this parcel, existing infrastructure would need to be connected to the existing infrastructure or basic infrastructure expanded.

Figure 9: District 5



## **DISTRICT 6**

District 6 (Figure 10: District 6) is home to 2,273 residents. It sits at the base of the Sierra Estrella Mountains, where once flowing, but now dry, sandy river beds of the Gila River, Gila Floodway, Vekol, Santa Rosa and Santa Cruz Rivers crisscross the Sonoran Desert. This northern boundary of the Community is adjacent to the Ahwatukee Foothills and the southern boundary borders the City of Maricopa. District 6 contains four villages: Lone Butte, Santa Cruz, Komatke and Co-op Village. The land is 177 square miles, home to the Komatke Community Center Complex, and Vee Quiva Casino, one of the Community's three casinos.

District 6 has been severely threatened by large wildfires. Large stands of salt cedar trees grow within the river beds providing enormous fuel reserves. These stands are subject to potential ignition by illegal river bottom activities, lightning strikes, and other causes. The fire danger is further increased due to a large area of urban interface along the northern boundary. In addition, the Vee Quiva Casino and Hotel are also at risk due to the area's potential due to flooding in the wash systems.

### **Economic Activities**

District 6 wishes to provide economic development for District 6 Members by investing in a healthcare-based activity center. This can be accomplished by encouraging placement of healthcare facilities and amenities, like clinics or pharmacies, in the District.

District 6 also desires to coordinate development efforts along SR 347 with Wild Horse Pass to maximize the economic opportunities of SR 347. This would allow the District to maximize retail and commercial opportunities at the intersection of Beltline and Riggs roads.

### **Housing**

District 6 wishes to provide quality housing options suit the needs of its Members. This includes expanding Member housing developments in and around the District 6 villages of Komatke, Gila Crossing, and Lone Butte and discouraging scattered home sites that are distant from existing infrastructure and are costly to develop and maintain.

### **Natural Resources**

District 6 desires to preserve, maintain and enhance the natural environment and open space character of the Gila River Indian Community area as a living resource. District 6 strives to make sure that development harmonizes with, supports, and does not degrade its natural character by ensuring development complements the District's natural resources.

### **Recreation**

District 6 wishes to provide a range of amenities that allow Members to re-create and celebrate with one another. This includes establishing a regional park adjacent to the Vee Quiva activity center and South Mountain.

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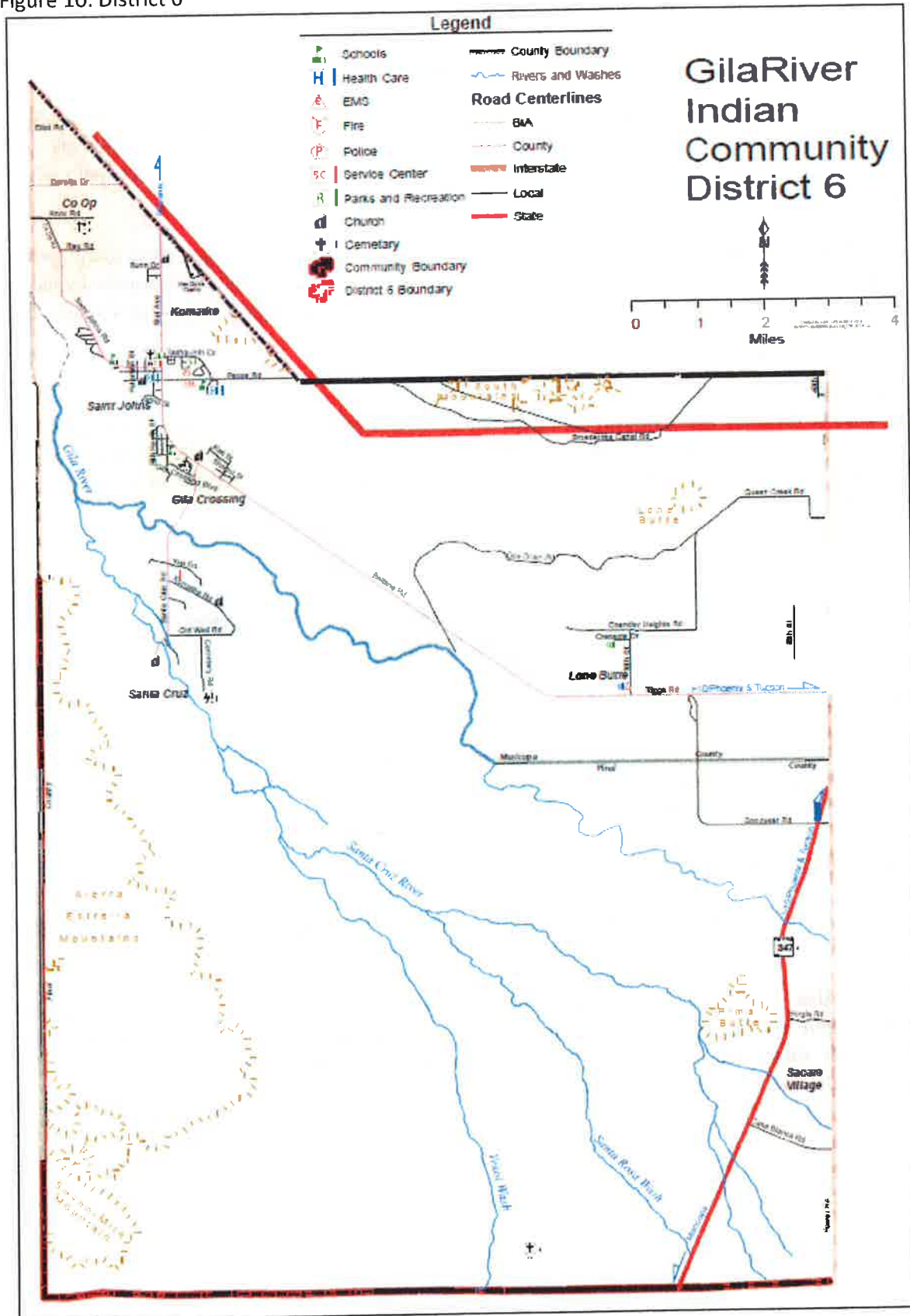
**Capital Improvement Plan: Priority Projects for District 6**

Members recognize the growth in the District and would like to see District 6 continue to expand its ability to provide services and amenities. The Master Plan preserves the Pecos Road corridor adjacent to 51<sup>st</sup> Avenue in Komatke as a regional public service hub. Necessary infrastructure could include water, wastewater and circulation improvements. This region is known as the Komatke Public Service Core.

The Vee Quiva Mixed Use activity center, adjacent to the Vee Quiva Casino is a great location to locate an entertainment-based, mixed use activity center. An activity center could be home to retail, higher density housing and entertainment-related activities and would bring jobs and amenities to District 6 and beyond.

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Figure 10: District 6



## **DISTRICT 7**

District 7 (Figure 11: District 7) is approximately 55 square miles with a population of 653 people. It is located at the northwestern part of the Reservation between South Mountain on the east and the Estrella Mountains to the west. District 7 is home to the Pee Posh. The Pee Posh originally lived together in small bands migrating from the lower Gila and Colorado Rivers to settle along the middle Gila and lower Salt River. The last of these bands left the Colorado River in the late 1830's. Eventually these bands came together and many settled in District 7.

District 7 has been severely threatened by large wildfires. Large stands of salt cedar trees grow within the river beds, providing enormous fuel reserves. These stands are subject to potential ignition by illegal river bottom activities, lightning strikes, and other causes. The north boundary of District 7 contains a large area of urban interface.

### **Economic Activities**

District 7 wishes to diversify economically to create sustainable economic development and implement an effective administrative process that supports short and long-term economic development strategies, efforts and staff. This can be accomplished by investing in a retail-based activity center on Baseline Road on the east border of the District.

### **Housing**

District 7 desires to provide housing options for the varying needs of Members and ensure guidelines are established for placement, development and use for housing.

### **Natural Resources**

District 7 wishes to preserve, maintain and enhance the natural environment and open space character of the Gila River Indian Community area as a living resource, making sure that development harmonizes with, supports, and does not degrade its natural character.

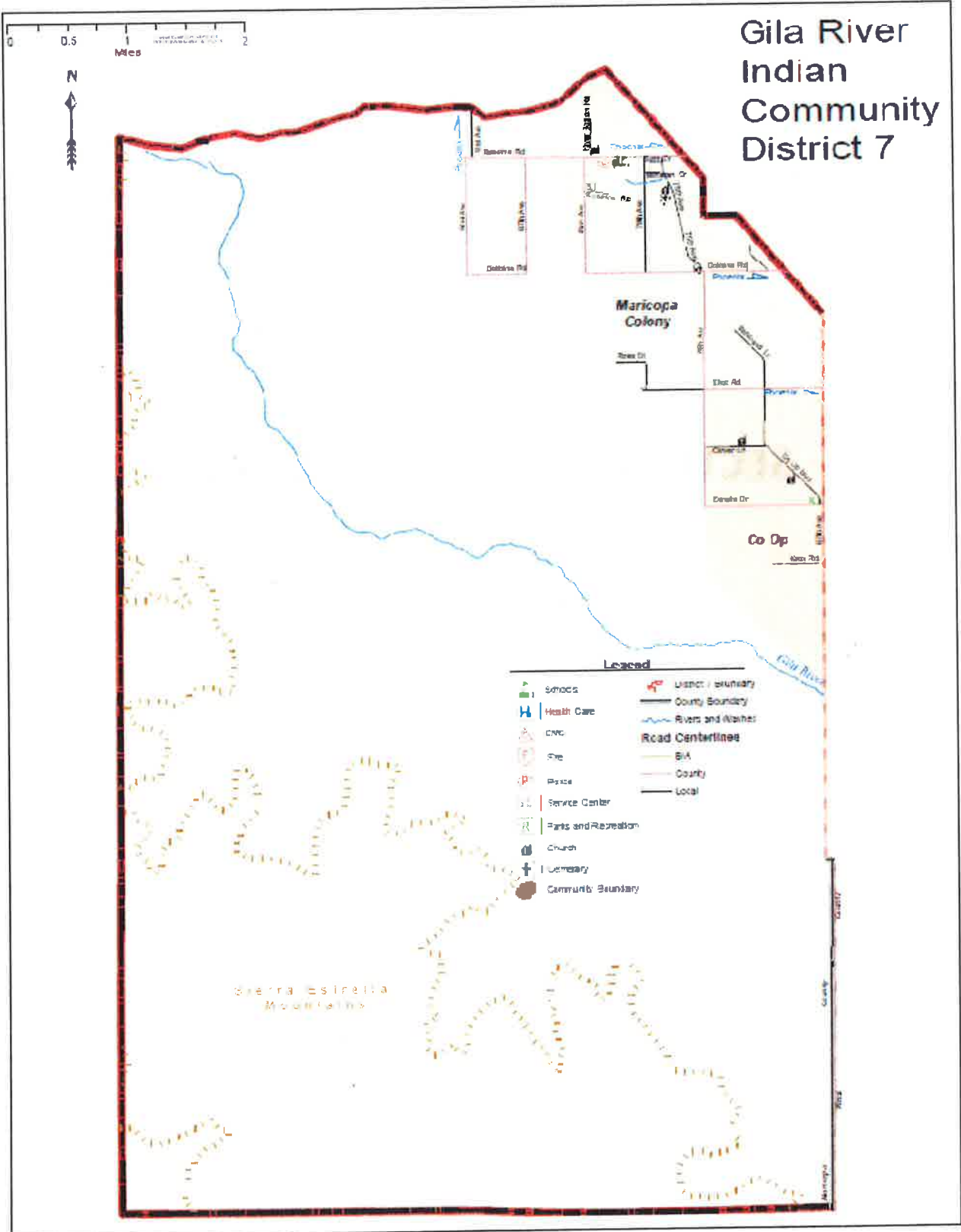
### **Capital Improvement Plan: Priority Projects for District 7**

The District 7 community has noted the desire for additional housing. The District 7 Master Plan recommends that continued housing expansion be concentrated in the "north-central core".

**Baseline Mixed Use Activity Center:** Members have shown an interest in commercial and job opportunities within the District. One possible opportunity exists on the far northeast corner of the District, on either side of Baseline Road, known as the Baseline Mixed Use Activity Center. The development is adjacent to new residential construction within expanding Laveen.

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Figure 11: District 7



## SECTION 3: RISK ASSESSMENT

***44 C.F.R. § 201.7(c)(2) requires Indian Tribal governments to provide sufficient hazard and risk information from which to develop and prioritize appropriate mitigation actions in order to safeguard and protect tribal members, lands, and cultural and other resources in long-term or permanent ways. This includes detailed descriptions of all the natural hazards that could affect the tribal planning area, as well as an analysis of the Indian Tribal government's vulnerability to those hazards.***

#### Section Changes

- There were significant changes to this 2014 Plan's identified hazards, focusing on natural hazards.
- Potential loss estimates and analyzing development trends were omitted from this 2014 Plan.
- The Calculated Priority Risk Index (CPRI) was used in this 2014 Plan to validate and prioritize the identified hazards.

For the purpose of this Plan, the Planning Team decided to follow FEMA guidance and focus only on natural hazards. In addition, there were many human caused hazards identified in the 2007 Plan that had no historical or factual basis to support their inclusion. This was key in the decision to draft this Plan and change many of the previous goals.

The historical hazard events are illustrated in Table E. The information was gathered from hazard profiles and originally collected from a variety of federal and tribal resources. The Planning Team identified the hazards, reviewed and approved Community and hazard profiles. The sections were revised as part of the update process.

This section includes the following subsections; Hazard Identification; Hazard Profiles; and Assessing Vulnerability (Table C). The Planning Team reviewed and approved the Critical and Non-Critical Facilities and Infrastructure list provided to the Community's Geographic Information Systems ("GIS") Department in order to complete the OEM Mapping Project. These maps and data are located at the GRIC OEM.

### **3.1 Hazard Identification**

In order to identify hazards, the following question must be answered, "What hazards can and do occur in the Community?" The list of hazards identified in the 2007 Plan were reviewed and refined to reflect the hazards that pose the greatest risk to the Community. These hazards changed from the 2007 Plan due to the decision to focus on natural hazards for the 2014 Plan review and limit the number of hazards that are not a likely threat and are not accompanied by sound information and/or data. The new identified hazards were rated based as part of the CPRI.

