San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan Update

(Insert Month) (Year)

Encompassing the Jurisdictions of:
San Juan County, New Mexico; the Cities of Aztec, Bloomfield, and Farmington, New Mexico; and the Town of Kirtland, New Mexico

BOLD planning

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Executive Summary

The San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan Update (Month/Year) is being developed to update and revise hazard mitigation activities for San Juan County, New Mexico (NM). The San Juan County Mitigation Planning Committee, or MPC, will evaluate mitigation measures to be undertaken and outline a strategy for implementation of mitigation projects. This plan encompasses five San Juan County jurisdictions, including San Juan County, NM, and the Cities of Aztec, Bloomfield, Farmington, NM, and the Town of Kirtland, NM, supersedes the San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan (November 2013). The priorities and overall hazard risk for the San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan Update (Month/Year) have remained unchanged for all participating jurisdictions since the previous approved plan (November 2013).

Formal adoption and implementation of a multi-hazard mitigation plan update may present many benefits to San Juan County, NM, and the aforementioned participating jurisdictions. Most notably, by identifying problems and possible solutions in advance of a disaster, San Juan County, NM, and the remainder of the planning area will be in a better position to obtain hazard mitigation funding from the Federal Emergency Management Agency (FEMA). This may include both pre- and post-disaster financial assistance.

This document aims to produce the following strategic outcomes:

- Reduce loss of life and decrease property losses to San Juan County and its participating jurisdictions due to natural disasters
- Provide the framework and coordination to encourage government, and both public and private sector organizations at all levels, to undertake mitigation to minimize potential disasters and to employ mitigation strategies in the recovery following disasters

Specifically, these strategic outcomes will be brought about through the following planning process:

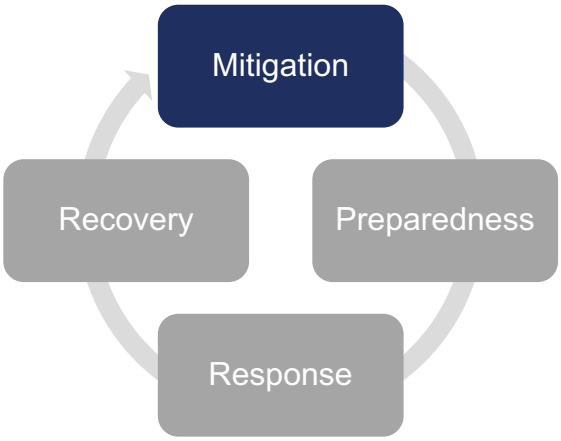
1) Identify, describe, and characterize the hazards to which San Juan County and its participating jurisdictions are susceptible
2) Assess the risk of each hazard, including probability, frequency, exposure, and vulnerability
3) Examine feasible mitigation opportunities appropriate for the identified hazards, and prioritize those opportunities
4) Implement mitigation actions to reduce loss of life and damage to property
5) Identify mitigation opportunities for long-term planning consideration

Glossary of Terms

BFE – Base Flood Elevation
CRS – Community Rating System
DFIRM – Digital Flood Insurance Rate Map
DMA 2000 – Disaster Mitigation Act of 2000
EMS – Emergency Medical Services
EMA – Emergency Management Agency
EOC – Emergency Operations Center
EOP – Emergency Operations Plan
FEMA – Federal Emergency Management Agency
FIRM – Flood Insurance Rate Map
FMA – Flood Mitigation Assistance Grant Program
FP&S – Fire Prevention and Safety Grants
FOUO – For Official Use Only
GIS – Geographic Information System
HMGP – Hazard Mitigation Grant Program
HMP – Hazard Mitigation Plan
ICS – Incident Command System
LEPC – Local Emergency Planning Committee
MPC – Mitigation Planning Committee
MJNHMP – Multi-Jurisdictional Natural Hazard Mitigation Plan
NEHRP – National Earthquake Hazards Reduction Program
NEIC – National Earthquake Information Center
NFHL – National Flood Hazard Layer
NFIP – National Flood Insurance Program
NOAA – National Oceanic and Atmospheric Administration
NCEI – National Centers for Environmental Information
NMDHSEM – New Mexico Department of Homeland Security & Emergency Management
NWS – National Weather Service
PDM – Pre-Disaster Mitigation (Grant Program)
POC – Point of Contact
RFP – Request for Proposal
RL – Repetitive Loss
SFHA – Special Flood Hazard Area
SJCOEM – San Juan County (New Mexico) Office of Emergency Management
SOP – Standard Operating Procedure
SRL – Severe Repetitive Loss
SSURGO – Soil Survey Geographic Database
USACE – United States Army Corps. Of Engineers
USDA – United States Department of Agriculture
USGS – United States Geological Survey
WUI – Wildland Urban Interface

Introduction to Mitigation

The Emergency Management Cycle & Mitigation



Understanding the emergency management cycle is the first step in effectively planning and operating in relation to all disaster-related activities. The emergency management cycle is an open-ended and ongoing process. The four phases in the process are mitigation, preparedness, response, and recovery. Each phase of the cycle can last for years, months, or only moments in duration, while different paths can exist simultaneously.

Mitigation planning is the process of determining how to reduce or eliminate loss of life and damage to property resulting from natural disasters. It is carried out as any sustained action to reduce or eliminate long-term risk to life and property from a hazard event. Mitigation encourages long-term reduction of hazard vulnerability. As is the goal of emergency management, so is the goal of mitigation to save lives and reduce property damage.

The Disaster Mitigation Act of 2000 (DMA 2000)

In the past, federal legislation has provided funding for disaster relief, recovery, and some hazard mitigation planning. The Disaster Mitigation Act of 2000 became law on October 30, 2000 and amends the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the "Stafford Act") (Public Law 93-288, as amended). Regulations for this activity can be found in Title 44 of the Code of Federal Regulations Part 206, Subpart M.

This legislation reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur. This act establishes a pre-disaster hazard mitigation program and new requirements for the national post-disaster Hazard Mitigation Grant Program (HMGP).

Section 322 of the act specifically addresses mitigation planning at the state, local, and tribal levels. It identifies new requirements that allow HMGP funds to be used for mitigation planning activities and increases the amount of HMGP funds available to states that have developed a comprehensive, enhanced mitigation plan prior to a disaster. States and communities must have an approved mitigation plan in place prior to receiving post-disaster HMGP funds. Local and tribal mitigation plans must demonstrate that their proposed mitigation measures are based on a sound planning process that accounts for the risk to and the capabilities of the individual communities and identifiable gaps.

DMA 2000 is intended to facilitate cooperation between state and local authorities, prompting them to work together. It encourages and rewards local and state pre-disaster planning and promotes sustainability as a strategy for disaster resistance. This enhanced planning network will better enable local and state governments to articulate accurate needs for mitigation, resulting in faster allocation of funding and more effective risk reduction projects. To implement the new DMA 2000 requirements, FEMA prepared an interim final rule, published in the Federal Register on February 26, 2002, at 44 CFR Parts 201 and 206, which establishes planning and funding criteria for states and local communities.

On October 31, 2007, FEMA subsequently published an Interim Rule in the Federal Register, which ensures the Flood Mitigation Assistance (FMA) program planning requirements are consistent with the mitigation planning regulations as cited in the Code of Federal Regulations (CFR) at Title 44, Chapter 1, Part 201 (44CFR Part 201).

This interim rule established that local communities must comply with mitigation planning requirements to be eligible to apply for FEMA mitigation project grant funding, including FMA and FEMA's Severe Repetitive Loss (SRL) Program. Meeting the requirements of the regulations cited above ensures participating jurisdictions in the planning area will be eligible to receive disaster assistance, including hazard mitigation grants available through the Robert T. Stafford Disaster Relief and Emergency Assistance Act, P.L. 93-288, as amended.

San Juan County has the responsibility to coordinate activities relating to hazard evaluation and mitigation, and to prepare and submit to FEMA a local hazard mitigation plan, following the criteria established in 44 CFR 201.6 and Section 322 of the DMA 2000 (Public Law 106- 390).

Section 1 – Planning Process

1.1 – Plan Introduction

Planning Process
- Plan Development
- Stakeholder Participation
- Community Involvement

Local Procedures & Resources

Planning Area

Hazard Risk Assessment

Mitigation Strategy

The San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan (MJNHMP) Update consists of five jurisdictions: one county, San Juan County, NM; three cities, Aztec, Bloomfield, Farmington, NM; and one town, Kirtland, NM. Since the last plan update the Town of Kirtland became incorporated in January 2015, as a new jurisdiction in San Juan County. With this new addition, the Town of Kirtland will include mitigation projects and strategies in this plan update.

Each jurisdiction, as documented within the plan update, actively participated in the planning process from its inception. Accordingly, each jurisdiction provided at least one representative to offer a locality-specific perspective.

Members of the mitigation planning committee, or MPC, actively participated in meetings, solicited input from community members, and ensured that all jurisdictional information was reflected in the plan.

If a committee member could not attend a meeting, they were contacted by phone in order to receive all documentation from the meeting. The phone call(s) consisted of a brief overview of the meeting along with time for the planning committee member to offer his/her suggestions or comments. A detailed description of the planning process, including a list of contributions from each jurisdiction, is provided in Section 1.2.2 – Jurisdictions. A complete list of planning committee participation can be found in Section 1.3 – Stakeholder Participation.

1.2 – Plan Development

1.2.1 – Plan Drafting Stage

San Juan County's plan revision process began on May 29, 2018, when the San Juan County Office of Emergency Management (SJCOEM) applied for a Pre-Disaster Mitigation (PDM 2017-3) planning grant under the FEMA grant award number: EMT-2018-PC-0006 and the sub-grant number is FEMA-PDMC-PL-06-NM-2017-03HMPG-4248-0052. The County was awarded the grant to begin the process of updating its previously FEMA-approved mitigation plan. Following the funding commitments, San Juan County hired Tennessee-based BOLDplanning Inc. (BOLDplanning) to facilitate plan development.

San Juan County's mitigation planning process was initiated on August 9, 2019, when BOLDplanning hosted a public kick-off planning meeting. At this meeting, an initial MPC, comprised of representatives from each participating jurisdiction, was organized. The MPC was instructed to solicit interested persons from their communities to also participate on the committee. All participating jurisdictions actively participated in the planning process by soliciting input and taking part in plan-related meetings.

There were nine (9) planning events held throughout the planning process. The final planning event, which was the period of open comment, took place July 27-August 7, 2020. Due to the COVID-19 pandemic, this event was held virtually rather than in person, safely allowing the public and plan stakeholders to provide feedback from remote locations. Other planning events included meetings with representation from each of

the plan's participating jurisdictions as well as the public. Planning events also included conference phone calls with municipal and agency officials who could not attend scheduled meetings. Additionally, there were monthly situation report (SitRep) calls with San Juan County and its participating jurisdictions to provide updates along the phases of plan development. These SitRep calls were held at the beginning of each month and were facilitated by BOLDplanning via Zoom® web conferencing.

Throughout the planning process the public was given multiple opportunities to review MJNHMP drafts, ask questions, and provide input on hazards. They were also invited to provide feedback on mitigation project prioritization, hazard identification, and hazard ranking. Further, BOLDplanning launched two online Hazard Mitigation Plan (HMP) surveys created for San Juan County. The first survey, the San Juan County, NM Hazard Mitigation Plan Survey (https://publicinput.com/C148) allowed for MPC members, plan stakeholders, and the general public to provide input to hazards and potential hazard mitigation projects that are ongoing for the County. The second survey, the San Juan County, NM Hazard Mitigation Plan – Open Comment Survey (https://publicinput.com/E3806), allowed all MPC members, plan stakeholders, and the public to provide feedback and input on the MJNHMP Update prior to its submission to the New Mexico Department of Homeland Security and Emergency Management (NMDHSEM) and FEMA. Details and documentation pertaining to the participation of the MPC and the public can be found in Appendix C – Public Participation.

Planning Process Summary

1) Each participating jurisdiction appointed a jurisdictional representative to serve on the MPC along with SJCOEM other plan stakeholders, and BOLDplanning.
2) SJCOEM engaged BOLDplanning to provide staff support in facilitating the planning process and preparing the plan.
3) Meetings were held with MPC members to understand and agree on planning processes and steps required, including organizing resources, assessing hazards, developing a mitigation plan, implementing the plan, and monitoring progress.

BOLDplanning held subsequent discussions about the planning process with NMDHSEM staff.

1.2.2 - Jurisdictions

The following table lists the participating jurisdictions of San Juan County, their lead representative contact during the MJNHMP Update's development, along with their MPC contributions by plan development phase.

Table 1: Jurisdictional Contribution by Planning Phase

Jurisdictional Contribution by Planning Phase				
Jurisdiction and Representative	**Planning Process**	**Risk Assessment**	**Mitigation Strategy**	**Plan Maintenance**
San Juan County Mike Mestas, San Juan County Office of Emergency Management, Director	• Participated in Mitigation Planning Committee (MPC) • Provided information on critical facilities, hazards, Points of Contact (POCs) • POC and lead jurisdiction for the MPC	• Completed hazard history documentation • Complete risk assessment questionnaire • Reviewed risk assessment	• Provided mitigation projects and actions history • Proposed mitigation projects • Prioritization of mitigation projects using STAPLE+E	• Will participate in the Local Emergency Planning Committee (LEPC) as prescribed in Section 2 – Plan Maintenance
City of Aztec Steve Mueller, City of Aztec, City Manager	• Participated in MPC • Provided information on critical facilities, hazards, POCs • POC and lead jurisdiction for the MPC	• Completed hazard history documentation • Complete risk assessment questionnaire • Reviewed risk assessment	• Provided mitigation projects and actions history • Proposed mitigation projects • Prioritization of mitigation projects using STAPLE+E	• Will participate in the LEPC as prescribed in Section 2 – Plan Maintenance
City of Bloomfield Cynthia Atencio, City of Bloomfield, Mayor	• Participated in MPC • Provided information on critical facilities, hazards, POCs • POC and lead jurisdiction for the MPC	• Completed hazard history documentation • Complete risk assessment questionnaire • Reviewed risk assessment	• Provided mitigation projects and actions history • Proposed mitigation projects • Prioritization of mitigation projects using STAPLE+E	• Will participate in the LEPC as prescribed in Section 2 – Plan Maintenance
City of Farmington Nate Duckett, City of Farmington, Mayor	• Participated in MPC • Provided information on critical facilities, hazards, POCs • POC and lead jurisdiction for the MPC	• Completed hazard history documentation • Complete risk assessment questionnaire • Reviewed risk assessment	• Provided mitigation projects and actions history • Proposed mitigation projects • Prioritization of mitigation projects using STAPLE+E	• Will participate in the LEPC as prescribed in Section 2 – Plan Maintenance
Town of Kirtland Mark Duncan, Town of Kirtland, Mayor	• Participated in MPC • Provided information on critical facilities, hazards, POCs • POC and lead jurisdiction for the MPC	• Completed hazard history documentation • Completed risk assessment questionnaire • Reviewed risk assessment	• Provided mitigation projects and actions history • Proposed mitigation projects • Prioritizing mitigation projects using STAPLE+E	• Will participate in the LEPC as prescribed in Section 2 –Plan Maintenance

1.2.3 – Major Mitigation Planning Meetings

The San Juan County MPC held various public meetings to discuss the mitigation planning process as well as gain public support and input for the plan update. The following is a brief synopsis of those meetings. Proof of meetings, sign-in sheets, and public notification documentation can be found in Appendix C – Public Participation.

Multi-Jurisdictional Natural Hazard Mitigation Plan Update Kick-Off and Public Information Meeting – August 9, 2019

BOLDplanning was on site in San Juan County to host a kick-off meeting in the City of Aztec, NM. Prior to the meeting, a public announcement ran for two weeks in the *Daily Times* newspaper. At the meeting, the public was invited to voice any concerns, ask questions, and provide input on the mitigation plan update. The San Juan County MPC was formed during this meeting and they reviewed the planning process, asked questions, and were assigned roles. BOLDplanning worked with the MPC to collect contact information, hazard history, facility information, and other pertinent jurisdictional information. Documentation for this meeting is located in Appendix C – Public Participation.

Multi-Jurisdictional Natural Hazard Mitigation Plan Update Public Review Period – July 27, 2020 – August 7, 2020

Prior to the Public Review Period, a public announcement ran for two week in the Daily Times newspaper, Next Door Community Social Media Site (https://nextdoor.com/agency-detail/nm/san-juan/san-juan-county-emergency-management/), the Durango Herald newspaper, and SJCOEM's website. Due to the COVID-19 pandemic, and San Juan County government reopening with operations modified for COVID Safe Practices (https://www.sjcounty.net/Home/Components/News/News/1111/16), MPC members and the public were invited to review a draft copy of the San Juan County MJNHMP Update posted to SCJOEM's website before voicing questions or concerns. The MPC, stakeholders, and the public provided feedback and input on the plan draft using the San Juan County, NM, Hazard Mitigation Plan – Open Comment Survey (https://publicinput.com/E3806), which was also posted to SJCOEM's website (for public review) prior to submission to the State of New Mexico and FEMA. Documentation pertaining to the Public Review Period is Appendix C – Public Participation.

Multi-Jurisdictional Natural Hazard Mitigation Plan Update Final Review Meeting – August 13, 2020

The San Juan County MJNHMP Update was reviewed by the MPC and any stakeholders, as requested, prior to its submission to NMDHSEM. However, due to the COVID-19 pandemic, the San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan Update Review meeting was not able to be conducted in-person. In place of the in-person meeting, SJCOEM emailed the MPC and stakeholders, requesting final plan review and final comments (via reply email).

Multi-Jurisdictional Natural Hazard Mitigation Plan Update Adoption Signing – (Date TBD)

The San Juan County MJNHMP Update adoption letters will be disseminated and signed by the participating jurisdictions. The signing of these resolutions codifies the adoption of the plan update by the participating jurisdictions.

1.3 – Stakeholder Participation

The San Juan County MPC is made up of stakeholders working together for the development and ongoing maintenance of this plan update. The participants are grouped into actively participating representatives from the participating jurisdictions within San Juan County.

- **Mitigation Planning Committee** – This group consists of the jurisdictional representatives from the planning area, the New Mexico Department of Homeland Security & Emergency Management Agency (NMDHSEM), supporting state and federal agencies, and BOLDplanning.
- **Other Stakeholders** – This group consists of interested parties from the local community and a state university. This plan was developed with the support and input from various commercial interests.
- **Members from the public-at-large** – FEMA requires this planning effort to be open to constant input from interested citizens in compliance with the Sunshine Laws. In New Mexico, public meetings must comply with the State's Open Meetings Act, unless established by statutory exemption. Therefore, any individual citizen who wishes to be involved in this effort to mitigate future disasters is encouraged to attend the MPC meetings and to solicit relevant comments to be included in the draft sections of the written plan.

The following table details the stakeholders and MPC members who participated in the hazard mitigation planning process. This list contains all relevant local and state agencies involved in hazard mitigation activities, agencies that have the authority to regulate development, and any appropriate neighboring communities.

Table 2: Plan Stakeholders & MPC Members

Plan Stakeholders & MPC Members			
Name	**Organization**	**Position**	**Collaboration/Invitation**
Principal Plan Developers			
Stu Miller	BOLDplanning	CEO	Executive management
Brittney Whatley	BOLDplanning	Project Support	Provided additional support and input; coordinated kick-off meeting
Cathleen Atchison	BOLDplanning	Project Support	Provided additional support and input; coordinated kick-off meeting
Emily Long	BOLDplanning	Mitigation Project Lead	Project lead and mitigation specialist
Rich McCarty	BOLDplanning	Project Support	Provided additional support and input
Linda Young	BOLDplanning	Plan Reviewer, Plan Editor	Plan reviewer and editor
James Woulfe	BOLDplanning	Plan Reviewer	Provided final plan review prior to NMDHSEM and FEMA submissions
Local Governments			
Michele Truby-Tillen	San Juan County Office of Emergency Management	Floodplain Manager	Mitigation Planning Committee Chair, represented jurisdiction, and provided additional support and input
Faye Anderson	San Juan County Housing Authority	Executive Director	Provided additional support and input
Georgette Allen	City of Farmington	Public Information Officer	Provided additional support and input
Greg Allen	San Juan County SC (SJSC)	Director	Provided additional support and input
Cynthia Atencio	City of Bloomfield	Mayor	Represented jurisdiction
Duane Bair	City of Farmington Fire Department, BC Wildland Division	Battalion Chief – Wildland Fire Division	Provided additional support and input
David Barnett	San Juan County Community Development	Subdivision Review	Provided additional support and input
John Beckstead	San Juan County Commission	Commissioner	Represented jurisdiction
Jeff Blackburn	City of Aztec	General Services Director	Provided additional support and input
Ryan Briggs	San Juan County LEPC Board	Chairman	Represented jurisdiction
David Burke	City of Farmington Fire	Fire Chief	Provided additional support and input
Jim Crowley	San Juan County Commission	Commissioner	Represented jurisdiction
Brice Currant	San Juan County Under Sheriff	Under Sheriff	Represented jurisdiction
Craig Daugherty	San Juan County Fire	Retired SJC Fire Chief	Provided additional support and input
Nate Duckett	City of Farmington	Mayor	Represented jurisdiction
Mark Duncan	Town of Kirtland	Mayor	Represented jurisdiction
Doug Echols	San Juan County Legal	County Attorney	Provided additional support and input
Fran Fillerup	San Juan County Administrative Office	SJC COO	Provided additional support and input
Dan Flack	Town of Kirtland	Engineer	Provided additional support and input

Table 2: Plan Stakeholders & MPC Members (Cont'd)

Plan Stakeholders & MPC Members			
Name	**Organization**	**Position**	**Collaboration/Invitation**
Jack Fortner	San Juan County Commission	Commissioner	Represented jurisdiction
Lisa Hale-Blue Eyes	City of Farmington	Floodplain Manager	Provided additional support and input
Brent Hamilton	San Juan County LEPC	Health Committee	Represented jurisdiction; provided additional support and input
Larry Hathaway	San Juan County/Town of Kirtland	SJC Community Development, Department Head, Town of Kirtland Trustee	Provided additional support and input for both SJC and the Town of Kirtland
Steve Hebbe	City of Farmington Police Department	Police Chief	Provided additional support and input
David Karst	City of Bloomfield Police Department	Police Chief	Represented jurisdiction
Billy Huish	San Juan County LEPC	Board member	Represented Jurisdiction
Jos Lesscher	City of Farmington Fire Department	Captain/HazMat Team Coordinator	Provided additional support and input
Rob Mayes	City of Farmington	Manager	Represented jurisdiction
Mike Mestas	San Juan County Office of Emergency Management	Emergency Manager	
John Mohler	San Juan County Fire Department	Fire Chief	Represented jurisdiction
Steve Morse	City of Aztec	Public Works Director	Represented jurisdiction
Steve Mueller	City of Aztec	Manager	Represented jurisdiction
Devin Neely	San Juan County	Public Information Officer	Represented jurisdiction; provided additional support and input
John Robinson	San Juan County Office of Emergency Management	Communications Tech	Represented jurisdiction
Ali Rye	San Juan County Office of Emergency Management	Emergency Management Coordinator	Represented jurisdiction
Steven Saavedra	City of Aztec Planning and Zoning	Floodplain Manager	Provided additional support and input
Joe Sawyer	San Juan County Legal	Deputy County Attorney	Represented jurisdiction
Ed Smylie	City of Farmington Emergency Management	Director	Provided additional support and input
Mike Stark	San Juan County	County Manager	Represented jurisdiction
Mike Sullivan	San Juan County Commission	Commissioner	Represented jurisdiction
Jason Thomas	City of Bloomfield PW/Planning	PW Director	Provided additional support and input
Glojean Todacheene	San Juan County Commission	Commissioner	Represented jurisdiction
David Vega	San Juan County Wildland	Deputy Chief	Provided additional support and input

Table 2: Plan Stakeholders & MPC Members (Cont'd)

Stakeholders & MPC Members			
Name	**Organization**	**Position**	**Collaboration/Invitation**
State & Federal Agencies			
Veronica Chavez	New Mexico Department of Homeland Security & Emergency Management Agency (NMDHSEM) – Floodplain	Floodplain Coordinator (no longer in the position; Loretta Hatch now serves in this position)	Represented agency
Loretta Hatch	New Mexico Department of Homeland Security & Emergency Management - Floodplain	Floodplain Coordinator	Represented agency
Kerry Jones	National Weather Service (NWS) – ABQ	Meteorologist in charge	Represented agency
Sara Gerlitz	New Mexico Department of Homeland Security & Emergency Management Agency (NMDHSEM)	Mitigation Specialist	Represented agency; provided additional support and input
Catherine Watson	New Mexico Department of Homeland Security & Emergency Management Agency (NMDHSEM) – Finance	Sub-grant Analyst	Represented agency
Shawn Williams	New Mexico State Engineers	Lead Engineer	Represented agency
Academia, Neighboring Communities, Private Organizations & NGOs			
Rick Griffiths	New Mexico State University CES	SJC Specialist	Provided additional support and input
Bonnie Hopkins	New Mexico State University Extension	SJC Specialist	Provided additional support and input

1.4 – Community Involvement

The San Juan County MPC provided the opportunity for neighboring communities, agencies, businesses, academia, non-profits, and other interested parties to be involved in the mitigation planning process. The public was notified of open meetings via San Juan County's website, and a local newspaper. BOLDplanning and SJCOEM invited all non-covered jurisdictions, including school districts and others with expiring mitigation plans, to participate in the plan update. Any jurisdiction or school district not covered in this MJNHMP update is either covered under another plan or declined to participate.

Local and Regional Agencies and the representatives of participating jurisdictions, including Mayors, Public officials, Planning, Building and Zoning, Wildland, and the Fire Department, were notified of MPC meetings via email and phone. Emergency managers from neighboring New Mexico counties, Sandoval, McKinley, and Cibola, were personally invited to attend the public draft review meeting. For two weeks prior to each public meeting, an announcement was placed on SJCOEM's website. For documentation, see Appendix C – Public Participation.

At the first public planning, meeting attendees ranked and identified hazards, created a community profile, prioritized mitigation projects, and completed a risk assessment questionnaire. During this meeting, and the latter public review hearing, concerned citizens and other parties were invited to review the most current draft, provide any input of feedback, and ask any relevant questions of the San Juan County MPC and BOLDplanning.

In addition, due to the COVID-19 pandemic, and San Juan County government reopening with operations modified for COVID Safe Practices, the Public Review Period of the plan draft was held virtually. MPC members and the public were invited to review a draft copy of the San Juan County MJNHMP Update posted to SCJOEM's website before voicing questions or concerns. The MPC, stakeholders, and the public provided feedback and input on the plan draft by completing a feedback questionnaire.

Relevant federal, regional, state, and local, governments as well as any private and non-profit organizations were invited to provide input and technical expertise. The entities, who volunteered, either in person or by providing hazard data, are listed in the following table.

Table 3: Partner Involvement by Entity

Partner Involvement by Entity		
Entry Classification	**Entity**	**Entity Input**
Federal Agencies	National Parks, NOAA, USACE, USDA NRCS, USGS, NWS	Provided weather data, dam data, land use data, and geological data
State Agencies	NMDHSEM, State Courts	Provided oversight and technical assistance; provided hazard records
Local Governments	San Juan County Emergency Management, Participating Municipalities (City of Aztec, City of Bloomfield, City of Farmington; Town of Kirtland)	Provided input as MPC members / principal subjects
Private Organizations	BOLDplanning	Directed planning effort as principal planners; provided input from various interests; Provided input – HAZUS® report
Academia	New Mexico State University Extension; New Mexico State University CES; Agriculture Farm Center – Farmington	Provided input from various interests

Section 2 – Local Procedures & Resources

2.1 – Available Resources

2.1.1 – Documentation Resources

The MPC conducted a comprehensive review of San Juan County, NM, and the plan update's participating jurisdictions: the cities of Aztec, Bloomfield, and Farmington, and the Town of Kirtland, to determine the availability of existing emergency management and preparedness information.

San Juan County Basin Community Wildfire Protection Plan (CWPP)
San Juan County's latest CWPP (2014) provided the local perspective basis for this plan's wildfire hazard profile and direction for the wildfire portion of its mitigation strategy.

San Juan County Critical Facilities List
The MPC compiled a list of critical facilities and pertinent information on those facilities. This list is used throughout the plan and is the basis for the vulnerability assessments and loss estimates. The complete list is posted in Appendix D.

San Juan County Emergency Operations Plan (EOP)
SJCOEM developed a countywide EOP. Using a commercial template to follow "best practices" methodology, this plan is a "living document" that is continually being developed, tested, and updated. Relevant information regarding high-hazard dams was pulled from the EOP and integrated into this plan.

San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan
San Juan County is currently covered by a FEMA-approved local pre-disaster mitigation plan. The current MJNHMP plan (November 2013) has been reviewed and is incorporated throughout this plan per FEMA requirements.

San Juan County Growth Management Plan – 2018 Update
The San Juan County Growth Management Plan – The 2018 Update is an official public document adopted by the Board of County Commissioners as a policy guide for decisions about the physical development of the unincorporated portions of the County. The plan indicates a general way for how government leaders want the County to develop over the next 20 to 30 years.

State of New Mexico All-Hazard Emergency Operations Plan – 2016
The purpose of the State of New Mexico All-Hazard EOP (2016), is to establish the New Mexico Emergency Operations System which organizes the State's response to emergencies and disasters while providing for the safety and welfare of its citizens.

State of New Mexico Hazard Mitigation Plan
The purpose of the State of New Mexico Hazard Mitigation Plan (Update 2018) is intended to provide the framework for hazard mitigation. The first pertains to the recovery and reconstruction phase after a given disaster. The Plan Update will be used to increase awareness and initiate development of long-range, interagency, multi- objective mitigation activities to be administered by NMDHSEM and the State Hazard Mitigation Planning Team (SHMPT) for the State of New Mexico.

City of Aztec Water Conservation and Drought Plan – 2018

The purpose of the City of Aztec Water Conservation and Drought Plan (2018) pertains to the regulation, conservation, and restriction of the use of water from the City of Aztec, NM water system. Due to conditions of drought, lack of rainfall or snowpack, damage to water systems or facilities, failure of a key system component or facility, or due to civil or other emergency, the City may implement water conservation measures based upon the stages contained within the plan. The Water Conservation and Drought Plan (2018) is applicable to all citizens, businesses, industrial, and governmental customers serviced by the City's water system.

New Mexico Drought Plan (NMDP) – 2018

The NMDP (2018) provides the state with an updated approach to address drought in order to protect its people and resources. It develops a drought response system that is adaptive to changing needs and conditions and capable of being continually upgraded through the incorporation of new information. The plan specifies that subsequent updates should be made every five years.

A Summary of the New Mexico Water Planning Drought Discussion – 2019

Prepared by the New Mexico Water Resources Institute, the summary is a report detailing the discussions (based on notes and transcripts) from the series of meetings, called the Water Planning Discussions, held in March 2019. The purpose of the discussions was to 1) inform New Mexico communities about water planning activities of the New Mexico Interstate Stream Commission, 2) gather their input on drought impacts and needed drought resources, and 3) present content on available drought resources.

San Juan County Planning Documents

San Juan County and its participating jurisdictions provided a host of planning-, zoning-, and development-related documents. These documents were reviewed, assessed, and cataloged to compile each participating jurisdiction's capabilities profile in Section 5.1 and development profiles in Section 5.5 of the San Juan County MJNHMP Update.

2.1.2 – Fiscal Resources

The MPC conducted an assessment of their available funding options. The following is a list of federal, state, and local funding sources that are either available or relevant to the San Juan County mitigation plan update.

Pre-Disaster Mitigation Grant Program/Building Resilient Infrastructure and Communities (BRIC)

PDM, which is managed by FEMA, is a nationally competitive grant program. The development of this plan has been funded by an existing PDM grant at a 75% match. As of August 2020, the Building Resilient Infrastructure and Communities (BRIC) managed by FEMA, is a nationally competitive grant program. Building Resilient Infrastructure and Communities (BRIC) will support states, local communities, tribes, and territories as they undertake hazard mitigation projects. BRIC is a new FEMA pre-disaster hazard mitigation program that replaced the existing Pre-Disaster Mitigation Program (PDM).

Fire Prevention and Safety Grants (FP&S)

These grants are administered by FEMA to enhance safety of the public and firefighters from fire and related hazards. The primary goal is to target high-risk populations and reduce injury. Fire departments, local governments, and recognized community organizations are eligible to receive this funding.

Flood Mitigation Assistance Program (FMA)
The FMA program is designed to aid in the buyout of repetitive loss (RL) and severe repetitive loss (SRL) properties as well as assist in the funding of flood mitigation projects and activities.

Hazard Mitigation Grant Program (HMGP)
The HMGP is managed by FEMA and administered by NMDHSEM. San Juan County does not have any HMGP funds available for mitigation planning.

Hazard Mitigation Grant Program Post Fire (HMGP-PF)
The Hazard Mitigation Grant Program Post Fire (HMGP-PF) is managed by FEMA and administered by NMDHSEM. San Juan County does not have any HMGP funds available to help communities implement hazard mitigation measures after wildfire disasters.

Local Revenues & Budgets
Recognizing the importance of hazard mitigation planning, San Juan County and its participating jurisdictions have self-funded the 25% match required by FEMA's PDM grant.

2.1.3 – Technical Resources

The San Juan County MPC employed a variety of technical resources in its plan development. These technical resources were instrumental in completing an accurate vulnerability and risk assessment.

BOLDplanning Inc.
With over 16 years of experience in hazard mitigation planning, BOLDplanning Inc. was the principal plan writer.

ESRI ArcGIS v10
Each map developed for this plan, along with the HAZUS® models, were developed using ESRI's ArcGIS v10.

FEMA DFIRM – Map Data Center
FEMA's National Flood Hazard Layer (NFHL) data was instrumental in mapping floodplain locations and estimating potential flood impacts and loss estimates.

National Oceanica and Atmospheric Administration/National Centers for Environmental Information (NOAA/NCEI)
Weather data and historical events were primarily provided by NOAA/NCEI, which is formerly known as the National Climatic Data Center (NCDC).

U.S. Army Corps of Engineers (USACE)
USACE provided San Juan County and BOLDplanning with data from its national dam inventory containing their location and assessed hazard level.

2.2 – Continued Public Involvement

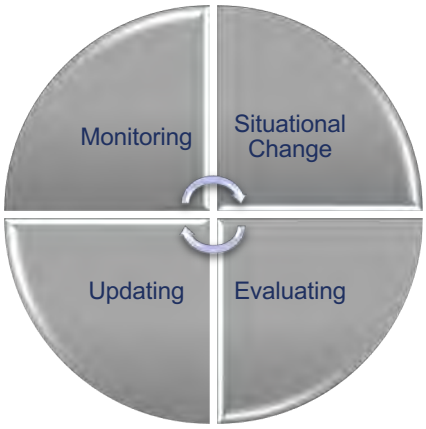
San Juan County is dedicated to involving the public in the continual shaping of its mitigation plan and the development of its mitigation projects and activities.

The San Juan County MPC will continue to keep the public informed about its hazard mitigation projects and activities through SJCOEM's website. Additionally, it will provide a "comments/suggestions" option for the public to submit input through the website.

The public will also be invited to participate in annual MPC meetings to review and discuss the mitigation-related events of the past year.

Copies of the San Juan County MJNHMP Update will be available online at SJCOEM's website and distributed to the participating jurisdictions of San Juan County, the Cities of Aztec, Bloomfield, and Farmington, and the Town of Kirtland, NM.

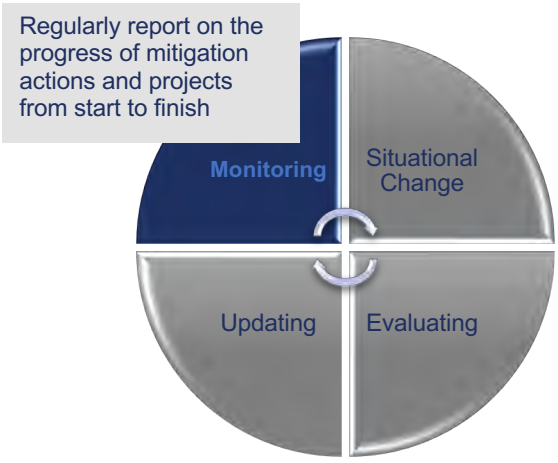
2.3 – Plan Maintenance Process



The San Juan County MPC has developed a method to ensure monitoring, evaluation, and updating of its mitigation plan. Upon adoption of the San Juan County MJNHMP Update, SJCOEM will utilize its Local Emergency Planning Committee (LEPC) to provide plan updates, revisions, and data collection for future MJNHMP planning purposes. The LEPC chair will form a subcommittee for proposed mitigation projects comprised of SJCOEM's director and jurisdictional representatives from the MPC. The chair of the subcommittee will be determined by a vote in the subcommittee. Additional members may be added based on necessity. The sub-committee will submit a quarterly report to the LEPC, which in turn, will submit an annual report to SJCOEM. Refer to the San Juan County MJNHMP Update Quarterly Report form at the end of this section for additional details.

SJCOEM may request a non-scheduled report on the monitoring, evaluation, or updating of any portion of the MHMP plan due to irregular progress on mitigation actions and or projects, in the aftermath of a hazard event, or for any reason deemed appropriate.

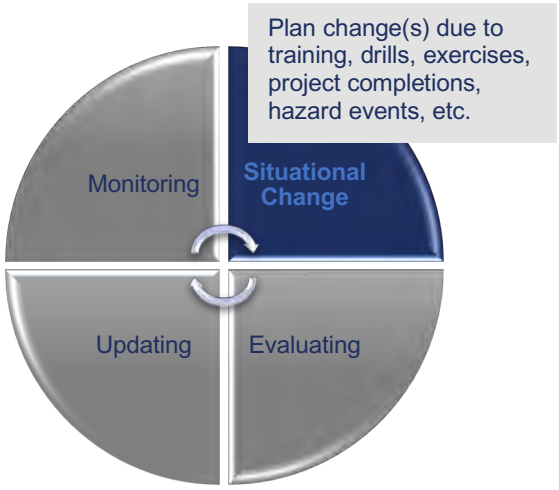
2.3.1 – Plan Monitoring & Situational Change



Plan monitoring can be defined as the ongoing process by which stakeholders obtain regular feedback on the progress being made towards achieving their goals and objectives. In the more limited approach, monitoring may focus on tracking projects and the use of the agency's resources. In the broader approach, monitoring also involves tracking strategies and actions being taken by partners and non-partners, and figuring out what new strategies and actions need to be taken to ensure progress towards the most important results.

A monitoring report will be written and submitted for review to the LEPC and after the annual MPC meeting or when triggered by situational change. The monitoring report answers the following questions:

- ✓ *Is the mitigation project under, over, or on budget?*
- ✓ *Is the mitigation project behind, ahead of, or on schedule?*
- ✓ *Are there any changes in San Juan County's capabilities which impact the PDM plan?*
- ✓ *Are there any changes in San Juan County's hazard risk?*
- ✓ *Has the mitigation action been initiated or its initiation planned?*
- ✓ *Is the current process of prioritizing mitigation actions and projects appropriate and accurate?*



- ✓ *Has the current method of incorporating mitigation actions and projects yielded a comprehensive action and project strategy to address seen and unforeseen hazards?*
- ✓ *If applicable, has participation in a mitigation action's collaboration been regular?*
- ✓ *Was a negative result caused directly or indirectly by insufficient levels of public outreach?*
- ✓ *If any, what plan updates occurred, why they occurred, and what is their impact?*

The plan maintenance process is cyclical and maintenance items can operate simultaneously within the process.