**The screening process was based on the following considerations:**

- Documented historical events or each previously documented hazard, especially events or hazards that occurred during the last plan cycle.
- Experiential knowledge of the Planning Team regarding the risk associated with the hazard.

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The Planning Team used the CPRI methodology to rate and prioritize the hazards identified in this 2014 Plan. CPRI values are arrived at by assigning varying degrees of risk to four categories for each hazard, then calculating an index based on a weighting scheme. The values which help determine the CPRI for each of the hazards are based on the probability of an event occurring, the magnitude of severity of that event, how much warning time is usually given and how long the event will impact the planning area. The CPRI values for the hazards identified in this 2014 Plan are illustrated below. (See Appendix 4 for scoring sheets).

**Table C: Calculated Priority Risk Index**

**Calculated Priority Risk Index (CPRI)**

Hazard	Probability				Magnitude/Severity				Warning Time				Duration				CPRI Score
	Unlikely	Possibly	Likely	Highly likely	Negligible	Limited	Critical	Catastrophic	<6 hours	6-12 hours	12-24 hours	>24 hours	<6 hours	<24 hours	<1 week	>1 week	
Example	X							X	X				X				2.15
Flooding			X			X				X					X		2.70
Severe Weather				X		X					X		X				2.80
Severe Temperature				X			X					X				X	3.25
Wildfire			X		X				X						X		2.85

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A Hazards table (Table D) was created by the Planning Team? to differentiate the list of Hazard in the 2007 and 2014 plans. The key rationale for change is that the Planning Team chose to only focus on natural hazards that have significant potential impact to GRIC as supported by historical events (See Table E). The previous 2007 Plan included hazards that had no or very little information and/or data to support a real threat to the Community.

**Table D: Hazards**

2007 Plan Hazards	2014 Plan Hazards
<p><b>Natural Hazard</b>  <b>Drought</b>  <b>Dust/Sandstorms</b>  <b>Extreme Heat</b>  <b>Flooding/Flashflood</b>  <b>Infestations</b>  <b>Monsoon/Thunderstorms/High Winds</b>  <b>Subsidence</b>  <b>Tropical Storms/Hurricanes</b>  <b>Wildfires</b></p> <p><b>Human Caused</b>  <b>Arson</b>  <b>Biological</b>  <b>Civil Disturbance</b>  <b>Dam/Levee Failure</b>  <b>Fuel/Resource Shortage</b>  <b>Hazardous Material Incidents</b>  <b>Hostage Situation</b>  <b>Power/Utility Failure</b>  <b>Terrorism (includes Cyber Security Issues)</b>  <b>Transportation Accident</b></p>	<p><b>Natural Hazards</b>  <b>Flooding</b>  <b>Severe Weather (Thunderstorms and High Winds)</b>  <b>Severe Temperature (Extreme Heat)</b>  <b>Wildfires</b></p>

**3.2 Hazard Profiles**

***44 C.F.R. § 201.7(c)(2)(i) requires that the risk assessment include a description of the type, location and extent of all natural hazards that can affect the tribal planning area. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.***

The information and data used is based on the available data at the time of research and collection (Table E). There is no specific data regarding Severe Weather/Extreme Heat for GRIC. The sections regarding Estimating Potential Loss and Analyzing Development Trends from the previous 2007 Plan are omitted in this Plan update. There is limited data to complete these areas at this time. Additionally, an improvement in record keeping of historical data will assist with showing evidence of potential hazards for planning purposes. The data will then available to GRIC for analysis. The risk assessment differs from

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the 2007 Plan due to the focus on only natural hazards. In addition, there is a lack of institutional knowledge and documentation from the previous plan.

Table E documents the natural hazards chosen for inclusion in the 2014 Plan.

**Table E: Historical Events**

<b>Date</b>	<b>Type of Hazard</b>	<b>Fatality/Injuries</b>	<b>Damages</b>	<b>Declaration</b>
2012	Flooding	0	\$161,013	Yes
2010	Flooding	0	unknown	Yes
2006	Flooding	0	unknown	No
2000	Flooding	0	\$165,000	yes (state and federal)
1993	Flooding	1 death	\$350,000	Yes (state and federal)
2011	Monsoon Storm	0	unknown	Governor Declaration
2011	Thunderstorm	0	unknown	No
2010	Thunderstorm	\$566,825	unknown	Yes
2009	Thunderstorm	4 minor injuries	unknown	No
2000	Thunderstorm	0	\$214,000	Governor declaration
1999	Monsoon Storm	0	Unknown (downed power line)	No
1997	Microburst	0	Est. \$100,000	No
April 2012	Wildfire	0	unknown	No
July 2012	Wildfire	0	unknown	No
March 2012	Wildfire	0	unknown	No
2008	Wildfire	0	Unknown	No

Source: OEM incident database and anecdotal information received from the Planning Team. The Wildfire information was received from the Gila River Fire Department.

# ASSET INVENTORY

**44 C.F.R. § 201.7(c)(2)(ii)(A) requires that the plan describe the Indian tribal government's vulnerability in terms of the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas.**

The Planning Team reviewed and analyzed the critical and non-critical facilities and infrastructure and made this a priority in the update process.

Structural assets identified within GRIC are classified as either critical or non-critical facilities or infrastructure. Critical facilities and infrastructure are those systems whose incapacity or destruction would have a debilitating impact on the Community's ability to respond to and recover from disasters.

Table N summarizes the eight general categories adopted to define critical facilities and infrastructures.

This criteria was set forth by the Critical Infrastructure Assurance Office of the United States Department of Commerce. See Exec. Order NO. 13,010, 61 Fed. Reg. 37347 (July 15, 1996).

The eight general categories summarized in Table N include:

<b>Infrastructure Categories</b>	<b>Facility</b>
<b>Telecommunications Infrastructure</b>	Fiber Optic Lines Radio, Cellular, and/or Microwave Towers
<b>Electrical Power Systems</b>	High Voltage Transmission Lines Transform Substations, Generation Stations
<b>Gas and Oil Facilities</b>	Conveyance of Delivery Pipelines Major Storage Locations (10,000 gallons or larger) Fuel and Oil Dispensing Locations
<b>Banking and Finance Institutions</b>	Local Banks Credit Unions
<b>Transportation Networks</b>	Interstates, US or State Highways, Major Local Arterial Roadways Railways, Rail Yards, Train Depots Airports, Major Bridges, Culverts, and Storm Drains
<b>Water Supply Systems</b>	Water Treatment Plants, Sewer Treatment Plants, Water Supply Wells/Reservoirs Primary Delivery Pipelines (10-inch and larger) Booster or Pump Stations Storage Tanks, Water Towers
<b>Government Services</b>	City, County, and/or State Administrative Buildings Facility Yards Military Bases, Correctional Facilities Emergency Operations Centers, IT Support Centers
<b>Emergency Services</b>	Fire, Police & Sheriff Stations Hospitals, Trauma or Urgent Care Centers Evacuation Centers, Ambulance Centers

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Other assets such as public libraries, educational institutions, museums, parks, recreational facilities, historic buildings or sites, churches, residential and/or commercial subdivisions, are classified as non-critical facilities and infrastructure. Although important, they are not necessarily “critical” per the definition set forth in Executive Order 13010. Furthermore, these facilities may function as emergency shelters and housing, and/or staging areas for rescue operations.

A list of facilities classified as non-critical, but may serve as critical facilities during an emergency is provided in Table O.

**Table O: Non-Critical Facilities Serving as Critical Facilities**

<b>Educational</b>	Schools
<b>Cultural</b>	Churches Historic Buildings, Parks or Structures, Museums
<b>Businesses</b>	Government owned buildings that operate as business centers Buildings leased to commercial vendors
<b>Residential</b>	Structures used primarily for living quarters or residential purposes: Houses, Apartments, Mobile Homes, Dining Halls, Cafeterias, etc...
<b>Recreation/Leisure</b>	Swimming Pools, Golf Courses, Parks Gymnasiums, Recreation Halls

\*\*Refer to the tables of critical and non-critical facilities and infrastructure by District and Classification per hazard (located in the OEM office).

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Below are the Community Wide Counts by District of Critical and Non-Critical Facilities and Infrastructure:

**Table P: Community Wide Counts by District of Critical and Non-Critical Facilities and Infrastructure**

District/Feature	Critical Facilities and Infrastructure Community-Wide								Non-Critical Facilities and Infrastructure		
	Telecommunications Infrastructure	Electrical Power Systems	Gas and Oil Facility	Banking and Financial Institutions	Transportation Networks	Water Supply System	Government Services	Emergency Services	Government Services	Residential	Business
1	80	2075	0	0	226	737	272	4	3	526	1
2	120	997	0	0	116	171	95	1	2	282	0
3	366	2673	7	0	373	782	746	25	69	1013	0
4	654	6628	18	0	706	1737	392	3	8	974	8
5	492	4103	15	0	432	1264	335	4	50	1053	0
6	504	2376	21	0	374	1103	552	7	20	856	1
7	79	1002	4	0	72	428	33	2	6	339	0
<b>Total</b>	<b>2295</b>	<b>19854</b>	<b>65</b>	<b>0</b>	<b>2299</b>	<b>6222</b>	<b>2425</b>	<b>46</b>	<b>158</b>	<b>5043</b>	<b>10</b>

The numbers are based on the extensive research conducted by the Community's Geographic Information Systems Department of the critical and non-critical facilities and infrastructure in the Community. (Data worksheets available at OEM)

**Assessing Cultural Resources**

**44 C.F.R. § 201.7(c)(2)(ii)(D) requires that the plan describe the Indian tribal government's vulnerability in terms of the cultural and sacred sites that are significant, even if they cannot be valued in monetary terms.**

Indian Tribal governments are encouraged to address cultural and sacred sites in their risk assessments. According to tradition, many consider their sacred sites to be a "close hold" subject and typically are unable to share specific locations and conditions in a public document, including the Community.

Respecting these cultural beliefs, GRIC will cite that there are some areas that could be vulnerable but are sacred. OEM in conjunction with the Tribal Historic Preservation Office (THPO) in the Cultural

Resources Department has the necessary lists, maps and information needed in an event of a disaster or emergency.

**Each profile includes the following sections:**

- Introduction/History
- Probability and Magnitude
- Vulnerability Analysis

### **3.2.2 Flooding/Flash Flooding/Drainage**

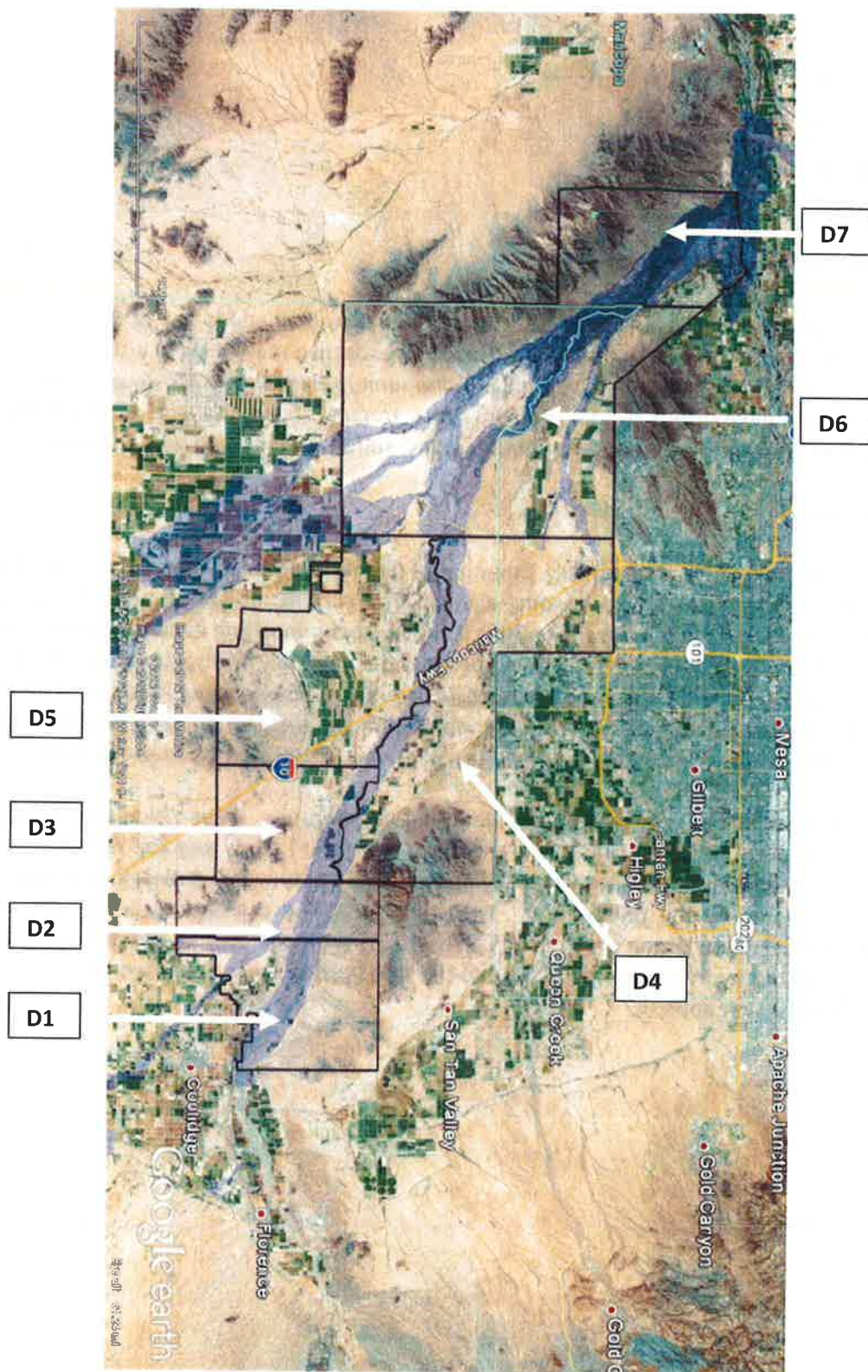
Flooding is defined as an overflowing of water onto normally dry land and is one of the most significant and costly of natural disasters. Flash flooding is caused by excessive rain falling in a small area in a short time and is a critical hazard in the Gila River Indian Community. Flash floods are usually associated with summer monsoon thunderstorms or the remnants of a tropical storm. Several factors contribute to flash flooding: rainfall intensity and duration, topography, soil conditions, and ground cover.