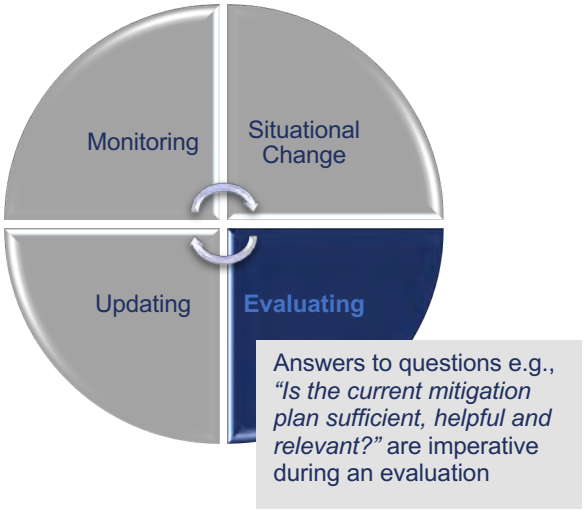
2.3.2 – Plan Evaluating

A plan evaluation is a rigorous and independent assessment of either completed or ongoing activities to determine the extent to which they are achieving stated objectives and contributing to decision making.

An evaluation report (see example on the next page) will be written and submitted to San Juan County's LEPC when the situation dictates.

The following situations are typical examples of when an evaluation will be necessary.

- Post hazard event
- Post training exercise
- Post tabletop or drill exercise
- Significant change or completion of a mitigation project



- Significant change or completion of a mitigation action

An evaluation report will ask the following questions in response to the previously listed events.

- ✓ *Do the mitigation objectives and goals continue to address the current hazards?*
- ✓ *Are there new or previously unforeseen hazards?*
- ✓ *Does a change in hazard vulnerability demand a change of or addition of mitigation actions or projects?*
- ✓ *Does a change in the mitigation strategy demand a change of or addition of mitigation actions or projects?*
- ✓ *Are current resources appropriate for implementing a mitigation project?*
- ✓ *Was the outcome of a mitigation action/project expected?*
- ✓ *Are there implementation problems?*
- ✓ *Was the public engaged to the point where they were satisfied with current engagement strategies?*
- ✓ *Did the public participate in a number that produced a positive yield on the plan, action, or project?*
- ✓ *Are there coordination problems?*

2.3.3 – Plan Updating

Typically, a MJNHM plan update is initiated upon the completion of a plan evaluation and even then, only when the evaluation determines an update is appropriate. A plan update also occurs every five years per FEMA guidelines. Additionally, when new hazard data becomes available, it will be added to the MJNHM plan. New data will be confirmed or denied at annual MPC meetings.

An update is necessary if any deficiencies are found during plan evaluation

For whatever reason, a MJNHM plan update can be written any time it is deemed necessary by SJCOEM.

According to FEMA DMA 2000 guidelines for mitigation planning, San Juan County will begin the update process three years from this plan's adoption. It will do so under the direction of the county's EMA Director. SJCOEM will coordinate and facilitate a bi-annual meeting within the five-year cycle with stakeholders from participating jurisdictions (cities of Aztec, Bloomfield, and Farmington, NM and the Town of Kirtland, NM) and neighboring New Mexico counties (Sandoval, McKinley, and Cibola) stakeholders. These meetings will allow SJCOEM, the MPC Chair, MPT members, and stakeholders from the San Juan County and the cities of Aztec, Bloomfield, Farmington, and the Town of Kirtland, to gather relevant information needed for the next plan update. These meetings will ensure the appropriate status of certain goals (mitigation activities and projects) identified in mitigation strategy are up to date to include in the next FEMA-required, five-year plan update (20XX).

San Juan County Local Emergency Planning Committee
San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan
Evaluation Report

Pre-Disaster Mitigation Plan Sub-Committee Chair: _____
Meeting Date: _____
Plan Approval Date:_____
Plan Expiration Date: _____
Have there been any disasters or training event since the last report? If so, list them below:

Disaster Number/ Training Event	Hazard Type(s)	Was the hazard expected or unforeseen?	Is a plan update required?
Example: DR-1000	*Volcanic Eruption*	*Unforeseen*	*Yes*
Example: Annual Training	*Flash Flooding*	*Expected*	*No*

Mitigation Projects:

Mitigation Project	Participating Jurisdictions	Proposed/Scheduled/In Progress/Completed	Behind/Ahead/On-Schedule	Estimated Completion Date
Example: Tornado Safe Room	*Cash*	*In Progress*	*On-Schedule*	*1/1/2021*

Public Engagement and Outreach Notes:

Miscellaneous Notes:

Section 3 – Planning Area

San Juan County was created January 24, 1887, and is named for the San Juan River, which begins in the San Juan Mountains. The City of Aztec is the county seat for San Juan County, while the City of Farmington is its largest metropolitan area. Located in Northwest New Mexico, the borders of San Juan County are portions of Colorado, Arizona, Utah, which is known as the "Four Corners." The County contains the Colorado Plateau, which is the picturesque portion of the Navajo Nation. Large parts of Chaco Canyon National Monument and the Navajo Reservation are also contained within San Juan County's boundaries. The planning area's primary economy sources are retail trade, mining/natural gas acquisition, healthcare, social assistance, and construction.

In the 1900s, the population of San Juan County was growing as an agricultural center of fruit orchards and vegetable farms. By 1905, the Denver and Rio Grande Railroad built a railroad through the area and the county seat became a shipping point for sheep and cattle. By 1950, oil and gas had become a new industry bringing thousands of people to the area. More recently, the oil and gas industry has been diversified by a strong growth in retail and tourism. Previous to settlement and growth in the nineteenth and twentieth centuries, the land was home to the ancient Anasazi, with many ruins calling forth the rich and ancient history of the land and its people.

As reported by the U.S. Census Bureau, the San Juan County has a total area of 5,538 square miles, of which 5,513 is land and 25 square miles is water. First Nation (Indian) reservations and off-reservation trust lands comprise 63.4% of the County's land area—with the Navajo Indian Reservation taking up 60.45% and the Ute Mountain Ute Tribe Reservation another 2.93%.

According to the 2010 U.S. Census, the population of San Juan County was 130,045. The estimated population on July 1, 2019 has declined by 3.8% to 125,043.

Transportation routes located in San Juan County include U.S. 491 (formerly U.S. 666), running on a north/south axis in the western portion of the County from Cortez, Colorado, in the north through Shiprock and into McKinley County, NM, to the south. U.S. 550 enters San Juan County from Durango, Colorado, in the north and runs through the Cities of Aztec and Bloomfield, and into Sandoval County, NM to the southeast. N.M. State Road 170 starts at the Colorado border, and ends in the city of Farmington, NM, while N.M. State Road 371 runs south from the City of Farmington and into McKinley County, NM. In addition, San Juan County is traversed along an east/west axis by U.S. 64, which runs from Rio Arriba County, NM (east) to the State of Arizona (west).

Following is an overview of the participating jurisdictions within the planning area:

City of Aztec: The City of Aztec is located on the Animas River in the northwest part of San Juan County, east of Farmington and north of Bloomfield. Aztec began as a community of traders and fur trappers in the early 1820's. Founded in 1887, the City of Aztec is the official seat of San Juan County. Aztec is traversed by U.S. 550 from the Colorado border through town and south to the City of Bloomfield, NM, and is intersected by State Road 173 on the east and is connected to Farmington by State Road 516 on the west. Aztec is governed by a City Commission, with a City Manager running the City's day-to-day operations.

What is now known as the City of Aztec (and the immediate area) has been occupied and used on and off for over 1,000 years. Historians believe that the Ancestral Puebloans "reached their peak around 1100 A.D. (http://www.aztecnm.com/aztec/history/index.html). However, 200 years later the area was abandoned. The land may have been abdicated due to a long draught, or perhaps continuous raiding by enemy tribes. The area was not used extensively again until the 1500s with the arrival of the hunting/gathering Navajo people from the north.

Aztec's recorded history begins in 1776, with the arrival of Father Francisco Atanosio Dominquez and Father Francisco Velaz de Escalante. They were searching for a shorter overland route from Santa Fe, NM, to California. That route was never found, but their trailblazing through the Aztec area brought others to the land. In fact, historians note that the Aztec's name can be attributed to Father Escalante's finding of ancient ruins believed to have been built by the Aztec Indians of Mexico.

As noted above, Aztec became an established community in 1887. Agriculture, horticulture, and animal farming provided the first economic base for the community. In 1901, the Durango Oil and Fuel Company drilled the first oil test on the east side of Aztec. This led the way for other oil and gas companies coming in, especially those that specialized in shallow drilling. By 1955, Aztec's population was at an all-time high of 7,000 people. The estimated population as of 2019 was 6,442.

City of Bloomfield: The City of Bloomfield is located to the east of Farmington and south of Aztec in the northwest corner of San Juan County. It is located on the San Juan River, and was founded in 1881 and incorporated in 1950. Presently, Bloomfield's economy is based on the oil and gas industry, which began in the 1950's. Bloomfield is traversed from north to south by U.S. 550, which runs from Aztec in the north and south to I-40 and Albuquerque. Bloomfield is also traversed from east to west by U.S. 64, which runs from Rio Arriba County, NM, in the east to the City of Farmington in the west. Bloomfield contains 5.06 square miles; has a population density of 1280.7 persons per square mile; and is located at an elevation of 5,600 feet. Bloomfield is governed by a Mayor/City Council/City Manager system, with the City Manager running the City's day-to-day operations. Geographically, Bloomfield is situated among Native American tribal lands, including the Navajo, Jicarilla Apache, the Southern Ute, and the Ute Mountain reservations. As of July 1, 2019, population estimations indicate that the City of Bloomfield has a population between 7,842 and 8,552, and ranks in the upper quartile for Population Density and Diversity Index when compared to other cities, towns, and places in the State of New Mexico.

City of Farmington: The City of Farmington is located in the northwestern part of San Juan County, and is the County's largest metropolitan area. It was established in 1876 at the confluence of the Animas, La Plata, and San Juan Rivers. Originally called Junction City, it was later renamed Farmington, due to its largely agricultural economy. The City was incorporated in 1901. The 1950's proved to be a major economic boom for Farmington due to the development of the oil and gas industry. The City of Farmington is the sixth largest city in New Mexico, with a population of 47,552 as of July 1, 2019. Farmington also ranks in the upper quartile for Population Density and Diversity Index when compared to other cities, towns, and U.S. Census Designated Places (CDPs) in the State of New Mexico.

Town of Kirtland: The Town of Kirtland encompasses a portion of the former U.S. Census CDP of the same name in San Juan County. The population of the former CDP was 6,190 at the time of the U.S. Census 2000. It is part of the Farmington Metropolitan Statistical Area. The town was incorporated in January 2015, after an 80-40 vote approving incorporation. Within this new town, there is an estimated population of 494 people. Although a new municipality, the history of Kirtland goes back to the nineteenth century. It was founded in the early 1880s by Mormon settlers who named it after Kirtland, Ohio. Reflecting

its history, Kirtland's main street is Brigham Street (named after Brigham Young, an early Latter-Day Saints Leader). The Town of Kirtland covers 0.670 square miles, all of which is land—at an elevation of 5,187 feet.

San Juan County: San Juan County is governed by a County Commission with a County Manager handling its day-to-day operations. The County's law enforcement is provided by municipal police departments in the Cities of Aztec, Bloomfield, and Farmington; the County Sheriff's Department; and the New Mexico State Police. Fire protection is provided by municipal fire departments in the City of Farmington, and various volunteer departments located throughout the county.

The County encompasses 5,538 square miles and an estimated population (2018) of 130,044 throughout 49,341 residential units. The total value of structures in the planning is estimated at $9,132,103 (per HAZUS®).

Table 4: Structural Summary, San Juan County

Structural Summary							
Jurisdiction	**Agricultural**	**Commercial**	**Government**	**Industrial**	**Residential**	**Education**	**Religious**
San Juan County	$31,829	$1,358,404	$63,698	$417,364	$6,924,850	$158,725	$177,233

Data Source: FEMA's HAZUS® database

Table 5: Populations Summary

Populations Summary		
Jurisdiction	**Housing**	**Population**
San Juan County	49,341	130,044
Aztec City	2,892	6,763
Bloomfield City	3,100	8,112
Farmington City	17,548	45,877
Kirtland CDP	2,650	7,875
Total	**75,531**	**198,671**

Data Source: U.S. Census Bureau, American Fact Finder, 2010 Demographic and Housing Profile Data (factfinder.census.gov)
Note: The Town of Kirtland was incorporated as a township after the 2010 Census and there is no data that is available for this jurisdiction at the time of the plan update. The Town of Kirtland will participate for the first time in the 2020 Census. The data for the Town of Kirtland comes from the Kirtland, CDP, New Mexico in the 2010 Census.

3.1 – Demographics

San Juan County is the 5th largest county by population and 6th largest county by land area in New Mexico. However, the population of San Juan County and its participating jurisdiction(s), namely the Cities of Aztec, Bloomfield, and Farmington, are on average slightly decreasing. Since the development of their last mitigation plan, the U.S. Census Bureau reported the population of San Juan County increased by more than 14% between 2000 and 2010 (113,801 to 128,221). The U.S. Census Bureau estimates as of 2018, San Juan County has a total of 125,043 people residing within its boundaries. The populations of the Cities of Aztec, Bloomfield, and Farmington have decreased since the previous mitigation plan. The table below details the participating jurisdiction(s)' demographic information.

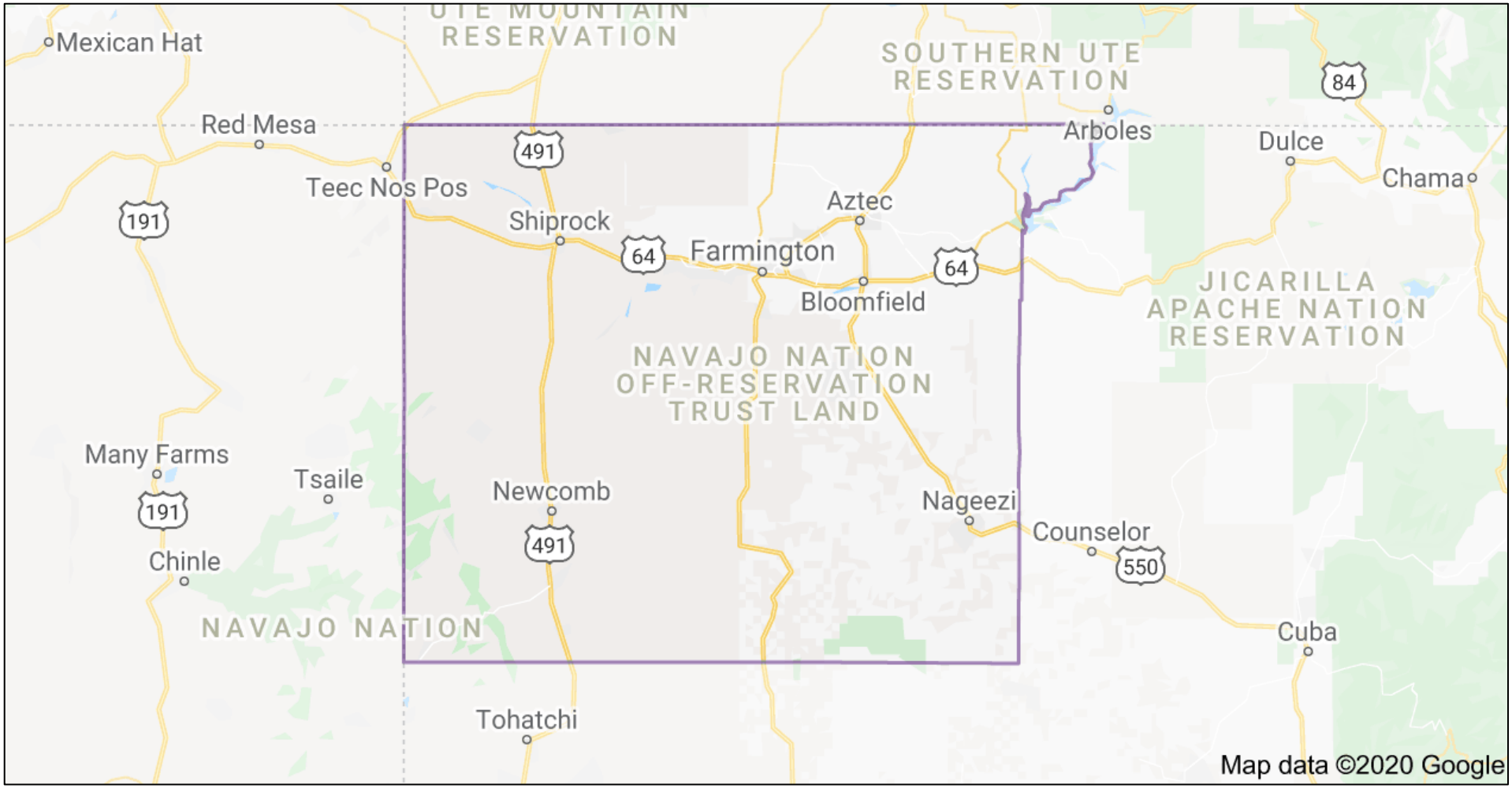
Table 6: Community Demographics

Community Demographics							
Jurisdiction	**Size (Sq. Mi.)**	**Population**			**% Population Change**		
		2000	**2010**	**2018**	**2000 - 2010**	**2010 - 2018**	**2000 - 2018**
San Juan, County	5,513	113,801	130,044	128,221	14.27%	-1.402%	12.67%
Aztec, City	12.53	6,378	6,763	6,635	6.04%	-1.893%	4.03%
Bloomfield, City	7.91	6,417	8,112	8,039	26.4%	-0.9%	25.3%
Farmington, City	31.51	37,844	45,857	47,857	21.23%	4.32%	26.46%
Kirtland, CDP	.67	6,190	7,875	-	27.2%	-	-

Data Source: U.S. Census Bureau – American Fact Finder (factfinder.census.gov) The 2017 demographic figure is from the U.S Census American Fact Finder – 2017 American Community Survey Demographic and Housing Estimates.

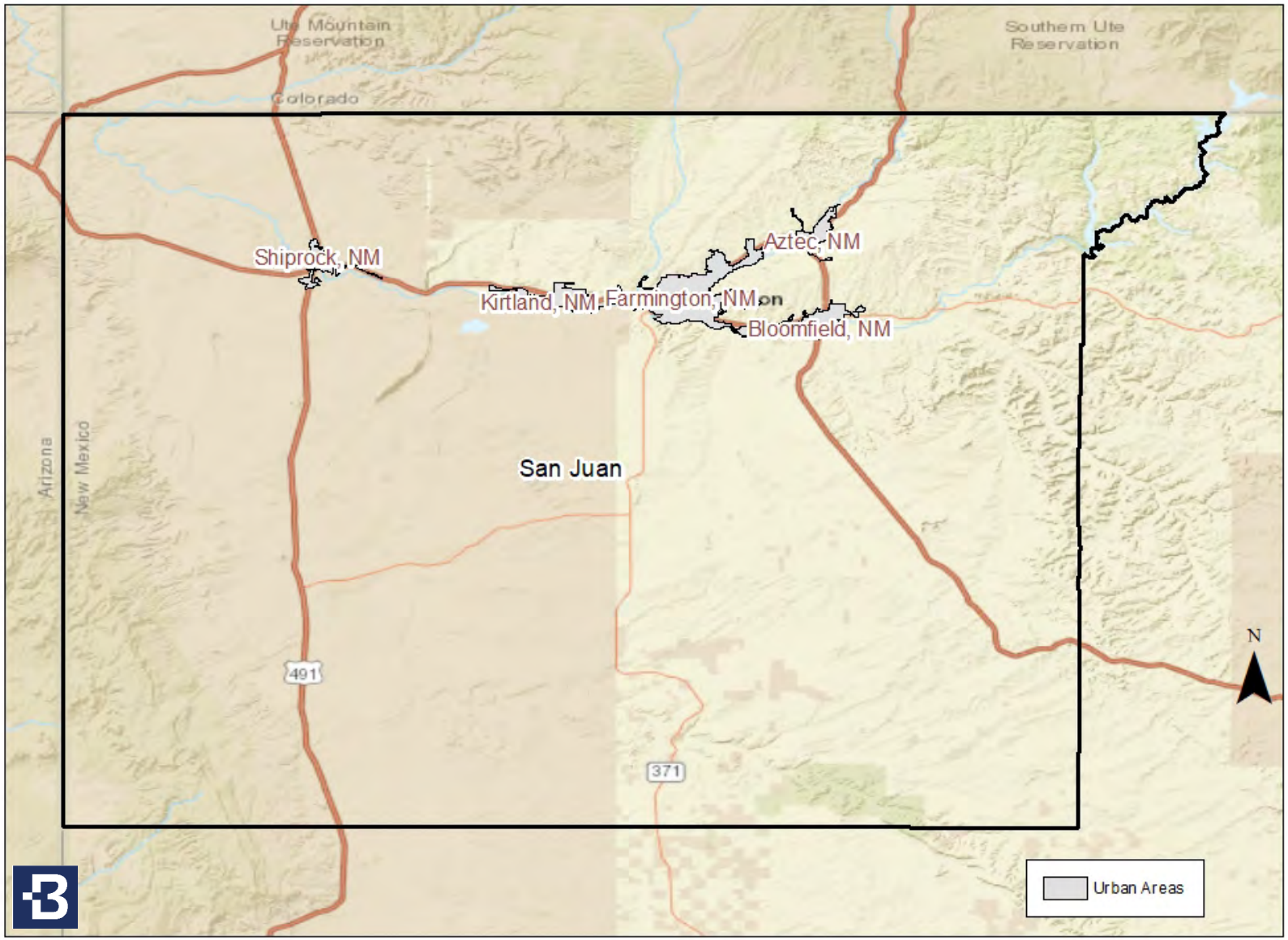
***Note**: The Town of Kirtland was incorporated as a township after the 2010 Census and there is no data that is available for this jurisdiction at the time of the plan update. The Town of Kirtland will participate for the first time in the 2020 Census. The data for the Town of Kirtland comes from the Kirtland, CDP, New Mexico in the 2010 Census.*
** Percent of Population Change Calculation: https://www.omnicalculator.com/math/percentage-change#how-to-calculate-the-percent-change*

Map 1: San Juan County, NM - Community Profile



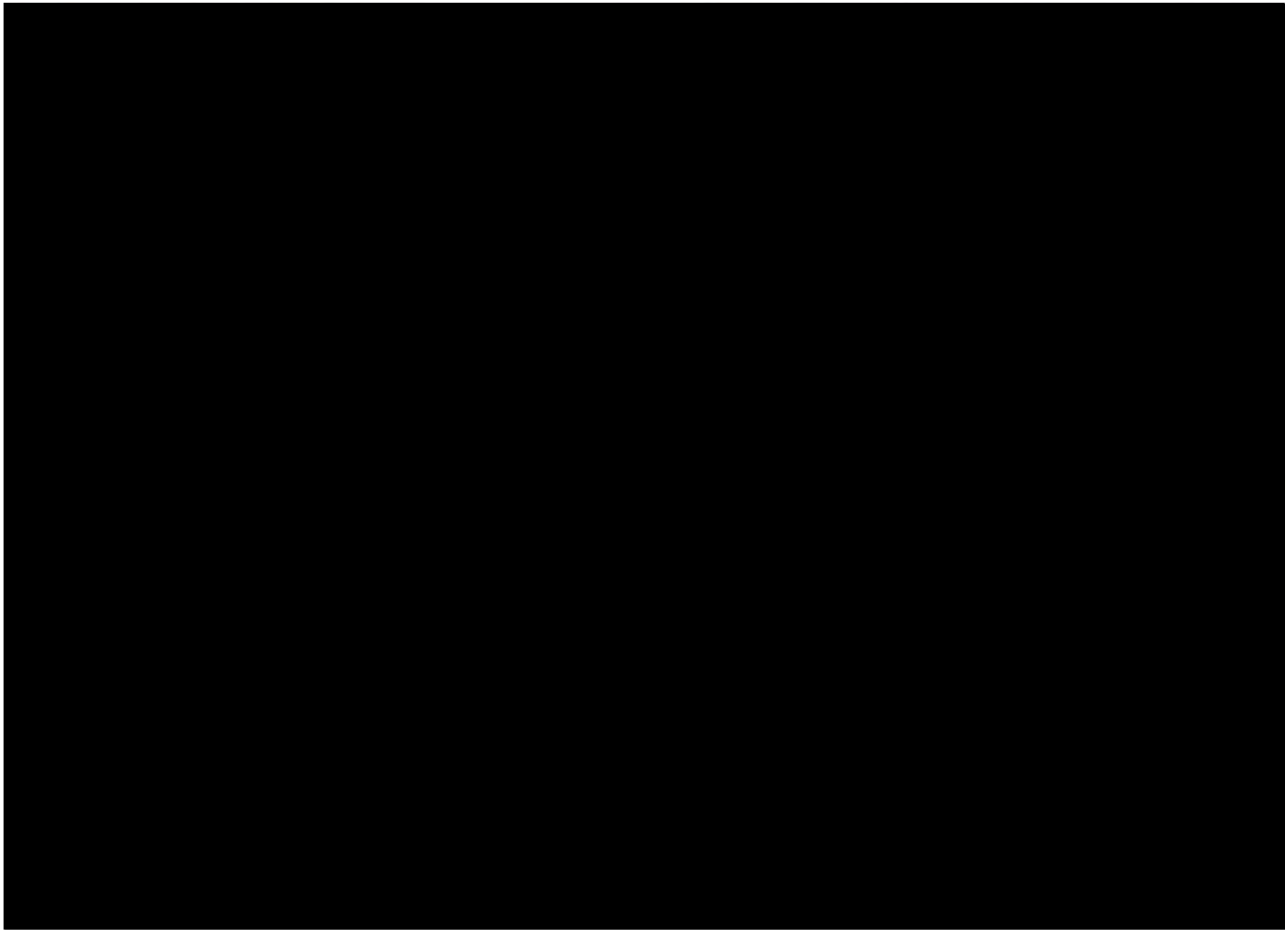
Map Source: Google® Maps

Map 2: San Juan County, NM - Community Profile



Map Source: BOLDplanning

Map 3: City of Aztec, NM - Community Profile

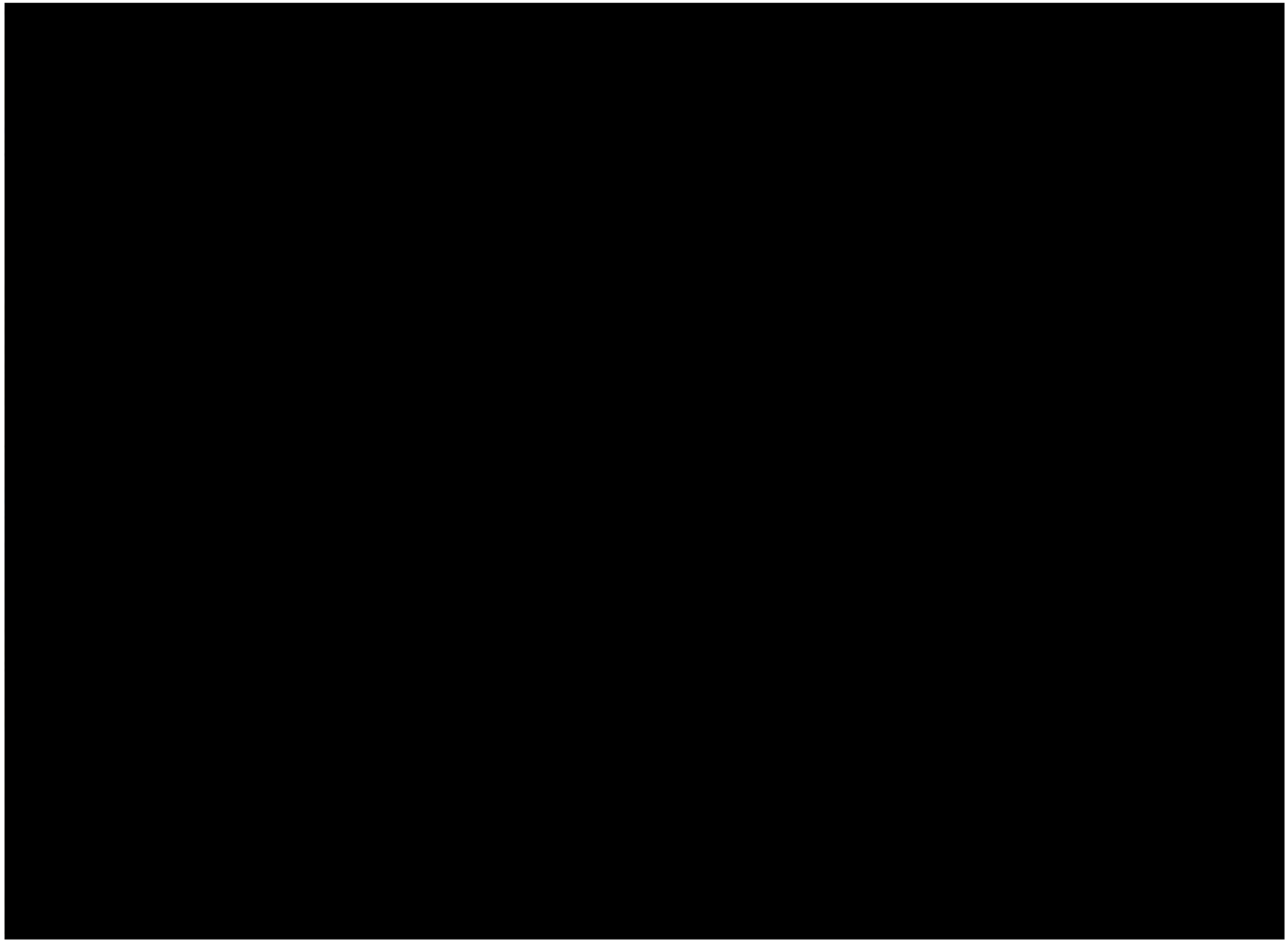


Map Source: BOLDplanning

Map 4: City of Bloomfield, NM - Community Profile

Map Source: BOLDplanning

Map 5: City of Farmington, NM - Community Profile



Map Source: BOLDplanning

Map 6: Town of Kirtland, NM - Community Profile

Map Source: BOLDplanning

3.2 – Land Use & Development Trends

Since the development of its last MJNHMP Update, the U.S. Census Bureau reported the population of San Juan County increased by more than 14% between 2000 and 2010 (113,801 to 128,221). The San Juan County Growth Management Plan (2018) states that the loss of high-paying jobs, which require a great deal of highly specific technical skill, has resulted in a contracting population, decreased median income, and a demographic shift towards an older population. Entities within the County have made a great effort to diversify the economy and meet the economic demand of various market sectors, but few target industries can provide the same level of employment and income as the waning oil and gas industry.

Concerning land use and development trends, the San Juan County Growth Management Plan (2018), indicates that residents of San Juan County take great pride in the freedom to use their land as they see fit. Noncontiguous development has led to the inefficient expansion of public infrastructure. Private roadways, not subject to county road standards, have inadvertently spurred greater growth than they have the physical or functional capacity to handle. Counting indirect employment and induced ripple effects, the region could lose up to 3,180 jobs and $213.3 million in annual income, cutting annual tax receipts for local, tribal, and state government by $43.3 million.

Much effort has been made to reposition the County and diversify its economy, and target industries have been identified in Outdoor Recreation, Petrochemicals, Agriculture, Retirement Developments. The Outdoor Recreational Industry Initiative (ORII) is a recent effort to develop and attract outdoor recreation tourism and manufacturing. Also, the effort to develop petrochemicals manufacturing and distribution would take advantage of the existing oil and gas transportation network and may offer a solution to developing manufacturing without the transportation infrastructure to distribute goods efficiently. The County has seen significant increases in irrigated acreage, crop diversity, and the value of agricultural products produced in recent years. Local efforts, including Local Foods Local Places, stand to expand the agricultural goods industry in San Juan County. The County continues efforts to attract retirement developments and expand workforce development and business incubation. San Juan College's Enterprise Center plays a central role in workforce development. Another key is attracting businesses and workforce, which may be inhibited by a lack of orderly development and insecurities about the future land value and potential uses, due to a lack of existing regulation.

For more information on each hazard's effect the entire planning area, see Section 4 – Hazard Risk Assessment. A hazard specific analysis, as it pertains to land use and development trends, is covered under each hazard in Section 4 – Hazard Risk Assessment.

3.3 – Critical Facilities

Certain facilities have a net positive value on the community, that is, they contribute to the public good by facilitating the basic functions of society. These facilities maintain order, public health, education, and help the economy function. Additionally, there are infrastructure and facilities integral to disaster response and recovery operations. Conversely, some infrastructure and facilities are of extreme importance due to the negative externalities created when they are impacted by a disaster. What fits these definitions will vary slightly from community to community, but the definitions remain as a guideline for identifying critical facilities and infrastructure. For San Juan County and its participating jurisdictions, the table below lists the identified critical facilities and infrastructure. A complete list can be found in Appendix D.

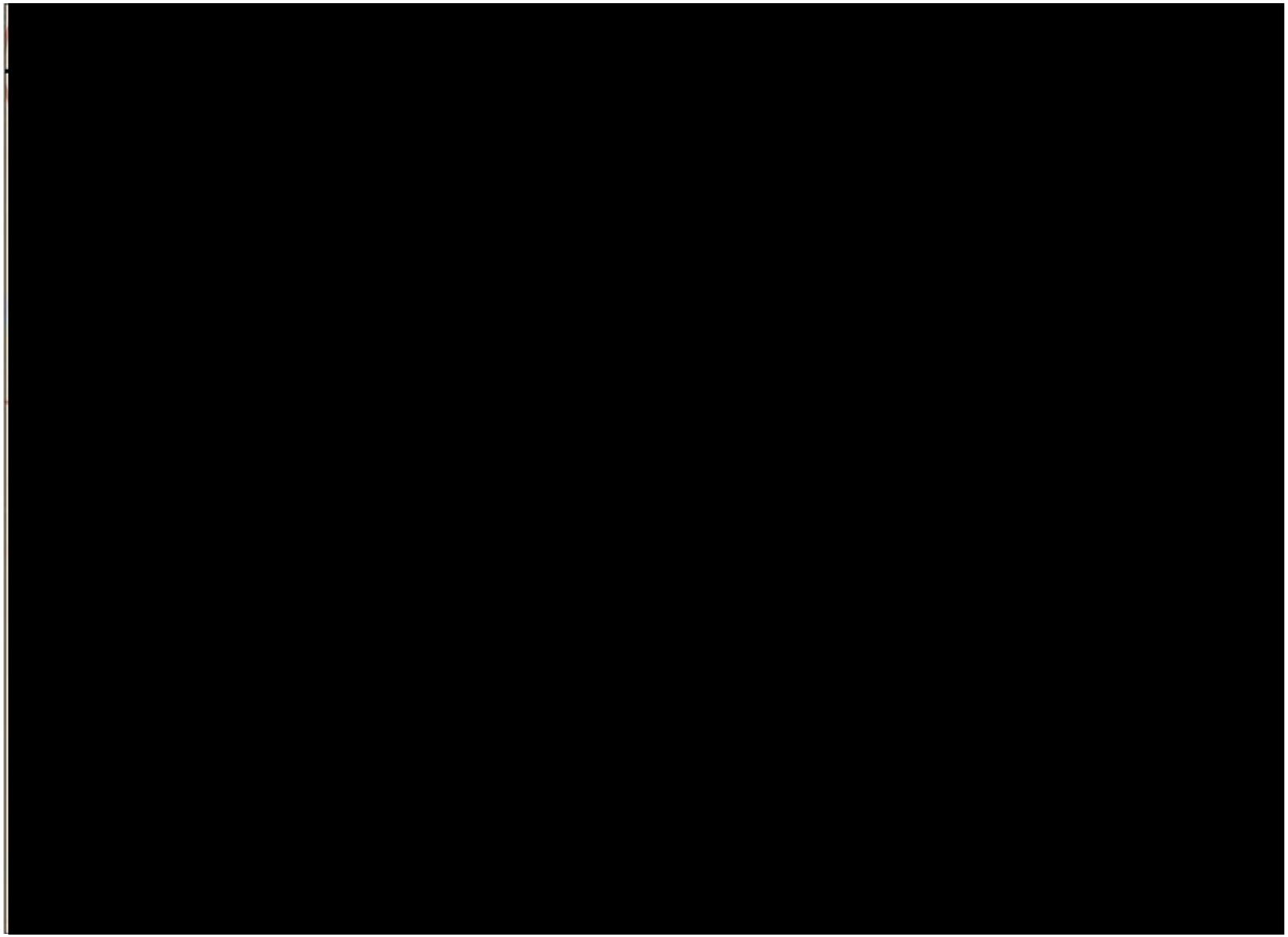
Table 7: Critical Facilities, San Juan County

Critical Facilities, San Juan County								
Jurisdiction	**911/ Communication**	**Airport**	**Electrical Utility**	**Emergency Operation Center (EOC)**	**Emergency Shelter/ School**	**Fire Station**	**Hospital**	**Major Government Building**
San Juan County	▮	▮	▮	▮	▮	▮	▮	▮
City of Aztec	▮	▮	▮	▮	▮	▮	▮	▮
City of Bloomfield	▮	▮	▮	▮	▮	▮	▮	▮
City of Farmington	▮	▮	▮	▮	■	■	▮	▮
Town of Kirtland	▮	▮	▮	▮	▮	▮	▮	▮
Total	▮	▮	▮	▮	■	■	▮	▮

Table 7: Critical Facilities, San Juan County (Cont'd)

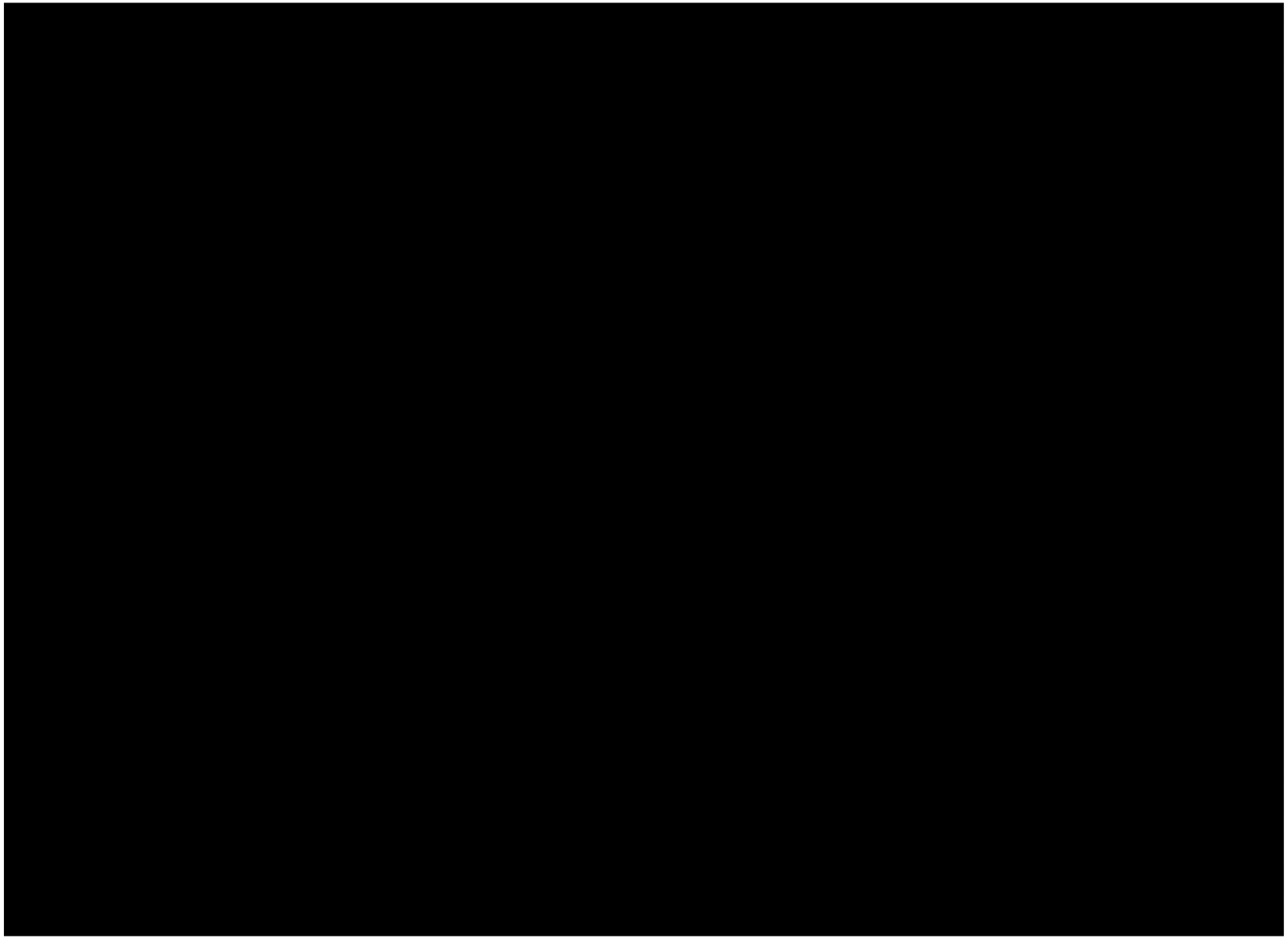
Critical Facilities, San Juan County						
Jurisdiction	**Major Bridge**	**Police Station**	**Water Treatment/ Pumping Station**	**Other**	**Blank/ Uncategorized**	**Total Number of Critical Facilities within San Juan County and All Participating Jurisdictions**
San Juan County	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
City of Aztec	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
City of Bloomfield	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
City of Farmington	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Town of Kirtland	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Map 7: San Juan County, NM, Critical Facilities & Infrastructure