#### **Introduction/History**

The Flood Prone areas identified within the Community (Flood Prone maps located in the OEM office) illustrate the planning area for future flooding events. The current mitigation projects represent the high probability of a flooding occurrence. Flooding is the most common and expensive hazard in Arizona and GRIC. There have been at least 10 state and/or federal emergency or disaster declarations for flash flooding or flooding for the area that includes the Gila River Indian Community in the past 10 years. The United States Geological Survey (USGS) identified major drainage systems entering the Community and has since been compiled by consultants to provide an overview of 100-year flood prone areas.

The following image (Figure 12) references identified flood prone areas (blue hatch) within the Reservation. This is not a National Flood Insurance Program (NFIP) study and the Community has not joined the NFIP. The Community's Reservation Wide Drainage Study was a drainage assessment across the Community initiated by the Community. The study identified drainage issues at specific areas, including digitizing the flood prone areas in GIS. The maps are used only to identify a flood hazard. There are no associated hydrology or hydraulics, so the flood prone areas identified are not considered floodplains without further analysis.

Figure 12: Flood Prone Areas



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Flood prone areas as identified in the "Gila River Reservation Wide Drainage Study" prepared by Stantec Consultants January 2008 [D is for District]

The following section lists and describes significant historical events associated with flooding hazards in the Community.

In 2012, the Gila River Indian Reservation experienced several monsoon storms. Three of the storms resulted in the activation of the GRIC Emergency Operations Center ("EOC") and resulted in two separate Governor Emergency Declarations. The total homes affected were 161 with approximate costs totaling \$66,013. (See photos below)

**District 4: San Tan Rd**



**DISTRICT 4: Moffet Rd**



District 1-Damaged Home from August 14, 2012 Thunderstorm



January, 2010

- State of Emergency Declaration by Arizona Governor Jan Brewer and Gila River Indian Community Governor William Rhodes, ultimately resulting in a Presidential Declaration.

Skousen Bridge Before/After



BEFORE

AFTER



July 28, 2006

- Significant rain on the usually dry Gila River caused extreme overflowing. The photograph below of the flood waters was taken when most of the water level had receded. The Coolidge Dam needed to release water because of the excessive rain. The Gila River flooded again and on Tuesday, August 1, 2006, the river water broke a Gila River Telecommunications Incorporated ("GRTI") phone cable on Skousen Road in District 1 (North Blackwater). When the flood waters subsided, GRTI restored service within 48 hours.



*Facing North East on Skousen Road flood water above the fence where debris collected.*

**Source: Maricopa County Flood Control District**

October 23, 2000

- State emergency declaration for flooding followed by a federal declaration on October 27, 2000. Statewide damages in excess of 7 million were reported, while damages in excess of \$165,000 were reported for the GRIC.

January 8, 1993

- State emergency declaration for flooding by a federal declaration. Statewide damages in excess of \$134 million were reported, while damages in excess of \$350,000 were reported for the GRIC.

During the 1993 winter storm, Coolidge Dam officials were forced to release large quantities of water into the Gila River, causing major flooding in the Chin Road and Blackwater areas. A Gila River Indian Community Police Officer lost his life from the flooding. Olberg Bridge was the only open road at the time of the flooding.



**1993 Flooding at Santa Cruz Village**

## **Flood Mitigation**

### **Master Drainage Plan - District 3**

The Community embarked on a stormwater management program to develop and provide stormwater management and flood control facilities in District 3, town of Sacaton. With assistance of consultants, the Community programmed the development of a Master Drainage Plan to set the precedence for stormwater management within the District. The Master Drainage Plan was provided in two major phases. The first phase is providing the existing 10 year and 100 year storm hydrological results to estimate associated peak discharges and volumes. The second phase included developing structural and non-structural measures to address the identified results. Due to economic conditions, the Community was not able to fulfill this Report's recommendations, but has since been reviewed for potential implementation.

### **Gila River Indian Community Reservation Wide Drainage Study**

The Community determined in 2006 that the surface water hydrology conditions of six of the seven total Reservation districts needed to be evaluated. This was to provide recommendations and design for future development and drainage protection. This was completed in January 2008. District 3 was excluded due to previous stormwater study completed for the District. This study was initiated by the Community to provide a conceptual level (about 30% level) evaluation of the existing drainage conditions within the six districts and recommended;

- Future drainage studies;

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- Future drainage related photogrammetry;
- Future drainage improvements; and
- Prioritize drainage issues that need to be addressed.

Photographs and cost estimates do not address all of the Community drainage issues, but instead provide photography of some of the more significant District findings and associated costs. (Refer to GRIC Reservation Wide Drainage Study for further detail available at OEM).

### **Santa Cruz River and Middle Gila River Watershed Reconnaissance Study**

As part of initial steps of addressing flood control in a Regional manner utilizing current reports and resources, an Initial Watershed Assessment (“IWA”) was prepared with the United States Army Corps of Engineers (“USACE”) in response to the request by the Community for a Reconnaissance Study of the Santa Cruz River Watershed on August 2, 2011 and subsequent letter to include the Middle Gila River Watershed dated February 1, 2012 as offered by the USACE. See Water Resources Development Act of 2000, Pub. L. No. 106-541, 114 Stat. 2588; see also Water Resources Development Act of 2007, Pub. L. No. 110-114, 121 Stat. 1074.

In accordance with the USACE’ authority, the USACE is conducting a watershed assessment under the Tribal Partnership Program. On April 2, 2012, USACE provided approval to proceed in development of the IWA for GRIC. Planning activities will follow the USACE process with consideration to tribal input and processes for completing a watershed assessment. USACE implementation guidance directs that a watershed assessment under the Tribal Partnership Program will follow the guidance covering watershed assessments and planning activities pursuant to Section 729 of the Water Resources Development Act of 1986, Study of Water Resource Needs of River Basins and Regions. See CECW-P Memorandum for Commanders, Major Subordinate Commands, dated May 16, 2008, Subject: Implementation Guidance for Section 2011 of the Water Resources Development Act of 2007 (WRDA 2007), Tribal Partnership Program. Funds in the amount of \$100,000 were allocated for the USACE in Fiscal Years 2011 through 2012 to conduct the initial watershed assessment phase of this study.

### **Gila River Indian Community Flood Control Management Task Force**

In recognition of flooding hazards across the Community, in 2008 the Community developed the Gila River Indian Community Flood Control Management Task Force (“Flood Control Task Force”) pursuant to Resolution GR-103-08. The Task Force plans and provides recommendations to the Executive Office and Community Council for the following:

- Addressing immediate and permanent flood control management and storm water drainage as it impacts the Community from within and outside the Reservation boundaries.
- Organizing and structuring of the Community’s resources to establish a permanent means for the Community to handle storm water drainage and flood control management affecting the Community and the entire reservation with the goal of including such plans in future operating budgets.

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- Selecting a person(s) to participate in regional flood control meetings as needed to represent the Community's interests and report information to the Task Force, Executive staff, and Community Council.

These parameters have evolved into addressing flood control at a regional scale and continue to be the driving force to address flooding issues as an administrative function until dissolution of the Task Force and the scope of flood control is transferred to a designated Department.

**Probability and Magnitude**

Based on geographic location and historical information, the probability of future flooding events is likely. According to the CPRI, a level of likely high is categorized by frequent events with a well documented history of occurrence.

**Vulnerability**

Table F represents the probable impact/consequences to a flooding event. Refer to Table E for the historical events with known costs. In the future, costs of damages will be provided with better documentation in future updates through the use of improved tracking and new forms.

**Table F: Flooding Probable Impact/Consequences to Flooding**

HAZARD	IMPACT/CONSEQUENCES
Flooding	Damaged Homes
	Debris Removal
	Levee Failure
	Canals and Culverts Failure
	Road Closure/Damage
	Septic Tank Issues
	Animal Illness/Death
	Evacuation and Relocation

Table G delineates the number of critical and non-critical facilities and infrastructure that may be affected in a flooding incident based on an analysis and map study identifying a "River Flood Plain" (Maps available in the OEM). It represents each district and the classification for critical and non-critical facilities and infrastructure. This data may be essential during emergency response efforts and can be found in the Flood Prone maps (Maps available in the OEM office).

Table G: Number of Critical/Non Critical Facilities and Infrastructure per District

District	Critical Facilities & Infrastructure Flooding Areas								Non-Critical Facilities & Infrastructure – Flooding Areas		
	Telecommunications Infrastructure	Electrical Power Systems	Gas and Oil Facility	Banking and Financial Institutions	Transportation Networks	Water Supply System	Government Services	Emergency Services	Government Services	Residential	Business
1	28	427	0	0	70	179	61	0	0	106	1
2	22	514	0	0	54	104	1	1	1	143	0
3	28	411	0	0	47	133	2	1	4	26	0
4	33	350	2	0	48	73	0	0	0	9	10
5	4	58	3	0	20	49	0	0	0	15	0
6	112	509	9	0	90	168	25	0	0	67	0
7	23	613	2	0	33	246	27	2	5	212	0
Total	250	2882	16	0	362	952	116	4	10	578	11

### 3.2.5 Severe Temperature (Extreme Heat)

Severe Temperature (Extreme Heat) is defined as high temperature weather exceeding average temperatures and is of several weeks duration. Extreme Heat can bring on health emergencies in susceptible people. A heat wave is an extended period of extreme heat, and is often accompanied by high humidity. Extreme heat can also be characterized by temperatures ten degrees above the average high temperature for the region.

#### Introduction/History

Extreme Heat kills by pushing the human body beyond its limits. In extreme heat and high humidity, evaporation is slowed and the body must work extra hard to maintain a normal temperature. Most heat disorders occur because the victim has been overexposed to heat or has over-exercised for his or her age and physical condition. Older adults, young children and those who are sick or overweight are more likely to succumb to extreme heat. Conditions that can induce heat-related illnesses include stagnant atmospheric conditions and poor air quality. Consequently, people living in urban areas may be at greater risk from the effects of a prolonged heat wave than those living in rural areas. Also, asphalt and

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concrete store heat longer and gradually release heat at night, which can produce higher night time temperatures known as the "urban heat island effect."

A heat wave is an extended period of extreme heat, and is often accompanied by high humidity. Extreme Heat can also be characterized by temperatures ten degrees above the average high temperature for the region. Extreme heat conditions can be dangerous and even life-threatening for humans who do not take the proper precautions. In addition to affecting people, extreme heat affects plants and animals leading to reduced agricultural yields. According to the Arizona Department of Health Services,<sup>1</sup> the major human risks associated with extreme heat are:

**Heat cramps:** Heat Cramps are muscular pains and spasms due to heavy exertion. They usually involve the abdominal muscles or the legs. The loss of water and salt from heavy sweating causes heat cramps.

**Heat Exhaustion:** Heat Exhaustion is less dangerous than heat stroke. It typically occurs when people exercise heavily or work in a warm, humid place where body fluids are lost through heavy sweating. Fluid loss causes blood flow to decrease in the vital organs, resulting in a form of shock. With Heat Exhaustion, sweat does not evaporate as it should because of high humidity or too many layers of clothing. As a result, the body is not cooled properly. Signals include cool, moist, pale, flushed or red skin; heavy sweating; headache; nausea or vomiting; dizziness; and exhaustion. Body temperature will be near normal.

**Heat Stroke:** Heat Stroke, also known as sunstroke, is life-threatening. The victim's temperature control system, which produces sweating to cool the body, stops working. The body temperature can rise so high that brain damage and death may result if the body is not cooled quickly. Signals include hot, red and dry skin; changes in consciousness; rapid, weak pulse; and rapid, shallow breathing. Body temperature can be very high, sometimes as high as 105° F.

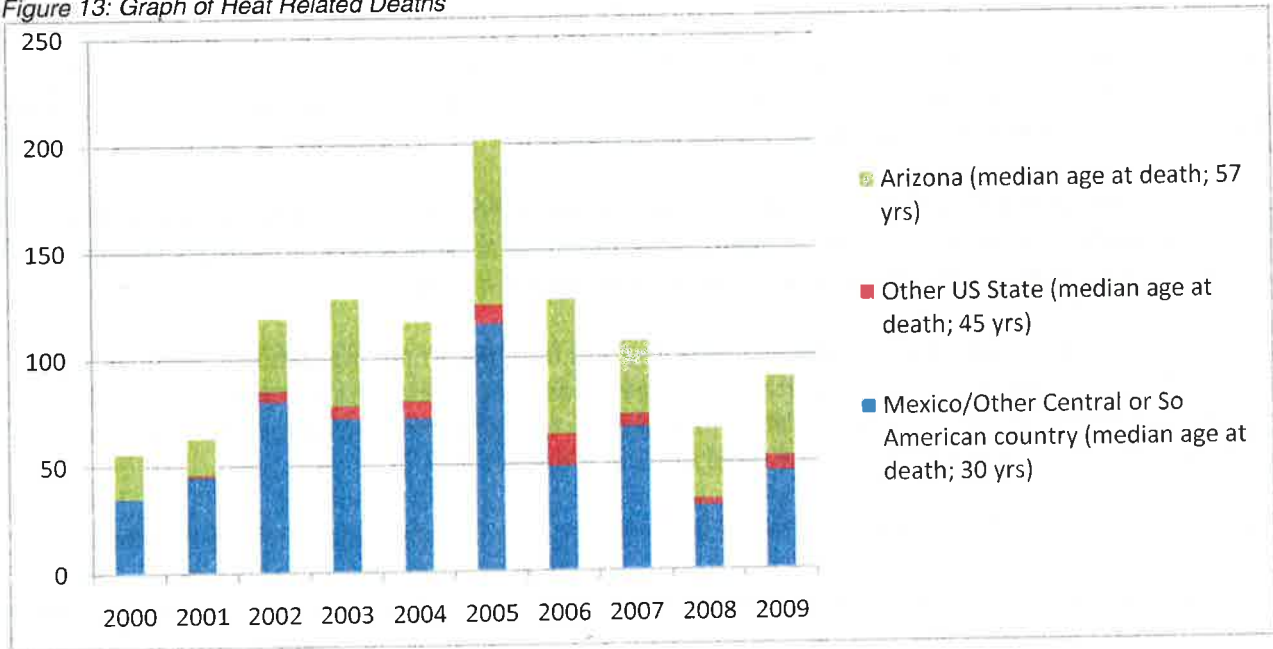
**Table H** and Figure 13 show heat related deaths from 2000-2009. There is a total of 1,153 deaths from heat due to weather conditions in Arizona. The illegal immigrants crossing Arizona's borders with Mexico account for the majority of these deaths (612 or 53%). This was the most current information available at the time of this report.

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<sup>1</sup> ADHS website

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Figure 13: Graph of Heat Related Deaths



The number of heat related deaths in Arizona, per county and population is illustrated in the Table H. The four counties along the southern border of Arizona (Cochise, Pima, Santa Cruz and Yuma) accounted for 63% of deaths from excessive heat. The high number of deaths in those four counties is likely linked to an increase in illegal immigrant traffic as is the steady increase in deaths from 2000. Regardless of the residence status, most deaths occurred during the months of July.

Table H: Heat Related Deaths - Arizona

County	Population 2010	Heat Related Deaths 2000-2009
Maricopa	3,817,117	313
Pima	980,263	562
Pinal	375,770	50
Yavapai	211,033	4
Mohave	200,186	25
Yuma	195,751	99
Coconino	134,421	11
Cochise	131,346	22
Navajo	107,449	4
Apache	71,518	3
Gila	53,597	1
Santa Cruz	47,420	49
Graham	37,220	2
La Paz	20,489	8
Greenlee	8,437	0

Source: US Census, 2010 & AZ Dept of Health Services

### Probability and Magnitude

Based on geographic location and historical information, the probability of future extreme heat is highly likely. According to the CPRI (See "Risk Assessment Section"), a level of likely high is categorized by frequent events with a well documented history of occurrence.

The magnitude of this hazard is expected to remain relatively the same as the historical data indicates. Based on deaths related to exposure of heat, a level of critical is likely and is categorized by significant impact, general public likely to experience effects and caution required.

To raise the public's awareness and prevent heat illnesses from occurring, the National Weather Service ("NWS") and Warning and Forecast Office issue three types of heat related messages. The combination of four factors that will trigger a heat related message are: temperature, humidity, amount of cloudiness and expected duration of conditions. The three types of messages are:

**Heat Advisory** – issued when the temperature is forecast to be unusually hot but not life-threatening.

**Excessive Heat Watch** – issued when conditions are likely to result in a life-threatening heat emergency within the next 24 to 48 hours.

**Excessive Heat Warning** – issued when a life-threatening heat emergency exists or is imminent.

Another indicator of the magnitude and degree of danger associated with extreme heat is the Heat Index ("HI"). According to the NWS, the HI is an accurate measure of how hot it really feels when the Relative Humidity is added to the actual air temperature. Table I: Heat Index, published by NWS, shows the HI based on values that were devised for shady, light wind conditions and the exposure to full sunshine can increase HI values by up to 15°F.

Table I, Figure 14, and Figure 15 all represent background information on the issues related to excessive heat. Table I, is from the National Oceanic Atmospheric Administration's website and provides the heat index used to determine the likelihood of a heat disorder based on the combination humidity and temperature. Figure 14 and Figure 15 provide average temperatures and record temperatures for the area. This assisted in determining that excessive heat is a factor for GRIC.

Table I: Heat Index

**NOAA's National Weather Service**  
**Heat Index**  
Temperature (°F)

	<b>80</b>	<b>82</b>	<b>84</b>	<b>86</b>	<b>88</b>	<b>90</b>	<b>92</b>	<b>94</b>	<b>96</b>	<b>98</b>	<b>100</b>	<b>102</b>	<b>104</b>	<b>106</b>	<b>108</b>	<b>110</b>
<b>40</b>	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
<b>45</b>	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
<b>50</b>	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
<b>55</b>	81	84	86	89	93	97	101	106	112	117	124	130	137			
<b>60</b>	82	84	88	91	95	100	105	110	116	123	129	137				
<b>65</b>	82	85	89	93	98	103	108	114	121	128	136					
<b>70</b>	83	86	90	95	100	105	112	119	126	134						
<b>75</b>	84	88	92	97	103	109	116	124	132							
<b>80</b>	84	89	94	100	106	113	121	129								
<b>85</b>	85	90	96	102	110	117	126	135								
<b>90</b>	86	91	98	105	113	122	131									
<b>95</b>	86	93	100	108	117	127										
<b>100</b>	87	95	103	112	121	132										

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

Caution
  Extreme Caution
  Danger
  Extreme Danger

Figure 14: Average Temperatures

Average Climate for Sacaton, AZ Period of Record 4/1908 – 7/2012												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Temp	65.7	70.4	75.9	84.9	93.8	103.1	104.9	102.8	99.2	88.3	75.7	66.6
Min Temp	33.9	37.9	42.3	48.6	56.4	65.6	74.8	73.2	66.1	53.0	40.6	34.5
Total Precip	.80	.78	.82	.34	.15	.10	1.24	1.41	.75	.54	.61	1.0

Figure 15: Extreme Temperatures

Record Single Day Extremes of Climate for Sacaton, AZ Period of Record 4/1908 - 12/2011												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Temp	89	92	100	106	114	121	118	120	115	110	100	87
Min Temp	9	15	19	28	33	44	57	53	38	25	19	12
Total Precip	1.31	1.78	1.53	1.08	1.20	1.01	4.45	4.00	2.72	1.33	1.43	2.02

**Vulnerability**

The entire GRIC area is susceptible to the impacts of extreme heat. The most commonly documented impacts are health related based on studies and reported cases to the Center for Disease Control and more specifically, Arizona Department of Health Services. As these studies reveal, historically, the most severely impacted is the elderly.

Typically, the impact to general building stock and critical facilities would be an increased demand on air conditioning equipment. This impact may in turn cause a strain on electrical and power systems.

Every summer in the Community there is a threat for severe high temperatures and public safety agencies are called to assist individuals who are affected by heat and dehydration.

The updated Plan highlights the possible impact and consequences of Severe Temperature on the Reservation. It is based on historical events and probability of occurrence (See "Risk Assessment Section"). This information portrays why the Planning Team identified Severe Temperature as requiring hazard mitigation measures within the Community.

Table J represents the Probable Impact/Consequences to Severe Temperature Events. Any unknown costs of damages will be provided with better documentation in future updates.

**Table J: Probable Impact/Consequences to Severe Temperature Events**

<b>Severe Temperature-Extreme Heat IMPACT/CONSEQUENCES</b>
Power Outages Related Incidents
Health Issues-Heat Exhaustion
Increase in heat related medical calls
Food spoilage and disposal
Public Health Outbreak
Possible Crop Damage
Water Outage
Animal Illness/Death

Severe Weather/Thunderstorms and High Wind are defined as violent storms that typically are associated with high winds, dust storms, heavy rainfall, hail, and lightning strikes. The unpredictability of thunderstorms, particularly their formation and rapid movement heightens the possibility of floods. Thunderstorms, dust/sand storms are most prevalent in Arizona in the monsoon season, which is a seasonal shift in the winds that causes an increase in humidity capable of fueling thunderstorms. The monsoon season is from mid-June through the end of September.

**Introduction/History**

Thunderstorms, high wind, dust, rain, lightning, flooding and flash flooding during the monsoon season has been a major hazard for GRIC. In addition to state and federal disaster declarations, the Community has issued numerous tribal declarations for response and recovery from monsoon storm damage. Sometimes declarations occur more than once in the same year.

**The following section lists and describes historical events associated with this hazard in GRIC:**

**Monsoon Storm July 30, 2011**

- This historical event included a monsoon storm with high winds, rain, lightning, and other hazardous weather. As part of the declaration process, it was determined adequate response and recovery assistance for families and individuals in District 3 to be beyond the scope and capabilities of the District 3 Service Center. The Governor issued an emergency declaration for Individual and Public Assistance for District 3.

**Thunderstorm July 5, 2011**

- Several strong thunderstorms developed Southeast of Phoenix. The storms produced damaging microburst winds and dense blowing dust that affected portions of the Pinal and Maricopa County's. Gusts in excess of 50 mph near Sacaton uprooted trees, downed power poles and blew a semi-truck off the Interstate.

**Thunderstorm/Flooding January 2010**

- This historical event included strong thunderstorms that caused flooding and severe damage to Skousen Bridge. (See Flooding section for pictures). There was a GRIC Governor's state of emergency declaration.

**Thunderstorm July 3, 2009**

- During this historical event, scattered thunderstorms with heavy rain and wind damaged about 25 homes in the GRIC. Many trees were uprooted and power poles were blown down near Highway 587 and Sesame Street. There were four persons reported with minor injuries as a result of the thunderstorm.

**Thunderstorm October 21, 2000**

- This historical event included thunderstorms with associated wind, rain, lightning, and other hazardous weather, and resulted in extensive infrastructure and property damage and risks to the people within the GRIC.
- The Governor issued an emergency declaration for the entire Community to provide the necessary response and recovery assistance. Damage and recovery costs were estimated to be \$214,000.

**Monsoon Storm July 23, 1999**

- During this historical event, five miles north of Casa Grande, the power lines snapped by a storm, with a wind speed magnitude of 60 mph.

**Monsoon Storm August 14, 1997**

- In the vicinity of Casa Blanca Road and Ruins Road, a microburst caused damage to a softball field where dugouts were blown over and smashed, with one piece of dugout blown across the road. It also blew a prefabricated home off its foundation. A satellite dish was uprooted and two power poles snapped. Roof damage was observed, a stop sign was twisted and blown over and an awning was blown off at the southeast corner of Casa Blanca Road and Ruins Road. The second of two micro-bursts struck Casa Blanca, this one with more fury. Winds of 70 mph

produced damage near Southern Road and Ruins Road, and destroyed three trailers, snapped eight power poles, knocked down trees and caused minor injuries to one individual. Damage and recovery costs are estimated at \$100,000.

**Probability and Magnitude**

The probability of severe weather as described in this profile has a CPRI (Refer to Risk Assessment Section) rating of 'highly likely', with documented history of occurrences within the entire planning area. The probability according to the CPRI, 'possibly' describes a single community that has rare occurrences of severe weather with minimal structural damage.

Severe weather and thunderstorms have the capability to affect the entire Community. The infrastructure, including all structures and critical facilities in the planning area are vulnerable and at risk of being damaged. Winds can cause structural loss, downed power lines, obstruct traffic flow and significant damage from downed trees. A catastrophic event could lead to major economic loss for the community. Furthermore, high wind speeds and flying debris can pose a significant threat to human life.

**Vulnerability**

Severe thunderstorms occur on an irregular basis with varying magnitudes and can cause a wide range of damage; from a few downed limbs, to wide spread tree loss, hail damage, and damage to property. Due to the nature of the hazard and the type of damage it causes, thunderstorms can be very dangerous to human beings, possibly causing serious injuries and even death.

The updated Plan highlights the possible impact and consequences of Severe Weather to the Community. It is based on historical events and probability of occurrence. This information portrays why the Planning Team identified Severe Weather as requiring hazard mitigation measures to eliminate or reduce the effects of a Severe Weather emergency or disaster within the Community.

Table K represents the probable impact/consequences to Severe Weather events. Refer to Table E (page 52) for the historical events with known costs. Any unknown costs of damages will be provided with better documentation in future updates.

**Table K: Probable Impact/Consequence Severe Weather Events**

IMPACT/CONSEQUENCES
Damaged Homes
Power Outages/Down Power Lines
Lightning Strikes (Infrastructure Damage and Wildfires)
Animal Illness/Death
Dust Storms
Traffic Accidents
Air Quality Issues
Respiratory Issues

### **3.2.5 Wildfires**

Wildfires are defined as a rapid, persistent chemical reaction that releases heat and light, especially the combination of a combustible substance with oxygen. Wildfires present a significant potential for disaster in the southwest, a region of relatively high temperatures, low humidity, low precipitation, and during the spring moderately strong daytime winds. Combine these severe burning conditions with people or lightning and the occurrence of destructive wildfires is highly likely.

#### **Introduction/History**

The planning area for Wildfires is primarily in District 6 and 7 (Appendix 3) which contains indigenous and invasive fuels that provide fuel loading. These areas are subject to potential ignition by illegal river bottom activities, lightning strikes, and other causes. These Districts also have a large urban interface along the Northern Boundary. According to the Community Wildfire Protection Plan, the areas have been identified as medium hazard areas.

Although Arizona is affected by numerous wildfires every year, the central deserts, including the Community is less vulnerable due to sparse vegetation and lack of standing timber. The Community does however experience smaller scale grass and brush fires that sometimes endanger houses, crops and infrastructure.

The Maricopa County Community Wildfire Protection Plan demonstrates Santa Cruz and Saint John's as medium risk communities for wildfires.

#### **May 2008**

- Ethan Fire destroyed 6,000 acres, The Bottle Fire occurred in the same area.

#### **April 1, 2012**

- Pee Posh Fire occurred north of Baseline, west of 91<sup>st</sup> Avenue in the Pee Posh wetlands. The cost and loss associated to cultural and environmental damages was significant. Suppression costs were not documented and therefore are not available.

#### **July 1, 2012**

- Pecos Fire was located to the East of Pecos Road near a Department of Public Works treatment area. The Pecos Fire was caused from debris in the district, but there were no known damages except for suppression costs.

#### **March 31, 2012**

- River Fire occurred along 91<sup>st</sup> Avenue area. There were no known damages except for suppression costs.

The Bureau of Indian Affairs ("BIA") Pima Agency is responsible for Wild land Fire Protection and Fuel Management. Bureau of Indian Affairs is also responsible for accessing fire loss damage and is currently drafting the Fire and Fuel Management Plans.

The Gila River Fire Department provides initial attack on wild land incidents to protect tribal assets. They provide resources on larger fires through a cooperative agreement with the BIA Pima Agency.

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**Probability and Magnitude**

Wildfires cause property damage and threaten lives and the environment in the surrounding areas. A catastrophic fire could cause flooding and other watershed issues. Wildfires can also cause damage to power lines, increasing threat of Extreme Heat during higher temperature months.

District 6 and District 7 are severely threatened by large wildfires due to stands of salt cedar trees that grow within the river beds that result in enormous fuel reserves. These stands are subject to potential ignition by illegal river bottom activities, lightning strikes, and other causes.