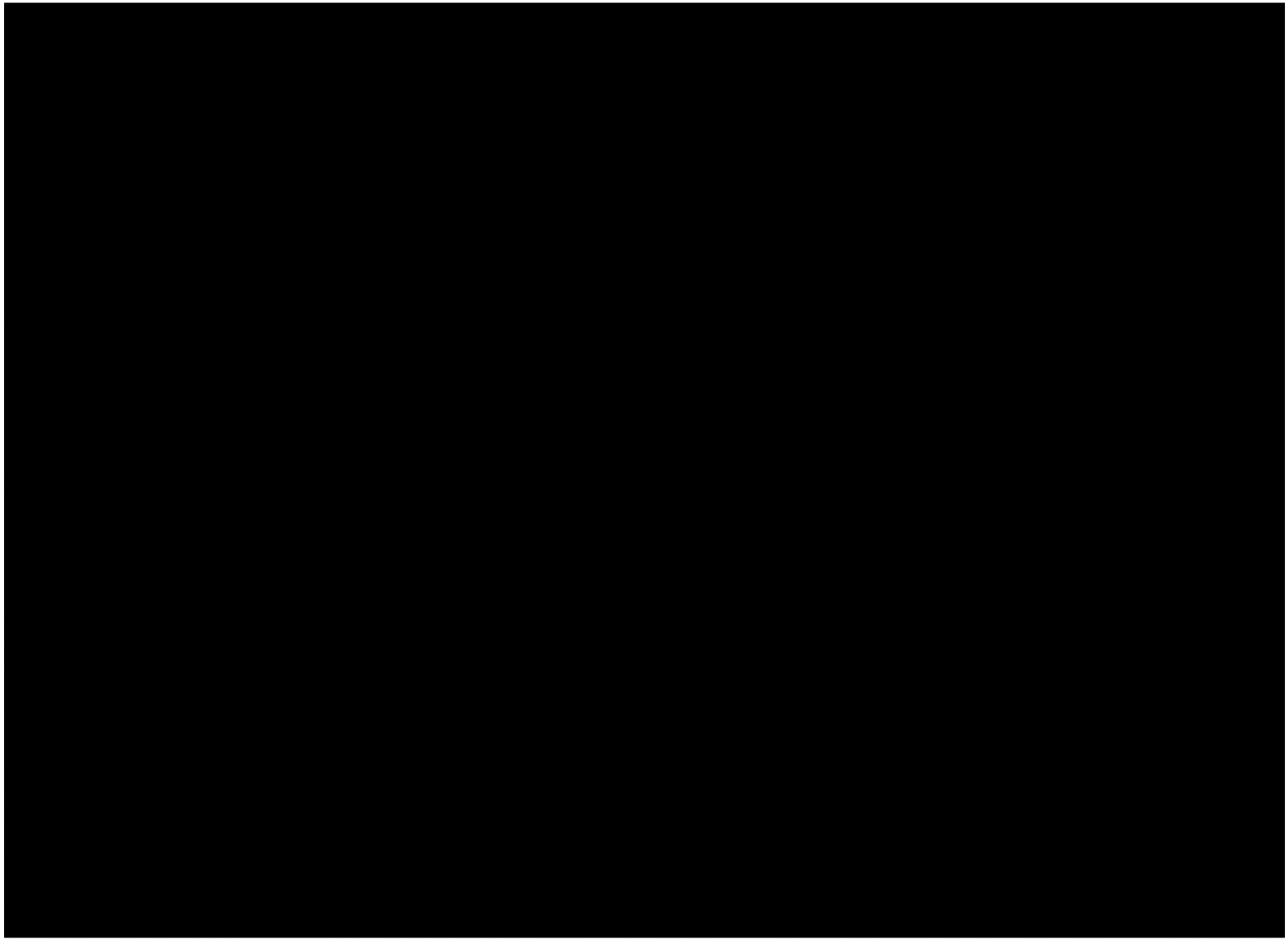
Map Source: BOLDplanning

Map 8: City of Aztec, NM, Critical Facilities & Infrastructure



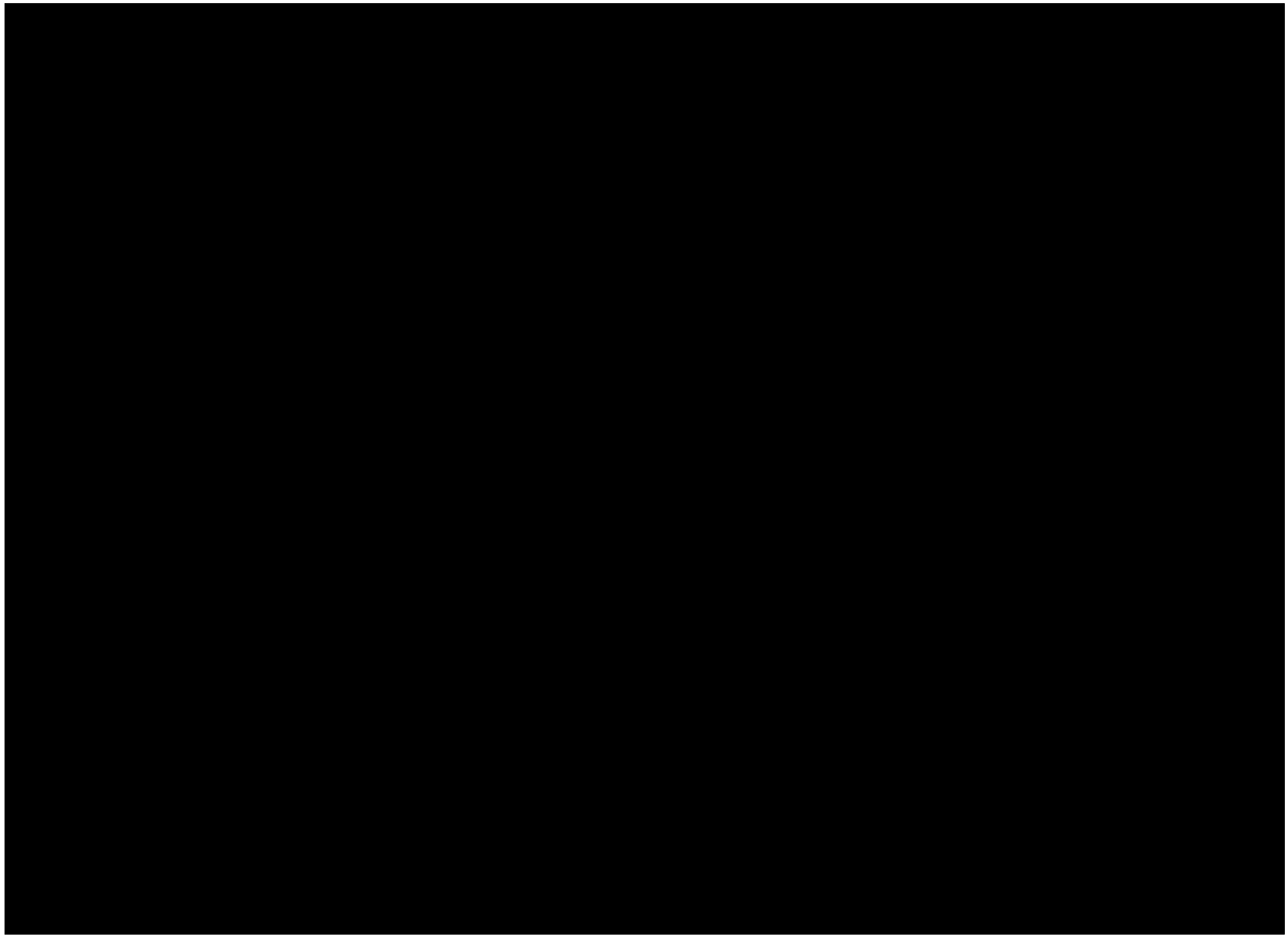
Map Source: BOLDplanning

Map 9: City of Aztec, NM, Critical Facilities & Infrastructure



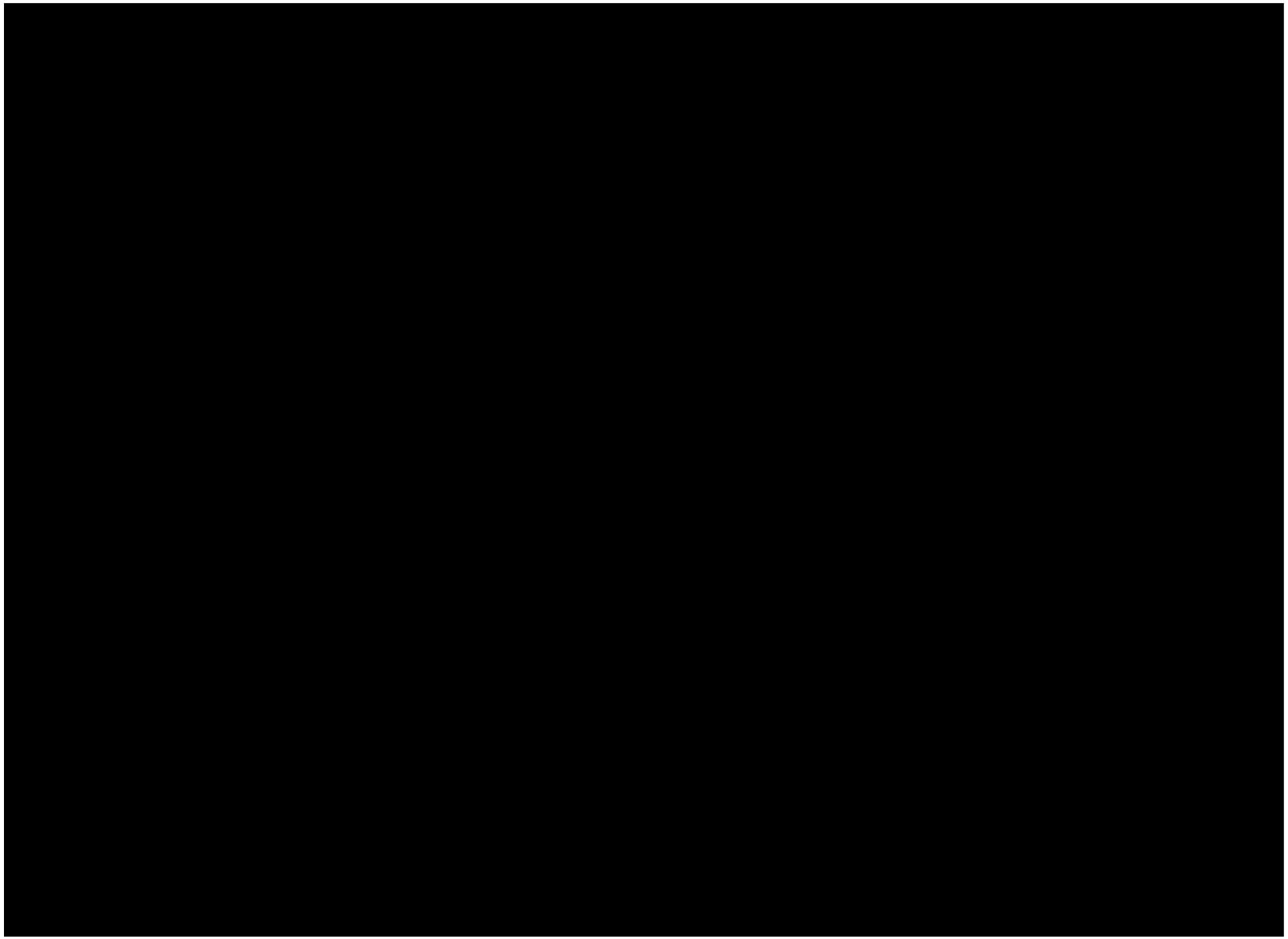
Map Source: BOLDplanning

Map 10: City of Bloomfield, NM, Critical Facilities & Infrastructure



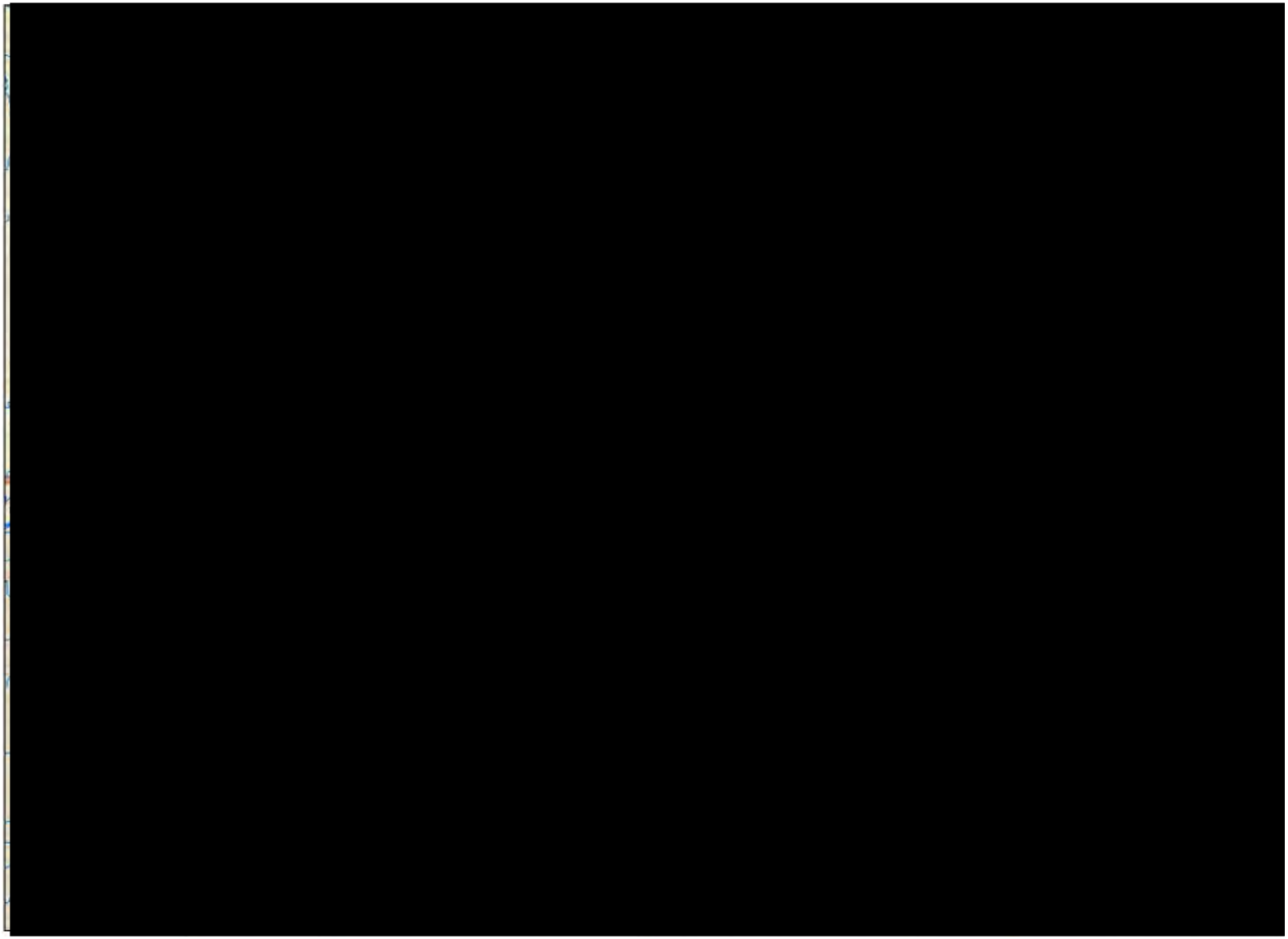
Map Source: BOLDplanning

Map 11: City of Bloomfield, NM, Critical Facilities & Infrastructure



Map Source: BOLDplanning

Map 12: City of Farmington, NM, Critical Facilities & Infrastructure

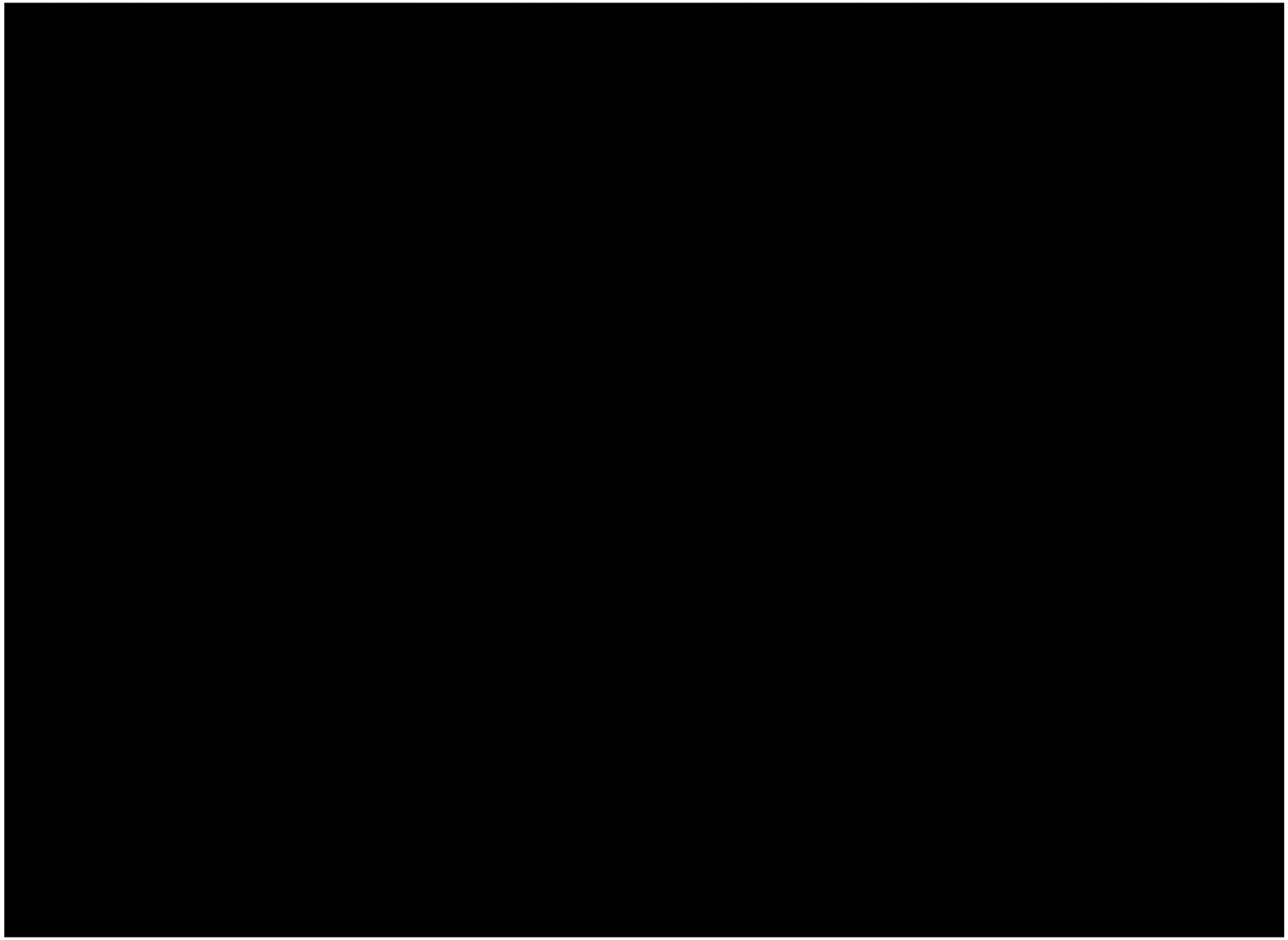


Map Source: BOLDplanning

Map 13: City of Farmington, NM, Critical Facilities & Infrastructure

Map Source: BOLDplanning

Map 14: City of Farmington, NM, Critical Facilities & Infrastructure



Map Source: BOLDplanning

Map 15: Town of Kirtland, NM, Critical Facilities & Infrastructure

Map Source: BOLDplanning

Map 16: Town of Kirtland, NM, Critical Facilities & Infrastructure

Map Source: BOLDplanning

Section 4 – Hazard Risk Assessment

The goal of hazard mitigation is to reduce the future impacts of hazards, including property damage, disruption to local and regional economies, and the amount of public and private funds spent to assist recovery. To be done correctly, mitigation decision-making should be based on a comprehensive risk assessment.

A risk assessment consists of three components: hazard profiling, exposure, and vulnerability assessment. The process entails past hazard events, probability of future events, asset lists, loss estimation, and other elements where appropriate.

Review of recently declared disasters, i.e., from 2013 to the present, provides an overview of the hazards facing San Juan County and its participating jurisdictions. This timeframe is referenced because San Juan County had a previous, FEMA-approved MJNHP that expired in 2018. Since 2013, San Juan County and its participating jurisdictions have experienced two presidentially declared disasters. These disaster declarations were due to flooding/severe storms and pandemic. A list of the declared disasters occurring in San Juan County and its participating jurisdictions since 2013 is presented in Table 8 (below). Smaller events are more frequent and are not reflected in the table.

***Note**: Human-caused hazards like Communicable Disease were not identified in the 2018 State of New Mexico Multi-Hazard Mitigation Plan or the San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan Update (November 2018). This disaster declaration was included in the table below due to the pandemic affecting San Juan County and its participating jurisdictions during the drafting of this plan update.*

Table 8: Presidential Disaster Declarations, San Juan County

Presidential Disaster Declarations, San Juan County		
Designation	**Incident Period**	**Incident Type**
DR- 4152	09/09/2013 – 09/22/2013	Severe Storms, Flooding, and Mudslides
DR - 4529	01/20/2020 – Continuing	COVID-19 Pandemic

Data Source: FEMA

***Note:** The hazard of severe storms and mudslide, though included in the FEMA Disaster Declaration, DR-4152, the main hazard addressed that caused documented damage, and disaster incidence is flooding. Because of this, flooding is included as a profiled hazard in this plan update. Though there is the incidence of severe weather and mudslides in the planning area, they do not pose a risk and are not mentioned as hazards of concern with this plan update.*

4.1 – Identifying Hazards

The first step in developing a hazard assessment is to identify the hazards that have a reasonable risk of occurring in San Juan County and its participating jurisdictions. Proper identification allows for appropriate and well-planned action in order to mitigate the extent and impact of a hazard event. It also helps facilitate emergency response and recovery operations. Further, while not all disaster contingencies can be planned for, applying an all-hazards approach to the mitigation process does yield greater awareness and better preparedness for unforeseen hazard events overall.

Table 9 (shown below) lists the 14 hazards identified in the New Mexico State Hazard Mitigation Plan (September 2018) as well as the justification for their inclusion/exclusion within the San Juan County MJNHMP. Research indicates three (3) of the 14 hazards, namely dam failure, earthquake, extreme heat, expansive soils, high wind, landslide, land subsidence, thunderstorms (including lightning), tornadoes, and severe winter weather (excluded by MPC), volcanoes, pose no reasonable risk to San Juan County and its participating jurisdictions. As such, they are excluded from this plan. Justification(s) for exclusion can be found in Section 4.3 – Excluded Hazards.

Three of the 14 state-identified hazards do pose some level of risk to San Juan County and/or at least one of its participating jurisdictions. These are drought, flood/flash flood, and wildfire. One additional, unnatural hazard, hazardous materials (HazMat), also poses risk to San Juan County and its participating jurisdictions. For this reason, hazardous materials is included within this plan update. Details for each of these four (4) hazards and their potential impact are located in Section 4.3.

Note: *The hazard of Hazardous Materials is not included in the New Mexico State Hazard Mitigation Plan. The State of New Mexico does not include any human-caused hazards as the intent of its plan is to mitigate against natural hazards only.*

Table 9: State of New Mexico Identified Hazards

State of New Mexico Identified Hazards			
Hazards in State / Previous HMP	**Previous Inclusions**	**Included/Excluded**	**Justification**
Dam failure	State Plan	Excluded	No reasonable risk
Drought	State Plan, Prior Plan	Included	Disaster History
Earthquake	State Plan	Excluded	No reasonable Risk
Extreme Heat	State Plan	Excluded	No reasonable risk
Expansive Soils	State Plan	Excluded	No reasonable risk
Flood/Flash Floods	State Plan, Prior Plan	Included	Disaster History
High Wind	State Plan	Excluded	No reasonable risk
Severe Winter Storms	State Plan	Excluded	No reasonable risk
Landslide	State Plan	Excluded	No reasonable risk
Land Subsidence	State Plan	Excluded	No reasonable risk
Thunderstorm (including Lightning)	State Plan	Excluded	Not reasonable risk
Tornadoes	State Plan	Excluded	No reasonable risk
Volcanoes	State Plan	Excluded	No reasonable risk
Wildfire	State Plan, Prior Plan	Included	Disaster History

4.2 – Profiling Hazards

Hazard profiles are outlined in the proceeding sections of the San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan Update. For certain hazards, the sections pertaining to Repetitive Loss (RL) structures and HAZUS® models are excluded due to the lack of applicability.

4.2.1 – Hazard Description

This section describes the general characteristics of the specified hazard.

4.2.2 – Location & Extent

This section contains information about the location, i.e., the geographic area(s) within the planning area, that are affected by the hazard, along with the extent (strength and magnitude) of the specific hazard.

4.2.3 – Previous Occurrences

This section contains a history of previous hazard events for the profiled hazard.

***Methodology**: Most of the historical data used in the risk assessment originates from the National Oceanic and Atmospheric Administration/National Centers for Environmental Information (NOAA/NCEI). In most instances, the hazard affects a large geographic area, and thus, the hazard data is reported at the county level. This is the best available data for these hazards. The calculations for Previous Occurrences and the Probability of Future Events are based on county-level data.*

4.2.3A – Probability of Future Events

This section discusses the likelihood of the identified hazard occurring. These percentages are based on FEMA and the planning area's definition of probability categories. The percentages are based off a year time frame and they are calculated from historical number of occurrences and the year range the historical occurrences were pulled from.

Table 10: Probability Categories

Probability Categories	
Category	**Range (Per Year)**
Unlikely	Less than 0%
Occasional	1% -10%
Likely	11% - 50%
Highly Likely	51% - 100%

4.2.4 – Vulnerability & Impact

This section describes the potential impacts of the hazard for each participating jurisdiction and provides an overall summary of each jurisdiction's vulnerability to the hazard through structures, systems, populations, and community assets that are susceptible to damage and loss from the hazard.

4.2.4A – Critical Facilities & Infrastructure

When appropriate, this section details the infrastructure and facilities pertinent to the hazard.

4.2.4B – Land Use & Development Trends

This section provides a general description of land use and development trends within the participating jurisdictions.

4.2.4C – Unique & Varied Risk

Each jurisdiction's risk, where it varies from the risks facing the entire planning area, is discussed in this section.

4.2.4D – Repetitive Loss Structures

If applicable to the profiled hazard, a description of the location types, along with estimates for the number of RL properties, will be provided in this section.

4.2.5 – HAZUS® Models

If applicable to the profiled hazard, HAZUS® models may be included in this section of the plan. HAZUS® is a GIS (mapping) tool that allows analysts to create a fictional scenario for the planning area using specific details to show what could happen if that scenario were to occur. This type of mapping is helpful to fill in gaps where there is a lack of historical data. It also allows jurisdictions to visualize which facilities and populations would potentially be affected by the profiled hazard.

4.2(D) – Drought

4.2.1 – Hazard Description

Photo Source: USGS, New Mexico – Drought, Animas River at Farmington

Drought is defined as an abnormally dry period lasting months or years when an area has a deficiency of water and precipitation in its surface and or underground water supply. It is, however, a normal, seasonal, and recurrent feature of climate that occurs in virtually all climate zones—typically in late spring through early fall. The duration of drought varies widely. There are cases when drought develops relatively quickly and lasts a very short period of time, exacerbated by extreme heat and/or wind, and there are other cases when drought spans multiple years, or even decades. The hydrological imbalance can be grouped into the following non-exclusive categories:

Agricultural: When the amount of moisture in the soil no longer meets the needs of previously grown crops

Hydrological: When surface and subsurface water levels are significantly below their normal levels

Meteorological: When there is a significant departure from the normal levels of precipitation

Socio-Economic: When the water deficiency begins to significantly affect the population

When below average, little or no rain falls, soil can dry out, and plants can die. If unusually dry weather persists and water supply problems develop, the time period is defined as a drought. Human activity such as over-farming, excessive irrigation, deforestation, and poor erosion controls can exacerbate a drought's effects. It can take weeks or months before the effects of below average precipitation on bodies of water are observed. Depending upon the region, droughts can happen more quickly, noticed sooner, or have their effects naturally mitigated. The more humid and wet an area is, the faster the effects will be realized. A naturally dry region, which typically relies more on subsurface water will take more time to actualize its effects.

Periods of drought can have significant environmental, agricultural, health, economic, and social consequences. The effects vary depending upon vulnerability and regional characteristics. Droughts can also reduce water quality through a decreased ability for natural rivers and streams to dilute pollutants and increase contamination. The most common effects are diminished crop yield, increased erosion, dust storms, ecosystem damage, reduced electricity production due to reduced flow through hydroelectric dams, shortage of water for industrial production, and increased risk of wildland fires.

Droughts are regularly monitored by multiple federal agencies using a number of different indices. Among them are the U.S. Drought Monitor, the Palmer Drought Index, and the Standardized Precipitation Index, as next described.

The U.S. Drought Monitor provides a summary of drought conditions across the U.S. and Puerto Rico. Often described as a blend of art and science, the map is updated weekly by combining a variety of data-

based drought indices and indicators, along with local expert input, into a single composite drought indicator.

The Palmer Drought Index (PDI), devised in 1965, was the first drought indicator to assess moisture status comprehensively. It uses temperature and precipitation data to circulate water supply and demand; incorporates soil moisture; and is considered most effective for unirrigated cropland. It primarily reflects long-term drought and has been used extensively to initiate drought relief.

Table 11: Palmer Drought Severity Index

Palmer Drought Severity Index	
Extremely Wet	4.0 or more
Very Wet	3.0 to 3.99
Moderately Wet	2.0 to 2.99
Slightly Wet	1.0 to 1.99
Incipient Wet Spell	0.5 to 0.99
Near Normal	0.49 to -0.49
Incipient Dry Spell	-0.5 to -0.99
Mild Drought	-1.0 to -1.99
Moderate Drought	-2.0 to -2.99
Severe Drought	-3.0 to -3.99
Extreme Drought	-4.0 or less

The Standardized Precipitation Index (SPI) is a way of measuring drought that is different from the Palmer Drought Index (PDI). Like the PDI, this index is negative for drought, and positive for wet conditions. However, the SPI is a probability index that considers only precipitation, while PDI indices are water balance indices that consider water supply (precipitation), demand (evapotranspiration) and loss (runoff).

Table 12: Standard Precipitation Index

Standard Precipitation Index	
Extremely Wet	2.0+
Very Wet	1.5 to 1.99
Moderately Wet	1.0 to 1.49
Near Normal	-.99 to .99
Moderately Dry	-1.0 to -1.49
Severely Dry	-1.5 to -1.99
Extremely Dry	-2 and less

Drought is a persistent problem across the country, as evidenced by its widespread presence in 2018. Early in the year (February 2018), the U.S. Drought Monitor reported that 38.4% of the continental U.S. was in drought. That was the highest percentage since the 40% recorded in May 2014. Moreover, there is technically no longer a “fire season” for the State of California, as it has become a tinderbox for drought-related wildfires year-round. Other states across the country are, unfortunately, falling suit. The State of New Mexico is no stranger to drought. The 2018 New Mexico Drought Plan indicates that drought has had particularly acute impacts during the years 1900-1910, 1932-1937, 1945-1956, 1974-1977, 2002-2004, and 2011-2013.

4.2.2 – Location & Extent

Per the U.S. Drought Monitor, since 2000, the longest duration of drought in New Mexico, lasted 329 weeks beginning on May 1, 2001, and ending on August 14, 2007. The most intense period of drought occurred the week of June 21, 2011, when 49.06% of New Mexico land was affected. Over the last 20 years, NOAA/NCEI has recorded 73 drought events in San Juan County alone.

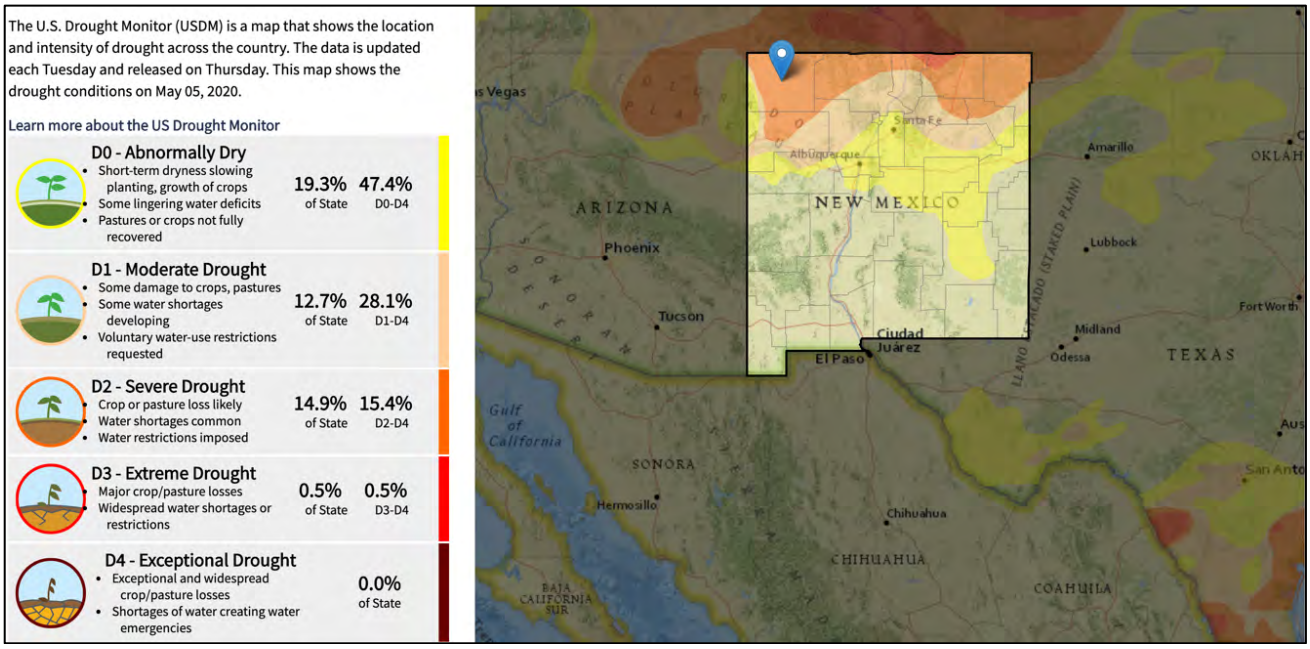
Drought typically does not have a direct impact on critical facilities or structures. However, a possible loss/impact might include loss of critical functions due to low water supplies. Severe droughts can negatively affect drinking water supplies. Should a public water system be affected, the losses could total into millions of dollars if water must be shipped from other locations. In the previous plan update, it is mentioned that the more populated areas, the Cities of Aztec, Bloomfield, and Farmington, face the problem of threats to the municipal water supply, affecting both the citizens and the potential commercial development. Currently, San Juan County and its participating jurisdictions have implemented water conservation parameters due to drought conditions in the region.

Severe drought could also pose significant risk to public health if water sources become scarce, or worse, contaminated. This is especially true for those who get their drinking water from private wells. Per the Centers for Disease Control (CDC), viruses, such as E. coli and salmonella, as well as protozoa and bacteria can pollute both groundwater and surface water when rainfall decreases. Additionally, acute respiratory and gastrointestinal illness are more easily spread from person-to-person when hand washing is compromised by a perceived or real lack of available water.

Severe drought can also increase the County's vulnerability to wildfire due to dry vegetation. Dry, hot, and windy weather combined with dry vegetation and a spark, whether through human intent, accident, or lightning, can trigger a blaze.

As of May 5, 2020, and according to U.S. Drought Monitor (drought.gov), 47% of the State of New Mexico is abnormally dry, and 15.4% is moderately dry, including San Juan County. Due to the nature of drought, all participating jurisdictions within San Juan County are expected to be impacted equally due to drought conditions, moderate to extreme, going forward.