**Vulnerability**

The updated Plan highlights the possible impact and consequences of wildfires on the Gila River Indian Community. It is based on historical events and probability of occurrence. This information portrays why the Planning Team identified wildfires as requiring hazard mitigation measures within the Community.

The probable impact/consequences to wildfire events is represented in Table L. Refer to Table E (Page 52) for the historical events with known costs. Any unknown costs of damages will be provided with better documentation in future updates.

**Table L: Probable Impact/Consequences Wild Fire Events**

<b>IMPACT/CONSEQUENCES</b>
Evacuations
Need for Sheltering (food, water, and supplies)
Loss of property
Loss of Life
Road closures
Destruction to homes and land
Environment (Air Quality)
Water Quality
Cultural Resources issues
Loss of natural vegetation
Animal Illness/Death

Table M delineates the number of critical and non-critical facilities and infrastructure that may be affected in a wildfire incident in accordance wild land fire potential. The Table represents each district and the classification for critical and non- critical facilities and infrastructure as defined in Section 7-Asset Inventory. This data may be essential during emergency response efforts. The Wildfire Prone area maps are located at OEM and an overview is provided in Appendix 6.

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Table M: Number of Critical/Non Critical Facilities and Infrastructure per District

Critical Facilities and Infrastructure Wild Fire Areas (Moderate – Very High Risk)									Non-Critical Facilities and Infrastructure Wild Fire Prone Areas (Moderate-Very High Risk)		
District/Feature	Telecommunications Infrastructure	Electrical Power Systems	Gas and Oil Facility	Banking and Financial Institutions	Transportation Networks	Water Supply System	Government Services	Emergency Services	Government Services	Residential	Business
1	40	726	0	0	101	239	62	0	5	139	1
2	119	950	0	0	114	163	95	1	0	269	0
3	112	902	4	0	191	263	201	6	4	259	0
4	248	1912	7	0	321	353	44	0	4	147	3
5	110	585	4	0	117	156	54	0	1	159	0
6	448	1913	18	0	343	827	512	16	15	766	0
7	14	78	4	0	18	70	0	0	0	30	0
<b>Total</b>	1091	7066	37	0	1205	2071	968	23	29	1769	4

## SECTION 4: MITIGATION STRATEGY

***Under 44 C.F.R. § 201.7(c)(3), the plan shall include a mitigation strategy that provides the Indian tribal government'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. It includes the development of goal and objectives, and prioritization of mitigation actions.***

#### Section Changes

- An evaluation of the Community's Capability Assessment was performed for this 2014 Plan.
- Pre-and Post Disaster Hazard Management Responsibilities are identified in this 2014 Plan.
- The Goals and Objectives were significantly changed.
- The STAPLEE method use was discontinued in this 2014 Plan.
- The Actions and Projects now include a complete implementation strategy.

The following section summarizes the strategy developed by GRIC for mitigating the hazard risks identified and summarized in Section 3. 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 DMA2K, the primary components of the mitigation strategy are generally categorized into the following components:

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

#### 4.1 Capability Assessment

***Under 44 C.F.R. § 201.7(c)(3)(iv), the mitigation strategy shall include a discussion of the Indian Tribal government's pre- and post-disaster hazard management policies, programs, and capabilities to mitigate the hazards in the area, including: an evaluation of tribal laws, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas; and a discussion of tribal funding capabilities for hazard mitigation projects.***

The Planning Team as part of their research and analysis reviewed and analyzed regulatory codes and ordinances, interviewed technical staff and evaluated financial resources as part of the update process. Those items identified as part of this process are now listed in Table Q. Each item has been notated with their opportunities and/or gaps identified. Table Q includes pre- and post-disaster planning?

Where appropriate each hazard management laws, regulation, policies, programs, or capabilities also has been evaluated how it relates to hazard prone areas.

The Planning Team reviewed and evaluated the Community's capabilities in the following general areas:

- Legal/Regulatory, Codes, and Ordinances

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- Technical/Staff Resources
- Financial Resources

The Planning Team's evaluation found that there were no significant changes relative to hazard management policies from the previous 2007 Plan. However, for the purpose of this 2014 Plan, further evaluation was provided to illustrate the impact on mitigation that the specific laws and regulatory tools potentially have.

It is the intention of GRIC to strive for better planning mechanisms that will help control development in hazard prone areas within GRIC boundaries. New and updated plans can be used to deal with future growth by limiting or controlling development in hazard prone areas. Specifically, the Multi-Hazard Mitigation Planning projects may affect future development if the project is in a flood plain area.

The Planning Team discussed GRIC's pre- and post-disaster hazard management policies. A summary of those legal and regulatory capabilities, including existing plans, ordinances, and policies, as well as funding resources follows in this section.

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Table Q: Legal and Regulatory Capabilities for Gila River Indian Community

Regulatory Tools	Ordinances, Codes, and Plans	Explanation	Hazard Mitigation Impact
<p>Building Code(s) GRIC Code Title 19 (2009)</p>	<p>2000 International Building, Residential, Plumbing, Mechanical, Fuel Gas, Existing Building Code(s)  2002 National Electrical Code  2003 International Fire Code  2006 Wildland Urban Interface Code (passed by Resolution GR-93-14)</p>	<ul style="list-style-type: none"> <li>• The GRIC family of construction codes provide for several mitigation opportunities by requiring fire resistive construction, roofing applications able to withstand high winds.</li> <li>• In addition the codes address some of the concerns associated with the wild land urban interface areas of the Community.</li> </ul>	<ul style="list-style-type: none"> <li>• Building codes provide safety standards for new structures. Safer and better built structures are more likely to withstand risk and provide safety for the occupants.</li> </ul>
<p>Zoning Ordinance  GRIC Code Title 20 (2009) and Revised by Ordinance GR-02-13</p>	<p>Regulated as part of the International Model Codes</p>	<ul style="list-style-type: none"> <li>• Allows the segregation of uses that are incompatible. For example: to prevent new development from negatively impacting with existing residents or businesses.</li> </ul>	<ul style="list-style-type: none"> <li>• As part of community-wide zoning, the Land Use Planning &amp; Zoning Dept identifies areas that are high hazard zones to prevent future development in those areas. This will further protect the people and property of the GRIC.</li> </ul>
<p>Special Purpose Ordinances</p>	<p>Title 21 Fire and Life Safety Code  Proposed Drainage Ordinance  Disaster Relief and Emergency Assistance Plan (passed by Resolution GR-136-98)</p>	<ul style="list-style-type: none"> <li>• Provides for effective fire prevention, suppression and emergency services.</li> <li>• The proposed Drainage Ordinance provides an opportunity to enforce flood drainage issues through code enforcement that currently cannot be done.</li> <li>• The Disaster Relief and Emergency Assistance Plan provides funding for the OEM allowing for some funds for mitigation projects.</li> </ul>	<ul style="list-style-type: none"> <li>• Helps to protect the Community from fire.</li> <li>• These ordinances ensure there is proper drainage of canals, washes, and channels and protect the areas around them from future flooding.</li> <li>• In the past the DREAP has been used for mitigation activities such as vegetation management and brush clearing to prevent wildfires.</li> </ul>
<p>Site Plan Review</p>	<p>Administered by the Land Use</p>	<ul style="list-style-type: none"> <li>• These requirements ensure facilities,</li> </ul>	<ul style="list-style-type: none"> <li>• These requirements ensure that</li> </ul>

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Requirements	Planning and Zoning Department	homes, etc. are planned and built in accordance to established building codes.	safety regulations written into the code are followed, providing a higher level of disaster resistance.
<p>General or Comprehensive Plans</p>	<p>GRIC Reservation-Wide Draining Study Final Report (prepared for the Tribal Projects Department by Stantec Consulting, Inc., dated January 2008)</p> <p>Draft Flood Control and Drainage Design Guidance Manual (prepared by the Community's Flood Control Management Task Force, dated August 20, 2013)</p> <p>Bureau of Indian Affairs Pima Agency Wildland Fire Management Plan (passed by Resolution GR-93-14)</p> <p>2007 Multi-Hazard Mitigation Plan (passed by GR-02-07)</p>	<p>These plans address the specific hazards identified in the 2014 Plan.</p>	<p>These plans are reviewed and updated periodically and provide an integrated approach to hazard mitigation.</p>
<p>Capital Improvements Plan Passed by Resolution GR-74-14</p>	<p>Plan projects are prioritized for funding annually as part of the budget process</p>	<p>This 2014 Plan can and has been used to implement mitigation activities.</p>	<p>The Capital Improvements Plan assists with the maintenance of the Community's infrastructure. It provides an avenue to assist with mitigation needs for the Community.</p>
<p>Emergency Operations Plan</p>	<p>Emergency Operations Plan in draft form awaiting for Council Approval</p>	<p>The draft EOP when adopted will provide for accepted best practices to promote mitigation before and after an event. This would include a recovery opportunity that takes into consideration mitigation projects.</p>	<p>The EOP promotes a rapid recovery that takes into consideration mitigation projects for the affected area(s).</p>

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Land Use Plan	GRIC General Land Use Plan (passed by GR-83-84, as amended by GR-77-87)	<ul style="list-style-type: none"> <li>Land use planning is used by governments to guide future use of the community's land in accordance with the community's goals, values and desires.</li> </ul>	<ul style="list-style-type: none"> <li>Guides appropriate land use and ownership in the areas such as drainage and flood control, utilities, transportation, etc. to better protect the environmental resources.</li> </ul>
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Current pre- and post-disaster hazard management is accomplished through several GRIC departments with assistance from some federal agencies. Table R summarizes some of the GRIC departments and programs involved in either pre- or post-disaster hazard management.

**Table R: Pre- and Post-Disaster Hazard Management Responsibilities**

<b>Entities with Pre- and/or Post-Disaster Hazard Management Responsibilities</b>	
<b>Department or Agency</b>	<b>Hazard Management Activities</b>
Executive Office	<ul style="list-style-type: none"> <li>• Ultimate authority for all GRIC hazard management and mitigation activities and funding</li> <li>• Provides assistance in legal advice and services</li> <li>• Grant and Contract writing support and administration</li> </ul>
Management Information Systems (MIS)	<ul style="list-style-type: none"> <li>• IT Infrastructure, Services and Support</li> <li>• Maintains all telecommunication</li> </ul>
Public Safety Division: OEM	<ul style="list-style-type: none"> <li>• Incident Management and resource coordination</li> <li>• Hazard mitigation planning</li> <li>• Participation in the Tribal Emergency Response Committee</li> <li>• Management and update responsibility for the Tribal Emergency Operations Plan</li> </ul>
Public Safety Division: Fire Department	<ul style="list-style-type: none"> <li>• Provides protection for the life and property of the inhabitants and visitors of GRIC from adverse effects of fire, medical emergencies, hazardous materials, wild land fires or exposure to dangerous conditions</li> <li>• Emergency response</li> <li>• Fire Prevention</li> <li>• Participation in the Tribal Emergency Response Committee</li> </ul>
Public Safety Division: Police Department	<ul style="list-style-type: none"> <li>• Provides protection for the life and property of the inhabitants and visitors of the through law enforcement of tribal, state and federal laws/ordinances</li> <li>• Emergency response</li> <li>• Community policing/prevention</li> <li>• Participation in the Tribal Emergency Response Committee</li> </ul>
Department of Environmental Quality	<ul style="list-style-type: none"> <li>• Manages and regulates the storage, collection, transportation and disposal of solid waste and certain hazardous waste</li> <li>• Actively investigates sites (when applicable) after environment incidents such as releases or spills occur</li> <li>• Subject matter resource for emergency response</li> <li>• Participation in the Tribal Emergency Response Committee</li> <li>• Environmental awareness and prevention programs</li> </ul>

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Land Use Planning and Zoning	<ul style="list-style-type: none"> <li>• Establishes and implements codes pertaining to land use, building and site development</li> <li>• Development Review and Design Technical Assistance</li> <li>• Mapping &amp; Geographic Information Systems support and development</li> <li>• Responsible for emergency housing repairs</li> <li>• Transportation planning</li> <li>• Floodplain management and delineation</li> <li>• Range conservation and management</li> <li>• Agriculture and livestock management</li> <li>• Soils and water conservation</li> </ul>
Community Public Affairs Office	<ul style="list-style-type: none"> <li>• Public information and warning</li> </ul>
Health Resources Department	<ul style="list-style-type: none"> <li>• Behavioral health services</li> <li>• Case management</li> </ul>
Gila River Health Care	<ul style="list-style-type: none"> <li>• Hospital and emergency medical services</li> </ul>
Gila River Indian Community Utility Authority	<ul style="list-style-type: none"> <li>• Maintains all electric facilities</li> </ul>
Pima Leasing - BIA	<ul style="list-style-type: none"> <li>• Assistance with right-of-way and land leases</li> </ul>
Community Services Department	<ul style="list-style-type: none"> <li>• Volunteer support</li> <li>• Transportation, mass care and shelter assets</li> <li>• Local coordination</li> </ul>
Legislative Branch	<ul style="list-style-type: none"> <li>• District representation for legislating Tribal codes, ordinances and appropriations</li> </ul>
Judicial Branch	<ul style="list-style-type: none"> <li>• Provide legal support</li> <li>• Court system</li> </ul>
Department of Public Works	<ul style="list-style-type: none"> <li>• Maintains all water and wastewater</li> <li>• Motor pool/Fleet Maintenance</li> <li>• Solid waste management</li> </ul>
GRIC Facility Maintenance	<ul style="list-style-type: none"> <li>• Facilities Management</li> <li>• Emergency repairs and restoration</li> </ul>

Staff resources from GRIC departments and programs collectively provide hazard mitigation for the GRIC. OEM performed an evaluation of the capabilities of the staff resources listed below in Table S, and the following broad mitigation related gaps and opportunities were identified:

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- Lack of integrated GRIC codes relating to hazard mitigation.
- Lack of a comprehensive, GRIC-wide District land use maps.
- Development of a single, one-stop repository for digital (GIS and CAD) base mapping and hazard profile mapping.
- Integrated wild land fire plans.