Map 17: Drought in New Mexico Map including San Juan County as of May 2020

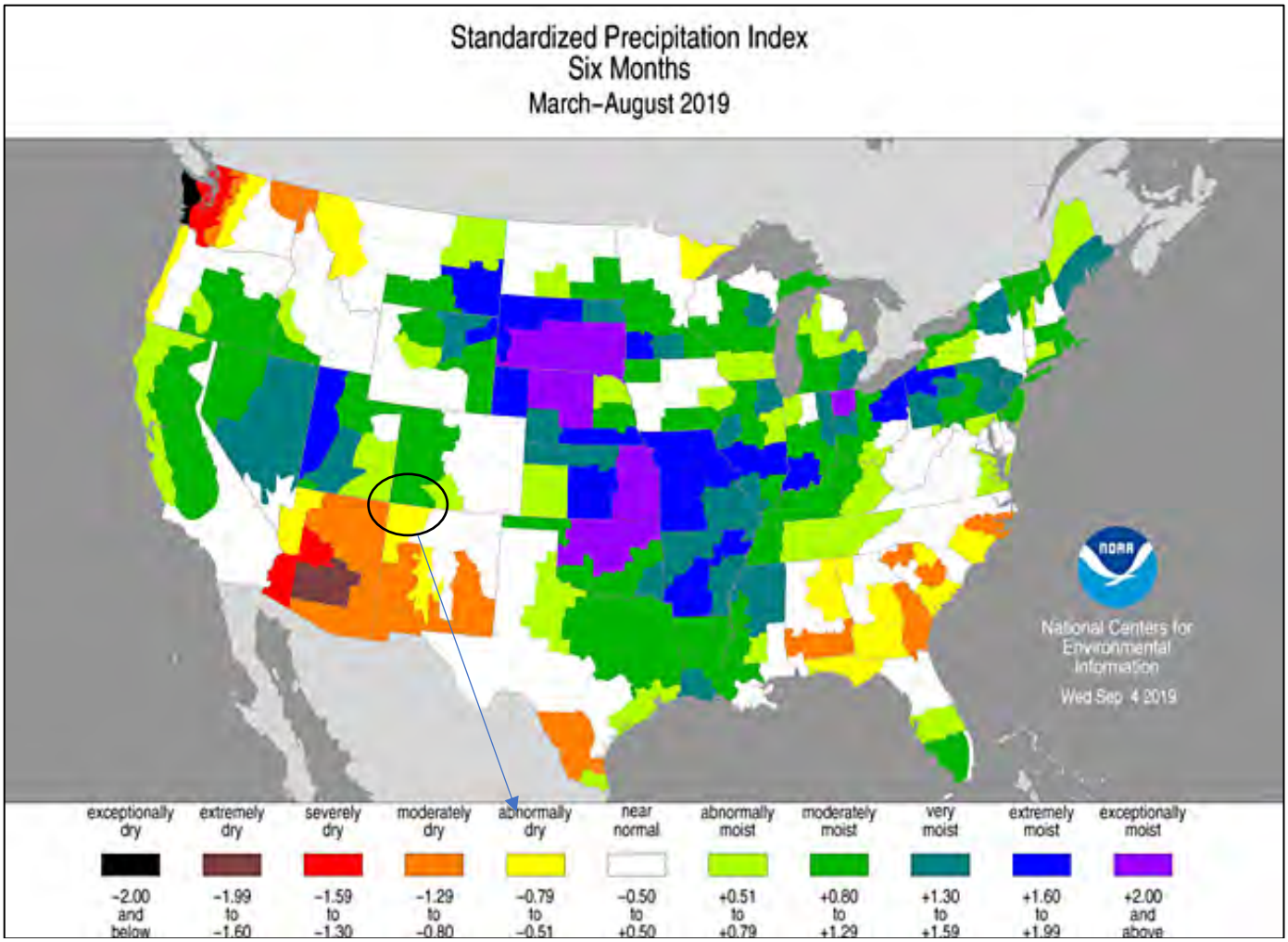


Map Source: U.S. Drought Monitor, (https://www.drought.gov/drought/states/newmexico?places=san+juan+county+nm&places=San+Juan+County%2C+NM%2C+USA)

The Standardized Precipitation Index (SPI)

The SPI shows the actual precipitation compared to the probability of precipitation for various time frames. The SPI is an index based on precipitation only. It can be used on a variety of time scales, which allows it to be useful for both short-term agricultural and long-term hydrological applications. A drought event occurs any time the SPI is continuously negative and reaches an intensity of -1.0 or less as indicated in Table 12 (above). The event ends when the SPI becomes positive. Each drought event, therefore, has a duration defined by its beginning and end, and intensity for each month the event continues. The positive sum of the SPI for all the months within a drought event can be termed the drought's magnitude.

Map 18: Standardized Precipitation Index, March – August 2019 (Circled is the San Juan County, NM area)



Map Source: NCDC/NOAA (https://www.ncdc.noaa.gov/monitoring-content/sotc/drought/2019/08/spi-06-201908.png)

4.2.3 – Previous Occurrences

As previously mentioned, this update to the San Juan County MJNHMP Update (November 2018) covers a date range from January 1, 2013, to the present. From January 1, 2013, to January 31, 2020, NOAA/NCEI recorded 50 drought events in San Juan County. The events reflected the following zones on NOAA/NCEI database: In 2018 and 2019, the USDA designated San Juan County as a Primary Natural Disaster Area

due to drought conditions. The designation was based on losses suffered by county farmers and ranchers due to ongoing drought conditions.

4.2.3A – Probability of Future Events, Drought

San Juan County and its participating jurisdictions can expect a drought event with a 714.28% probability per year, or 7.142 events per year. Calculating future probably is not the only predictor of future occurrences (based upon Table 10: Probability Categories). This number was derived by dividing the number of recorded events by the year range used. The qualitative chance of a drought for San Juan County and its participating jurisdiction is considered **highly likely**.

Table 13: Probability of Future Events, Drought

Probability of Future Events, Drought	
Event Year	**Event Count**
2013	12
2014	12
2015	6
2016	-
2017	-
2018	12
2019	8
2020	-
Total Recorded Events =	50
Total Years =	7
Yearly Probability =	**714.28%**

Data Source: NOAA/NCEI Storm Events Database

4.2.4 – Vulnerability & Impact

San Juan County and its participating jurisdictions have recorded 50 drought events since 2013, of which the range and magnitude was between “slightly dry” and “extremely dry.” Based on the future probability in Table 17, San Juan County and its participating jurisdictions can expect 7.142 drought events per year with each ranging anywhere below 0 and -4 on the Palmer Drought Severity Index and 0 to -2 on the Standard Precipitation Index. Therefore, drought does not pose any risk to facilities in San Juan County or the participating jurisdictions. NOAA/NCEI Storm Events Database does not indicate any reports of death, injuries and property damage estimates due to drought events.

Table 14: Historical Impacts, Drought

Historical Impacts, Drought	
Count of Events	50
Impacts Per Year	7.14
Average Magnitude	-
Magnitude Range	-
Average Cost	$0
Magnitude of Cost	$0 - $0
Total Recorded Cost	$0

Average Fatalities	0.00
Total Fatalities	0.00
Average Injuries	0.00
Total Injuries	0.00

Data Source: NOAA/NCEI Storm Events Database

Vulnerability of Population

Drought itself poses no direct risk of injury or death to populations in San Juan County and its participating jurisdictions.

Vulnerability of Systems

Drought can have a significant effect on a jurisdiction's agriculture and tourism economies. If the precipitation level is below average, farmers will struggle to grow crops and feed livestock. If rivers, streams, and lakes dry up, tourists will be less likely to enjoy a jurisdiction's amenity resources.

The New Mexico Drought Plan: 2018 (NMDP) provides the state with an updated approach to address drought to protect its people and resources. It develops a drought response system that is adaptive to changing needs and conditions and capable of being continually upgraded through the incorporation of new information. The plan specifies that subsequent updates should be made every five years. San Juan County has a County-Level Drought Working Group that SJCOEM facilitates.

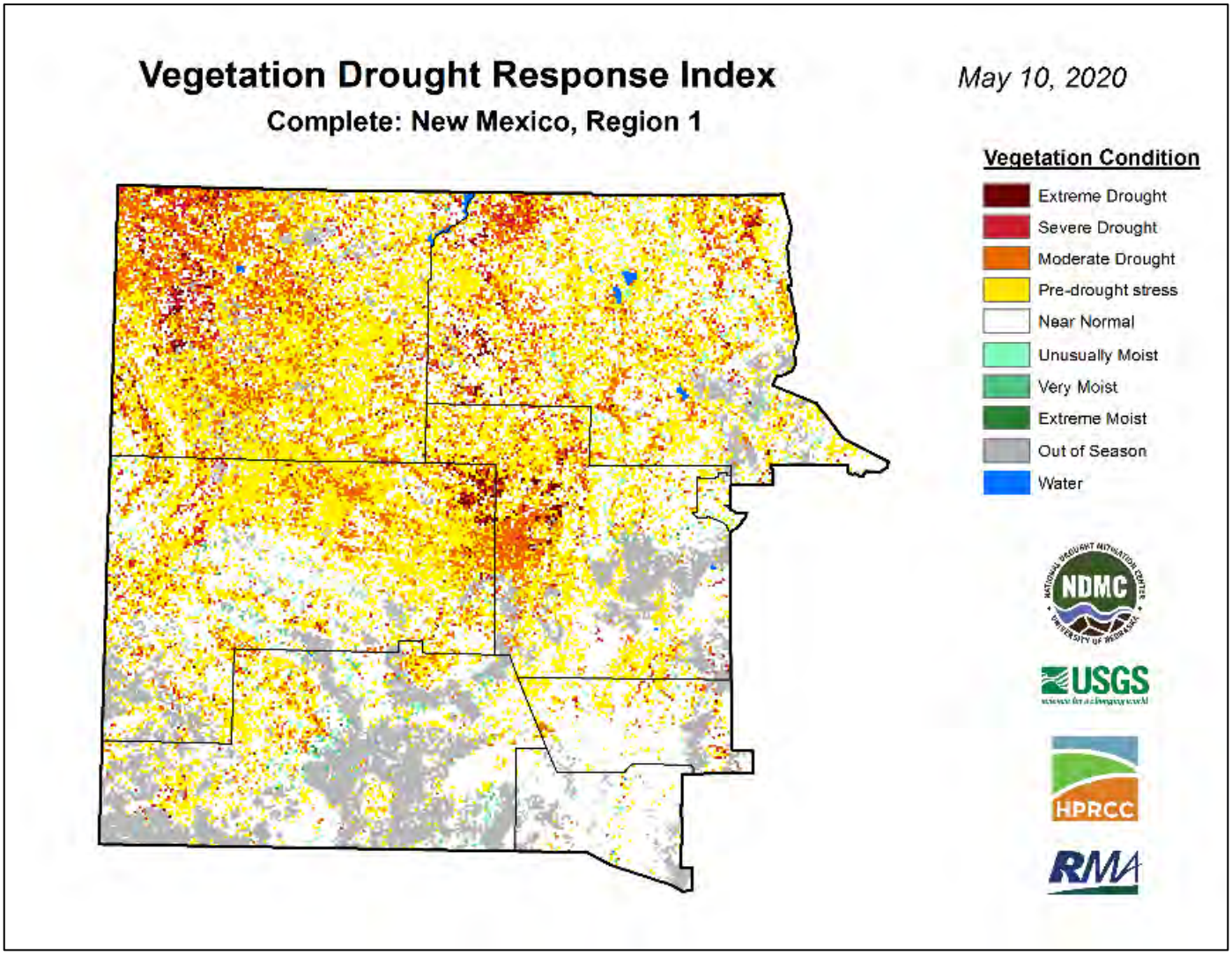
4.2.4A – Critical Facilities & Infrastructure

Drought does not pose any risk to critical facilities and infrastructure in San Juan County or its participating jurisdictions. A complete list of critical facilities and infrastructure can be found in Appendix D.

4.2.4B – Land Use & Development Trends

Two areas that affect Land Use and Development Trends concerning drought events are the impact of agriculture and water conservation. Droughts impact individuals (farm owners, tenants, and farm laborers), the agricultural industry, other agriculture related sectors, and other industries such as tourism and recreation. There is increased danger of forest and wildland fires. Loss of forests and trees increases erosion, causing serious damage to aquatic life, irrigation, and power development by heavy silting of streams, reservoirs, and rivers. The Agriculture Science Center at Farmington indicates that San Juan County ranks second in the state for irrigated cropland with 150,000 acres or 10% of the state total. The agriculture that is most vulnerable during a drought in San Juan County and its participating jurisdictions is rangeland used for livestock grazing.

Map 19: Vegetation Drought Response Index – New Mexico Region 1



Map Source: Vegetation Drought Response Index (VegDRI)

In 2019, the New Mexico Interstate Stream Commission held forums to bring stakeholders to hold Water Planning discussions throughout the State. The purpose of the meetings was to inform New Mexico communities like San Juan County and its participating jurisdictions about water planning activities by the New Mexico Interstate and Stream Commission. Also, the meetings were to help gather input on the impact of drought and needed drought resources within the community.

The recent "Summary of the New Mexico Water Planning Drought Discussions" created by the New Mexico Interstate Stream Commission is the report that outlines the situations, problems, and observations discussed during those meetings. At the Farmington drought discussion on March 7, 2019, participants indicated that based on current drought conditions, farmers were looking for ways to change their methods of farming (i.e., change their crops; look for farming alternative) due to lack of water. Also, due to drought, there was a lack of hay needed for ranchers, causing hay to be in high demand. Farmers and most particularly ranchers within the County were having to make the hard choice to reduce their cattle or potentially shut down due to the lack of hay or water due to the effect of drought conditions in the area.

Water conservation due to drought conditions has been a significant trend in the municipalities of San Juan County. Since 2018, the Cities of Farmington and Aztec have instated water conservation ordinances to help residence to conserve water supply. 2018 was one of the driest years on record in New Mexico. The City of Farmington saw the need to conserve water during the 2018 drought, and on May 1, 2018, the Farmington City Council declared a Stage 1 "Water Shortage Advisory" as a precautionary measure. Its purpose was to request voluntary compliance by area residents in adopting an attitude of conservation. The Water Conservation plan indicated that Farmington Lake was at 100% capacity, unlike the other reservoirs in the State. Also, Farmington Lake Levels, Snowpack, Palmer Drought Index, and Stream Flow are the fundamental criteria used to determine the basic stages of water conservation for the City. The City's Water Conservation plan outlines four basic stages with an associated savings goal:

- Stage I – Water Shortage Advisory (Promote voluntary conservation measures) Goal: 10% savings
- Stage II – Water Shortage Watch (Implement mandatory conservation measures) Goal: 15% savings
- Stage III – Water Shortage Warning (Implement more mandatory conservation measures) Goal: 35%
- Stage IV – Water Shortage Emergency (Implement severe mandatory conservation measures) Goal: 50% savings

In 2018, the City of Farmington reached to Stages III and IV (Resolution No. 2018-1670) due to projected snowpack to be exhausted by mid-June of 2018 and extended with the increase of monthly water usage within the city limits. This ordinance began on July 16, 2018. Currently, the City of Farmington has lifted the Drought Stage I ordinance. The City of Aztec enacted "Stage 2" drought restrictions as of July 2, 2018. With this ordinance, no resident shall use any city provided water to irrigate any lawn, garden, tree, or shrub except between the hours of 4:00 A.M to 10:00 A.M. or between the hours of 6:00 P.M. to 10:00 P.M of any day or which irrigation is permitted. No watering will be allowed if windy conditions greater than 12 mph exist. As of May 2020, the City of Aztec remains in a State 1 water shortage emergency. This voluntary ordinance will stay in place until further notice per the City of Aztec Water Conservation and Drought Plan.

4.2.4C – Unique & Varied Risk

San Juan County and all participating jurisdictions have significant agricultural areas at risk to drought. Also, residents of the County are at risk due to lack of water and the needs for water conservation during a drought event.

4.2.4D – Repetitive Loss Structures

Not applicable.

4.2.5 – HAZUS® Models

Not applicable.

4.2(FI) – Flooding, Inland

4.2.1 – Hazard Description

Photo Source: NOAA, Flooding

Flooding, as defined by the National Weather Service (NWS), is the rising and overflowing of a body of water onto normally dry land. It can result from any overflow of inland or tidal waters, or an unusual accumulation or runoff of surface waters from any source. Flooding is loosely classified as inland, riverine, or coastal.

Inland flooding, also known as “urban flooding” or “flash flooding,” can be caused by intense, short-term rain or by moderate rainfall over several days, which can overwhelm existing drainage infrastructure. Other factors that affect the dynamics of this type of flood include slope, width, and vegetation in place along the watercourse banks. The slope that a flash flood traverses has a definite relationship to the overall speed in which the water will travel. The incline on which the water moves affects the width of the flooding area. Generally, the faster the water moves, the narrower that channel will be created, since the water digs the channel deeper as it flows. When water flows over shallower slope, it tends to spread out more, decreasing its potential to cause mass damage but still considered dangerous. Finally, the type of vegetation located along the flood’s path can prevent further erosion of the channel banks. A structure that lies along a flood channel with no surrounding vegetation is at risk of having its foundation undercut, which can cause structural damage, or in some cases, a building’s complete collapse. Riverine or aluvial, flooding occurs when excessive rainfall over an extended period of time causes a river to exceed its capacity. Typical causes of flooding, both inland and riverine, include tropical cyclonic systems, frontal systems, and isolated thunderstorms combined with other environmental variables such as changes to the physical environment, topography, ground saturation, soil types, basin size, drainage patterns, and vegetative cover. The rate of onset and duration of flooding events depends on the type of flooding (typical flood or flash flood). The spatial extent of a flooding event depends on the amount of water overflow but can usually be mapped because of existing floodplains.

As depicted in the following illustration, a floodplain is a flat or nearly flat land adjacent to a river or stream that experiences occasional or periodic flooding environment, topography, ground saturation, soil types, Floodplains, or Special Flood Hazard Areas (SFHAs), are made when floodwaters exceed the capacity of the main channel or escape the channel by eroding its banks. The sediments (rock and debris) that build up over time from the floodplain’s floor. Floodplains also include a floodway, which consists of the water channel and adjacent areas that carry flood flows and the flood fringe, which are areas covered by the flood but do not experience a strong current.

Illustration 1: Characteristics of a Floodplain

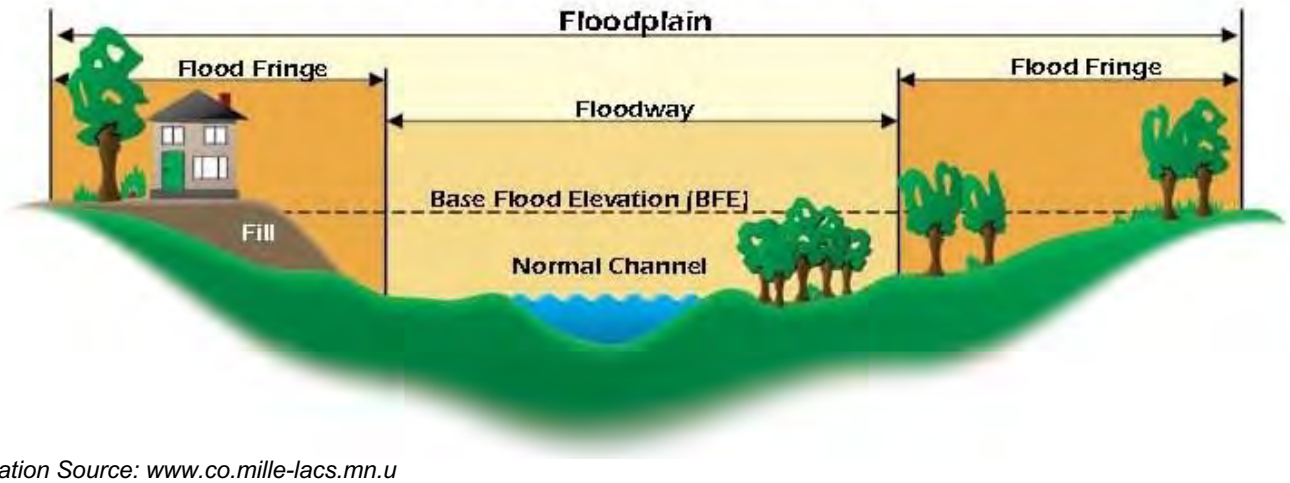


Illustration Source: www.co.mille-lacs.mn.u

In its common usage, floodplains refer to areas inundated by the 100-year flood, i.e., the flood that has a 1% chance of being equaled or exceeded in any given year and the 500-year flood, i.e., the flood that has a 0.2% chance of being equaled or exceeded in any given year. The 100-year flood is the national minimum standard to which communities regulate their floodplains through the National Flood Insurance Program (NFIP).

The NFIP aims to reduce the impact of flooding on private and public structures. It does so by providing affordable insurance to property owners, renters, and businesses and by encouraging communities to adopt and enforce floodplain management regulations. These efforts help mitigate the effects of flooding on new and improved structures. Overall, the program reduces the socio-economic impact of disasters by promoting the purchase and retention of general risk insurance and flood insurance.

The adverse impacts of flooding can include structural damage; agricultural crop loss; the death of livestock; loss of access to critical facilities due to roads being washed out or overtopped; unsanitary conditions resulting from materials such as dirt, oil, solvents, and chemicals being deposited during the recession; infestations of disease-carrying mosquitoes; mold and mildew, which pose a severe health risk to small children and the elderly; and temporary backwater effects in sewers and drainage systems. Raw sewage is a breeding ground for bacteria, such as E.coli and other disease-causing agents. A boil order may need to be issued to protect people and animals from contaminated water.

Of equal concern is the long-term psychological effect that flooding has on the people impacted by it. They must contend with the loss of life, property, livelihood, etc., as they cope with the aftermath. The clean-up can take months. The cost to restore a home may be too much, especially for the unprepared or uninsured. Plus, there is the looming fear that it may flood again. The resulting stress on floodplain residents takes its toll in the form of aggravated physical and mental health problems.

Unfortunately, the risks from future floods are significant, given expanded development in coastal areas and floodplains, unabated urbanization, land-use changes, and climate change. Because of this, flooding may intensify in many regions across the country, even in areas where total precipitation is projected to decline. According to the FEMA, water, and flooding account for about 40% of the Presidential declared disasters in the United States.

4.2.2 – Location & Extent

A variety of factors, including topography, weather characteristics (e.g., the amount of rainfall and snowmelt each year), development, and geology, come into play when considering the hazard of Flooding, Inland, within the planning area. The two types of flooding of most concern for San Juan County and its participating jurisdictions are flash flooding and riverine flooding. Intense flooding can create havoc in any jurisdiction affected, and unfortunately, the predictive magnitude of flash and riverine floods varies greatly.

Flash Flooding

Flash flooding is unpredictable and therefore, can occur anywhere inside the planning area. A flash flood is an extremely dynamic event in which a high volume of water moves through an area at high velocity during a short period of time. This type of flooding can be challenging to predict and occur with little or no warning. In many cases, a flash flood can move through an area mile from where rain has occurred, thereby increasing the damage to people within the flood's path.

Flash floods are created as a result of rainfall as rainwater runs into small channels where it begins to collect. As these channels merge, the amount of water increases and picks up speed and force. This collection of water becomes a wall of water that can wash vegetation, structures, and debris. The debris then increases the amount of force available and increases the flood's destructive power.

Riverine Flooding

The Animas, LaPlata, and San Juan Rivers all run through San Juan County. All have the potential to cause flooding along their paths. The amount of water flowing through a river at any given time determines the river's depth. When a higher-than-average amount of water finds its way into a river or stream, the height of the water relative to its path increases and the river overflows its normal banks. The change in the ground elevation moving away from the banks determines how far out the water will spread. Intense and widespread flooding can trap people and entire communities without essential goods or services. Any amount of damage can render a structure unusable for as long as recovery operations require. In the 2010 San Juan County Flood Insurance Study (FIS), there are no depth models available. Much of San Juan County lies within Zone A, which coincides with information in the 2010 San Juan County Flood Insurance Study that provides data to support the AE zones and a small amount of floodway. The following tables provide information related to the peak discharges included in the 2010 San Juan County Flood Insurance Study – Summary of Discharges. Flood depth grid mapping was not available. In terms of the extent, or range of magnitude, floods can vary greatly in the planning area from localized drainage to dangerous flash floods with significant depths and high velocities. San Juan County and its participating jurisdictions have limited resources with regards to obtaining engineering services to create depth models.

Table 5 – Summary of Discharges

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
ANIMAS RIVER					
At SH-516	1,360.00	12,000	18,000	21,500	30,000
At Gaging Station No. 09364500	1,090.00	[1]	[1]	18,700	[1]
BLOOMFIELD CANYON CREEK					
At Confluence with San Juan River	11.46	[2]	[2]	2,560	[2]
BLOOMFIELD CANYON CREEK TRIBUTARY					
At Confluence with Bloomfield Canyon Creek	2.91	[2]	[2]	1,380	[2]
BUTLER ARROYO	0.32	230	480	610	1,010
CARL ARROYO	1.62	460	990	1,290	2,170
DUSTIN ARROYO	0.60	310	640	820	1,370
FARMINGTON GLADE[3]					
At confluence with San Juan River	35.00	400	1,800	1,800	3,600
At Mile 2.1	33.00	550	2,200	3,500	8,600
HAMPTON ARROYO	4.09	[1]	[1]	1,840	[1]
HOOD ARROYO	2.07	[1]	[1]	1,440	[1]
LA PLATA RIVER					
At U.S. 64	583.00	4,800	10,000	13,500	24,000
PORTER ARROYO	1.65	470	1,000	1,300	2,190

[1] Data not available

[2] Data not calculated

[3] Decrease in discharge in downstream direction due to channel routing losses.

Table 5 – Summary of Discharges (continued)

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
SAN JUAN RIVER					
From Hogback to Gaging Station No. 09365000	7,240.00	[1]	[1]	19,500	[1]
At River Mile 255.2	7,832.00	15,000	27,000	34,500	55,000
At SH-371 at Farmington	7,240.00	14,500	26,000	33,500	53,000
At River Mile 264.2	5,880.00	8,900	16,000	20,000	34,000
Between Farmington and Bloomfield	5,880.00	[1]	[1]	17,600	[1]
WYPER ARROYO	1.44	440	940	1,220	2,060

[1] Data not available

Table 6 – Stream Gaging Stations

Station Name	Years of Record
San Juan River at Farmington	1930 - 2008
San Juan River at Archuleta[1]	1954 - 2008
Animas River at Farmington	1913 - 2008
Animas River near Cedar Hill	1933 - 2008
La Plata River near Farmington	1938 - 2007

[1] Previously San Juan River at Blanco

A new analysis to determine the effective base flood discharges for the Animas River at the City of Farmington and near the City of Cedar Hill was conducted by Michael Baker, Jr. Inc. in 2005. The Michael Baker, Jr. Inc. analysis concluded, *"For reaches of the Animas River between the Cities of Farmington and Cedar Hill, the base flood discharge should be interpolated based on the drainage area and the published values at the Cities of Farmington and Cedar Hill. In other words, the published base flood discharges in the FIS reports for the City of Farmington and San Juan County are reasonable and should be used."*

FEMA issued a letter that supported Michael Baker, Jr. Inc.'s recommendation that the effective FIS base flood discharges are used in future analyses. The letter from FEMA states, *"The recommendation remained the same to use the effective discharges for the Animas River at the Cities of Farmington and Cedar Hill."*

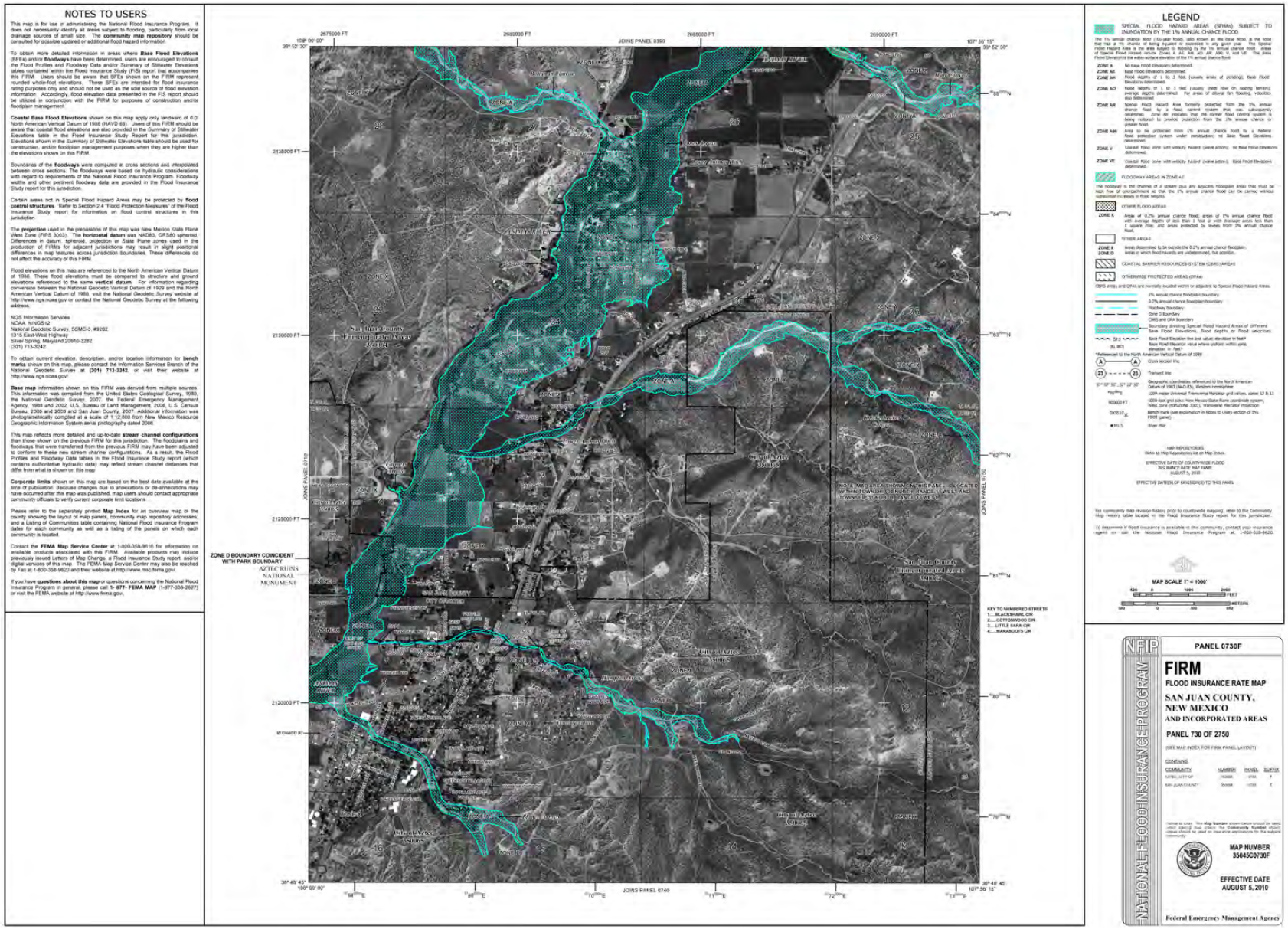
The following table explains the Floodplain Insurance Rate Map (FIRM) flood zone classifications associated with Map(s): 20-23 on the proceeding pages.

Table 15: Flood Zone Classifications

Flood Zone Classifications	
Zone	**Description**
A	An area inundated by 1% annual chance flooding, for which no BFEs have been determined. (100-Year Floodplain)
AE	An area inundated by 1% annual chance flooding, for which BFEs have been determined. (100-Year Floodplain)
For Shaded X	Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood. An area inundated by 0.2% annual chance flooding.

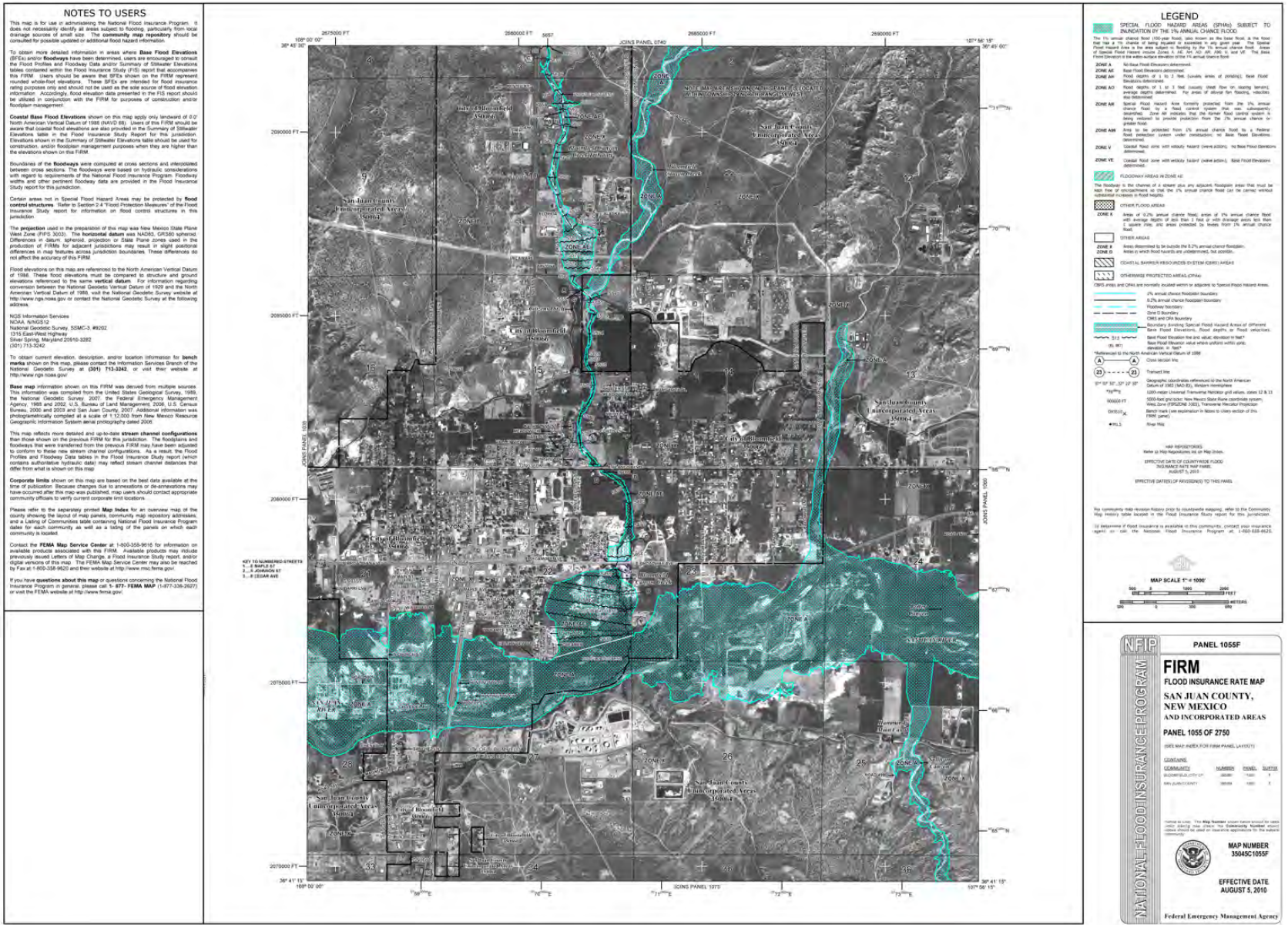
Note: For the following FEMA National Flood Hazard Layer (NFHL) maps, the A and AE zones have been combined as they are both considered 100-year floodplain.

Map 20: FEMA FIRM Map – City of Aztec, NM



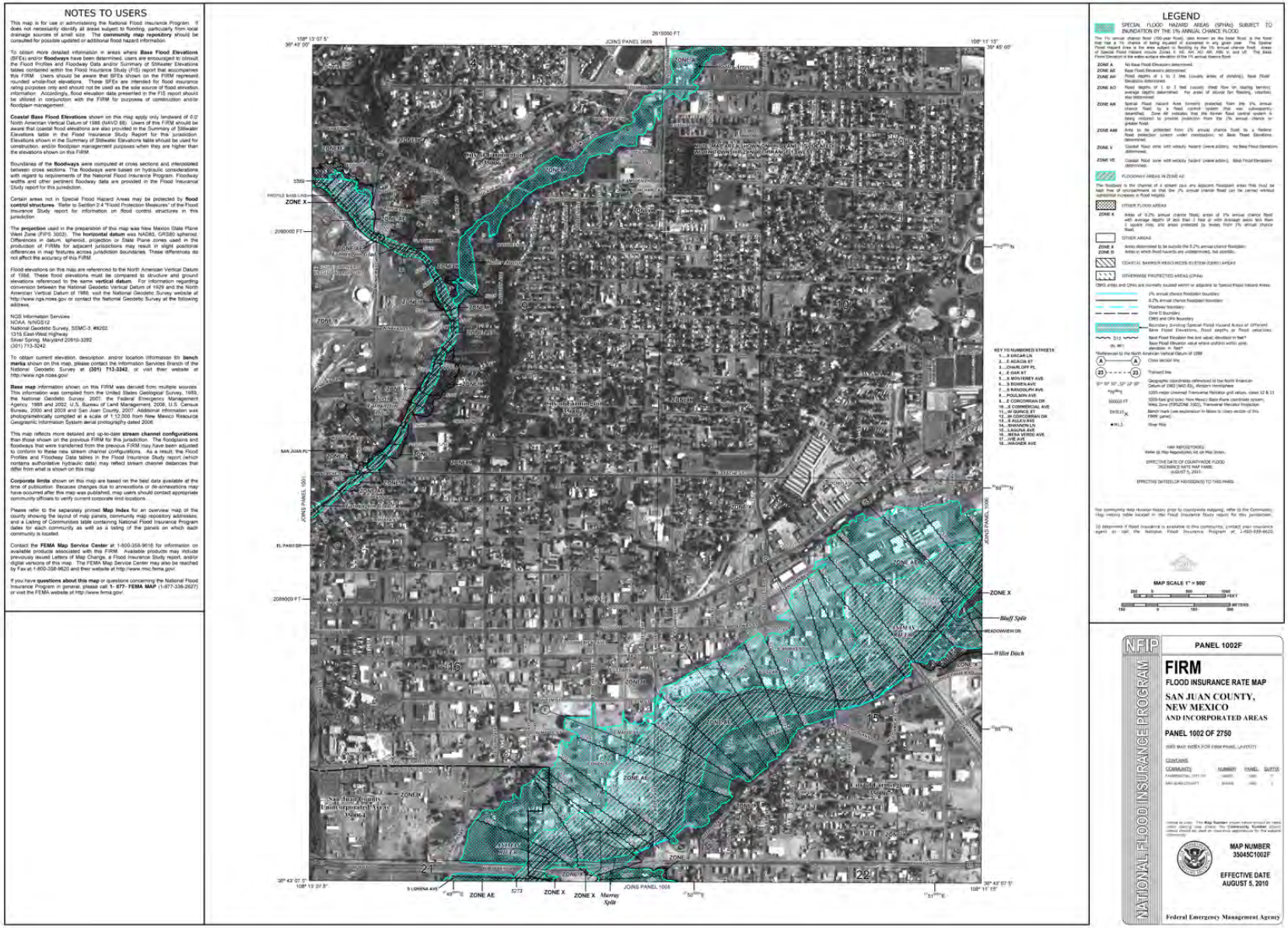
Map Source: FEMA

Map 21: FEMA FIRM Map – City of Bloomfield, NM



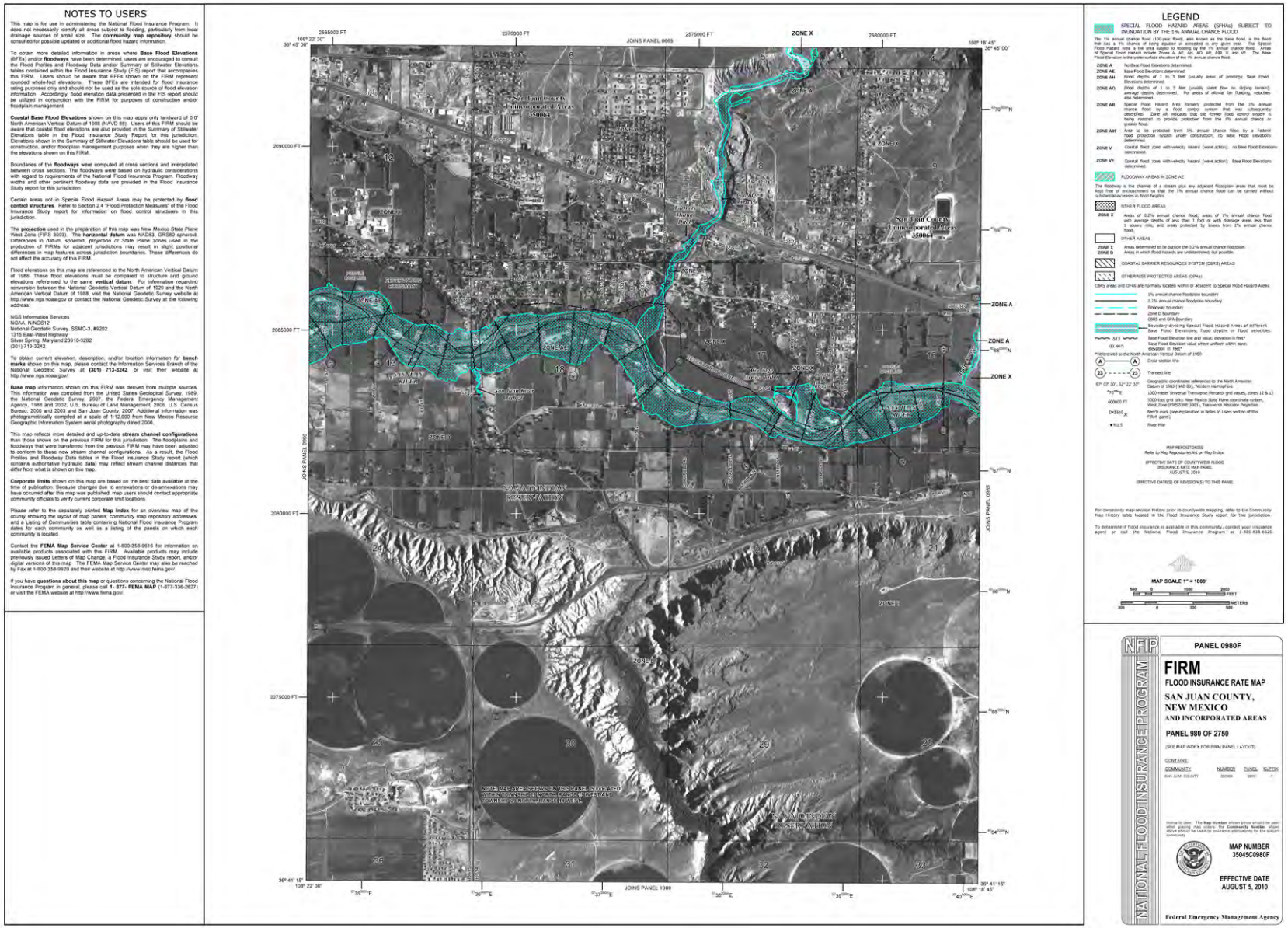
Map Source: FEMA

Map 22: FEMA FIRM Map – City of Farmington, NM



Map Source: FEMA

Map 23: FEMA FIRM Map – San Juan County, Unincorporated Areas (Town of Kirtland)



Map Source: FEMA

4.2.3 – Previous Occurrences

Based on information obtained from NOAA/NCEI, there were eleven (11) incidents of flash flooding occurred in San Juan County between January 1, 2013, and January 31, 2020. NOAA/NCEI details of the events are provided below:

July 5, 2013, San Juan County, Flash Flooding – An upper level ridge shifted eastward toward southwestern New Mexico in response to a short-wave trough moving into the Pacific Northwest. A moist and unstable airmass over New Mexico led to an uptick in shower and thunderstorm development throughout the day. Storms pushed east-southeast off the higher terrain producing some locally heavy rainfall and gusty winds. Additionally, heavy winds from a cluster of storms along U.S. 491 in San Juan County produced significant flash flooding. A local news station reported that heavy rains Friday night caused part of U.S. 491 to collapse creating a sinkhole. The rain was reported to have damaged a culvert that rain underneath the roadway leading to the collapse. U.S. 491 was closed in both directions between Sheep Springs and Naschitti for several days after the event. No injuries or deaths and no damage were associated with the event.