**Table S: Technical staff and personnel capabilities for GRIC**

<b>Staff/Personnel Resources</b>	<b>Department/Agency – Position “Gaps” or Mitigation Opportunities</b>
Planner(s) or engineer(s) with knowledge of land development and land management practices	Department of Transportation, Land Use Planning & Zoning, Department of Public Works, Gila River Healthcare
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Tribal Projects Department
Planner(s) or engineer(s) with and understanding of natural hazards	Flood Control Task Force (FCTF) OEM Emergency Planners
Floodplain Manager	Land Use Planning & Zoning
Staff with education or expertise to assess the community’s vulnerability to hazards	OEM Planners/All OEM Staff Fire Department Emergency Medical Services Police Department
Surveyors	Tribal Projects
Personnel skilled in GIS and/or HAZUS	Land Use Planning & Zoning
Emergency Manager	OEM Director Gila River Fire Department and Gila River Police Department will send representative to EOC during activation
Others	Gila River Fire Department Staff as first responders Gila River Police Department as first responders Department of Environmental Quality Cultural Resources
Grant Writers	Individual Departments are responsible for writing Department grants

***Under 44 C.F.R. § 201.7(c)(3)(v), the mitigation strategy shall include an identification of current and potential sources of Federal, tribal, or private funding to implement mitigation activities.***

Current financial sources available to GRIC for hazard mitigation planning and projects include disaster and mitigation funds through FEMA programs (i.e., Public Assistance Grant Program, HMGP, and PDM funds).

The Planning Team reviewed the funding sources in the 2007 Plan and researched those listed for accuracy and to ensure they are current and also considered new sources (Table T). There are no new funding sources and changes in the funding sources from the 2007 Plan. However, other potential sources of funds currently not used may include the U.S. Department of Interior (Bureau of Reclamation, Bureau of Indian Affairs, U.S. Geological Survey, Bureau of Land Management), U.S. Army Corps of Engineers, U.S. Housing and Urban Development, U.S. Department of Health and Human Services (Indian Health Service), and the U.S. Department of Agriculture (U.S. Forest Service, Natural Resources Conservation Service).

**Table T: Fiscal Capabilities for Gila River Indian Community**

<b>Potential Financial Resources for Mitigation Activities</b>	<b>Accessible or Eligible to use</b>	<b>Potential Uses for Mitigation</b>
BIA Right of Way, BIA Wildland Management Group	Yes	Assists with wildland and vegetation projects to prevent wildland fires.
Capital Improvements Project funding	Yes	Assists with the maintenance of the community's infrastructure. It provides an avenue to assist with mitigation needs for the Community.
Community Block Grants	Yes	Will be researched
DOT Operating Budget	Yes	Utilized to maintain and repair roads and bridges.
LUPZ Operating Budget, GRIC Capital Budget	Yes	Assists in identifying projects for controlling flooding areas.
DREAP funds	Yes	Utilized to assist families and programs in bringing the community back to pre-disaster conditions.
Federal Highways Program, Tribal Transportation Program	Yes	Will be researched
FEMA Hazard Mitigation Assistance (HMA) Programs	Yes	To implement cost effective measures designed to reduce the risk

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		<b>to individual and property from natural hazards.</b>
Tribal Funding	<b>Yes</b>	<b>Used to provide logistical support to first responders.</b>

#### 4.2 Goals and Objectives

***Under 44 C.F.R. § 201.7(c)(3)(i), the mitigation strategy shall include a description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.***

The Planning Team evaluated the goals and objectives in the previous plan and found that changes needed to be made to reach the goal and meet the requirement. The focus is now how to best reduce or eliminate Community risks.

**For the purposes of this Plan, the following definitions will be used for goals and objectives:**

**Goals:** General guidelines that explain what you want to achieve. Goals are usually broad statements with long-term perspective.

**Objectives:** Defined strategies or implementation steps intended to attain the identified goals. Unlike goals, objectives are specific, measurable, and have a defined time horizon.

As part of the planning process the GRIC hazard mitigation goal and objectives were developed by the Planning Team using a process that involved the following steps:

For the purpose of this 2014 Plan, the Community changed the Mitigation Goals & Objectives because the Community felt the definition of hazard mitigation is all encompassing, we adopted it as our one and only goal. The goal was assessed by the Planning Team and determined that it provides a foundation for clearer objectives that result in a simplified structure without being too complex or confusing as seen in our previous plan. The natural hazard only focus of this 2014 Plan also helped shape our decision to change the Goals and Objectives from our last plan.

The following goal and associated objectives have been agreed to by the Planning Team:

**GOAL: Reduce or eliminate risks that threaten the life, property, and infrastructure from natural hazards in Gila River Indian Community.**

**Objective 1:** Promote hazard mitigation activity and projects throughout the Community.

**Objective 2:** Increase public awareness and education of hazards and risks that threaten the Community as well as increasing knowledge of mitigation principles and practice among local public officials.

**Objective 3:** Establish and maintain partnerships to improve coordination and communication, resulting in increased mitigation activity.

**Objective 4:** Pursue hazard mitigation project funding opportunities for use by OEM and individual Districts.

**4.3 Analysis of Past Mitigation Actions/Projects**

The Planning Team researched and documented status updates of the previous plan’s mitigation actions and projects. This required the Team to meet face to face with staff, lead agencies and their Director’s to review the projects. Based on these discussions a status was determined for each identified action or project from the previous plan.

There were challenges in documenting information on past actions and projects. A good monitoring system was not developed in the prior plan and annual evaluations were not completed. In addition, a high turnover rate has been experienced in many of the departments who were indicated as lead agencies on the actions and projects.

Table U is an assessment of the actions and projects from the previous Gila River Indian Community Hazard Mitigation Plan. Evaluation was conducted based on level of progress. Projects in bold signify the projects are complete. Projects are identified by department and whether it is a Structure (S) or Non-Structure (NS) (Figure 8).

**Figure 8 Project Directions**

Status*  (See table below)	Enter either:	Enter in Explanation column:	Disposition**  (See table below)	Enter either:	Enter in Explanation column:
	<b>“No Action”</b>	Reason for no progress		<b>“Keep”</b>	N/A
	<b>“In Progress”</b>	What progress has been made		<b>“Revise”</b>	Revised components
	<b>“Complete”</b>	Date of completion and final cost of project.		<b>“Delete”</b>	Reason(s) for exclusion.

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Table U: Summary of Previous Plan Cycle Mitigation Actions/Projects

#	Name	Description / Location	Lead Agency Proposed Cost Proposed Comp Date	Status*	Disposition**	Explanation
S-1a	Cross Drainage Improvements	Improve cross drainage along Pima Street Culvert	<ul style="list-style-type: none"> <li>Department of Transportation</li> <li>Cost \$100,000</li> <li>FHWA – Federal Highways Program, Tribal Transportation Program</li> <li>Proposed Completion: 2016</li> </ul>	No action	Keep	District 3 Drainage Study Project does not start until 2016
S-1b	Cross Drainage Improvements	Improve cross drainage along Ocotillo Rd.	<ul style="list-style-type: none"> <li>Department of Transportation / Land Use Planning &amp; Zoning</li> </ul>	No action	Delete	Project is now considered impractical and maint. is too high
S-1c	Cross Drainage Improvements	Improve cross drainage along Pear Rd.	<ul style="list-style-type: none"> <li>Department of Transportation / Land Use Planning &amp; Zoning</li> </ul>	No action	Delete	Allotment concerns make this project too difficult
S2	New Drainage Channel – Skill Road Center	Construct new channel on east side of Skill Center Road	<ul style="list-style-type: none"> <li>Land Use Planning &amp; Zoning / Department of Transportation</li> </ul>	No action	Delete	Lack of proper equipment for maint. and no staff
S3	Bluebird Storm Drain	Construct new storm drain in Bluebird Road from Seed Farm Road to Casa Blanca Road	<ul style="list-style-type: none"> <li>Department of Transportation / Land Use Planning &amp; Zoning</li> </ul>	No action	Delete	Project is not feasible as written, too expensive
S4	Sacaton Channel Improvements	Reconstruct existing neighborhood channel	<ul style="list-style-type: none"> <li>Land Use Planning &amp; Zoning</li> </ul>	Complete		100 % complete only for clean up, no other work allowed due to Cultural Resources
S5	Improve Diversion Berms along Sacaton Road	Reconstruct diversion berms	<ul style="list-style-type: none"> <li>Land Use Planning &amp; Zoning / Department of Transportation</li> </ul>	No action	Delete	Too expensive and no funding

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#	Name	Description / Location	Lead Agency Proposed Cost Proposed Comp Date	Status*	Disposition**	Explanation
S6	South Boundary of East Cemetery Channel	Construct improved drainage channel through East Cemetery	<ul style="list-style-type: none"> <li>Department of Transportation <u>Phase I:</u></li> <li>Proposed Cost: \$5,000 DOT operating budget</li> <li>Proposed Completion Date: 6 months</li> <li><u>Phase II:</u></li> <li>Proposed Cost: TBD</li> <li>Proposed Completion Date: 2 yrs.</li> </ul>	<p>Phase 1 is complete</p> <p>Phase 2 – no action</p>	<p>Complete</p> <p>Delete</p>	<p>Phase 2- Construction Ditch too expensive to complete</p>
S7	Bluebird Channel	Construct new drainage channel along Bluebird from Ocotillo to Casa Grande Hwy	<ul style="list-style-type: none"> <li>Land Use Planning &amp; Zoning</li> <li>Proposed Cost: \$500,000</li> <li>50,000-culverts</li> <li>20,000-Fiber Optic Replacement</li> <li>350,000-Waterline Re-alignment</li> <li>Proposed Completion Date: 2017</li> </ul>	No action	Revise	Re-design, cost depends on redesign and land use for home construction and will need funding from Tribal funds and FEMA.
S8	East Detention Basin	Construct new regional detention basin located east of existing cemetery	<ul style="list-style-type: none"> <li>Land Use Planning &amp; Zoning</li> <li>Proposed Cost: 4 mil.</li> <li>Proposed Completion Date 2017.</li> </ul>	In-Progress	Keep	DCH has completed 60% of the basin and are waiting for additional budget to complete remaining
S9	New Drainage Channels – Casa Grande Hwy	Construct improved drainage channels along Casa Grande Hwy	<ul style="list-style-type: none"> <li>Department of Transportation</li> <li>Proposed Cost: \$20,000</li> <li>Date: 2018</li> </ul>	In-Progress	Keep	This is part of the roadway improvement project

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#	Name	Description / Location	Lead Agency Proposed Cost Proposed Comp Date	Status*	Disposition**	Explanation
S10	Southside Levee Improvements	Reconstruct / rehabilitate Southside Levee	<ul style="list-style-type: none"> <li>Department of Transportation, Land Use Planning &amp; Zoning</li> </ul>	No action	Delete	No longer needed other projects have eliminated the need.
S11	Gila River Drain	Construct new drainage channel leading to the Gila River	<ul style="list-style-type: none"> <li>Department of Transportation, Land Use Planning &amp; Zoning</li> <li>\$3.2m</li> </ul>	No action	Delete	Lack of funding due to high cost
S12	Cholla Road/Seed Farm Road Storm Drain and Basin	Construct new storm drain system	<ul style="list-style-type: none"> <li>Land Use Planning &amp; Zoning / Department of Transportation</li> </ul>	No action	Delete	No funding
NS1	Structures Assessment for Dikes 5 & 6	Conduct structural assessment of Dikes 5 & 6	<ul style="list-style-type: none"> <li>Department of Transportation, Land Use Planning &amp; Zoning</li> <li>Proposed Cost: TBD</li> <li>Proposed Completion Date: 5 yrs.</li> </ul>	No action	Delete	Deleted due to high cost
NS2	Operation Maintenance Plan – District 3 Drainage System/ Facilities	Prepare draft O&M guidelines	<ul style="list-style-type: none"> <li>Land Use Planning &amp; Zoning</li> <li>Proposed Cost: Operating Budget</li> <li>Proposed Completion Date: Summer 2016</li> </ul>	No Action	Keep	Has not yet been initiated
NS3	Structural Retention – Detention Policy	Prepare draft detention / retention policy manual	<ul style="list-style-type: none"> <li>Land Use Planning &amp; Zoning</li> <li>Proposed Cost: Operating Budget</li> <li>Proposed Completion Date: Summer 2013</li> </ul>	Complete	Keep	Keep due to still needing formal adoption

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#	Name	Description / Location	Lead Agency Proposed Cost Proposed Comp Date	Status*	Disposition**	Explanation
NS4	Strengthen Building Codes and Enforcement	Coordination by Tribal Projects & Fire to identify specific code provisions and strengthen enforcement of provisions that will reduce damages due to high winds associated with monsoon storms.	<ul style="list-style-type: none"> <li>Proposed Completion Date: Winter 2015</li> </ul>	No Action	Keep	Collaboration not yet initiated
NS5	Monsoon Storm Education & Outreach Initiative	Work with District Service Centers and departments to develop and deliver education and outreach programs that will enhance awareness and stress mitigation measures that will reduce damages due to monsoon storms.	<ul style="list-style-type: none"> <li>OEM</li> <li>Proposed Cost: Operating Budget</li> <li>Proposed Completion Date: On-going</li> </ul>	Complete	Keep	Continuous annual program

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#	Name	Description / Location	Lead Agency Proposed Cost Proposed Comp Date	Status*	Disposition**	Explanation
NS6	Annual Weed Abatement Program	Community-wide weed abatement in cooperation with the District Service Centers and Dept of Corrections. Project consists of a hazard assessment, scope of work and provision of labor, materials and equipment.	<ul style="list-style-type: none"> <li>• OEM</li> <li>• Proposed Cost: \$20,000</li> <li>• Annual program</li> </ul>	In progress	Keep	Considered annual program funded by OEM in cooperation with DRS.
NS7	Fire Hazard Reduction Education & Outreach Initiative	Annual education & outreach activities in cooperation with the Fire Dept and other appropriate depts. and programs, including the District Service Centers.	<ul style="list-style-type: none"> <li>• OEM</li> <li>• Proposed Cost: \$141, 791</li> <li>• \$5200-Mgmt Costs</li> <li>• Proposed Completion Date: 2017</li> </ul>	No action	Delete	Unable to receive required information and plan.
NS8	Reinforcement of Skousen Bridge	Skousen Rd. Bridge over Gila River	<ul style="list-style-type: none"> <li>• OEM</li> <li>• Proposed Cost-\$99,000</li> <li>• Completed: 2012</li> </ul>	Complete		Occurred after Flooding Incident

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#	Name	Description / Location	Lead Agency Proposed Cost Proposed Comp Date	Status*	Disposition**	Explanation
NS9	Enhance Water System Security- Administrative Improvements	Implement improvements from the Vulnerability Assessment conducted pursuant to the Public Health Security & Bioterrorism Preparedness Response Act of 2002 conducted by Camp Dresser & McKee, Inc. The report is highly confidential and is on file with DPW.	<ul style="list-style-type: none"> <li>Department of Public Works</li> <li>Proposed Cost: DPW Operating Budget</li> <li>Completion date- 2013</li> </ul>	Complete		Report completed
NS10	Enhance Water System Security -- Structural site Improvements	Implement improvements proposed in the report of the Vulnerability Assessment.	<ul style="list-style-type: none"> <li>Department of Public Works</li> <li>Proposed Cost: DPW Operating Budget</li> <li>Completion date 2016</li> </ul>	Revise	Keep	System redesign, SCADA installation on all water and wastewater facilities to monitor all equipment, currently in design.
NS11	Reconstruction of Blackwater School Culvert	Blackwater School Rd. Box Culvert	<ul style="list-style-type: none"> <li>Department of Transportation</li> <li>Proposed Cost: 300,000 (Federal Highway Program)</li> <li>Completion Date: Sept. 2012</li> </ul>	Complete		Completed

#### 4.4 Mitigation Actions/Projects and Implementation Strategy

***Pursuant to 44 C.F.R. § 201.7(c)(3)(ii), the mitigation strategy shall include 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.***

An analysis of the development trends was conducted and provided a basis for making decisions on mitigation strategies. A review of the identified trends in terms of the amount of change that is to be expected over time identifies that most of the current development will be in the development of housing stock for the Community. There is currently no large scale development or construction planned outside current established land use practices. Future development will likely occur in currently established areas. The trend for the pace of future development will remain low to moderate for the next five years. Based on this information mitigation projects listed on Table W are aligned with these trends.

The previous Tribal Mitigation Actions/Projects (A/P's) were reviewed and analyzed by the Planning Team, to determine which projects were completed, and which were in progress. The Team also described new mitigation projects to be included in the Plan's update. The A/P's were discussed to ensure they were feasible and necessary. The Team determined the information required to complete the detailed Implementation Strategy for each of the A/P's. The existing and new A/P's were then categorized using the following criteria: If an A/P's was determined to be potentially life-saving, it was automatically placed in the "High Priority" category (Table W).

**High Priority (H):            Protection of life and property**

**Medium Priority (M):      Protection of Infrastructure**

**Low Priority (L):            Protection of the Environment**

The categorization of the projects are only recommendations as the ultimate decision on whether to fund and complete these projects is based on a variety of factors. Factors include available tribal funding, grant specific funding, or Community Council priorities. A low priority does not take away from the importance of a project, rather it simply indicates a rank structure. All projects listed are considered important mitigation projects and the associated ranking should not take away from their consideration.

In addition, the mitigation A/Ps developed for the GRIC include information for the following categories:

- Project ID/District #
- Description
- Hazard(s) Mitigated
- Community Assets Mitigated (Existing/New)
- As part of the mitigation strategy it was important to identify actions and projects that address reducing the effects of hazards based on **new** and **existing** buildings and infrastructure. In Table W, the Planning Team, as part of the prioritization process evaluated the proposed

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actions/projects on their impact to **new** and **existing** buildings and infrastructure. Table W reflects this evaluation in the "Community Assets Mitigated (Ex/New)" column.

**Implementation Strategy**

***Under 44 C.F.R. § 201.7(c)(3)(iii), the mitigation strategy shall include an action plan describing how the actions identified in 44 C.F.R. § 201.7(c)(3)(ii) will be prioritized, implemented, and administered by the Indian Tribal government.***

The implementation strategy addresses the "how, when, and by whom?" related to implementing this 2014 Plan's identified actions and projects. The Planning Team developed an implementation strategy for each project in Table W, by providing the following information: estimated cost, estimated time frame, lead agency and potential funding source.

**The following table lists the mitigation actions and projects the Gila River Indian Community intends to begin work on during the next five year period.**

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Table V: 2013 Gila River Indian Community Mitigation Action Plan/Implementation Strategy

Mitigation Action/Project		Implementation Strategy						
Priority Rank	Proj. # Dist. #	Description	Hazard (s) Mitigated	Community Assets Mitigated (Ex/New)	Estimated Cost	Estimated time frame	Lead Agency	Potential Funding Source(s)
H	S9	D3 New Drainage Channels – Casa Grande Hwy Construct improved drainage channels along Casa Grande Hwy Revision-redesign future home development	Flooding	Existing	Proposed Cost: \$20,000	2018	Department of Transportation	BIA Right of Way Funding
H	NS4	Identify specific code provisions and strengthen enforcement of provisions that will reduce damages due to high winds associated with monsoon storms.	Thunder Storms	Both	TBD	2016	Gila River Fire Department /Tribal Projects	Tribal Funding
H	NS6	Provide coordination and funding for community-wide weed abatement in cooperation with the District Service Centers and Dept of Corrections Project consists of a hazard assessment, scope of work and provision of labor, materials and equipment.	Wildfires	Both	\$20,000 annual	On-going	OEM	Operating Budget
H	NS7	Fire Hazard Reduction Education & Outreach Initiative Annual education & outreach activities.	Wildfires	Both	TBD	Annual	OEM/Gila River Fire Department	Operating budget
H	NS11	D3 Replacement of Route 7 Bridge over the Gila River. The project will provide double capacity. 95% design completion	Flooding	Both	\$2.7 million	Construction will begin in 2014	Department of Transportation	Federal Highway Program Funds

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Priority Rank	Proj. # Dist. #	Description	Hazard (s) Mitigated	Community Assets Mitigated (Ex/New)	Estimated Cost	Estimated time frame	Lead Agency	Potential Funding Source(s)
H	NS12	PMIP Drainage Easement Subdivision in D2	Flooding	Existing	unknown	TBD	PMIP	PMIP-Water Settlement Funds
H	NSOE M1	Emergency Power -- Provide for emergency power to key facilities for use during extreme heat conditions and during power outages.	Extreme Heat	Both	\$300,000	TBD	OEM	DREAP, Grants
M	NS2	D3 Operation Maintenance Plan -- District 3 Drainage System/ Facilities Prepare draft O&M guidelines	Flooding	New	TBD	2016	Land Use Planning & Zoning	LUPZ Operating Budget
M	NS10	Enhance Water System Security --Coordinate with the Dept of Public Works to fund and implement recommended site improvements proposed in the Vulnerability Assessment.	Flooding	Both	Unknown	2016	Department of Public Works	DPW Operating Budget
L	S1a	D3 Cross Drainage Improvements Pima Street Culvert	Flooding	New	\$100,000	2016	Department of Transportation	Federal Highways Program, Tribal Transportation Program
L	S7	D3 Bluebird Channel Construct new drainage channel along Bluebird from Ocotillo to Casa Grande Hwy	Flooding	New	Proposed Cost: \$500,000 \$50,000-culverts \$20,000-Fiber Optic Replacement \$350,000-Waterline Realignment Cost depends on redesign and land use for home construction.	2017	Land Use Planning & Zoning	LUPZ Tribal Funding
L	S8	D3 East Detention Basin Construct new regional detention located east of existing cemetery Phased Approach Design	Flooding	New	Proposed Cost: \$4 million	2017	Land Use Planning & Zoning	Tribal Funding

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Priority Rank	Proj. # Dist. #	Description	Hazard (s) Mitigated	Community Assets Mitigated (Ex/New)	Estimated Cost	Estimated time frame	Lead Agency	Potential Funding Source(s)
L	NS13	complete PMIP Constructing Drainage on canal north of Highway 87	Flooding	Existing	Unknown	Proposed for 2016	PMIP	PMIP-Water Settlement Funds
L	NS2	Prepare draft Operation & Maintenance guidelines for District 3 drainage system/facilities	Flooding	Existing	Unknown	Proposed 2015	Land Use Planning & Zoning	Tribal operating budget
L	NS3	Adopt draft of detention and retention policy manual	Flooding	Existing/ New	Unknown	Proposed 2015	Land Use Planning & Zoning	LUPZ operating budget

## SECTION 5: PLAN MAINTENANCE PROCEDURES

***44 C.F.R. § 201.7(c)(4)(i) requires a formal plan maintenance process to ensure that the Tribal Mitigation Plan remains an active and relevant document. The plan maintenance process includes a method and schedule for monitoring, evaluating, and updating the mitigation plan. The plan must be updated at least every 5 years. See 44 C.F.R. § 201.7(d)(3).***

#### Section Changes

- A more comprehensive schedule for maintaining the 2014 Plan is outlined.

According to the DMA2K requirements, each plan must define and document processes or mechanisms for maintaining and updating the hazard mitigation plan within the established five year cycle. The Planning Team reviewed and analyzed this section of the Plan and based on this analysis this section was updated. The elements of this Plan maintenance section shall now include:

- Monitoring and Evaluation
- 2014 Plan Update
- Monitoring Progress of Mitigation Activities
- Incorporation into Existing Planning Mechanisms
- Continued Member and Stakeholder Involvement

#### 5.1 Monitoring and Evaluation

##### Schedule:

Gila River Indian Community recognizes that this Plan is intended to be a “living” document with regularly scheduled monitoring, evaluation, and updating. The sections present the Planning Team’s intended plan maintenance procedures for the next five years.

The 2014 Plan shall be reviewed on an annual basis or following a major event or disaster. Additional reviews may occur when required and/or needed due to changes in Tribal or Federal regulations or legislation that have an impact on the hazard mitigation program.

The previous 2007 Plan was not evaluated on a regular basis. This is due to Director and staff turnover, shifting of responsibilities and lack of understanding of the process by new employees. For the purpose of this 2014 Plan, a new method and schedule for evaluating the Plan has been implemented. The new process addresses how, when and by whom the evaluations shall be completed. That process is as follows:

**How** - The Planning Team shall be re-convened or contacted, as needed, to perform the annual evaluation. OEM will document the evaluation, the findings and any recommendations. This documentation will remain with the 2014 Plan and be used along with other evaluations, to update the 2014 Plan every five years. This information will not be incorporated into the OEM’s strategic plan and on an annual basis be a part of OEM’s annual report to the Community Council.

At a minimum an annual report and presentation will be made to the Community’s Multi-Agency Coordination (“MAC”) workgroup. The MAC is made up of GRIC departments, agencies, and enterprises and meets on a monthly basis to discuss emergency management issues.

**When** – The evaluations shall be conducted on an annual basis on or around the anniversary date of the official FEMA approval of this 2014 Plan.

**Whom** – The Director of OEM will delegate and instruct his staff member(s) when and how to conduct the evaluation. This will most likely be delegated to the Planner position.

The evaluations will focus on the following:

- Appropriateness of Goals/Objectives and Action/Projects
- Notable changes in the Community's risk to hazards
- Action and Project implementation progress. This may include identification of problems and suggested improvements.

## **5.2 Plan Update**

The Plan updates will adhere to the schedule using the following procedures:

1. Annually review the Plan for appropriateness.
2. OEM will convene the Planning Team and coordinate the update of the Plan based on the Team recommendations and those of the public 18 months prior to the 2014 Plan expiration date. At this time any research or information updates needed will be scheduled and initiated.
3. The Plan will be provided to the Planning Team for review and revision and to the Public for the opportunity to review and comment throughout the process.
4. An updated Plan will be drafted nine months prior to its expiration and reviewed by all GRIC stakeholders and the Planning Team.
5. The Plan will be submitted to FEMA for review six months prior to its expiration. Once a successful review and approvable pending adoption determination is made by FEMA, the Plan will be presented before the community council for adoption.
6. The goal would for the Plan to be processed through the Community Council process three months prior.
7. A signed resolution (s) adopting the 2014 Plan are submitted to FEMA to initiate the official plan approval letter one month prior to expiration.

## **Monitoring Progress of Mitigation Activities**

**44 C.F.R. § 201.7(c)(4)(ii)** requires that the plan maintenance process include a system for monitoring implementation of mitigation measures and project closeouts. Further, **44 C.F.R. § 201.7(c)(4)(v)**, requires the plan maintenance process include a system for reviewing progress on achieving goals as well as activities and projects identified in the mitigation strategy.

## **Goals Achievement**

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## Gila River Indian Community Multi-Hazard Mitigation Plan 2014

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The hazard mitigation goals and objectives identified by the GRIC and summarized in the previous section of this Plan will be reviewed at least on an annual basis to assess the level of achievement in attaining those goals. Unless otherwise directed or warranted, the goals and objectives review will coincide with the annual plan evaluation and update schedule. Goals will be reviewed using a subjective approach and summary of assessment will be included in the annual evaluation documentation.

### Actions/Project Implementation

For each annual evaluation and plan update, the Planning Team will coordinate with the agency(ies) identified as responsible lead for each A/P, to assess the implementation status of the identified action/project. The assessments will also be included in the annual evaluation documentation.

### Project Closeouts

The progress of A/Ps will be monitored at least on an annual basis. For FEMA supported projects, progress reports will be required on a quarterly basis throughout the project duration. The degree of quarterly reporting will be dependent upon the type of A/P, its funding source, and the associated requirements. At a minimum, the quarterly report may address:

- Project Completion Status
- Project Challenges/Issues (if any)
- Budgetary Considerations (Cost Overruns or under budget)
- Detailed Documentation of Expenditures

A closed project will also change status to "Completed" and will then be monitored for effectiveness in the intended mitigation. FEMA supported project closeouts may include an audit of the A/P financials as well as other guidelines/requirements set forth under the funding or grant rules, and any attendant administrative plans developed by the GRIC.

### 5.3 Incorporation into Existing Planning Mechanisms

***Under 44 C.F.R. § 201.7(c)(4)(iii), the plan maintenance process shall include a process by which the Indian Tribal government incorporates the requirement of the mitigation plan into other planning mechanisms such as reservation master plans or capital improvement plans, when appropriate.***

The Planning Team has reviewed and analyzed this section and updates have been made during this process.

The 2013 Multi-Hazard Mitigation Plan Risk Assessment may be incorporated into the Emergency Operations Plan, the Community Wildfire Protection Plan and the Disaster Relief Emergency Assistance Plan and others as appropriate. Risk Assessment information shall also be used as appropriate for response and preparedness activities.