September 10, 2013, Flora Vista/September 13, 2013, Fruitland, Flash Flooding – A stationary upper level low pressure system that settled into the Great Basin around the 10th provided a steady stream of near record subtropical atmospheric moisture over New Mexico. At least four (4) back-to-back upper level disturbances pushed north and east across the region and interacted with the monsoon moisture plum through the 14th to produce widespread historic rainfall amounts. Significant flooding impacted the state as rainfall accounts over the five-day period averaged 3-6 inched and, in some areas, just over 10 inches. Several river gauges reported record to near record crests an in a couple cases gauges were completely destroyed. Emergency management reported disastrous impacts to residential, commercial, and transportation infrastructure. A total of fourteen counties, four cities and towns, five pueblos, and the Navajo Nation were included in a statewide and Presidential disaster declaration. The New Mexico State EOC was staffed at Level 2 operations for several days. Damages from this widespread historic rainfall event for northern and central New Mexico likely exceeded $10 million dollars. In San Juan County, widespread flash flooding was observed in the city of Farmington. Numerous crashes and stalled vehicles were stranded in flood waters. Several flooded and damaged drainage systems along Peace Valley Road, Hubbard Road, East Navajo Street, Main Street, Butler, Street, Apache Street, and San Juan Boulevard caused widespread flooding of parking lots, low lying areas, homes, and businesses. Mud, rocks, and debris flows were reported at Webb Chevrolet, KFC, Si Sensors, Taco Bell, and Park-n-Sell. In Fruitland, the State EOC Situation Report #9 indicated that N562 Road in Fruitland was completely undermined and affected nearly 300 residences. Area completely isolated. A 72-inch pipe was damaged by flood water. N36 highway was also damaged. No injuries or deaths were associated with the event, but $300,000 ($250,000 in the city of Farmington and $50,000 in Fruitland) of property damage was reported.

July 28, 2014, Navajo Dam, Flash Flooding – An active and persistent pattern maintained a heightened threat for flash flooding across much of the state. An upper level high was centered over portions of northern New Mexico and southern Colorado. A disturbance rotating around the upper high slowly shifted from west central to north central areas throughout the overnight hours. Weak steering flow aloft combined with a very moist airmass in place fueled slow-moving thunderstorms that produced very heavy rainfall and flash flooding. Showers and thunderstorms began developing during the late morning hours on the 28th over the Southwest Mountains, the Lower Rio Grande Valley, the West Central Plateau, and the Northern Mountains. Coverage expanded and intensified into the afternoon hours with small, heavy rain-producing

cells. Activity slowly began to rain with embedded heavy precipitation and had developed across the central highlands. Thunderstorms began training over the area from Santa Rosa eastward to near Newkirk. This swath of precipitation slowly moved eastward throughout the early morning hours subsiding by 11 A.M. the 29th. Due to ground already saturated from previous days rainfall, significant flooding occurred across portions of Guadalupe and De Baca counties. In particular, major flash flooding was reported within the Alamogordo Creek drainage. River flooding was also reported along the Pecos River near Puerto de Luna. Radar estimated storm total accumulations ranged from seven to thirteen inches in the area. These torrential rains washed out the supports underneath train tracks near Santa Rosa leaving the track suspended in air. Numerous other reports of flooding including asphalt up-ended and roads closed due to flowing water occurred in east central areas. Converging outflow boundaries from storms in Western New Mexico created enough rotation to produce small rope like funnel clouds as well. Heavy rains washed out two (2) road near Navajo Dam. No injuries or deaths associated with the event, and $5,000 of property damage was reported.

October 9, 2014, La Plata, Flash Flooding – The remnant circulation of Hurricane Simon slowly moved north along Baja, California, and into southwestern Arizona, through the first week of October. This tropical system induced a regional-scale fetch of moist southerly flow over the southwestern United States for several days through the 10th. Overall, this system produced beneficial rainfall over several days and did not result in any widespread heavy rainfall and flash flooding. However, one particularly persistent area of rain and thunderstorms over northwestern New Mexico, on the 9th did result in flash flooding around La Plata. Minor flooding was reported along Highway 4 from rainfall in the Jemez Mountains. A strong thunderstorm over eastern New Mexico, produced nickel sized hail around Tucumcari. Heavy rains caused a culvert to fail and travel was impacted along Highway 170 north of La Plata. Water flooded at least one home near the culvert. No injuries or deaths associated with the event, and $50,000 of property damage was reported.

July 7, 2015, La Plata, Flash Flooding – Monsoon moisture firmly in place over New Mexico, focused another round of very heavy rainfall and severe thunderstorms. Storms with torrential rainfall and strong winds erupted over the state. A storm that developed around Shiprock moved northeast over La Plata and produced flash flooding along U.S. 170. Law enforcement reported that 12 inches of water was flowing over the roadway. NMDOT had to clean mud, rocks, and debris off the roadway. A thunderstorm that moved southeast along two colliding outflow boundaries near Edgewood produced a brief tornado. A metal barn for storing hay was tossed a quarter mile and slammed into a house where a woman was injured by flying glass. The same storm also produced quarter size hail. No additional injuries or deaths were associated with the event, and $1,000 of property damage was reported.

August 2, 2015, Nageezi, Flash Flooding – An upper level high centered over far southeast New Mexico, on the 2nd allowed the monsoon moisture plume to focus over much of the state. The subsequent afternoon and evening thunderstorms were slow-moving and, at times strong to severe producing areas of heavy rain, hail, and strong winds. Flash flooding was reported in the northwest and south-central portions of the state, impacting U.S. Highway 550 near Nageezi and U.S Highway 60 west of Socorro. Six inches of rapidly flowing water over U.S. Highway 550 at mile marker 117. A nearby arroyo was raging with flash flood waters out of its banks. Penny size hail fell with stronger storms that rolled through Tucumcari during the early evening hours. No other severe weather was reported during this event. No injuries or deaths were associated with the event, and $1,000,000 of property damage was reported.

August 26, 2015, Aztec, Flash Flooding – An upper level wave crossed over the Four Corners region and focused isolated severe thunderstorms over San Juan County during the evening of the 26th. A rapidly developing thunderstorm around Farmington moved quickly northeast and pounded the area from Flora Vista to Aztec shortly after sunset. These storms produced damage to trees and power lines, as well as flash flooding that damaged roads and businesses in the Aztec and Flora Vista areas. The flood waters pushed several homes off their foundations and swept away one propane gas tank. Several schools were impacted by flooding. A large rockslide closed Navajo Road 36 at mile marker 28, with other smaller road closures reported around Aztec. Measured rainfall in the area ranged from an inch to a little over an inch and a half. Police and fire departments responded to 59 fire calls and 51 law enforcement calls about flooding, trapped individuals, power pole fires, and downed trees. Shelters were set up in the area for those impacted by flood waters though no one used the facilities. Sandbags were utilized to divert flood waters away from the nearby convention center. The flooding caused all schools to close in Aztec on the 27th and just the Lydia Rippey Elementary School on the 28th. Major damages were also seen at the Aztec Municipal Golf Course at Hidden Valley, which closed until further notice for necessary repairs. No injuries or deaths were associated with the event, and $1,000,000 of property damage was reported.

August 5, 2016, Turley/Shiprock, Flash Flooding – The most significant burst of monsoon moisture and instability so far in the 2016 summer season impacted New Mexico on August 5th. Deep atmospheric moisture and strong afternoon heating lead to widespread showers and thunderstorms with torrential rainfall. The heaviest rainfall impacted San Juan County where significant damage was reported around Shiprock. Several homes, vehicles, outbuildings, and roads were damaged from flood waters along Mesa Farm Road. An oil worker drove through flood waters along Largo Canyon Road near southeast of Bloomfield and was killed. Gallup reported very heavy rainfall along with flooded roadways and stalled vehicles. Mud slides covered portions of U.S. Highway 84 north of Espanola. Even northeast New Mexico got in on the action with flooding reported across many areas of Clayton. One (1) death and no injuries were associated with the event, and $50,000 of property damage was reported.

July 30, 2017, Blanco, Flash Flooding – A very moist back door cold front that entered northeastern New Mexico late on the 29th provided a reinforcing surge of low-level moisture through the 30th. This front also acted as a focus mechanism for a couple strong to severe thunderstorms across parts of eastern New Mexico. Slow-moving showers and thunderstorms with torrential rainfall produced numerous reports of minor flooding. Some of the more significant storms impacted the area along with Sandia Mountains were pea to nickel size hail accompanied torrential rainfall amounts of two to three inches. Flash flooding was reported along Las Huertas Creek in Placitas. A wet microburst in south central Curry County produced a wind gust to 71 mph at Cannon Air Force Base and 65 mph at the Clovis Fire Department. A stationary thunderstorm east of Church Rock produced another round of flash flooding along state road 118. Another storm moving slowly southeast out of southwest Colorado produced flash flooding along U.S. Highway 64 east of Bloomfield around sunset. U.S. Highway 64 was completely flooded at mile marker 74 causing the roadway to close. No injuries or deaths and no damage were associated with the event.

September 29, 2017, Farmington, Flash Flooding – The potent upper low-pressure system responsible for severe thunderstorms and flooding over eastern New Mexico, between the 22nd and 25th began lifting slowly northeast into the central Rockies on the 26th and 27th. Daily rounds of showers and thunderstorms with heavy rainfall, hail, and strong winds began westward to include much of central western New Mexico, through this period. This additional heavy rainfall set the stage for a more widespread flooding event through the end of September. Widespread three-day rainfall reports averaged between two and five inches with central New Mexico. Several stations reported record daily rainfall amounts and placed

September 2017 into the top five wettest September on record. A potent storm that moved across Rio Rancho late on the 28th forced water into four homes along Arlene Road. A cluster of thunderstorms with torrential rainfall moved across western New Mexico during the early afternoon hours on the 29th and produced flash flooding around Farmington and Acoma Pueblo. Flash flooding along U.S. Highway 64 at Browning Street. These storms then shifted eastward and produce severe hail and flash flooding along much of the Interstate 25 corridor between Los Lunas, Belen, and Bernardo. Interstate 25 was closed for several hours as water flooded over the highway. Powerful storms developed again on the 30th and produced more flash flooding, sever hail, high winds, and even a tornado west of Albuquerque. No injuries or deaths and no damage were associated with the event.

4.2.3A – Probability of Future Events, Flooding, Inland

San Juan County and its participating jurisdictions can each expect a flash flood event with 185.71% probability per year, or 1.857 events per year. Calculating future probability is not the only predictor of future occurrences (based upon Table 10: Probability Categories). This number was derived by dividing the number of recorded events by the year range used. The qualitative chance of a flooding event in San Juan County and its participating jurisdictions is considered **highly likely.**

Table 16: Probability of Future Events, Flooding

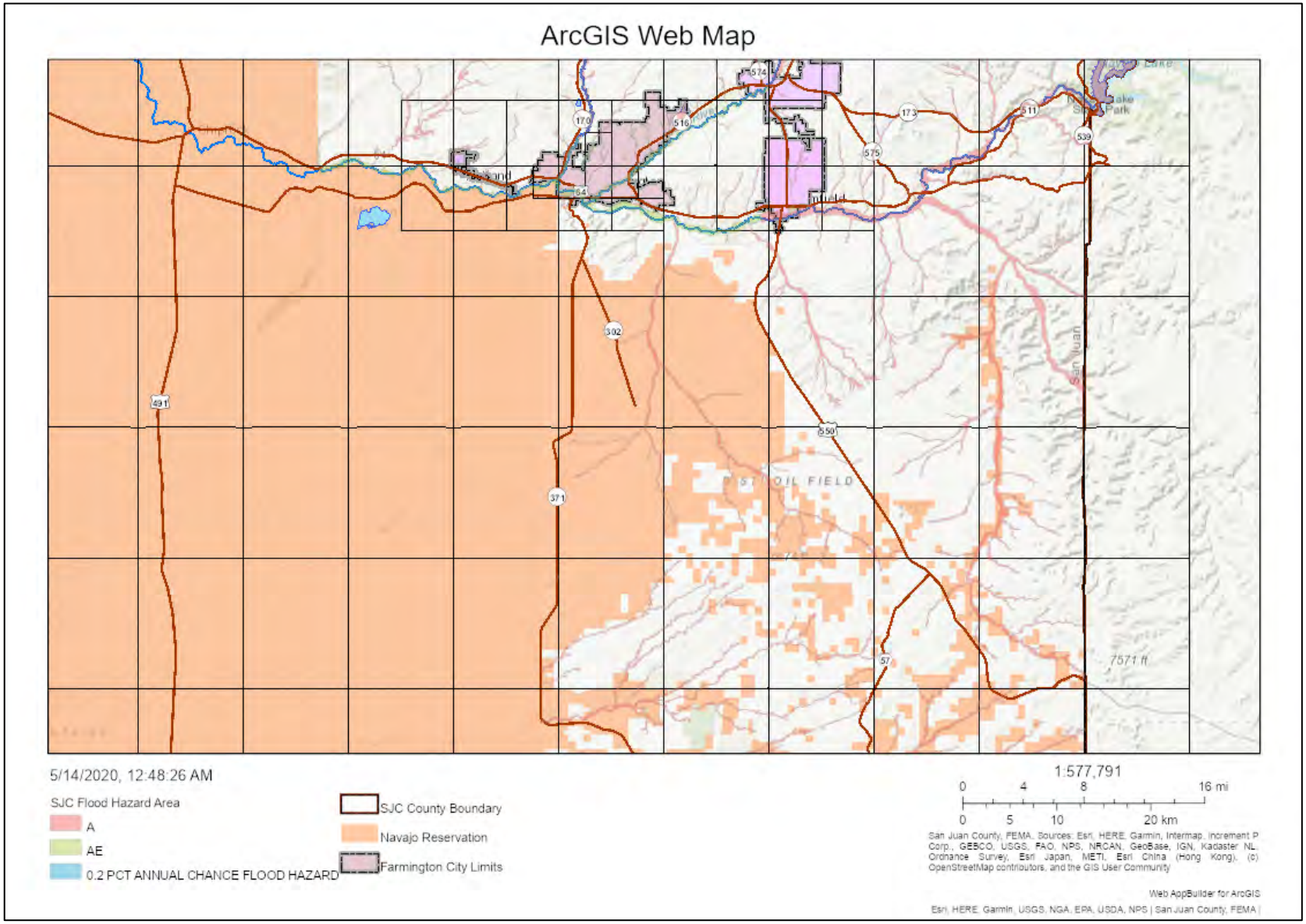
Probability of Future Events, Flooding	
Event Year	**Event Count**
2013	4
2014	2
2015	3
2016	2
2017	2
2018	0
2019	0
2020	0
Total Recorded Events =	13
Total Years =	7
Yearly Probability =	**185.71%**

Data Source: NOAA/NCEI Storm Events Database

4.2.4 – Vulnerability & Impact

Based on Maps 20-23 and the future probability identified in Section 4.3.3.A, San Juan County is exposed to 100-year floodplains. The probability of flooding is equal throughout each participating jurisdiction, and as depicted in Section 4.3.3A, at 1.87 events per year. Again, according to Table 10: Probability Categories, inland flooding is considered **highly likely** for San Juan County and its participating jurisdictions.

Map 24: San Juan County, Flood Hazard Area Map

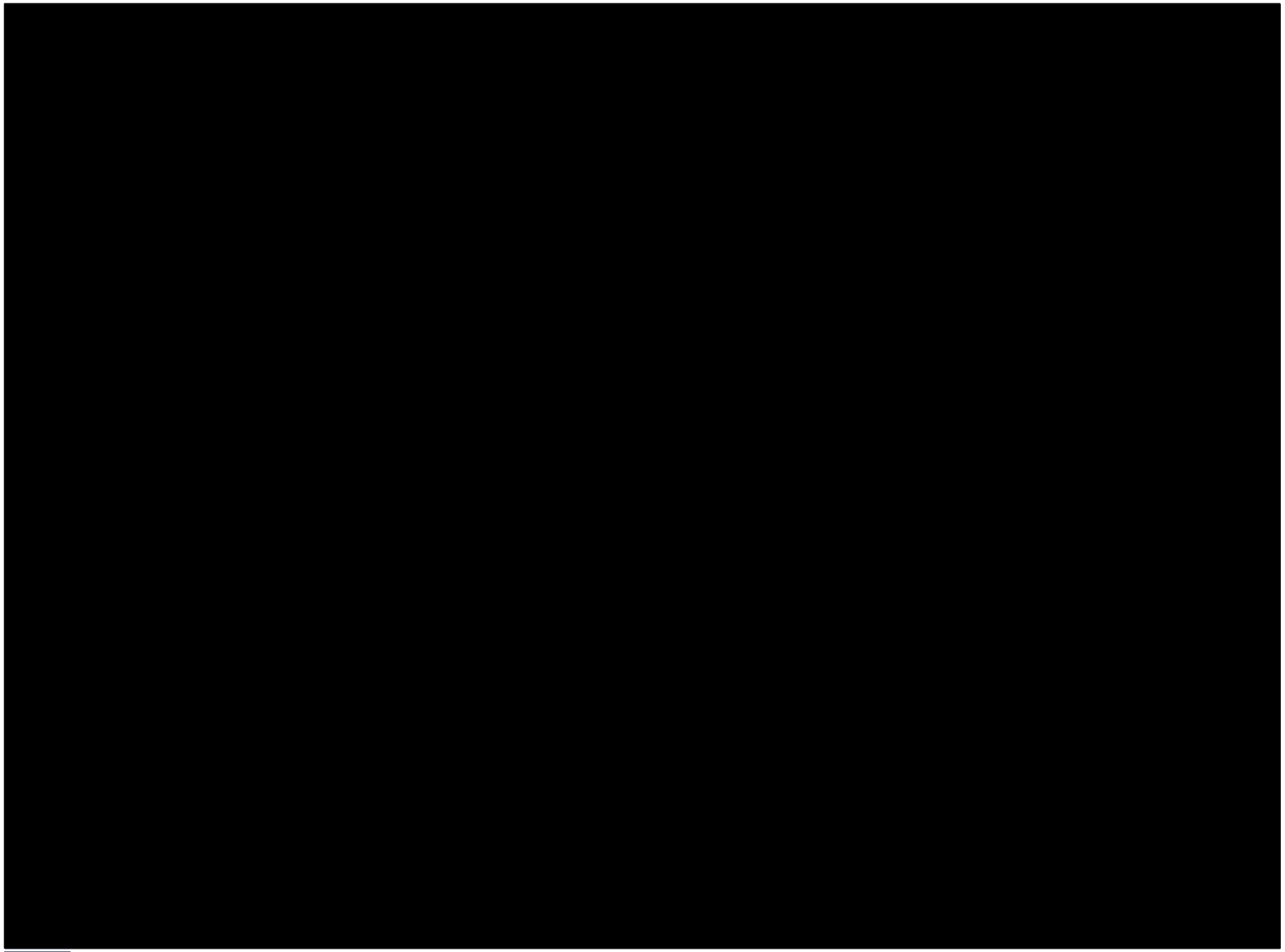


Map Source: San Juan County, NM, Floodplain Management Department

Map 25: City of Aztec, Riverine 100-yr Flood

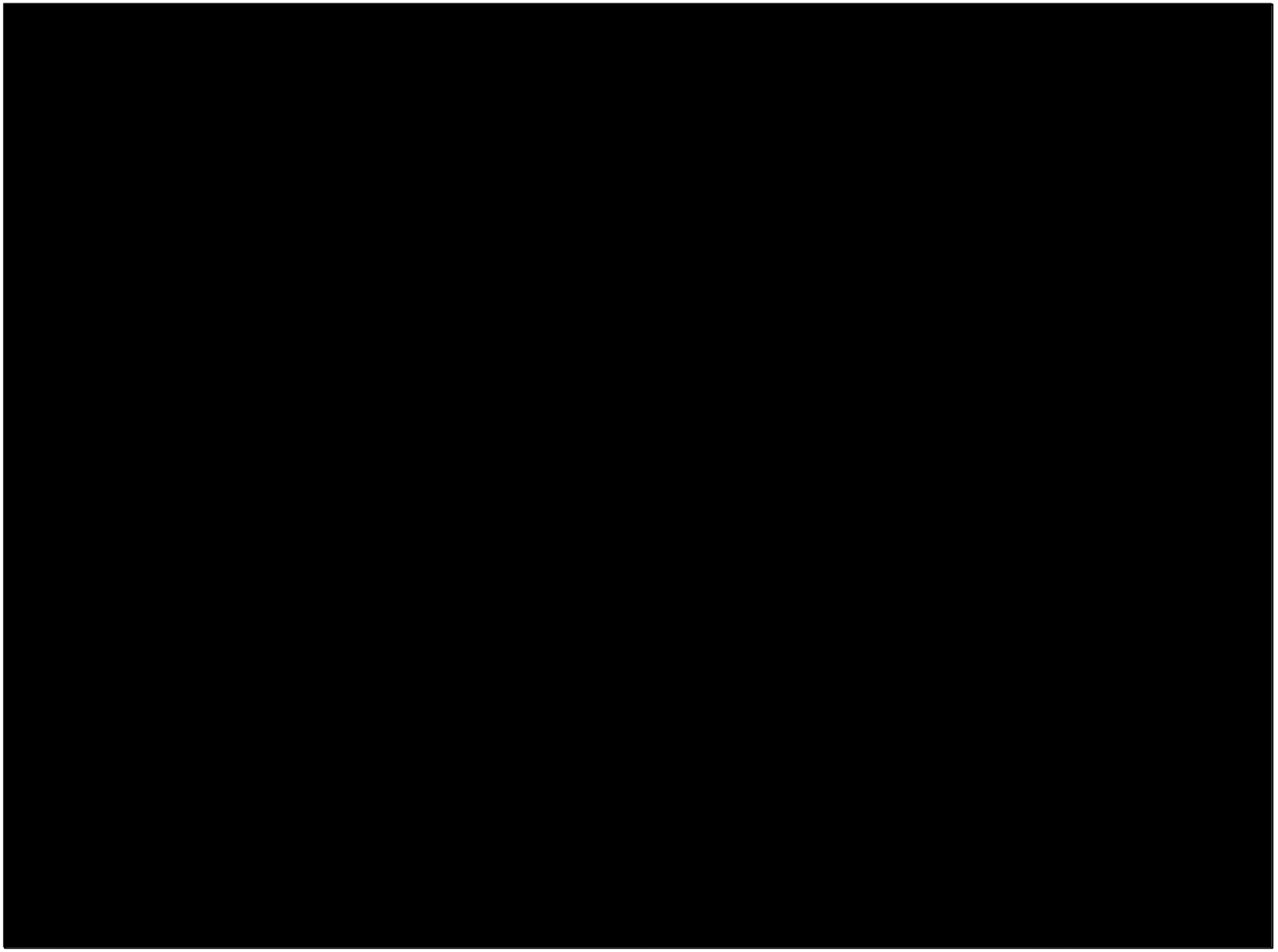
Map Source: HAZUS® produced by BOLDplanning

Map 26: City of Bloomfield, Riverine 100-yr Flood



Map Source: HAZUS® produced by BOLDplanning

Map 27: City of Farmington, Riverine 500-yr Flood



Map Source: HAZUS® produced by BOLDplanning

Map 28: Town of Kirtland, Riverine 100-yr Flood

Map Source: HAZUS® produced by BOLDplanning

Vulnerability of Facilities, Critical Facilities Inventory

A HAZUS® analysis was performed to determine critical facility locations relative to the SFHAs. Using GIS, the Digital Flood Insurance Rate Map (DFIRM) flood zones were overlaid on the critical facility location data. Maps 24-28 show critical facility locations and 100-year flood depths within San Juan County. Aside from the essential facilities at risk, there are many critical facilities at risk. Additional information is provided in the table below.

Table 17: Expected Damage to Essential Facilities, 1% Riverine Flood

Classification	Total	Moderate	Substantial	Loss of Use
Fire Stations	[redacted]	0	0	0
Hospitals	[redacted]	0	0	0
Police Stations	[redacted]	0	0	0
Schools	[redacted]	0	0	0
Emergency Operations Centers (EOCs)	[redacted]	0	0	0

Data Source: HAZUS® Flood Global Risk Report for San Juan County produced by BOLDplanning

Note: HAZUS® indicated the following "If this report displays all zeros or is blank, two possibilities can explain this: 1.) None of the essential facilities were flooded in the scenario. This can be checked by mapping the inventory data on the depth gird. 2.) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Shelter Requirements

HAZUS® estimates the number of households that are expected to be displaced from their homes due to flood and associated potential evacuation. HAZUS® also estimates the number of displaced people who will require accommodations in temporary public shelters. The model estimates 176 households (or 528 people) will be displaced due to flooding. Displacement includes households evacuated from within or near the inundated area(s). Of these, 18 (out of a total population of 130,044) may require temporary, public sheltering. This information is from the hazard risk analysis provided by BOLDplanning.

Building-Related Losses

Building losses are broken into two categories: direct building and business interruption. Direct building losses are the estimated costs to repair or replace damage to the building and its contents. Business interruption losses are those associated with the inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flooding.

Clearly, severe flooding has the potential to inflict significant damage in San Juan County. Analysis by the BOLDplanning estimates that 2,127 tons of debris may be generated from a 100-year riverine 1% flood. Smaller floods caused by heavy rains and inadequate drainage capacity will occur more frequently than 100-year floods, and continue to be problematic for the County. Fortunately, damage from them will not be nearly as costly.

Flooding can cause minimal or complete destruction to facilities, taking them offline for days to years depending upon the resources available after an event.

San Juan County and its participating jurisdictions have incurred $2,456,000.00 in property damage from flooding/flash flooding from 2013 to present.

San Juan County's critical structures are valued at $9,132,103.00. Since inland flooding/flash flooding threatens the entire planning area, all structures are considered exposed and vulnerable.

Table 18: 1% Riverine Building Losses for A) San Juan County, B) the City of Aztec, C) the City of Bloomfield, D) the City of Farmington, and E) the Town of Kirtland

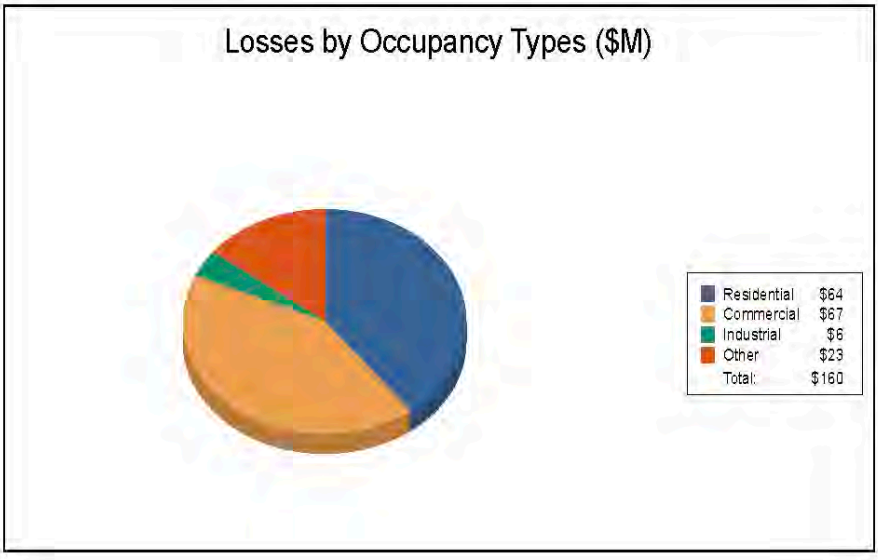
A) San Juan County, NM

HAZUS
EARTHQUAKE - WIND - FLOOD - TSUNAMI

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	26.31	4.94	1.73	1.05	34.03
	Content	17.92	17.54	3.21	7.08	45.75
	Inventory	0.00	0.52	0.51	0.02	1.05
	Subtotal	**44.23**	**23.00**	**5.45**	**8.15**	**80.83**
Business Interruption						
	Income	1.06	14.25	0.33	2.24	17.87
	Relocation	10.52	5.06	0.22	1.14	16.94
	Rental Income	5.27	3.63	0.03	0.12	9.05
	Wage	2.49	20.61	0.33	11.46	34.90
	Subtotal	**19.34**	**43.55**	**0.90**	**14.96**	**78.75**
ALL	**Total**	**63.57**	**66.55**	**6.35**	**23.11**	**159.58**



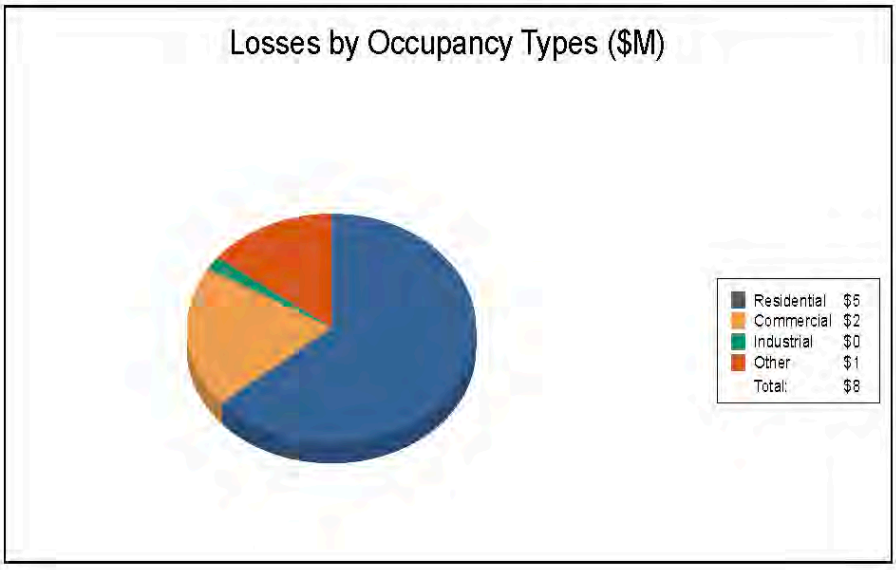
B) City of Aztec, NM

HAZUS
EARTHQUAKE - WIND - FLOOD - TSUNAMI

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	2.23	0.11	0.06	0.02	2.41
	Content	1.04	0.32	0.10	0.11	1.57
	Inventory	0.00	0.00	0.01	0.00	0.01
	Subtotal	**3.27**	**0.43**	**0.16**	**0.12**	**3.99**
Business Interruption						
	Income	0.00	0.65	0.00	0.04	0.69
	Relocation	1.64	0.04	0.00	0.02	1.70
	Rental Income	0.41	0.03	0.00	0.00	0.44
	Wage	0.00	0.52	0.01	1.03	1.56
	Subtotal	**2.06**	**1.23**	**0.01**	**1.09**	**4.38**
ALL	**Total**	**5.33**	**1.66**	**0.17**	**1.21**	**8.37**



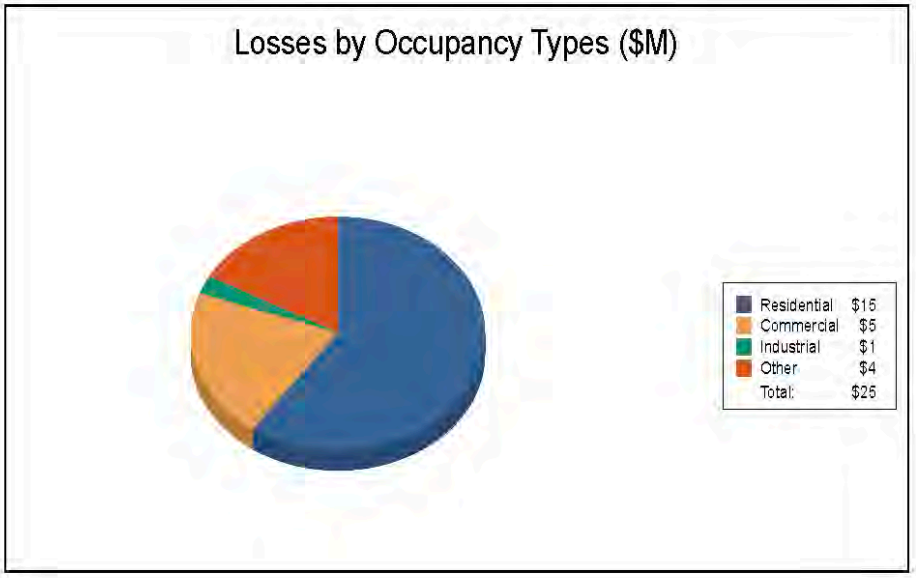
C) City of Bloomfield, NM

HAZUS
EARTHQUAKE - WIND - FLOOD - TSUNAMI

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	7.30	0.41	0.19	0.12	8.01
	Content	3.25	1.37	0.29	0.77	5.67
	Inventory	0.00	0.03	0.04	0.00	0.07
	Subtotal	**10.55**	**1.81**	**0.51**	**0.88**	**13.75**
Business Interruption						
	Income	0.00	1.47	0.02	0.24	1.73
	Relocation	3.42	0.24	0.01	0.11	3.78
	Rental Income	0.70	0.19	0.00	0.04	0.92
	Wage	0.00	1.44	0.02	2.92	4.39
	Subtotal	**4.12**	**3.34**	**0.05**	**3.30**	**10.81**
ALL	**Total**	**14.66**	**5.15**	**0.56**	**4.19**	**24.55**



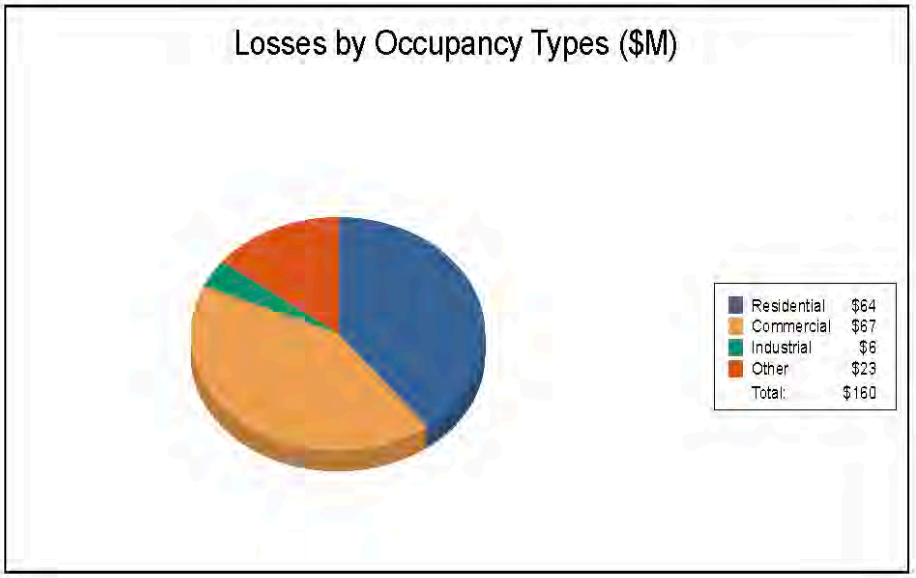
D) City of Farmington, NM

HAZUS
EARTHQUAKE - WIND - FLOOD - TSUNAMI

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	26.31	4.94	1.73	1.05	34.03
	Content	17.92	17.54	3.21	7.08	45.75
	Inventory	0.00	0.52	0.51	0.02	1.05
	Subtotal	**44.23**	**23.00**	**5.45**	**8.15**	**80.83**
Business Interruption						
	Income	1.06	14.25	0.33	2.24	17.87
	Relocation	10.52	5.06	0.22	1.14	16.94
	Rental Income	5.27	3.63	0.03	0.12	9.05
	Wage	2.49	20.61	0.33	11.46	34.90
	Subtotal	**19.34**	**43.55**	**0.90**	**14.96**	**78.75**
ALL	**Total**	**63.57**	**66.55**	**6.35**	**23.11**	**159.58**

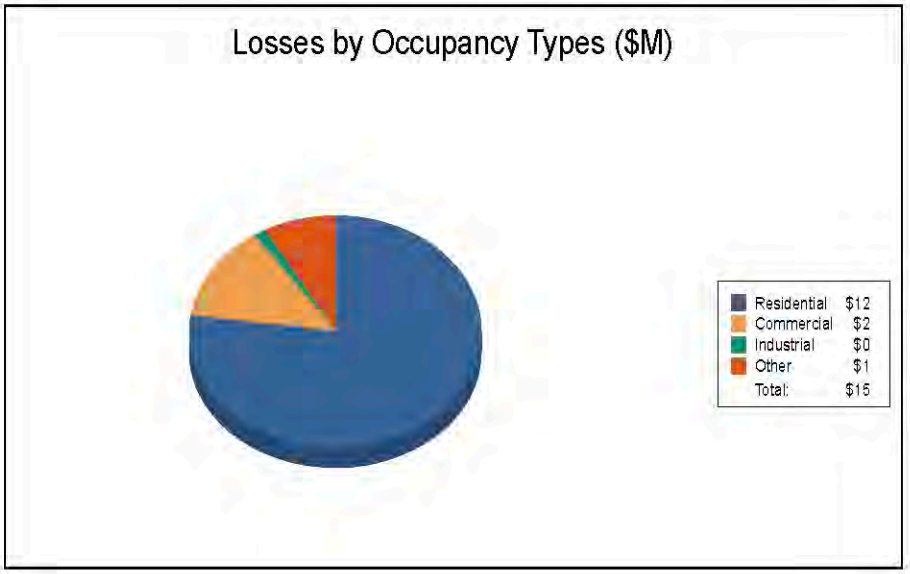


E) Town of Kirtland, NM

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	5.92	0.14	0.04	0.07	6.17
	Content	2.78	0.64	0.11	0.39	3.93
	Inventory	0.00	0.02	0.02	0.01	0.04
	Subtotal	**8.70**	**0.80**	**0.17**	**0.47**	**10.14**
Business Interruption						
	Income	0.00	0.35	0.00	0.21	0.56
	Relocation	2.49	0.10	0.00	0.09	2.68
	Rental Income	0.61	0.05	0.00	0.00	0.67
	Wage	0.00	0.77	0.01	0.48	1.25
	Subtotal	**3.10**	**1.27**	**0.01**	**0.78**	**5.16**
ALL	**Total**	**11.81**	**2.07**	**0.18**	**1.25**	**15.30**



Data Source: HAZUS® Flood Global Risk Report for San Juan County produced by BOLDplanning

Vulnerability of Population

If evacuation orders are not heeded or flood waters rise quickly enough, residents within the planning area can be swept away by floodwater currents, become trapped on rooftops or other points of high elevations, and even sustain injury or death. Depending upon the conditions, this will expose them to the elements and deprive them of basic needs and services.

As previously described in *Vulnerability of Facilities, Critical Facilities Inventory,* still water that is long lasting and slow to drain will encourage growth of mold and other bio-hazardous material, rendering a facility unusable. Extra care, assessment, and sanitization are required before residents can re-inhabit a facility, or they may face serious health concerns. Hospitals housing vulnerable populations can take longer to evacuate.

Additionally, the potential presence of mold after a flood requires extra care to be taken before San Juan County's population can re-inhabit a hospital facility.

San Juan County has 0 recorded fatalities from flash flood events. Still, of the total population (130,044) of the planning area, all are considered vulnerable and at risk to inland flooding, whether flash or riverine.

Vulnerability of Systems

Critical facilities and infrastructure can be rendered unusable or permanently destroyed, producing a significant impact on a jurisdiction's ability to conduct its day-to-day operations. Significant damage to residential and/or commercial structures can irrevocably damage a community and its economy by creating economic hardship. If a chemical facility is significantly impacted, it is possible that stored chemicals can wash away with the floodwater and have detrimental effects on the local environment.

4.2.4A – Critical Facilities & Infrastructure

All critical facilities and infrastructure are equally at risk to flooding since it can indiscriminately affect the entire planning area. A complete list of critical facilities and infrastructure can be found in Appendix D.

4.2.4B – Land Use & Development Trends

With its growing population and continued urbanization, all of San Juan County is at risk of some type of flooding (flash or riverine). This is especially true for future development within the County's many 100-year and 500-year floodplains, or SFHAs. New development in unmapped areas prone to flooding may further increase vulnerabilities and potential losses. However, San Juan County Floodplain Management reviews all proposed development for current and future flood related hazards. The County's Floodplain Manager must sign on all new platted land divisions, review and permit construction, and review manufactured home placement.

4.3.4C – Unique & Varied Risk

In San Juan County, flash flooding can affect the entire planning area or only a portion, or portions, of it. Unfortunately, there is no accurate method of predicting the location or extent of a flash flood's impact—namely, whether it will affect one participating jurisdiction, any number of, or all participating jurisdictions. Further, it is not possible to predict any varying probability between the participating jurisdictions, except for different risk as it is proportionate to a participating jurisdiction's demographics. Logically, participating jurisdictions with a more significant population are at a higher risk than involving jurisdictions with a lower population.

Although this plan update addresses vulnerability to flooding, without the possibility of being able to calculate all components of risk at a jurisdictional level, each jurisdiction's likelihood of experiencing flash flooding is not possible to calculate. Based on the NFIP FIRM, the Cities of Aztec, Bloomfield, and Farmington, as well as the Town of Kirtland are at risk for a riverine flood.

Table 19: Unique & Varied Risk

Unique & Varied Risk	
Jurisdiction	**Risk Characteristics**
San Juan County	Parts of the jurisdiction are in a 100-yr floodplain. In the 2010 FIS, no depth models are available in the San Juan County.
Aztec	Parts of the jurisdiction are in a 100-yr floodplain. The City of Aztec is a very small town that the Animas River running through it. It also has two arroyos that have not been studied that run into the Animas River therefore a majority of the town is listed in being in special flood hazard area. In the 2010 FIS, no depth models are available in the City of Aztec.
Bloomfield	Parts of the jurisdiction are in a 100-yr floodplain. In the 2010 FIS, no depth models are available in the City of Bloomfield.
Farmington	Parts of the jurisdiction are in a 100-yr floodplain. In the 2010 FIS, no depth models are available in the City of Farmington.
Town of Kirtland	This jurisdiction falls under San Juan County, Unincorporated for all flood related regulations. In the 2010 FIS, no depth models are available in the San Juan County – Unincorporated.

4.2.4D – Repetitive Loss Structures

As of September 2, 2020, FEMA NFIP Insurance Data shows that San Juan County and its participating jurisdictions reported 31 residential (single-family) closed paid losses and six repetitive loss structures (1 San Juan County and five (5) for the City of Aztec). The Community Repetitive Loss Data for San Juan County, and the cities of Aztec, Bloomfield and Farmington can be found in Appendix F.

4.2.5 – HAZUS® Models

HAZUS®, version 4.2, was used to perform the analysis for San Juan County using essential facility data provided by SJCOEM. The analysis was completed by BOLDplanning Inc. For this hazard, the risk

assessment data and maps involved were from an analysis of 1% annual chance flood event (100-Year Flood).

During the drafting of this plan update, some limitations to the run of HAZUS® models were experienced. Among the HAZUS® community, it is well known that HAZUS® has some limitations. The latest version of HAZUS®, version 4.2, has census data embedded for the 2010 Census. Additionally, in the latest service pack, Service Pack 3, updates have been made to the HAZUS® state databases using the latest version available at the time of this release of Homeland Infrastructure Foundation – Level Data (HIFLD) Open Essential Facility (https://hifld-geoplatform.opendata.arcgis.com/) datasets for care facilities, emergency operations centers, police stations, fire stations, and schools. However, these data sets are aggregated to HIFLD from state and local data sets. Therefore, they are only as good as what has been provided from the source.

Known discrepancies have been found by a number of research teams in HAZUS® data and the National Bridge Inventory, the number and locations of fire stations, police stations, etc. In some cases, the data from other, localized sources. Therefore, HAZUS® provides only an estimate (typically conservative) for damages and impacts to local essential facilities/ emergency response.

Supplementing HAZUS® with better, local data can be done in a Level 2 analysis, but it can require a very involved and extensive data override process using the Comprehensive Data Management System (CDMS) and other tools, which can be cost and resource prohibitive for some communities. Another option for augmenting the HAZUS® outputs with localized data would be to acknowledge the limitations of HAZUS®, understand that the estimated damages are underestimations for the most part, and separately identify essential facilities that may be subject to damages due to flooding based upon intersections of the facility with a flood inundation boundary to identify potentially vulnerable facilities. However, this approach does not allow for estimation of the damage costs.

For San Juan County and its participating jurisdictions, there were problems with the underlying data even to generate the hydrology to perform analysis. Due to the size of the County, it was impossible to generate hydrology for all of the reaches even when parsing them into smaller portions and then attempting to stich them together. The HAZUS® software crashed or resulted in multiple failed reaches multiple times. HAZUS® technical support was engaged and one of the HAZUS® flood developers was unsuccessful in generating a successful HAZUS® run for large portions of the County. This took a few months of trials and troubleshooting, which resulted in the analysis provided for only the municipalities in San Juan County.

Therefore, for the MJNHMP Update for San Juan County, the analysis was limited to only the reaches in the immediate vicinity for the populated areas/municipalities. In doing this, BOLDplanning was able to generate HAZUS® flood analyses for the 1% and .05% return periods. The results for San Juan County should be considered baseline and best-case scenario due to the limited drainage areas included in the analysis. Future analysis should include high resolution digital elevation models (DEMs) and investigation into the issues with the reach generation and hydrologic analysis problems for the area. If the County could acquire the Hydrologic Engineering Center's (CEIWR-HEC) River Analysis System (HEC-RAS) models of the main rivers/tributaries for the county, the outputs (i.e., the depth grids) from the model(s) could be then imported into HAZUS® for use.

HAZUS® is not a strong hydrologic model. However, it is the only tool available that provides the depth and breadth of information regarding estimated potential damages and impact cost associated with natural hazards. This information should be considered "estimates" only and used to inform planning as such.

4.2(HM) – Hazardous Materials

4.2.1 – Hazard Description

Photo Source: Farmington Fire Department HazMat Response Team https://www.fmtn.org/469/Haz-Mat)

A hazardous material (HazMat) is any item or agent—biological, chemical, physical—with potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors. Hazardous materials can be present in any form: gas, solid, or liquid; environmental or atmospheric conditions can influence them if they are uncontained. A release of hazardous materials can be caused by a spill, leak, fire, explosion, pipeline break, transportation accident, or human action, resulting in contamination of people and/or property.

The U.S. Occupational Safety and Health Administration (OSHA) defines a hazardous material as any substance or chemical posing a health hazard, or physical hazard, including: chemicals that are carcinogens, toxic agents, irritants, corrosives, sensitizers; agents that act on the hematopoietic system; agents that damage the lungs, skin, eyes, or mucous membranes; chemicals that are combustible, explosive, flammable, oxidizers, pyrophoric, unstable-reactive or water-reactive; and chemicals that, in the course of normal handling, use, or storage may produce or release dusts, gases, fumes, vapors, mists or smoke that may have any of the previously mentioned characteristics.

Hazardous materials are so widely used, transported, and stored, often in large quantities, that a spill or other event could happen nearly anywhere in the U.S. The effects may involve a local site or many square miles. Health problems may be immediate, such as corrosive effects on skin and lungs, or be gradual, such as the development of cancer from a carcinogen. Damage to property could range from immediate destruction by explosion to permanent contamination by a persistent hazardous material. Accidents involving the transportation of hazardous materials could be just as catastrophic as those associated with stored chemicals, possibly more so, since the location of a transportation accident is not predictable.

The U.S. Department of Transportation (DOT) divides hazardous materials into nine major hazard classes. A hazard class is a group of materials that share a common major hazardous property, i.e., radioactivity, flammability, etc. These hazard classes include:

- Class 1—Explosives
- Class 2—Compressed Gases
- Class 3—Flammable Liquids
- Class 4—Flammable Solids; Spontaneously Combustible Materials; Dangers When Wet Materials/Water-Reactive Substances
- Class 5—Oxidizing Substances and Organic Peroxides
- Class 6—Toxic Substances and Infectious Substances
- Class 7—Radioactive Materials
- Class 8—Corrosives

- Class 9—Miscellaneous Hazardous Materials/Products, Substances, or Organisms

The U.S. DOT's Pipeline and Hazardous Materials Safety Administration (PHMSA), which focuses on advancing the safe transportation of energy and other hazardous materials across the country, continually collects and shares information on the size, frequency, and impacts of hazardous materials releases occurring in transit. This includes incidents happening in transit storage, as well as during loading and unloading. Between January 1, 2015 and December 31, 2018, PHMSA recorded the following number(s) of transportation-related HazMat events in the U.S.: 16,858 in 2015; 18,286 in 2016; 17,482 in 2017; and 19,839 in 2018.

Certain incidents involving hazardous materials, whether in transit, stored, in use, or produced, are reported to the federally established National Response Center (NRC). Staffed 24 hours a day by U.S. Coast Guard officers and marine science technicians, the NRC is the designated federal point of contact for reporting all oil, chemical, radiological, biological and etiological discharges into the environment anywhere in the U.S. and its territories. Reports to the NRC activate the National Contingency Plan and the federal government's response capabilities. The NRC maintains reports of all releases and spills in a national database. In 2018, it logged 25,600 incidents nationwide.

Eight of the most common hazardous materials that first responders, HAZMAT teams, and perhaps the NRC's On-Scene Coordinator are likely to encounter in the event of an industrial accident or transportation-related incident are: carbon dioxide, chlorine, fireworks, gasoline, argon, sulfuric acid, propylene, and liquified petroleum gas (LPG). The "List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-To-Know Act (EPCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Section 112(r) of the Clean Air Act" is available from the U.S. Environmental Protection Agency (EPA).

While it is nearly impossible to eliminate HazMat incidents altogether, there are many precautions industries can take to stay safe in the event of industrial or accidental (i.e., transportation-related) spillage. The same holds true for the communities located in close proximity to these industries, as well as the highways, railroads, pipelines, and air/water transportation systems they routinely use to move hazardous materials. Through a better understanding of the hazardous materials common to a particular area, along with specifics on how best to react if and when an incident occurs, risks can ultimately be minimized, and remediation simplified.

4.2.2 – Location & Extent

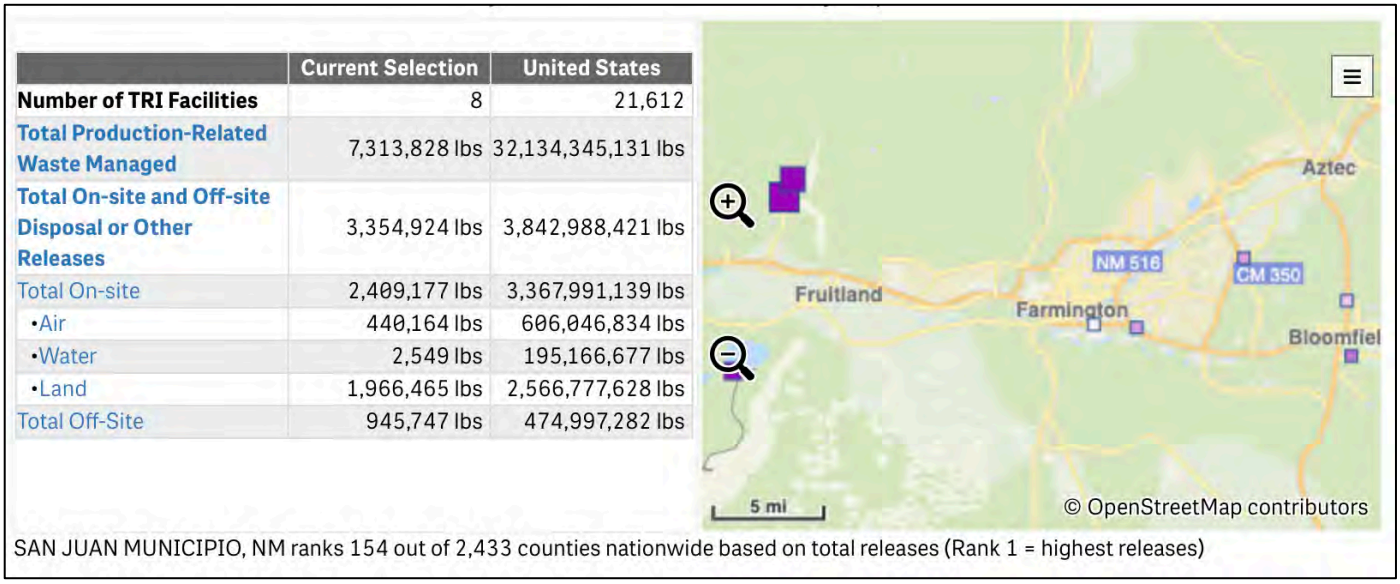
According to 2018 Preliminary Toxics Release Inventory (TRI) data, of the nation's 21,612 toxics-releasing facilities, 72 are located in the state of New Mexico. In fact, the State ranks number 39 out of 56 states/territories based on total releases per square mile. Of those 72 facilities reporting toxic release information in New Mexico, eight are located in San Juan County: two (2) in Farmington, one (1) in Fruitland, one (1) in Aztec, two (2) in Bloomfield, and two (2) in Waterflow. The presence of these sites within and near San Juan County, along with the routine transportation of hazardous materials, contribute to the HazMat risk. The following quick facts for San Juan County (2018) are provided by the TRI.

Table 20: TRI Facilities, San Juan County

Facilities	San Juan County, NM	United States
Number of TRI Facilities:	8	21,530
Total Production-Related Waste Managed:	7.3 million lbs.	32.1 billion lbs.
Total On-site and Off-site Disposal or Other Releases:	3.3 million lbs.	3.9 billion lbs.
Total On-site:	24 million lbs.	3.4 billion lbs.
• Air:	980.5 thousand lbs.	600.8 million lbs.
• Water:	2,549 lbs.	195.1 million lbs.
• Land:	1.96 million lbs.	2.7 billion lbs.
Total Off-Site:	945 thousand lbs.	474.9 million lbs.

Data Source: United States Environmental Protection Agency TRI Explorer

Map 21: TRI Facilities Map, San Juan County



Map Source: United States Environmental Protection Agency TRI Explorer

Regarding the transport of hazardous materials, there are many avenues for doing so across San Juan County and its participating jurisdictions. In the City of Aztec, for example, traffic moves along NM State Road 516 directly through the City. Moving South in Aztec, traffic must complete a 90-degree turn towards U.S. 550. U.S. 500 moves traffic throughout downtown Aztec and has typically increased traffic congestion during certain portions of the day. With these routes, there are a number of intersections that pose an increased risk for traffic accidents. The County's previous mitigation plan indicates that if a hazardous material release occurs near or at the intersection of State Road 516 and U.S. 550, there is the potential, it to shut down the entire City of Aztec for the duration of the response and recovery for the incident.

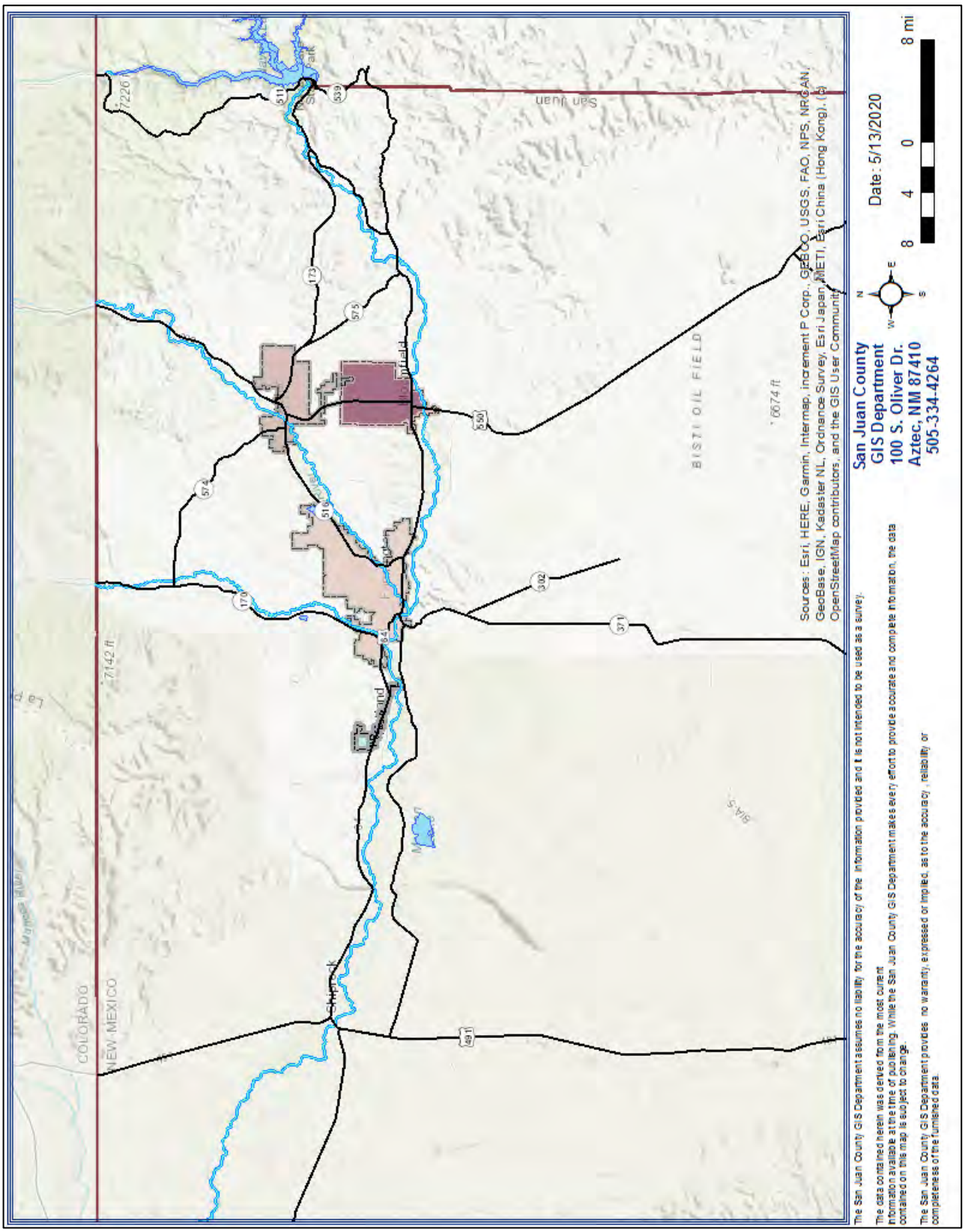
For the City of Bloomfield, transportation flows in two directions- north via U.S. 550 from Aztec and east via U.S. 64 from Farmington. The traffic moving south from Aztec on U.S. 550 comes downhill into the Bloomfield area and passes Bloomfield High School before reaching U.S. 64. Traffic then makes a 90-degree turn onto U.S. 64 to the west for approximately one block before making a second 90-degree turn

back to the South onto U.S. 550, which then leads out of the city limits. If there is a transportation-related HazMat incident on any of the thoroughfares in the City of Bloomfield, there could be a road shutdown and subsequent evacuation of areas within the City.

For the City of Farmington, traffic moves into the city from the east and can take several routes to proceed to the city of Albuquerque. One of those moves is via U.S. 64 that travels to Bloomfield and South onto U.S. 550. This route is a significant route for trucking in the area. Along this route, one can also find major commercial entities as well as a hospital. The second route runs through the city along either Broadway or Main street. Both of these streets run through the center of downtown Farmington.

On the following page is a map showing the major transportation routes in San Juan County.

Map 29: San Juan County Major Roadways and Interstates



Map Source: San Juan County, NM, GIS Department

The County's previous mitigation plan identifies "gasoline/liquid nitrogen" as the most common hazardous material transported through San Juan County and its participating jurisdictions. Any spill of hazardous material can cause an evacuation of homes, schools, and business near the affected areas. HazMat incidents pose significant risk to humans, animals, and the environment in San Juan County. Depending on the type of hazardous material(s) and the size of the area impacted, the losses could be minor, major, or significant.

Possible Losses to Critical Facilities
Critical functional losses
Structural and contents losses if an explosion is present
Contamination

Possible Losses to Structures
Inaccessibility
Contamination
Structural and contents losses, if an explosion is present
Business closures and associated business disruption losses

Possible Ecologic Losses
Loss of wildlife
Loss of habitat
Degraded air and water quality

Possible Social Losses
Cancelled activities
Emotional impacts of significant population losses and illness

4.2.3 – Previous Occurrences

Given the presence of eight (8) TRI facilities in San Juan County (again, two (2) in Farmington, one (1) in Fruitland, one (1) in Aztec, two (2) in Bloomfield, and two (2) in Waterflow) and the continuous storage, production, use and transportation of hazardous materials across its main thoroughfares, all of San Juan County is at risk of a HazMat incident. Based on information obtained from San Juan County/Farmington Fire, HazMat Division, there were seven (7) significant transportation-related HazMat incidences that occurred in San Juan County and its participating jurisdictions between January 1, 2013, and January 31, 2020. Details of the events are provided below:

November 5, 2015, San Juan County – DOT 406 accident, NM 550, gasoline leaking.

July 8, 2016, San Juan County – Produced water tanker explosion, NM 64, vapor only, no liquid lead.

July 12, 2016, San Juan County – Oil facility fire, NM 550/CR 7800, crude oil fire, multiple tanks involved.

August 11, 2016, San Juan County – Titanium fire at APS Power Plant, Indian Service Route 5086.

December 24, 2017, San Juan County – 18-wheeler truck involved in an accident, with type-B radiation transportation containers on Hwy 64, Kirtland, no leak.

October 28, 2018, San Juan County – 18-wheeler truck involved in accident, sulfuric acid leaking, N491, Navajo Nation.

July 23, 2019, San Juan County – DOT 407, rollover, Road 7010, Navajo Nation, diesel additive leaking.

4.2.3A – Probability of Future Events, Hazardous Materials

Like in the San Juan County MJNHMP Update (November 2013), the exact amount of hazardous material being transported is unknown, but there are indications that this type of traffic is increasing. This increase is partly due to the recent improvements in the area's transportation system, particularly U.S. 550. Much of the hazardous material transport appears to be traveling through San Juan County en route to Albuquerque from the Salt Lake City, Utah, area. The route used in traversing San Juan County starts at the northern border of New Mexico, with U.S. 491 (formerly U.S. 666), south to Shiprock, east on U.S. 64 to Farmington, east from Farmington to either Aztec via State Road 516 or Bloomfield via U.S. 64, south from Aztec to Bloomfield via U.S. 550, and then south from Bloomfield on U.S. 550 and out of the County. Although the most substantial portion of this route traverses lightly populated areas, there is a danger to life and property in the concentrated population areas Aztec, Bloomfield, and Farmington, which represent the most significant economic dynamic within San Juan County.

Natural hazards like heavy rain and snowfall can cause transportation-related traffic incidents that can also be the cause of HazMat spills on the major thoroughfares in the planning area. Stated previously, given the presence of eight TRI facilities in San Juan County and the continuous storage, production, use, and transportation of hazardous materials across its main thoroughfares, all of San Juan County is at risk of a HazMat incident. San Juan County and its participating jurisdictions can expect a HazMat event with a 19,683% probability per year, or 196.833 events per year.

Table 22: Probability of Future Events, Hazardous Materials

Probability of Future Events, Hazardous Materials							
Event Year	**Event Count**						
	Flammable Spill	**Natural Gas/LPG Lead**	**Other Combustible Spill**	**Chemical Hazard**	**Chemical Spill or Lead**	**General Clean-up/Vehicle**	**Total of Event Types**
2013	12	50	6	0	15	83	166
2014	20	57	11	3	19	69	179
2015	14	49	6	2	5	67	143
2016	11	49	5	3	4	76	148
2017	7	54	6	-	11	82	160
2018	8	53	6	3	12	93	175
2019	4	86	7	1	16	96	210
Total Recorded Events =	76	398	47	12	82	566	1181
Total Years =	6	6	6	6	6	6	6
Yearly Probability =	**1266.67%**	**6633.33%**	**783.33%**	**200.00%**	**1366.67%**	**9433.33%**	**19,683.33%**

Note: The table data does not include carbon monoxide, odor investigations, and biological or radiological reports. Data Source: San Juan County/Farmington Fire, HazMat Division – Farmington HazMat Calls 2013-2019

The data in the probability table comes from Farmington Fire, HazMat division, shows six (6) different types of calls related to HazMat spills received over the last six years—flammable spill, natural gas/LPG lead, other combustible spills, chemical hazard, chemical spill/lead, and general clean-up/vehicle incidences. Calculating the future probably is not the only predictor of future occurrences (based upon Table 10: Probability Categories). This number was derived by dividing the number of recorded events (the six (6) different types of calls related to HazMat spills) by the year range used. The qualitative chance of a HazMat incident impacting the planning area is **highly likely**.

4.2.4 – Vulnerability & Impact

In the previous plan, Farmington Fire/HazMat recorded one major HazMat incident which occurred in 2010. San Juan County has a higher susceptibility than other counties due to the transportation of HazMat materials (i.e., liquid nitrogen and petroleum) on its major roads and highways in the county. However, hazardous materials could have a significant impact if there was a chemical release or explosion involving chemicals.

Vulnerability of Facilities

It is next to impossible to predict where a hazardous materials event will happen because it involves the human aspect and mobility. However, areas surrounding the train tracks and the plants that produce hazardous waste naturally are more vulnerable to a hazardous material event.

Vulnerability of Population

Depending upon the chemical, if a HazMat event were to occur, this could significantly impact the population of San Juan County. Due to the proximity to the major transportation highways where hazardous materials are routinely transported, the cities of Aztec, Bloomfield, and Farmington are vulnerable in the event of spill or HazMat accident within the planning area.

Vulnerability of Systems

A hazardous materials event will affect transportation routes in and out of the County. If a truck wrecks on the State or U.S highway near or in San Juan County, it will shut down traffic and may require the evacuation of homes, schools, and businesses.

4.2.4A – Critical Facilities & Infrastructure

All critical facilities and infrastructure are equally at risk of a HazMat incident affecting the planning area, especially homes, business and critical facilities that are in close proximity to State Road 516, U.S. 550 and U.S 64 and other highways within the County. A complete list of critical facilities and infrastructure can be found in Appendix D.

4.2.4B – Land Use & Development Trends

If and when a HazMat incident occurs in San Juan County, there is a chance it will not only involve dirt or surface material, but also flowing water in ditches, rivers, or small streams. Therefore, special attention to

the location of new or expanding industries/facilities along with transportation routes in the County is warranted.

4.2.4C – Unique & Varied Risk

San Juan County, as a whole, is vulnerable to a HazMat incident involving transportation. As the NM State highway and railway corridors travel through and around San Juan County, the Cities of Aztec, Bloomfield, and Farmington, as well as the Town of Kirtland, could potentially be affected by a hazardous materials spill or radiological event.

4.2.4D Repetitive Loss Structures

Not applicable.

4.2.5 – HAZUS® Models

Not applicable.

4.2(WF) – Wildfire

4.2.1 – Hazard Description

Photo Source: Courtesy of After Wildfire

The National Weather Service (NWS) defines a wildfire as "any free-burning, uncontainable wildland fire not prescribed for the area which consumes the natural fuels and spreads in response to its environment." Wildfires can occur naturally from a lightning strike; by human accident from a non-fully extinguished campfire; and on rare occasions, by human actions, or arson. The threat of wildfire increases in areas prone to intermittent drought, or that are generally arid and dry. Regardless of how they begin, wildfires have the ability to consume large areas including infrastructure, property, and resources.

There are three general types of wildfires—ground, surface, and crown. Ground fires, often referred to as underground or subsurface fires, occur in deep accumulations of organic matter such as humus, peat and similar dead vegetation that are dry enough to burn. These fires move very slowly and become difficult to fully extinguish or suppress. Occasionally, during prolonged drought, ground fires can smolder all winter underground and then emerge at the surface again in the spring. Surface fires burn only surface litter and duff, including leaves and fallen branches, and are the easiest of all fires to extinguish. Crown fires, on the other hand, are the most intense and most difficult to maintain. They burn trees up their entire length, and usually occur where there are strong winds, steep slopes, and a heavy fuel load (e.g., densely wooded forests).

With more people making their homes in wooded settings near forests and remote mountain sites, the threat of wildfire is steadily on the rise. This is because the demographic change is expanding the size of the area where structures and other human development meet or intermingle with undeveloped wildland, otherwise known as the wildland-urban interface (WUI). The WUI creates an environment in which fire can move readily between structure and vegetation fuels, often resulting in massive fires, or conflagrations, that may lead to widespread evacuations.

A wildfire risk assessment can determine the level of risk of a particular location. The "boundary" WUI is characterized by areas of development where homes, especially new subdivisions, press against public and private wildlands, such as private or commercial forest land, or public forests or parks. There is a clearly-defined boundary between the suburban fringe and the rural countryside. WUI areas deemed as "intermix" are places where improved property and/or structures are scattered and interspersed in wildland areas. These may be isolated rural homes or an area that is just starting to transition from rural to urban land use. "Island" WUI areas, also called occluded interface, are plots of undeveloped wildland, such as remnant forests and parks, within predominately urban or suburban locales. The WUI described in the San Juan Basin Community Wildfire Protection Plan (SJBCWPP) 2014, includes 163,402 acres of private, county, and state lands and 119,570 acres of federal lands, for a total of 282,972 acres.

Aside from damaging or destroying property, or worse, claiming lives, wildfires put off dense smoke that can affect air quality and pose a serious health risk. This is especially true for the elderly or those, young

and old, who have breathing conditions such as asthma or COPD. Experts agree that smoke inhalation is the number one cause of death related to fires.

Wildfires are also notorious for spawning secondary hazards long after the original fire is extinguished. Such hazards include flash flooding, debris flow and landslides. All result from fire consuming the vegetation that provides precipitation interception and infiltration as well as slope stability.

Fire services can mitigate wildfires by regularly engaging in preventative burns and proactive land use measures. Homeowners and business owners can also do their part by taking precautionary efforts, such as following local fire-related ordinances; removing leaves, limbs, and other debris from property; and creating a defensible space around structures. Among those emphasizing the need for such preemptive actions is Firewise USA™, a national recognition program that provides instructional resources to inform people how to adapt to living with the risk of wildfire.

4.2.2 – Location & Extent

The San Juan County Basin Community Wildfire Protection Plan (CWPP), 2014, states that there are at-risk intermix communities and an established WUI boundary, including unincorporated communities, within the County's five (5) fire response zones.

The Northeast San Juan County Zone includes portions of the Animas River and San Juan River corridors and the intermix communities of Cedar Hill, Center Point, and Navajo Dam.

The Southeast San Juan County Zone includes portions of the San Juan River corridor and the intermix communities of Lee Acres, Sullivan Road, and Blanco.

The Central San Juan County Zone consists of significant private lands associated with the Animas River corridor and includes the intermix communities of Flora Vista and Hart Valley.

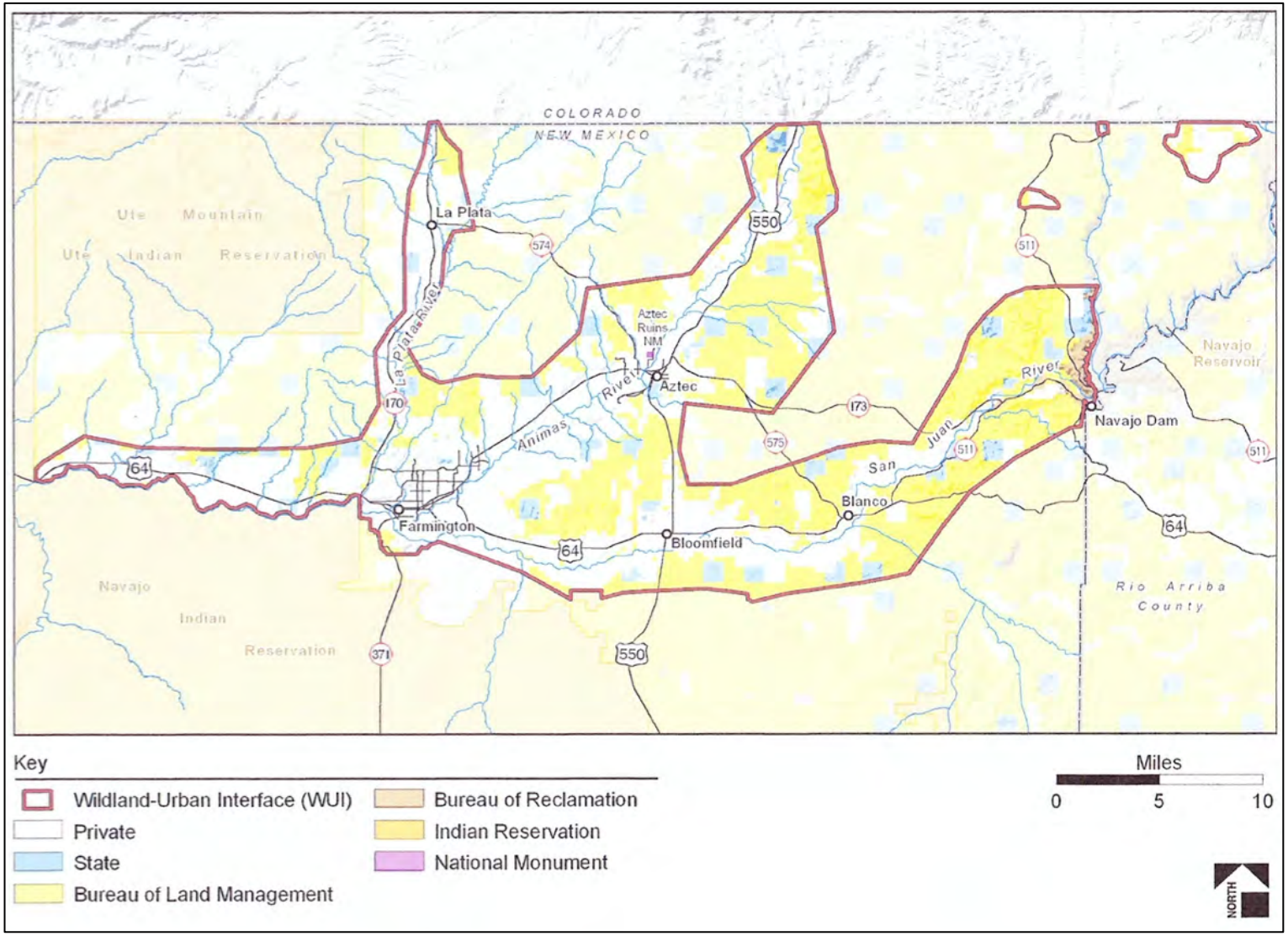
The Northern San Juan County Zone consists of significant private lands associated with the La Plata River corridor and the intermix community of La Plata.

The Western San Juan County Zone consists of significant private lands within the San Juan River corridor and the intermix communities of Fruitland, Waterflow, and Kirtland.

The Southwest is known for its diverse landscapes and semiarid climates. The frequent occurrence of extreme hot and dry conditions, such as drought, is a normal part of the region's climate. Following several years of below-average precipitation, northwest New Mexico, has been suffering from prolonged drought.

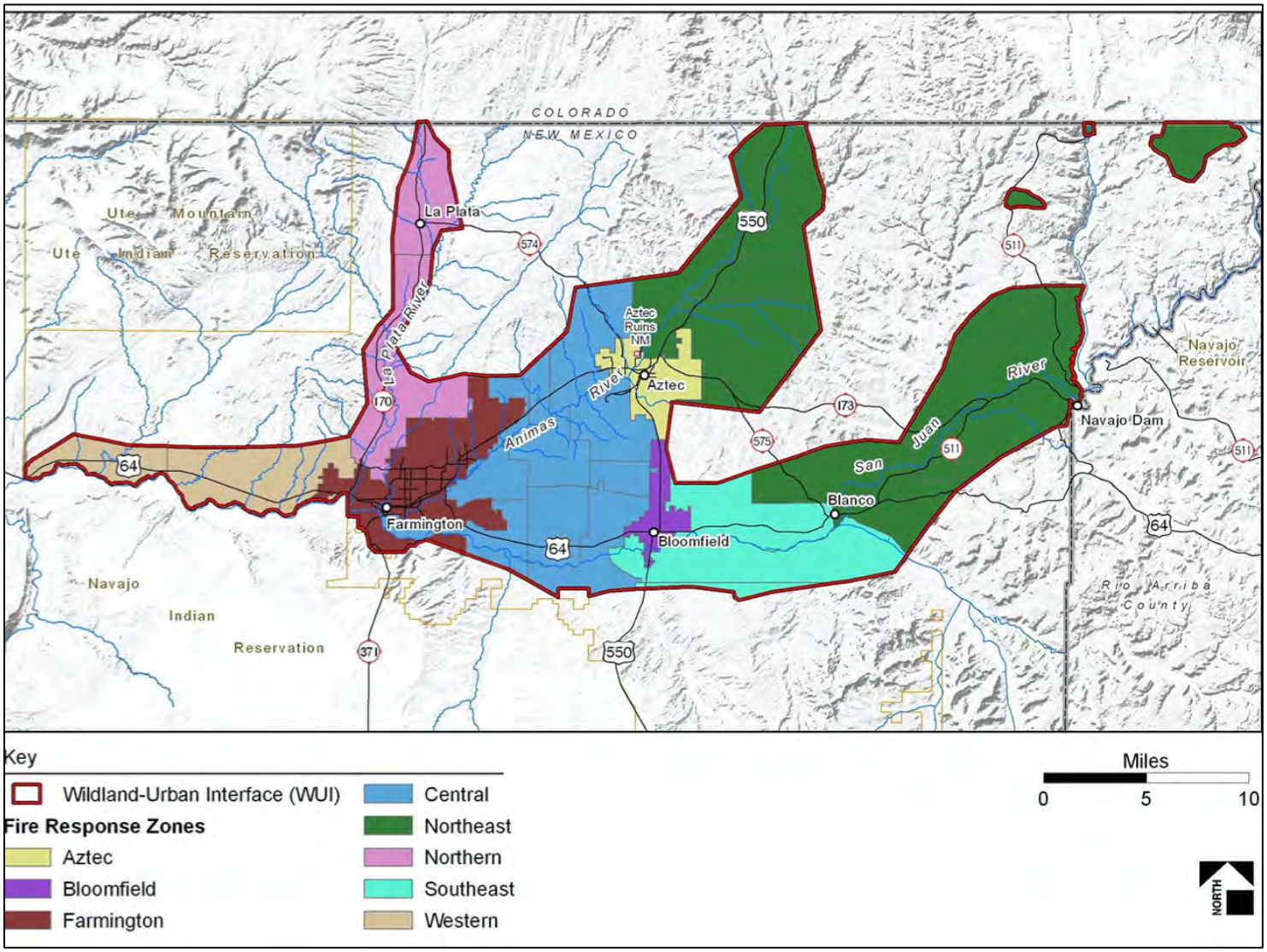
Historically, the majority of serious fires within San Juan County have occurred within the WUI. Although landscape-scale fires have not been prevalent, hundreds of natural and human fire starts do occur and are suppressed and contained each year. Because of the region's continued drought and fuel conditions, local fire departments and local governments are initiating fire preparedness enhancements and land treatment efforts to recognize and act on the current conditions that result in the accumulation of unacceptable levels and types of wildland fuels significantly threatening the communities with catastrophic wildfire.

Map 30: Wildfire Urban Interface – San Juan County Basin



Map Source: San Juan County Basin Community Wildfire Protection Plan (CWPP), 2014

Map 31: San Juan County Basin – Fire Response Zones within the WUI



Map Source: San Juan Basin Community Wildfire Protection Plan (CWPP), 2014

Also, there are three components, terrain, weather, and fuel, that can influence the incidence of wildfires in San Juan County. Depressions, such as canyons funnel air, and can act as chimneys, intensifying the fire and causing a faster rate of spread. Saddles on ridge tops draw fires, and steep slopes can double the rate of spread due to the proximity of fuel meters per minute. Fuel type, continuity of fuel, and the moisture content of the fuel all affect wildfire behavior. Weather can have a significant effect on wildfires. Wind can direct the direction of fire and cause it to speed up through the area. High temperatures and low humidity can increase the fire potential while low temperatures and high humidity can increase the risk.

San Juan County's previous MJNHMP Update (November 2013) mentioned that forest and grassland fires could occur any day throughout the year. Most of the fires occur during the spring season. The second most critical period of the year is fall. Depending on the weather conditions, a sizeable number of fires may occur between mid-October and late November. During the spring and summer seasons, the length and severity of burning periods largely depend on the weather conditions. Low humidity, high winds, below-normal precipitation, and high temperatures are frequently present, resulting in extremely high fire danger.

As experienced within the planning area, drought conditions can hamper efforts to suppress wildfires as decreased water supplies may not prove adequate to contain the fire quickly. The duration of a wildfire depends on the weather condition (i.e., how dry it is, the availability of fuel to spread), and the ability of responders to contain and extinguish the fire. Historically, some fires have lasted only hours, while other fires have continued to spread and grow for an entire season. Such fires spread quickly and can go unnoticed until they have grown large enough to be seen by their dense smoke. If fuel is available, and the high wind speeds exist, a wildland or brush fire can spread quickly over a large area. Continued extreme weather conditions, dry fuels, and increasing fuel loading on federal and nonfederal lands have contributed to the potential for catastrophic wildland fires in San Juan County and its participating jurisdictions. contributed to the potential for catastrophic wildland fires in San Juan County and its participating jurisdictions. The following table shows the standard Burn Severity Index (U.S. Department of Agriculture, Forest Division). San Juan County, cities of Aztec, Bloomfield, and Farmington, and the Town of Kirtland is at risk of experiencing a wildfire event with a Burn Severity Index Rating of 4 – High Severity Burn.

Table 23: Burn Severity Index

Burn Severity Index			
Rank	**Burn Severity**	**Description**	**Characteristics**
0	Unburned	Fire extinguished before reaching microsite.	• Leaf litter from previous years intact and uncharred • No evidence of char around base of trees and shrubs • Pre-burn seedlings and herbaceous vegetation present.
1	Low Severity Burn	Surface fire which consumes litter yet has little effect on trees and understory vegetation.	• Burned with partially consumed litter present • Evidence of low flame heights around base of trees and shrubs • No significant decreases in overstory & understory basal area, diversity or species richness from pre-burn assessments • Usually burning below 80° C
2	Medium-Low Severity Burn	No significant differences in overstory density and basal area, & no significant differences in species richness. However, understory density, basal area, and species richness declined.	• No litter present and 100% of the area covered by duff • Flame lengths <2m • Understory mortality present, little or no overstory mortality

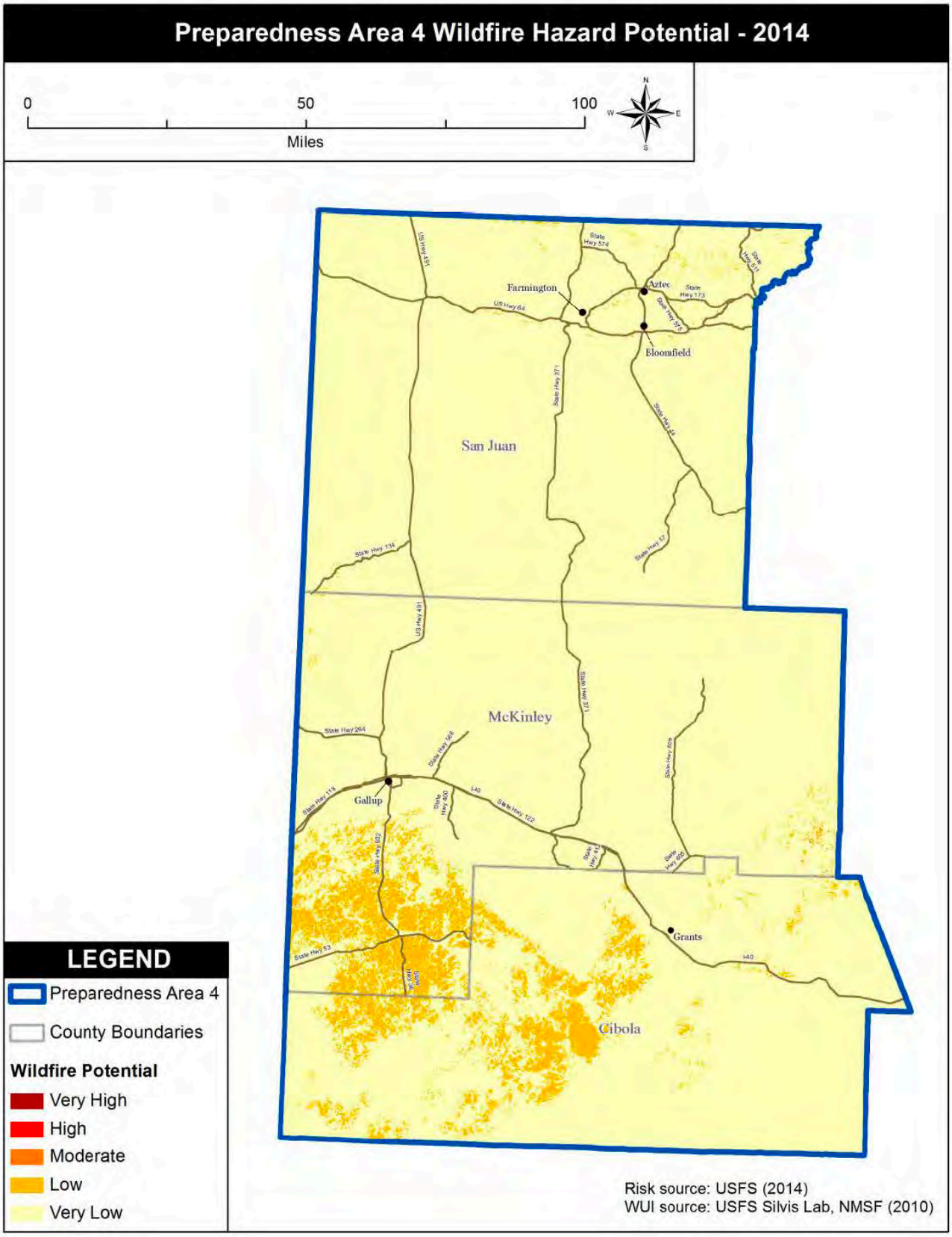
Table 23: Burn Severity Index (Cont'd)

Burn Severity Index			
Rank	**Burn Severity**	**Description**	**Characteristics**
3	Medium-High Severity Burn	Flames that were slightly taller than those of Medium-low intensity fires, but these fires had occasional hot spots that killed large trees with significant reduction in the understory.	• Soil exposure on l-50% of the area • Flame lengths <6m • High understory mortality with some overstory trees affected
4	High Severity Burn	Crown fires, usually a stand replacing burn with relatively high overstory mortality.	• Soil exposure >50% • Flame lengths >6m • Higher overstory mortality >20% • Usually burning above 800° C

These factors make the difference between small upstart fires easily controlled by local fire services like the San Juan County Fire Department, to fire destroying thousands of acres requiring multiple state and federal assets for contaminant and suppression. The 2018 New Mexico State Hazard Mitigation Plan (September 2018) shows maps of wildfire paraments and wildfire hazard potential in each state's preparedness areas.

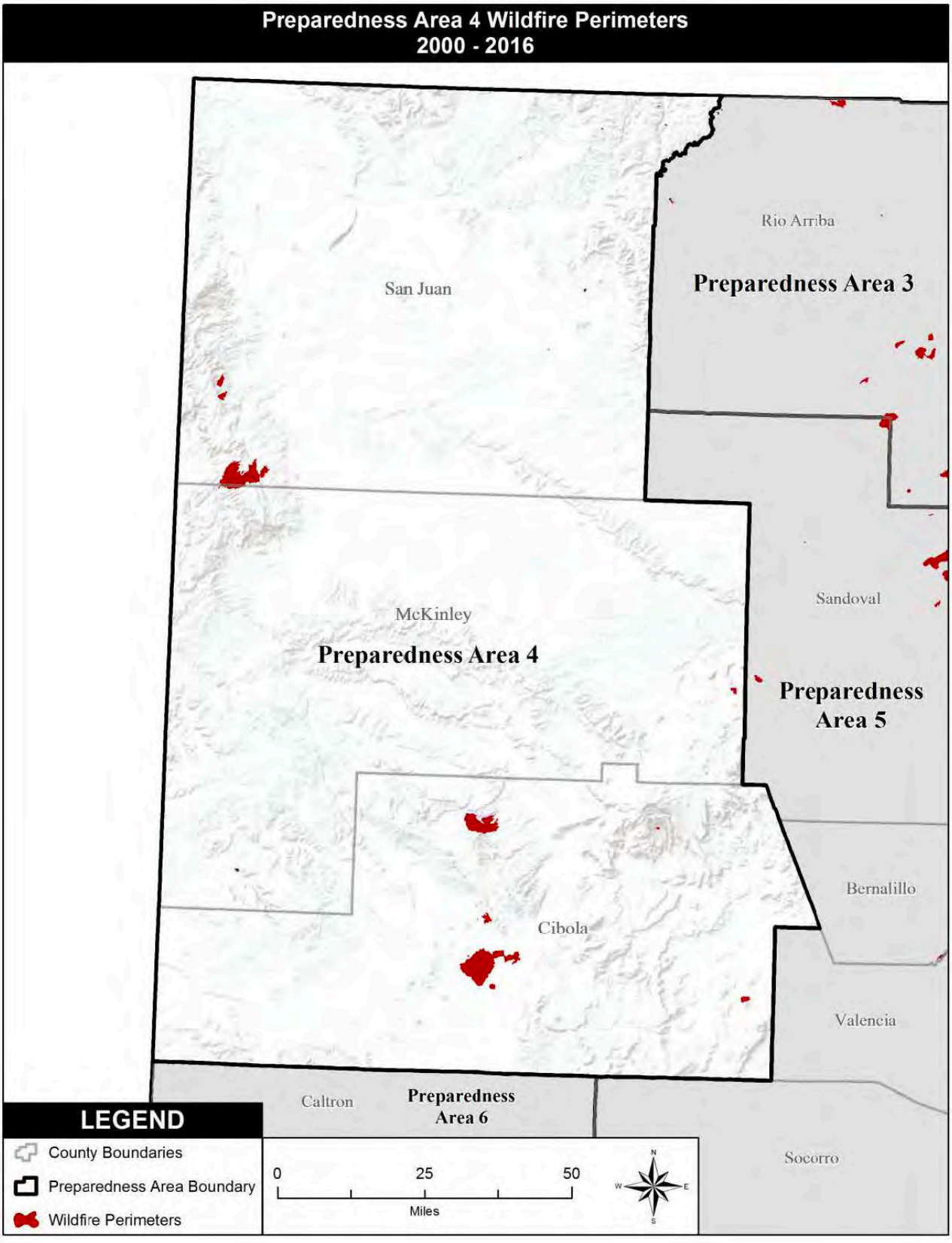
The following two maps show the Wildfire Perimeters and Wildfire Hazard for Preparedness Area 4 that includes San Juan County:

Map 31: Wildfire Hazard Potential, Preparedness Area 4 ,2014



Map Source: State of New Mexico Hazard Mitigation Plan 2018

Map 32: Wildfire Perimeters, Preparedness Area 4, 2000-2016



Map Source: State of New Mexico Hazard Mitigation Plan 2018

As stated in the San Juan County Basin Community Wildfire Protection Plan (CWPP), 2014, the County exists adjacent to wildlands, and as growth occurs, more citizens and properties will be at risk from wildland fire.

The city governments in the WUI, San Juan County, and the Bureau of Land Management Bloomfield (Field Office FFO) recognized that community risk from wildland fuels is not static; the communities will continue to expand into previous undeveloped lands. For community wildfire protection planning and implementation to succeed, hazardous wildland fuel mitigation must reach a balance with community growth and the enhancement of quality-of-life values that exist in the county. San Juan County's 2008 and 2014 Community Wildfire Protection Plan (CWPP) outlined the following goal to:

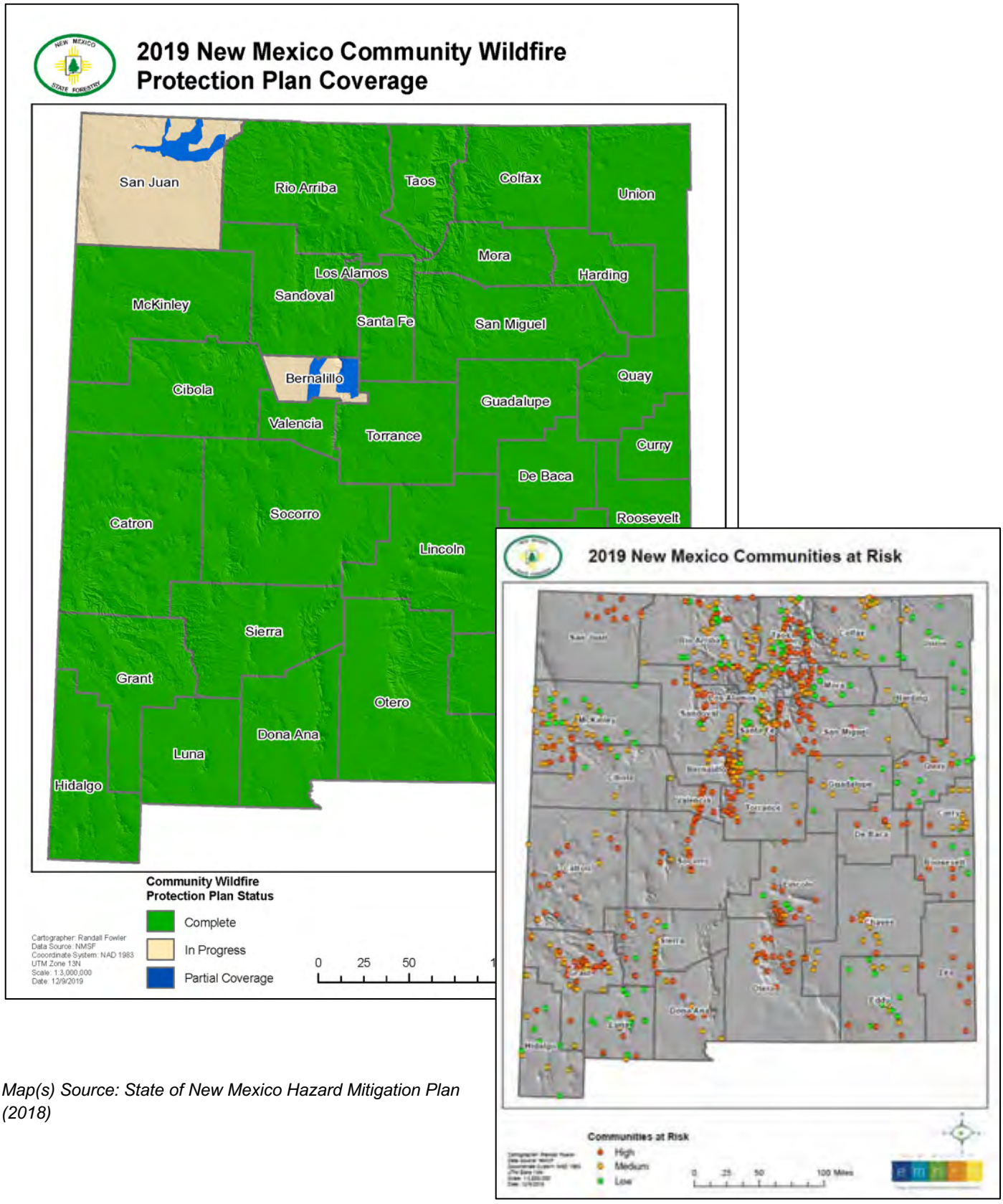
- Improve fire prevention and suppression
- Reduce hazardous riparian and rangeland fuels
- Restore watershed health
- Promote community involvement and education
- Recommend measures to reduce structural ignitability in the SJBCWPP area
- Encourage economic development and stability in the community through the protection of the ecosystem and riparian values
- Identify watersheds at-risk and potential impacts on downstream communities
- Identify funding needs and opportunities
- Expedite project planning
- Prioritize high-risk projects.

There are 58 Community Wildfire Protection Plans (CWPPs) in the State of New Mexico. Of the 746 communities, 366 are listed as high risk, which includes San Juan County.

In San Juan County's previous MJNHMP Update (November 2013), the CWPP was in an indeterminate period, and CWPP information referenced the 2008 SJBCWPP. Since the last San Juan County Multi-Hazard Mitigation Plan update, the current SJBCWPP (2014) was drafted and approved by San Juan County in January and February 2014.

At the time of the drafting of this plan, New Mexico State Forestry lists the San Juan Basin CWPP as still "in progress. "The 2018 State of New Mexico Hazard Mitigation Plan included an update to the Forestry Division updated the Community at Risk Assessment Plan which ranks communities in the state by how vulnerable they are to wildland-urban interface fires. In May 2020, San Juan County received a grant through the New Mexico Association of Counties. San Juan County is beginning to work with neighboring jurisdictions to update the current San Juan County Basin Community Wildfire Protection Plan (CWPP), 2014. The following maps provided by the State's Hazard Mitigation Plan (and presented together) show the 2019 New Mexico CWPP Coverage and the 2019 New Mexico Communities at Risk to Wildfire.

Map 33: 2019 New Mexico Community Wildfire Protection Plan (CWPP) Coverage & 2019 New Mexico Communities at Risk



Map(s) Source: State of New Mexico Hazard Mitigation Plan (2018)

4.2.3 – Previous Occurrences

While San Juan County is at a high risk of wildfire, NOAA/NCEI recorded three wildfire events across from January 1, 2013, to January 31, 2020. NOAA/NCEI details of the events are provided below:

June 15, 2014, Northwest Plateau, Wildfire – A human-caused wildfire that started near the Asaayi Lake and Bowl Canyon recreation area east of Crystal, New Mexico, burned for nearly two weeks. The communities of Nashitti and Sheep Springs were partially evacuated. The preliminary number of displaced residents was approximately 500. A total of 24 residences and four (4) outbuildings were destroyed. The monetary value of property damage for this event was $500,000. There were three (3) established shelters for displaced residents. The fire consumed around 14, 712 acres. No injuries or deaths were associated with the event.

June 20, 2017, Northwest Plateau, Wildfire – A strong dome of high pressure centered over the Southwestern United States, along with exceptionally dry air, set the stage for a brutal heatwave over New Mexico for several days. The excessive heat started building over Central and Western New Mexico. On the 20th and then spread eastward on the 21st before peaking on the 22nd. A back door cold front pushed into Eastern New Mexico on the 23rd bringing relief to the hot temperatures for parts of the area. However, Central and Western New Mexico, continued to bake in the heat through the 23rd. High temperatures ranged from 100 to 110 degrees over nearly the entire state while relative humidity values fell as low as one percent in some areas. Dozens of record high maximum and record high minimum temperatures were set across the region. Only locations with records that extend back several decades were included in the heatwave summary. A wildfire that broke out in Quay County burned seven miles south of the City of Farmington. The fire destroyed a number of sheds and vehicles. Two residents and a firefighter were treated for smoke inhalation and other minor injuries. Investigators say the fire was caused by a welding torch that was being used to dismantle a table. Three injuries, one death, and $50,000 of property damage were associated with the event.

June 29, 2017, Northwest Plateau, Wildfire – A brush fire in Bloomfield caused several residents to evacuate their homes as the fire destroyed two structures and three vehicles. The Bloomfield, Farmington, and San Juan County Fire Departments were dispatched to reports of a brush fire near San de Cristo Court around 4:00 P.M. The Bloomfield Police Department also responded to the scene. No homes were destroyed in the fire, but two outbuildings and three vehicles were destroyed. About three acres of land were burned. A "reverse 911" call was made to residents along San De Cristo Court to evacuate and meet at Bloomfield High School. Traffic along U.S. Highway 64 was shut down between North First Avenue and Mustang Lane due to the fire. No injuries or death were associated with event. This wildfire incident caused $80,000 of property damage.

The last wildfire to be documented in San Juan County by New Mexico Fire Information occurred in July 2019. The New Mexico State Forestry Commission reported that the Arroyo Fire, burned on private land, approximately five miles east of Bloomfield in San Juan County. Three (3) residential structures, 30 vehicles, and at least five (5) outbuildings were lost. The human-caused fire burned 7.4 acres before being fully contained on July 3, 2019. There were no reported injuries or deaths recorded as result of this event.

4.2.3A – Probability of Future Events, Wildfire

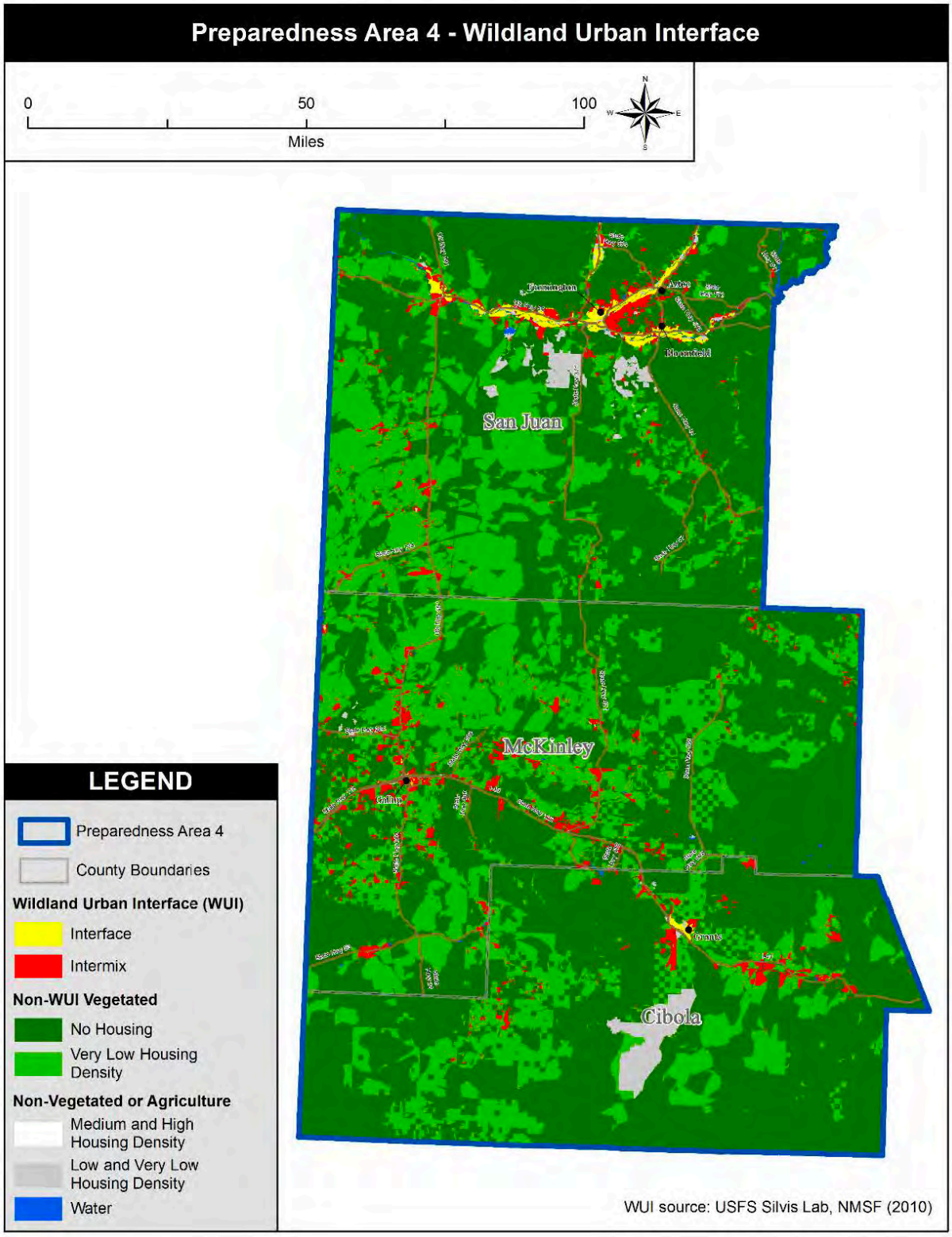
San Juan County and its participating jurisdictions can each expect a wildfire event with 83% probability per year, or .833 events per year. Calculating future probability is not the only predictor of future occurrences (based upon Table 10: Probability Categories). This number was derived by dividing the number of recorded events by the year range used. The chance of a wildfire in San Juan County and its participating jurisdiction is considered **highly likely.**

Table 24: Probability of Future Events, Wildfire

Probability of Future Events, Wildfire	
Event Year	**Event Count**
2013	-
2014	1
2015	-
2016	-
2017	2
2018	1
2019	1
Total Recorded Events =	5
Total Years =	6
Yearly Probability =	**83%**

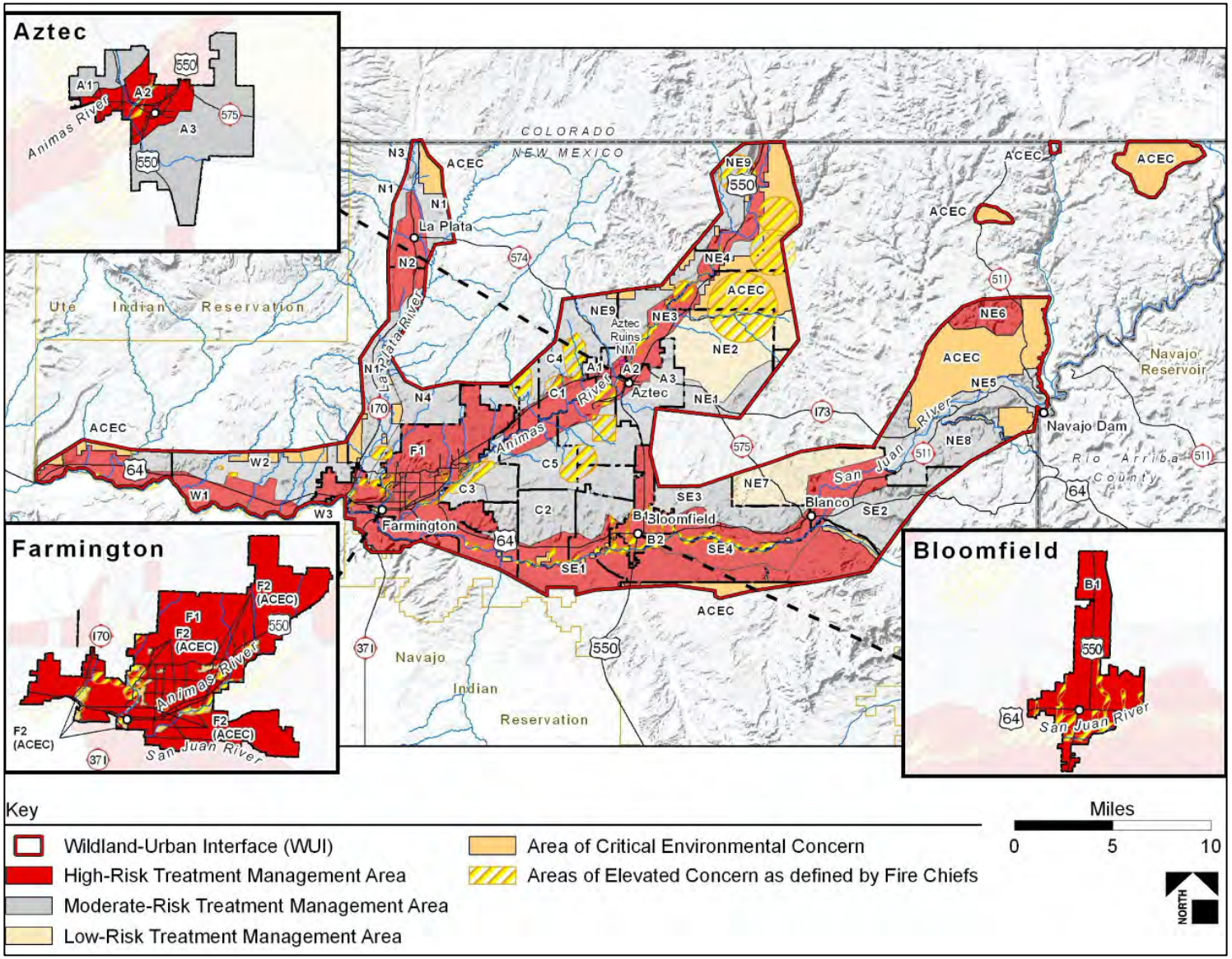
Data Source: NOAA/NCEI Storm Events Database and New Mexico Fire Information

Map 34: State of New Mexico Preparedness Area 4 WUI including San Juan County



Map Source: State of New Mexico Hazard Mitigation Plan 2018

Map 35: San Juan County, Treatment Management Areas



Map Source: San Juan Basin Community Wildfire Protection Plan, 2014

4.2.4 – Vulnerability & Impact

Vulnerability of Facilities

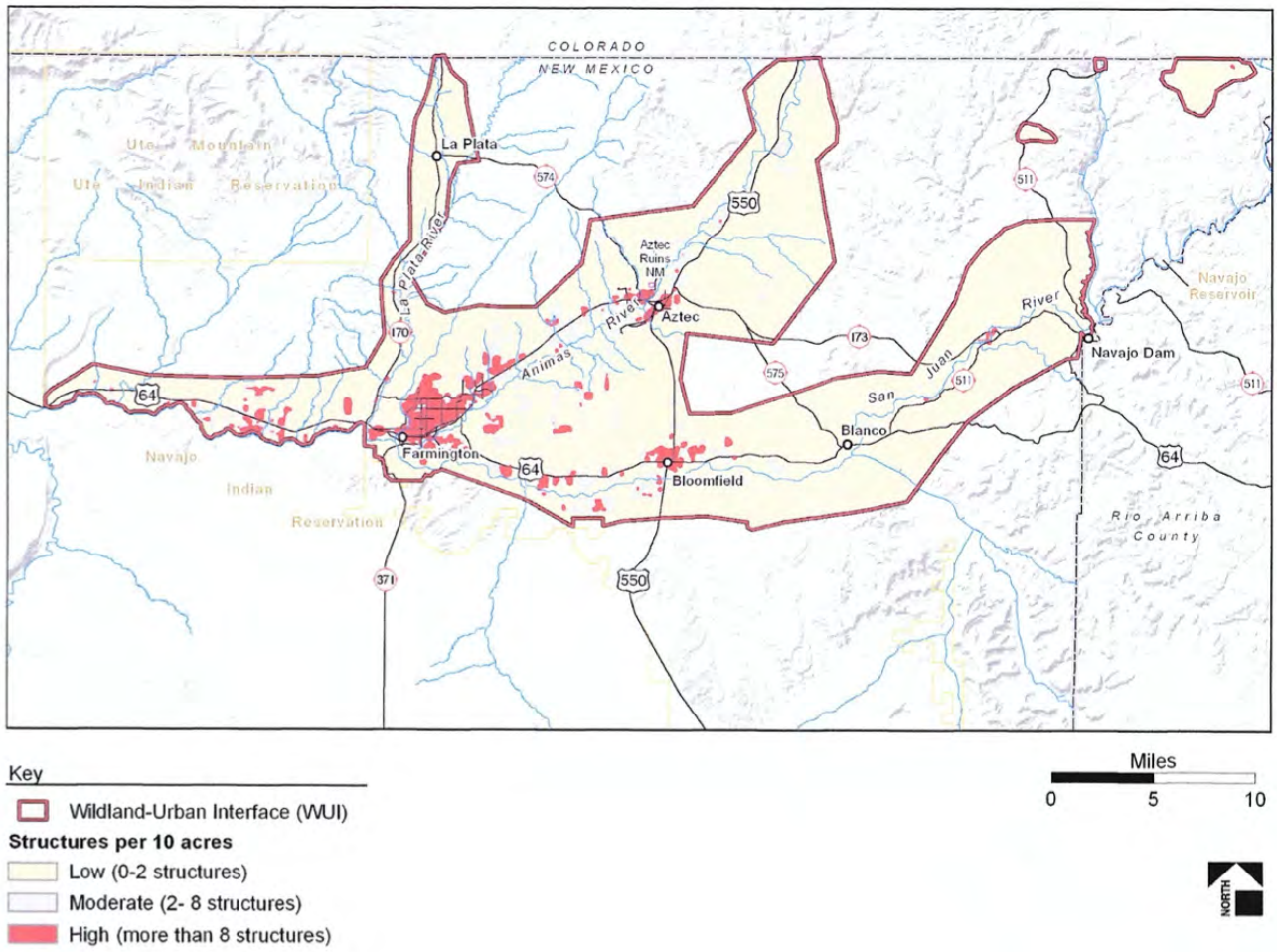
A wildfire burning near a jurisdiction may cover it in soot, cause secondary fires from traveling coals, or directly engulf facilities potentially burning them to the ground. Facilities can be protected by creating defensible spaces or buffer zones, maintaining a fuel-free environment, and modifying structures to prevent wildfire's growth.

San Juan County and its participating jurisdictions' critical structures are valued at $9,132,103.00.

Vulnerability of Population

The greatest vulnerability of a jurisdiction's population is the inability to properly evacuate in an emergency situation. The population can be caught off guard due to slow or improper warning systems, erratic weather conditions, etc., and become trapped in a growing wildfire.

Map 36: San Juan County, Housing Density



Map Source: San Juan Basin Community Wildfire Protection Plan, 2014

Vulnerability of Systems

In the event a wildfire begins to burn and grow, evacuation routes may become blocked by the fire or by other people attempting to evacuate. The impingement of the local transportation system makes appropriate warning and information paramount in mitigating San Juan County and its participating jurisdictions' systems vulnerability to wildfires.

4.2.4A – Critical Facilities & Infrastructure

The San Juan County Community Wildfire Protection Plan (CWPP) 2014, identified significant infrastructures, such as communication facilities, within the designated WUI, and recommends fuel modification treatments to reduce the threat of wildland fire affecting these facilities.

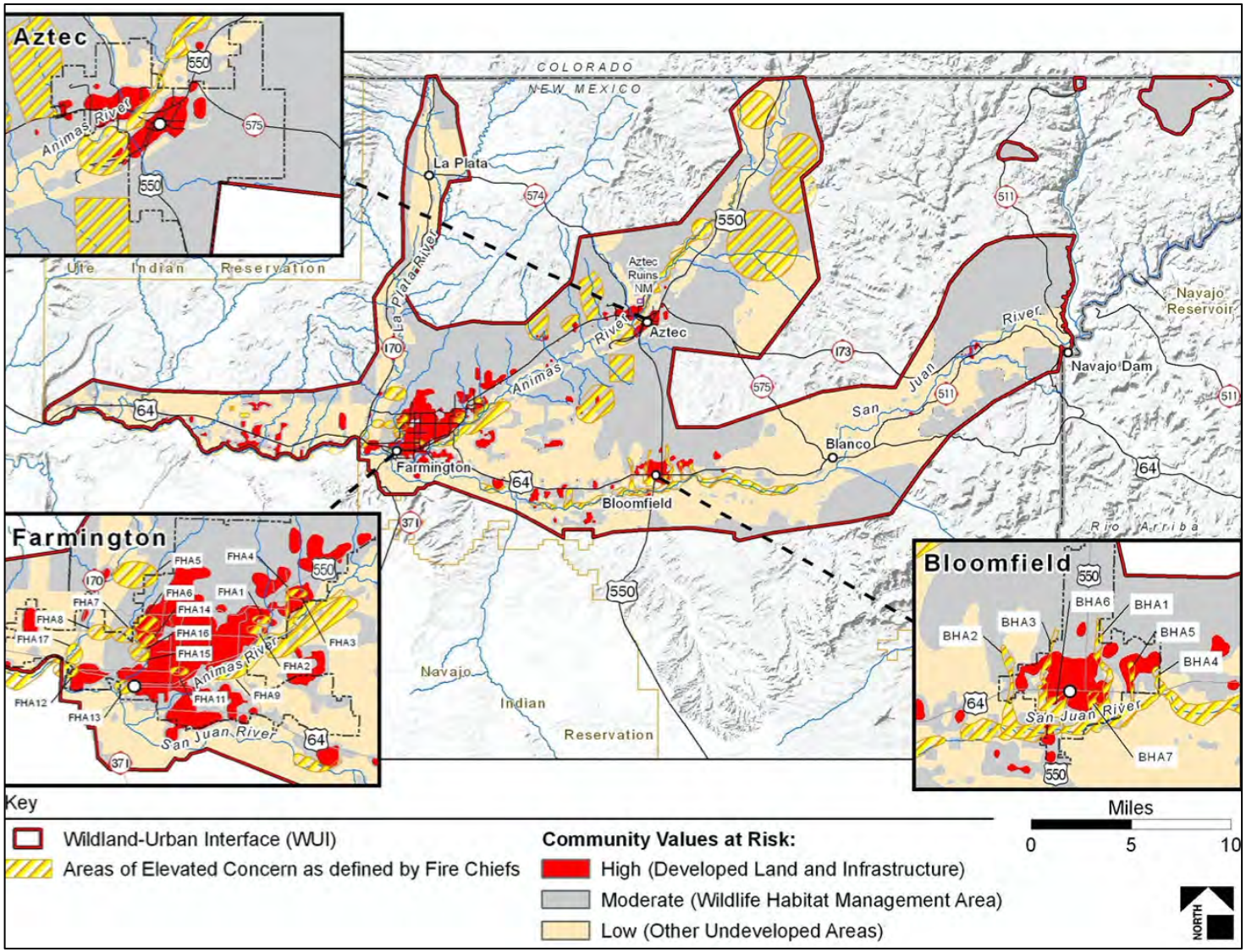
In the 2021 San Juan Basin CWPP update, maps will be updated to include specific critical infrastructure locations and identify the level of hazardous fuels reduction work performed around these locations since 2014. This data was not available for distribution during the 2014 CWPP Update., The San Juan GIS Department in collaboration with New Mexico State Forestry, will have the capacity to collect data tracking the number of acres treated in relation to critical facilities and infrastructure. A complete list of critical facilities and infrastructure can be found in Appendix D.

4.2.4B – Land Use & Development Trends

The San Juan County Basin Community Wildfire Protection Plan (CWPP), 2014, states that developed land in excess of eight (8) structures per ten (10) acres is considered the highest wildfire risk. Also, structure density between two (2) and eight (8) is considered low wildfire risk. Developed land, infrastructure, campground, parks, and trail systems, Areas of Critical Environmental Concern (ACECs, and wildlife habitats within medium and low wildfire risks are given a moderate value. These values are illustrated on the following "Community Values" map which identifies high, moderate, and low areas with respect to community value elements in participating jurisdictions (San Juan County, cities of Aztec, Bloomfield, and Farmington, and the Town of Kirtland). In the current 2014 San Juan Basin CWPP, there is not enough data to provide accurate information to quantify the risk (number structures or proportion of cities within the jurisdiction) regarding Areas of Critical Environmental Concern (ACECs). The 2014 San Juan Basin CWPP has been approved for update and is currently seeking a contractor.

Since 2008 hazardous fuels reduction projects have successfully reduced the threat of large wild/and fires occurring within High Risk Wild /and Urban Interface areas as defined in the San Juan Basin Community Wildfire Protection Plan (CWPP}. Our previous accomplishments have primarily been focused on removing the fire receptive species Russian Olive and Tamarisk (aka Salt Cedar) and restoring the landscape to a natural fire-adapted ecosystem. These treated blocks have on numerous instances afforded us the opportunity to implement strategy and tactics to rapidly stop forward spread on wild/and fires that otherwise would not have been an option in untreated areas. Without a doubt, the hazardous fuels reduction work can be directly correlated to a reduction in private property loss from wild/and fires while simultaneously increasing public and first responder safety.

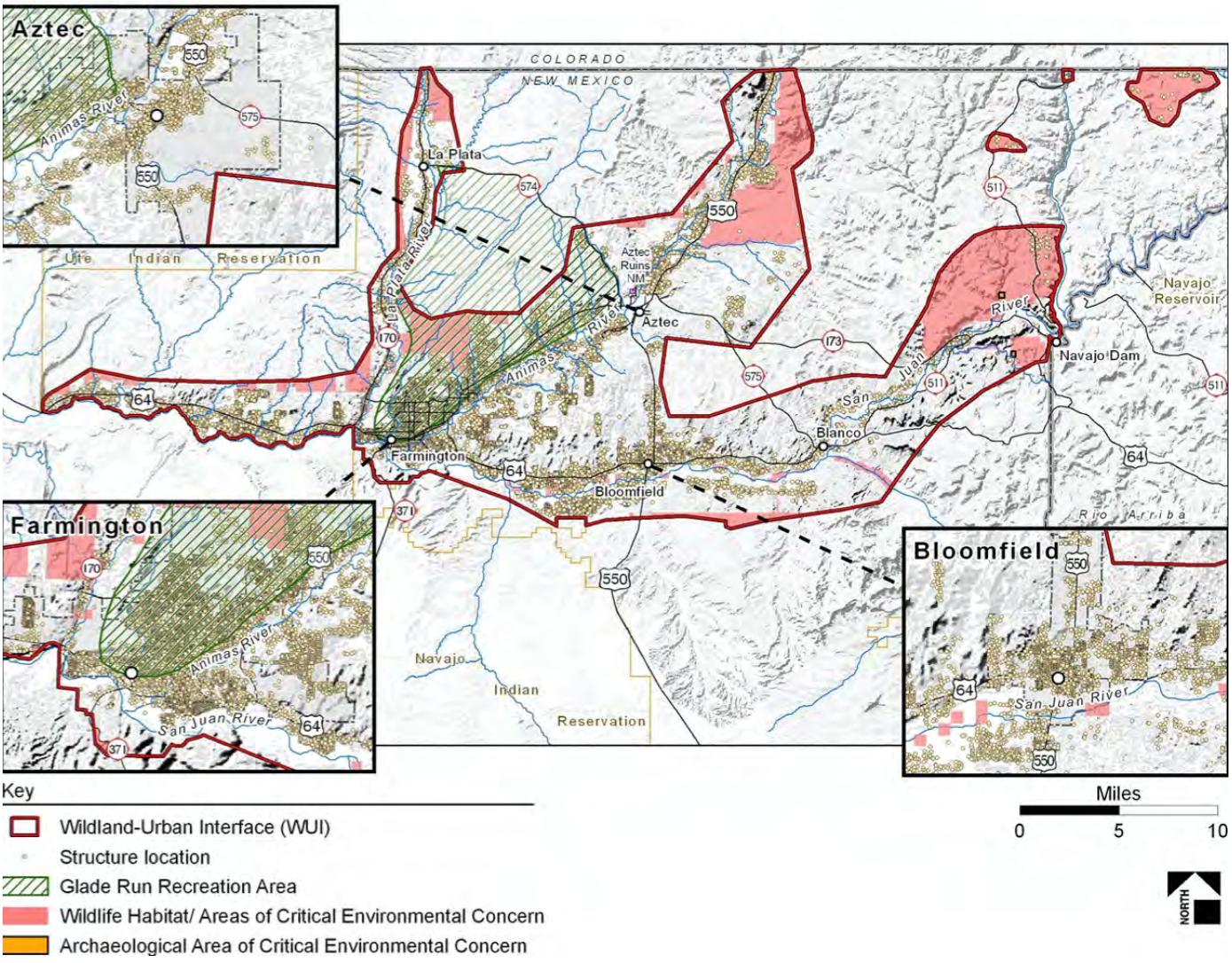
Map 37: San Juan County, Community Values



Map Source: San Juan Basin Community Wildfire Protection Plan, 2014

Also with drought conditions persisting, it seems inevitable that San Juan County will become more susceptible to fires occurring and with increased consequences to the population, property, and natural resources. Rural areas in the County would be of concern and identified as having a higher threat. The economic loss from a wildfire occurrence away from the WUI communities will depend on the acres of rangeland or forestland burned. A rangeland fire would result in the loss of livestock grazing forage for the agriculture economy of the County. Rangeland and forest losses from a wildfire would be accrued over several years until the resources recover. Wildfire concerns for San Juan County and the Cities of Aztec, Bloomfield, and Farmington are very similar since all run along the river bottoms throughout the region.

Map 38: San Juan County, Developed land, Infrastructure, and Designated Recreational Areas



Map Source: San Juan Basin Community Wildfire Protection Plan, 2014

4.2.4C – Unique & Varied Risk

Wildfires have the ability to affect all or a portion of the entire planning area. Drought conditions, also identified as a hazard in the plan, can add to this risk to San Juan County and its participating jurisdictions.

4.2.4D Repetitive Loss Structures

Not applicable.

4.2.5 – HAZUS® Models

Not applicable.

4.3 – Hazard Risk Summary

The following table (Table 24) outlines each participating jurisdictions' general risk to this plan's profiled hazards. The rankings are based on a composite evaluation of this plan's risk assessment, namely, a hazard's probability of occurring in the future, the vulnerability of a jurisdiction to a specific hazard, the intensity of past hazard impacts, and a joint evaluation of local experts and stakeholders.

Table 25: Hazard Risk Summary

Jurisdiction	Hazard Risk Summary			
	Hazard			
	Drought	Hazardous Materials	Flooding	Wildfire
San Juan County	Highly Likely	Likely	Highly Likely	Highly Likely
Aztec City	Highly Likely	Likely	Highly Likely	Highly Likely
Bloomfield City	Highly Likely	Likely	Highly Likely	Highly Likely
Farmington City	Highly Likely	Likely	Highly Likely	Highly Likely
Town of Kirtland	Highly Likely	Likely	Highly Likely	Highly Likely

4.4 - Excluded Hazards

Dam Failure

Though Dam Failure was included in the State of New Mexico Hazard Mitigation Plan (2018), manmade structures like dams are not included in the hazard vulnerability section of this plan update. The safety rating (heavily monitored and inspected by the Federal Government) the Navajo Reservoir rating has a high safety rating and is another reason why this hazard was not included in the plan update.

Earthquakes

Earthquake does not pose a threat to San Juan County and its participating jurisdictions. Therefore, it is not included in the Multi-Jurisdictional Natural Hazard Mitigation Plan Update.

Extreme Heat

The State of New Mexico Hazard Mitigation Plan (2018) does not identify San Juan County and its participating jurisdictions as a risk from extreme heath. Extreme Heat was excluded from the previous San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan Update (November 2013), and was not mentioned as a hazard of concern with this plan update.

Expansive Soil

Expansive Soil was excluded from the previous San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan Update (November 2013), and was not mentioned as a hazard of concern with this plan update.

High Winds

Though the State of New Mexico Hazard Mitigation Plan (2018) states that every preparedness area within the State (San Juan County lies in Preparedness Area 4) is at risk for a potential high wind event, San Juan County and its participating jurisdictions are built to these high wind events. High Wind events do not pose a risk to San Juan County and its participating jurisdictions.

Landslides

The State of New Mexico Hazard Mitigation Plan (2018) does not identify San Juan County and its participating jurisdictions as at risk from a landslide. Further, there is no evidence or documentation from the U.S. Geological Survey (USGS) that says the planning area is at any risk, reasonable or otherwise, to a landslide.

Land Subsidence

Land Subsidence was excluded from the previous San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan Update (November 2013), and was not mentioned as a hazard of concern with this plan update.

Severe Winter Weather

Severe Winter Weather was excluded from the previous San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan Update (November 2013), and was not mentioned as a hazard of concern with this plan update.

Thunderstorms (including Lightning)

Thunderstorms (including Lightning) was excluded from the previous San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan Update (November 2013), and was not mentioned as a hazard of concern with this plan update.

Tornadoes

Tornadoes was excluded from the previous San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan Update (November 2013), and was not mentioned as a hazard of concern with this plan update.

Volcano/Volcanic Eruption

The State of New Mexico Hazard Mitigation Plan (2018) does not identify San Juan County and its participating jurisdictions as being at risk from a volcanic eruption. Further, there is no evidence or documentation from USGS that says the planning area is at any risk, reasonable or otherwise, to a volcanic eruption.

***Note**: Human-caused hazards like Communicable Disease and Terrorism were not identified in the 2018 State of New Mexico Multi-Hazard Mitigation Plan or the San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan (November 2013).*

Note: *Related to Communicable Disease, as of March 2020, the United States is fighting the Coronavirus (COVID-19) pandemic. COVID-19 is a respiratory illness that can spread from person to person. The virus that causes COVID-19 is a novel coronavirus that was first identified during an investigation into an outbreak in Wuhan, China, in December 2019. As of March 23, 2020, the Governor of New Mexico issued an Executive Order related to the COVID-19 Public Health Emergency,'' and an order was declared for San Juan County and its participating jurisdictions. This declaration took effect Tuesday, March 23, 2020,*

and is currently still in effect. More information about the COVID-19 pandemic can be found on the County's website: https://www.sjcounty.net/about-us/covid-19-information.

Section 5 – Mitigation Strategies

5.1 Mitigation Capabilities

Each type of stakeholder provides a set of capabilities, in some cases broad and in some cases narrow, by which they can increase the planning area's resiliency.

County and Municipal Governments

The broadest form of mitigation capabilities come from counties and municipal governments. Their inherent legal authority allows them to institute the greatest regulatory and developmental changes.

Institutional Capability

San Juan County is a whole community that can implement the strategies identified herein. In addition, it can promote the mitigation process and educate the public about the hazards prevalent to the area, as well as the mitigation process necessary to mitigate those hazards.

In an emergency, the County's and the participating jurisdictions' response are an extraordinary extension of responsibility and action, coupled with normal day-to-day activity. Normal governmental duties will be maintained, with emergency operations carried out by those agencies assigned specific emergency functions under the San Juan County Emergency Operations Plan, or EOP.

Political Capability

During the process of developing this plan update, opposition to mitigation measures was not evident in San Juan County or with the participating plan stakeholders. The primary limiting factor is funding, which is made more difficult by the current situation in the local, state, and national economy.

The County, cities/town, and their partnerships with the participating agencies are well-organized and responsive to community needs. Leadership is informed and remains up to date on the hazards that threaten the area. Citizens who did participate in the public meetings and presentations showed an interest in doing things to promote a safer community. Therefore, the County and participating jurisdictions (the governing board, staff, and citizen population) appear willing to promote the economic efficiency and social utility of the mitigation measures contained in this plan, if appropriate funding can be identified.

Technical Capability

San Juan County and the participating stakeholders have the basic technology needed to mitigate and respond to natural disasters. They are equipped with phone and fax lines and a functional Emergency Operations Center (EOC) in case of disaster. Many key persons are equipped with cellular phones, which can act as a backup to landlines in case service is lost. The County is connected to the internet, which is a valuable source of information on approaching hazards and mitigation measures. The County sponsors a website (https://www.sjcounty.net/home) where there is a link to the San Juan County Office of Emergency Management. The County provides GIS mapping, and can provide GIS capabilities. GIS (mapping) services are available and as it changes.

Fiscal Capability

The stakeholders of this mitigation plan update are not unique in the issues felt by small governments to retain the staff and resources necessary to accomplish the strategies necessary to mitigate local hazards. However, they are aware of potential diverse funding sources available to communities for assisting in the fiscal needs required to implement local hazard mitigation plans, including both government and private programs.

While federal and state programs carry out the bulk of disaster relief programs that provide funds for mitigation, local governments can search for alternative funding sources to supplement the local hazard mitigation budget. The participants in the mitigation planning process are aware that before effective mitigation strategies can be applied, stable funding sources and effective incentives must be established on a per project basis to encourage participation by the private and public sectors.

5.1.1 – Authorities & Regulations

General Authority

New Mexico State law provides the legal authority for local governments to implement regulatory measures. The basis for much of this authority is the local government power designed to protect public health, safety, and welfare. This authority enables local government to enact and enforce ordinances, and to define and abate nuisances. Hazard mitigation is a form of protecting public health, safety, and welfare, and falls under the general regulatory powers of local government. This also extends to building codes and inspections, land use, acquisition, and floodplain development regulation.

Building Codes and Inspections

Building codes and inspections provide local governments with the means to maintain county structures that are resilient to natural hazards. San Juan County and three participating jurisdictions (the City of Aztec, the City of Bloomfield, and the Town of Kirtland), have adopted the following building construction codes within the County. These codes were adopted and amended by the State of New Mexico Construction Industries Division (https://www.sjcounty.net/government/community-development/building-department):

Table 26: San Juan County Building Codes as of June 30, 2020

Building Codes in San Juan County	
2015 NM Commercial & Residential Building Code	2015 Uniform Plumbing Code
2015 International Residential Code	2015 International Fire Code
2015 International Building Code	2017 National Electrical Code
2015 International Existing Building Code	2017 NM Electrical Code
2009 NM Energy Conservation Code	2012 Uniform Solar Energy Code
ICC/ANSI A117.1-2009 Accessible and Usable Buildings and Facilities	2012 Uniform Swimming Pool, Spa, and Hot Tub Code
2015 NM Plumbing and Mechanical Code	2017 NFPA 58
2015 Uniform Mechanical Code	2015 NFPA 54

These codes prescribe minimum standards for building construction, which ensures that new buildings and structures are built to standards that are seismically sound, fire resistant and developed within flood-

proofing measures. These codes also require appropriate hazard code updating and compliance when certain thresholds are met for remodel and renovation of existing buildings. These codes also authorize local governments to carry out building inspections to ensure local structures adhere to the minimum state building standards.

San Juan County (which includes the City of Aztec, City of Bloomfield, and the Town of Kirtland) have the primary role of enforcement of the International Building Code structural regulations. The San Juan County Building Department also take part in the inspection process for general public safety, construction, and building inspections. They enforce the appropriate codes both at the plan approval stage and the site inspection stage. San Juan County (which include the City of Aztec, City of Bloomfield, and the Town of Kirtland) are committed to the high standards of building provided through the respective codes and requires that the same codes and the same enforcement procedures apply during routine permitting procedures as well as following a disaster.

The City of Farmington Building Inspection Division of the Community Development Department provides service to Commercial and Residential Development; ensuring new structures and all modifications are constructed to currently adopted codes and ordinances (http://www.fmtn.org/887/Building-Inspection). The City of Farmington also participates with the State of New Mexico Construction Industries Division and local builders in code adoptions and educational activities.

The City of Farmington is primarily responsible for the implementation of the City's Comprehensive Plan, plus the administration of the city's building codes (building, electrical, plumbing, mechanical, etc.), the City's Unified Development Code, and other ordinances, plans, policies related to building and land use, when adopted by the City Council. Also, the City of Farmington regulates building codes for almost every residential building project a property owner undertakes within the city limits, and most projects that require a building permit. Commercial building requirements and how to submit a construction permit application for new commercial construction for the City of Farmington can be found online at http://www.fmtn.org/898/Commercial-Building-Requirements.

San Juan County and its participating jurisdictions (City of Aztec, City of Bloomfield, City of Farmington, and the Town of Kirtland) will receive a copy of the San Juan County Multi-Hazard Mitigation Plan Update to use as a resource when updating plans and identifying new projects. Additionally, each jurisdictions Floodplain Manager, Public Works Director, Planning and Zoning Director, Fire/HazMat/Wildfire Department, and Office of Economic Development will continue to play an active role on the Mitigation Planning Team and provide guidance for their jurisdiction.

Land Use Planning

Through land use regulatory powers granted at the state level, local governments can control the location, density, type and timing of land use and development in the community. Provisions of the land use plans are implemented through regulatory tools that include zoning and subdivision ordinances, and taxation. All participating municipal governments have direct land use planning programs through ordinances, codes, and zoning policies.

Taxation

Taxation can be a powerful mitigation tool by providing local governments with a way to guide development. Tax abatements may be used to encourage landowners and developers to integrate mitigation measures into the process of building new developments and retrofitting existing properties in the floodplain. These tools can be especially effective in encouraging the mitigation of existing structures.

5.1.2 – Floodplain Programs

San Juan County and the Cities of Aztec, Bloomfield and Farmington are participants in the National Flood Insurance Program (NFIP). Floodplain management for the Town of Kirtland is covered under San Juan County. San Juan County and the City of Farmington are members of the Community Rating System (CRS) program. The table on the following page contains a list of each community and their NFIP or CRS status.

Floodplain management is the operation of a community program of measures for reducing flood damage. These measures take a variety of forms; and generally, include zoning, subdivision, or building requirements, and special-purpose floodplain ordinances. Each participating jurisdiction has NFIP-approved, codified floodplain development regulations in place.

Each NFIP participating community's floodplain program is administered by the communities Floodplain Administrator/Floodplain Manager. Floodplain Administrators/Managers utilize, by adoption, federally created flood hazard maps to administer their programs. NFIP Flood Insurance Rate Maps (FIRMs) allow communities to determine if development is within an identified hazard area and to apply appropriate mitigation measures through permit requirements.

In San Juan County, the Cities of Aztec, Bloomfield and Farmington, and the town of Kirtland, development in a floodplain is regulated. Regulation is enforced through the building permit application process. When an individual or business applies for a construction permit, its location within or outside of an identified floodplain is noted and reviewed by the respective communities Floodplain Administrator/Manager. This process meets the minimum federal regulations set forth by the NFIP.

The established floodplain management measures have proven to be successful in regulating current (with the exception of pre-regulation construction that is addressed later in Section 5) and future construction within the planning area's identified floodplains. Thus, San Juan County's NFIP Floodplain Administrator/Manager does not have plans to enhance or expand their current floodplain development regulations; rather they will maintain the rigorous standards that have been established to mitigate the impact of future growth within the planning area's identified floodplains. They will accomplish this through the continued enforcement of the regulations and permitting process described above.

Table 27: NFIP & CRS Community Status

NFIP & CRS Community Status						
FEMA Community Status Book Report, New Mexico – Communities Participating in the National Flood Program (06/05/2020)						
Jurisdiction	**CID**	**CRS Rating**	**Initial FHBM Identified**	**Initial Firm Identified**	**Current Effective Map Date**	**Registration/ Entry Date**
San Juan County	350064#	8	10/08/76	08/04/88	08/05/10	11/21/03
City of Aztec	350065#	N/A	02/08/74	07/15/88	08/05/10	07/15/88
City of Bloomfield	350066#	N/A	05/17/74	08/08/78	08/05/10	08/08/78
City of Farmington	350067#	8	05/24/74	09/29/78	08/05/10	09/29/78

***Note**: Floodplain management including the Community Rating System Status of the Town of Kirtland is covered under San Juan County.*

5.2 – Mitigation Goals

Goals for San Juan County and its participating jurisdictions were established based upon results from the local and state risk assessments, stakeholder meetings, and input from non-planning team local jurisdiction and state officials. These goals represent San Juan County and its participating jurisdictions' long-term vision for the continued reduction of hazard risks and the enhancement of mitigation capabilities.

Goal 1: Reduce the risk from natural hazard events utilizing community cooperation and an all-hazards approach.

Goal 2: Pursue additional, complete, and accurate data in support of mitigation planning, disaster preparedness, disaster response, and disaster recovery operations.

Goal 3: Integrate the pre-disaster mitigation plan's findings into the planning, and decision- making processes for all current and future emergency management and preparedness related activities.

Goal 4: Minimize the risk to property from droughts.

Goal 5: Minimize the risk to life and property from hazardous materials.

Goal 6: Minimize the risk to life and property from flooding.

Goal 7: Minimize the risk to life and property from wildfire.

5.3 – Mitigation Projects

To support the planning area's mitigation goals, the San Juan County MPC identified a comprehensive range of 81 possible and unique mitigation projects and activities. The selected set carefully takes an all-hazards approach to mitigation while simultaneously addressing each of the plan's profiled hazards.

The updated plan's list of projects and actions were selected based upon their potential to reduce the risk to life and property with an emphasis on new and existing infrastructure, ease of implementation, community and agency support, consistency with local jurisdictions' plans and capabilities, available funding, vulnerability, and total risk. The updated plan does include "carryover" projects (listed below) from San Juan County's previous mitigation plan, as they are still relevant, in progress, or ongoing. As stated in the previous plan update (2013), local governments can progress toward this goal through coordinated planning and financing to achieve the specific objectives outlined in their hazard mitigation plans. To this end, the Mitigation Planning Team's (MPT) strategy has been to develop several methods for mitigating the hazards identified in Section 4: Hazard Identification/Risk Analysis. The MPT has developed goals and objectives and has suggested action items, even carry-over projects from the 2013 plan updated) that can provide directions and methods for mitigating these hazards. The MPT met to discuss goals and objectives, and feedback from local officials and communities stress a lack of resources and need to work within San Juan County's limited capabilities.

***Note**: Since the last plan update, the Town of Kirtland became incorporated in January 2015, as a new jurisdiction in San Juan County. With this new addition, the Town of Kirtland will include mitigation projects and strategies (Mitigation Table 35: Mitigation Action Project Prioritization, Town of Kirtland) in this plan update.*

San Juan County has completed two mitigation projects since the last plan was approved. The following table provides an update on those completed mitigation projects.

Table 28: Mitigation Projects, San Juan County (Completed since adoption of last MJNHMP Update, 2013)

Project Name	Project Description	Hazard(s) Addressed	Responsible Party (ies)	Structural Emphasis	Cost Estimate	Potential Funding Source	Status	Project Update
Porter Arroyo Detention Pond	Reduce the risk of flooding in arroyos with documented historical damage, with the construction of a detention pond. The Porter Arroyo Detention Facility Project has been planned/designed since 2004.	Flooding	City of Farmington Community Works Department	Existing	$1,679,450	National Preparedness Grant Program, Pre-Disaster Mitigation Grant Program, Other Local Funding Source	Completed	Project was constructed in 2015.

Table 28: Mitigation Projects, San Juan County (Completed since adoption of last MJNHMP Update, 2013)

Project Name	Project Description	Hazard(s) Addressed	Responsible Party (ies)	Structural Emphasis	Cost Estimate	Potential Funding Source	Status	Project Update
Carl Arroyo Detention Pond (Lakewood Detention Pond)	Reduce the risk of flooding in arroyos with documented historical damage, with the construction of a retention pond. The Lakewood Detention Pond will capture the flows from the west spur of the Carl Arroyo. This portion of the arroyo by Tuscany Estates runs uncontrolled to the small pond on Hawkeye Street, through San Juan Country Club development paralleling Hawkeye Street, through Pueblo de Farmington and Green Acres Subdivision, under Main Street between Mickey Drive and County Club flowing open channel to the Animas River.	Flooding	City of Farmington Community Works Department	Existing	$1,050,000	National Preparedness Grant Program, Pre-Disaster Mitigation Grant Program, Other Local Funding Source	Completed	Project was constructed in 2014.
Water Treatment Plant Emergency Generator	Install a 400 KW emergency generator to the Bloomfield Water Treatment Plant.	Flooding; Drought	City of Bloomfield	Existing	$179,640	Homeland Security Grant Program, National Preparedness Grant Program, Pre-Disaster Mitigation Grant Program, Other Local Funding Source	Completed	Project was constructed in April 22, 2020.

For further information on evaluation criteria, please see Section 5.4. The full list of mitigation projects, their descriptions, and prioritization per jurisdiction and stakeholder can be found in Appendix E.

The table on the following page summarizes the hazards addressed by each mitigation project and activity, and the corresponding participating jurisdictions suggested to undertake the project or activity.

Table 29: Mitigation & Projects Summary

Mitigation & Projects Summary		
Mitigation Project or Activity	**Hazard(s) Addressed**	**Jurisdiction(s)**
Wildfire Mitigation	Wildfire	City of Farmington
SJC Flood Damage Prevention Program	Flooding	San Juan County
Hood Arroyo Detention Pond, Upgrade Crossing	Flooding	City of Farmington
Navajo Street Crossing at Glade Arroyo	Flooding	City of Farmington
Streambed protection at Pinon Hills Crossing of the La Plata River	Flooding	City of Farmington
Install storm sewer system in old downtown Farmington area	Flooding	City of Farmington
Incorporate all future comprehensive planning for Farmington with the San Juan County Mitigation	Flooding	City of Farmington
Keep all waterways clear of debris and unwanted vegetation	Flooding	City of Farmington
Conversion Rebate Program	Flooding	City of Farmington
Public Education	Drought; Flooding	City of Farmington
Promoting Rainwater Harvesting Systems	Drought; Flooding	City of Farmington
Continue regular wildland urban interface (WUI) fire training for firefighters	Wildfire	City of Farmington
Continue thinning projects to reduce the severity of a wildland fire throughout the City	Wildfire	City of Farmington
Implement a maintenance program to maintain previous thinned areas. The program may include fire training on fuel removal techniques, prescribed burning, and a yearly chemical application to prevent excess growth	Wildfire	City of Farmington
Code enforcement on private property to reduce hazardous fuels	Wildfire	City of Farmington
Implement a Firewise™ community program with information concerning the necessity for clearing fuel from public/private lands and with instructions for creating defensible space around all structures	Wildfire	City of Farmington

Table 29: Mitigation & Projects Summary (Cont'd)

Mitigation & Projects Summary		
Mitigation Project or Activity	**Hazard(s) Addressed**	**Jurisdiction(s)**
Install a local Emergency Warning System	Flooding	City of Bloomfield
Establish a current floodplain map for Bloomfield	Flooding	City of Bloomfield
Seek updated floodplain maps for Bloomfield	Flooding	City of Bloomfield
Restrict future growth into city floodplains	Flooding	City of Bloomfield
Enact legislation establishing the need for maintaining clear waterways and fix responsibility for this maintenance	Flooding	City of Bloomfield
Identify waterways that require clearing and ensure that this maintenance is accomplished	Flooding	City of Bloomfield
Identify and stabilize public waterway banks that are being eroded	Flooding	City of Bloomfield
Create an incentive program for the conversion of older toilets and showerheads to low flow	Drought	City of Bloomfield
Create a public education program concerning the use of drought resistant landscaping	Drought	City of Bloomfield
Enact legislation for the mandatory installation of gray water recovery systems in new construction	Drought	City of Bloomfield
Complete application for National Flood Insurance Program (NFIP) Community Rating System (CRS)	Flooding	City of Aztec
Conduct public informational sessions on Flood Hazard risks in the community and initiate meetings with individual landowners whose properties fall within the floodplain	Flooding	City of Aztec
Design Flood Hazard Mitigation website for the City to provide existing and future residents and business owners with easy access to vital information, data and maps, and forms on Flood Hazard Mitigation regulations and activities	Flooding	City of Aztec
Develop regulations governing the maintenance of waterways within the City	Flooding	City of Aztec
Complete cleanup and mitigation activities on properties bordering waterways, particularly underneath or near bridges experiencing high overgrowth and accumulation of debris against pylons and supports	Flooding	City of Aztec
Conduct regular inspections of private properties traversed by waterways to identify obstruction or overgrowth hazards	Flooding	City of Aztec

Table 29: Mitigation & Projects Summary (Cont'd)

Mitigation & Projects Summary		
Mitigation Project or Activity	**Hazard(s) Addressed**	**Jurisdiction(s)**
Conduct inspections and complete an inventory of all existing culverts and bridges crossing waterways in Aztec; replace, repair, or remove culverts and bridges as necessary	Flooding	City of Aztec
Complete riverbank stabilization projects along the Animas River in areas experiencing erosion and severe stream change that has the potential to impact structures and public facilities	Flooding	City of Aztec
Repair existing gabions utilized for bank stabilization	Flooding	City of Aztec
Floodplain – Utility Bill Outreach Brochure	Flooding	City of Aztec
Conduct inspection of private properties to identify and inventory existing conditions in the floodplain; continue annual inspections to prevent illegal fill activities, enforcing Flood Hazard Mitigation Regulations and subsequent violations as required	Flooding	City of Aztec
Inspect, inventory and mitigate floodplain fill/obstructions	Flooding	City of Aztec
Secure funding for the replacement of failing water storage tank	Drought	City of Aztec
Construct a new water storage tank	Drought	City of Aztec
Provide rebates for the conversion of existing home toilets and showerheads to low flow systems as well as renovations that include the installation of gray water recovery systems	Drought	City of Aztec
Implement regulations restricting the amount of non-drought resistant landscaping materials that can be planted/installed in new commercial construction within the City	Drought	City of Aztec
Provide public education concerning water-wise programs and drought-tolerant vegetation	Drought	City of Aztec
Identify areas of the river bottom in the public domain and create priorities and thinning projects to reduce the potential for wild land fire throughout the County	Wildfire	City of Aztec; City of Bloomfield; City of Farmington
Clear the public property identified as the "Swire-Townsend" land preserve and complete invasive species mitigation to ensure fire loading does not continue to pose a threat in this area of the City	Wildfire	City of Aztec; City of Bloomfield; City of Farmington

Table 29: Mitigation & Projects Summary (Cont'd)

Mitigation & Projects Summary		
Mitigation Project or Activity	**Hazard(s) Addressed**	**Jurisdiction(s)**
Provide private landowners in the river bottom area with information concerning the necessity for clearing potential fuel from their land and instructions for creating defensible space around all structures	Wildfire	San Juan County; City of Aztec; City of Bloomfield; City of Farmington
Finalize funding and contract agreements for Phase 1B; identify the amount and types of hazardous material(s) presently moving through the City	Hazardous Materials	City of Aztec
Complete construction of Phase 1B	Hazardous Materials	City of Aztec
Secure funding for the design and construction of Phase 2	Hazardous Materials	City of Aztec
Mandate regulations preventing the transportation of hazardous materials through downtown Aztec, requiring all HAZMAT transports to utilize the East Aztec Arterial route, once construction is complete	Hazardous Materials	City of Aztec
Educate the public about actions to take during a HAZMAT incident	Hazardous Materials	City of Aztec
Create internal policy and procedure to ensure all proposed development, structural and non-structural, have floodplain determinations prior to approval of development	Flooding	San Juan County
Partner with local utility agencies and other jurisdictions to ensure floodplain determinations are completed prior to development approval	Flooding	San Juan County
Partner with Federal and State agencies to ensure floodplain determinations are completed prior to development approval	Flooding	San Juan County
Identify flash flood hazard areas using past event and future development trends; using engineering consultation, develop new Special Flood Hazard Area (SFHA) boundaries or enhance existing NFIP flood hazard boundaries	Flooding	San Juan County
Enact legislation for San Juan County concerning the responsibility for keeping waterways clear of debris and vegetation that can magnify the effects of flooding	Flooding	San Juan County
Identify and plan for bank stabilization projects along waterways in the County	Flooding	San Juan County

Table 29: Mitigation & Projects Summary (Cont'd)

Mitigation & Projects Summary		
Mitigation Project or Activity	**Hazard(s) Addressed**	**Jurisdiction(s)**
Enact legislation regarding water use during drought conditions that raises the level of restriction as drought conditions become more severe	Drought	San Juan County
Establish a public education and awareness program to provide residents with information concerning drought and water conservation	Drought	San Juan County
Identify all unlined irrigation ditches within San Juan County and develop a plan to line them	Drought	San Juan County
Enact legislation concerning the mandatory use of low flow toilets and showerheads in all new construction within the unincorporated areas of the County	Drought	San Juan County
Provide rebates for the conversion of existing home toilets and showerheads to low flow systems, and the retrofitting of gray water recovery systems	Drought	San Juan County
Identify areas of the river bottom in the public domain and create priorities and thinning projects to reduce the potential for wildland fire throughout the County	Wildfire	San Juan County
Provide private landowners in the river bottom area with information concerning the necessity for clearing potential fuel from their land and instructions for creating defensible space around all structures	Wildfire	San Juan County
Identify the amount and types of hazardous material presently moving through the County	Hazardous Materials	San Juan County; New Mexico State Highway Department
Determine the most critical locations where hazardous material transport accidents have been occurring within San Juan County	Hazardous Materials	San Juan County
Develop a bypass route that will eliminate the transport of hazardous material through the most heavily populated areas of the County	Hazardous Materials	San Juan County
Educate the public about actions to take during a HAZMAT incident	Hazardous Materials	San Juan County
Improve the emergency communications system in order to provide a reverse 911 alert system for the county and its jurisdictions	Hazardous Materials	San Juan County

Table 29: Mitigation & Projects Summary (Cont'd)

Mitigation & Projects Summary		
Mitigation Project or Activity	**Hazard(s) Addressed**	**Jurisdiction(s)**
Second Source Upgrades	Drought; Hazardous Materials	City of Bloomfield
Water Supply Protection	Drought; Flooding	Town of Kirtland
Roadway Flooding	Flooding	Town of Kirtland
Wildfire Prevention	Wildfire	Town of Kirtland
Safe Pedestrian Highway Crossing	Hazardous Materials	Town of Kirtland
Establish a public education and awareness program to provide resident with information concerning drought and water conservation	Drought	Town of Kirtland
Wildfire Prevention and Planning	Wildfire	City of Farmington
Kirtland Youth Association Backup Generator	Drought; Flooding; Wildfire	Town of Kirtland
Scott Reservoir	Drought	City of Bloomfield
Nevada Street Detention Basin	Flooding	City of Bloomfield
Wash Flood Reduction Project	Flooding	City of Bloomfield

5.4 – Mitigation Project Evaluations & Prioritization

5.4.1 – STAPLE+E

San Juan County and its participating jurisdictions' primary hazard risks, and thus priorities are droughts, hazardous materials, flooding, and, wildfire. All priorities were assessed using STAPLE+E for this plan update to ensure that the projects reflect current priorities.

A composite evaluation matrix was used to prioritize San Juan County and its participating jurisdictions' mitigation projects and activities. The evaluation was conducted for each mitigation project and activity for each participating jurisdiction. The composite evaluation matrix is comprised of the three factors detailed below.

The first factor is the STAPLE+E evaluation which is best for measuring feasibility and ease of implementation. The tables in Section 5.4.1 provide the STAPLE+E evaluation criteria and the evaluation itself.

The second factor is the effectiveness of the mitigation project. How well does it mitigate the impact of a particular hazard? This is determined by its ability to protect citizens, property, and systems. For instance, wires installed to pin down trees and other objects will reduce their ability to become uprooted or take flight during hazards of high wind but are not as effective at reducing impacts from tornadoes or strong winds as are properly constructed and reinforced buildings. This factor is rated as: Low = 0.5, Medium = 1, and High = 1.5.

The third factor is a hazard risk-based evaluation. It draws on the hazard risk summary found in Section 4.3 of this plan. Each risk rating is assigned a value based on the assessment (None = 0, Low = 5, Medium = 10, and High = 15). A summary of these results is displayed in this section, while the full, per jurisdiction per hazard tables are located in Appendix E.

$$(HRT) = (HR_1 + HR_2 + HR_n)$$

The total evaluation score is based on the hazard risk total multiplied by the effectiveness factor, added to the STAPLE+E score.

Hazard Risk Total (HRT): The sum of values (low through high) of each hazard the project is designed to mitigate.

Mitigation Project Effectiveness (MPE): A multiplier based on the project's effectiveness to mitigate against a chosen hazard.

STAPLE+E Evaluation: A raw score comprised of positive and negative feasibility.

$$(Priority) = (STAPLE+E) + (MPE * HRT)$$

Upon completing the evaluations, a composite score is calculated and prioritized based on their total score (Low = 0 – 25, Medium = 26 – 50, High = > 50).

Table 30: STAPLE+E Criteria

STAPLE+E Criteria	
Evaluation Category	**Sources of Information**
Social	Mitigation actions are acceptable to the community if they do not adversely affect a particular segment of the population, do not cause relocation of lower income people, and if they are compatible with the communities' social and cultural values.
Technical	Mitigation actions are technically most effective if they provide long-term reduction of losses and have minimal secondary adverse impacts.
Administrative	Mitigation actions are easier to implement if the jurisdiction has the necessary staffing and funding.
Political	Mitigation actions can truly be successful if all stakeholders have been offered an opportunity to participate in the planning process and if there is public support for the action.
Legal	It is critical that the jurisdiction or implementing agency have the legal authority to implement and enforce a mitigation action.
Economic	Budget constraints can significantly deter the implementation of mitigation actions. Hence, it is important to evaluate whether an action is cost-effective, as determined by a cost-benefit review, and possible to fund.
Environmental	Sustainable mitigation actions that do not have an adverse effect on the environment, that comply with Federal, State, and local environmental regulations, and that are consistent with the community's environmental goals, have mitigation benefits while being environmentally sound.

Table 31: STAPLE+E Rankings

STAPLE+E Rankings																								
X = N/A - Even Impact	**X = N/A - Even Impact**											**X = N/A - Even Impact**												
STAPLE+E Criteria	**Social**		**Technical**			**Administrative**			**Political**			**Legal**			**Economic**				**Environmental**					**Total Impact**
Considerations	**Community Acceptance**	**Effect on Segment of Population**	**Technical Feasibility**	**Long-term Solution**	**Secondary Impacts**	**Staffing**	**Funding Allocated**	**Maintenance/ Operations**	**Political Support**	**Local Champion**	**Public Support**	**State Authority**	**Existing Local Authority**	**Potential Legal Challenge**	**Benefit of Action**	**Cost of Action**	**Contribute to Economic Goals**	**Outside Funding Required**	**Effect on Land/Water**	**Effect on Endangered Species**	**Effect on HAZMAT/ Waste Sites**	**Consistent w/ Community Goals**	**Consistent w/Federal Law**	
Wildfire