The Planning Team will make requests for mitigation project funding through GRIC Capital projects program. The Planning Team will provide prioritized projects to Departments for review prior to the development of each year's budget process. This may allow some projects to be completed within a Department budget.

#### 5.4 Member and Stakeholder Involvement

44 C.F.R. § 201.7(c)(4)(iv) states that the plan maintenance process shall include a discussion on how the Indian Tribal government will continue public participation in the plan maintenance process.

- Gila River OEM will continue to use various public forums, meetings and events to keep the public informed about the ongoing and future hazard mitigation planning efforts, actions, and projects.
- OEM will continue to present the updated MHMP to each District.
- OEM will post copies of current and future MHMP drafts on the GRIC internet and intranet websites, and provide copies to key departments.

## APPENDICES

Appendix 1: Acronyms

ARS.....	Arizona State Statues
AZDHS.....	Arizona Department of Health Status
BIA.....	Bureau of Indian Affairs
CDC.....	Center for Disease Control
CFR.....	Code of Federal Regulations
CIAO.....	Critical Infrastructure Assurance Office
CPRI.....	Calculated Priority Risk Index
CWPP.....	Community Wildfire Protection Plan
DMA.....	Disaster Mitigation Act
DOT.....	Department of Transportation
DPW.....	Department of Public Works
DREAP.....	Disaster Relief and Emergency Assistance Plan
EOC.....	Emergency Operations Center
FEMA.....	Federal Emergency Management Agency
GRFD.....	Gila River Fire Department
GRHC.....	Gila River Health Care
GRIC.....	Gila River Indian Community
GRPD.....	Gila River Police Department
GRTI.....	Gila River Telecommunications Inc.
HI.....	Heat Index
HMGP.....	Hazard Mitigation Grant Program
HWS.....	Home Weather Station
IWA.....	Initial Water Assessment
LUPZ.....	Land Use Planning and Zoning
MHMP.....	Multi-Hazard Mitigation Plan
NFPA.....	National Fire Protection Act
NWS.....	National Weather Service
OEM.....	Office of Emergency Management
PDM.....	Pre-Disaster Mitigation Program
RH.....	Relative Humidity
USACE.....	United States Arizona Corp Engineer
WFO.....	Warning and Forecast Office
WHPDA.....	Wild Horse Pass Development Authority
WRDA.....	Water Resources Development Act
WUI.....	Wildland Urban Interface

## Appendix 2: Definitions

The following terms and definitions are provided for reference.

### Asset

Any natural or human-caused feature that has value, including, but not limited to people; buildings; infrastructure like bridges, roads, and sewer and water systems; lifelines like electricity and communication resources; or environmental, cultural, or recreational features like parks, dunes, wetlands, or landmarks.

### Building

A structure that is walled and roofed, principally above ground and permanently affixed to a site. The term includes a manufactured home on a permanent foundation on which the wheels and axles carry no weight.

### Critical Facilities and Infrastructure

Systems or facilities whose incapacity or destruction would have a debilitating impact on the defense or economic security of the nation. The Critical Infrastructure Assurance Office defines eight categories of critical infrastructure, as follows:

1. Telecommunications infrastructure: Telephone, data services, and Internet communications, which have become essential to continuity of business, industry, government, and military operations.
2. Electrical power systems: Generation stations and transmission and distribution networks that create and supply electricity to end-users.
3. Gas and oil facilities: Production and holding facilities for natural gas, crude and refined petroleum, and petroleum-derived fuels, as well as the refining and processing facilities for these fuels.
4. Banking and finance institutions: Banks, financial service companies, payment systems, investment companies, and securities/commodities exchanges.
5. Transportation networks: Highways, railroads, ports and inland waterways, pipelines, and airports and airways that facilitate the efficient movement of goods and people.
6. Water supply systems: Sources of water; reservoirs and holding facilities; aqueducts and other transport systems; filtration, cleaning, and treatment systems; pipelines; cooling systems; and other delivery mechanisms that provide for domestic and industrial applications, including systems for dealing with water runoff, wastewater, and firefighting.
7. Government services: Capabilities at the federal, state, and local levels of government required to meet the needs for essential services to the public.

8. Emergency services: Medical, police, fire, and rescue systems.

**Disaster Mitigation Act of 2000 :**

A law signed by the President on October 30, 2000 that encourages and rewards local and state pre-disaster planning, promotes sustainability as a strategy for disaster resistance, and is intended to integrate state and local planning with the aim of strengthening statewide mitigation planning.

**Federal Emergency Management Agency (FEMA)**

Formerly independent agency created in 1978 to provide a single point of accountability for all Federal activities related to disaster mitigation and emergency preparedness, response and recovery. As of March 2003, FEMA is a part of the Department of Homeland Security's Emergency Preparedness and Response (EPR) Directorate.

**Geographic Information Systems (GIS)**

A computer software application that relates physical features on the earth to a database to be used for mapping and analysis.

**Hazard**

A source of potential danger or adverse condition. Hazards include both natural and human-caused events. A natural event is a hazard when it has the potential to harm people or property and may include events such as floods, earthquakes, tornadoes, tsunamis, coastal storms, landslides, and wildfires that strike populated areas. Human-caused hazard events originate from human activity and may include technological hazards and terrorism. Technological hazards arise from human activities and are assumed to be accidental and/or have unintended consequences (e.g., manufacture, storage and use of hazardous materials). While no single definition of terrorism exists, the Code of Federal Regulations refers to terrorism as unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives.

**Hazard Identification**

The process of identifying hazards that threaten an area.

**Hazard Mitigation**

Cost effective measures taken to reduce or eliminate long-term risk associated with hazards and their effects.

**Hazard Profile**

A description of the physical characteristics of hazards and a determination of various descriptors including magnitude, duration, frequency, probability, and extent.

**Risk**

The estimated impact that a hazard would have on people, services, facilities, and structures in a community; the likelihood of a hazard event resulting in an adverse condition that causes injury or damage. Risk is often expressed in relative terms such as a high, moderate, or low likelihood of sustaining damage beyond a particular threshold due to a specific type of hazard event. It also can be expressed in terms of potential monetary losses associated with the intensity of the hazard.

**Vulnerability**

Describes how exposed or susceptible to damage an asset is. Vulnerability depends on an asset's construction, contents, and the economic value of its functions. Like indirect damages, the vulnerability of one element of the community is often related to the vulnerability of another. For example, many businesses depend on uninterrupted electrical power—if an electric substation is flooded, it will affect not only the substation itself, but a number of businesses as well. Often, indirect effects can be much more widespread and damaging than direct effects.

**Vulnerability Analysis**

The extent of injury and damage that may result from a hazard event of a given intensity in a given area. The vulnerability analysis should address impacts of hazard events on the existing and future built environment.

**Goals**

General guidelines that explain what you want to achieve. Goals are usually broad statements with long-term perspective.

**Objectives**

Defined strategies or implementation steps intended to attain the identified goals. Objectives are specific, measurable, and have a defined time horizon.

**Actions/Projects**

Specific actions or projects that help achieve goals and objectives.

**Implementation Strategy**

A comprehensive strategy that describes how the mitigation actions will be implemented.

**Hazard Terms:**

**Monsoon**

A monsoon is any wind that reverses its direction seasonally. In the Southwestern U.S., for most of the year the winds blow from the west/northwest. Arizona is located on the fringe of the Mexican Monsoon

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which during the summer months turns the winds to a more south/southeast direction and brings moisture from the Pacific Ocean, Gulf of California, and Gulf of Mexico. This moisture often leads to thunderstorms in the higher mountains and Mogollon Rim, with air cooled from these storms often moving from the high country to the deserts, leading to further thunderstorm activity.

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## Appendix 3 Planning Meetings

### Planning Meeting #1 Agenda

Gila River Indian Community Multi-Hazard Mitigation Planning Team  
Meeting #1  
Agenda  
September 11, 2012  
1:30-3:30

1. Introductions
2. What is Hazard Mitigation? (Focus on Natural Hazards)
3. Step #1: Planning Process:
  - a. Status of GRIC Multi-Hazard Mitigation Plan (MHMP)
  - b. Community Profile
  - c. Planning Team
  - d. Public Involvement (current activity –introduce MHMP at each District Meeting)
  - e. Documentation of Planning Process
  - f. Required for eligibility for disaster recovery funds
4. Step #2 Risk Assessment
  - a. Hazard Identification
  - b. Hazard Profiling
5. Step #3 Mitigation Strategy-Projects/Actions
6. Step #4 Plan Maintenance Procedures
7. Action Items /Next Steps:
  - Planning Team will: Provide comments on Community Profile and Hazard Profiles- due 09/25/12
  - Planner will: Identify Critical Facilities and Determine “Hazard Area” and “Planning Area”
8. Schedule future meetings
  - Tentative dates 10/02/12 and 10/23/12 (may need additional meetings)
9. Questions



**Office of Emergency Management  
Gila River Indian Community  
Multi-Hazard Mitigation Planning Team**



Date	Print Name	Department	Phone Number	Signature
9/11	Shane Lodston	P.M.I.P	562-6748	<i>[Signature]</i>
9/11	Charles Anderson	GRGE	4807478752	<i>[Signature]</i>
9/11	Bob DeLeon	OEM		<i>[Signature]</i>
9/11	Arnold Khan	CPAN	012-9051	<i>[Signature]</i>
9-11	Rob Phillips	DEM		<i>[Signature]</i>
9-11-12	SEAVER FIELDS	LUPE	562-6003	<i>[Signature]</i>
9-11-12	MAWLY SELVER	State Climate Office	480-765-0580	<i>[Signature]</i>
9-11-12	Teresa Rodriguez	CRMP		<i>[Signature]</i>
9-11-12	Kathy Gutlossing	GRICOA	520-796-0600	<i>[Signature]</i>
9/11/12	Lena Lopez		520-796-0600	<i>[Signature]</i>
9/11/12	Steve Johnson	GRIC-DOT	562-0951	<i>[Signature]</i>
9/11/12	Will Anderson	GRIC PER	562-0951	<i>[Signature]</i>

Planning Meeting #2 Agenda

Gila River Indian Community Multi-Hazard Mitigation Planning Team

Meeting #2

Agenda

October 9, 2012

1:30-3:30

- Introductions
  
- Review the Multi-Hazard Mitigation Process
  - Step #1 Planning Process
  - Step #2 Risk Assessment
  - Step #3 Mitigation Strategy-Projects/Actions
  - Step #4 Plan Maintenance Procedures
  
- Summarize comments – Community Description/Profile-Hazard Profiles
  
- Vulnerability Analysis
  - Intersect Map Layers
  - Define Hazard Areas
  - Criteria to classify Critical and Non-Critical Facilities /Infrastructure
  - Review Critical and Non-Critical Facilities /Infrastructure Lists and Discuss
  
- Action Items/Next Steps
  
- Questions

Next meeting will be held on Nov 6<sup>th</sup> from 1:30 pm-3:30 pm at the Dialysis Center.

10/9/12  
Meeting #2

**Office of Emergency Management  
Gila River Indian Community  
Multi-Hazard Mitigation Planning Team**



Date	Print Name	Department	Phone Number	Signature
10/9/12	Marcy Sebova	State Climate Office	480-965-0580	<i>[Signature]</i>
10/9/12	Kathie Dumas	GRIC Safety Team	602-528-1207	<i>[Signature]</i>
10/11/12	Bob DeLeon	OGM	7171	<i>[Signature]</i>
10/19/12	Charles Anderson	GRGE	480-747-8952	<i>[Signature]</i>
	Juanita Vaz	CPA		<i>[Signature]</i>
	Kathy Galloway	GRIC	520-796-0600	<i>[Signature]</i>
	Rick Howard	CEM	7197	<i>[Signature]</i>
	Dan Hoff	HRD	5100	<i>[Signature]</i>
	Craig Fertilmas	CEMP	520-562-7175	<i>[Signature]</i>
10/9/12	Steve Johnson	DOT	562-0951	<i>[Signature]</i>
	Daniel Johnson	HRD	562-6554	<i>[Signature]</i>
10/9/12	Veronica Perea	HRD Genesis	562-1237	<i>[Signature]</i>



Planning Meeting #3 Agenda

Gila River Indian Community Multi-Hazard Mitigation Planning Team  
Meeting #3  
Agenda  
November 6, 2012  
1:30-3:30

- Introductions
- Recap of previous meeting
- Table of Critical Facilities and Non-Critical Facilities for each District
  - GIS Mapping Update
- Goals and Objectives
- Past and Current Mitigation Projects-Status Updates
- Introduce Mitigation Action Plan/Implementation Strategy
- Capabilities Assessment
  - Technical Staff and Personnel
  - Fiscal
  - Legal and Regulatory
- Next Steps /Action Items
- Questions

Next Steps in the Multi-Hazard Mitigation Plan

1. GIS Mapping to complete Table of Critical Facilities in the Hazard Areas
2. Mitigation Action Plan and Implementation Strategy – Projects – in progress or new projects.
3. Capabilities Assessment Documents
  - Technical Staff and Personnel
  - Fiscal
  - Legal and Regulatory
4. Ongoing Public Involvement

Meeting #3 11/6/12

Office of Emergency Management  
Gila River Indian Community  
Multi-Hazard Mitigation Planning Team



Date	Print Name	Department	Phone Number	Signature
11-6-12	Charles Anderson	GRGE	480-747-852	<i>CAK</i>
11/6/12	Laurie Dallas	ARD	520-562-5100	<i>L Dallas</i>
11/6/12	Dr. Vesummaris Tol	MCD	520-562-5100	<i>Dr. Tol</i>
11/6/12	Daren White	MIS	562-6552	<i>D White</i>
11-6	Bob Phuong Q	DEM		<i>Bob Phuong Q</i>
11/6	Bob DeLeon	OGM	7191	<i>Bob DeLeon</i>
11-6	JOHN McVicker SR	FWD	610-0628	<i>John McVicker SR</i>
11-6-12	Kathie Demaris	GRHC	602-5281207	<i>Kathie Demaris</i>
11/6/12	Rick Houser	OEM		<i>Rick Houser</i>
11/6/12	Paula Brown	SEM	520-562-7198	<i>Paula Brown</i>
11/6/12	Erin Lee	OEM	562-7197	<i>Erin Lee</i>
11/6/12	Jeanne Falls	LUPZ	562-6003	<i>Jeanne Falls</i>

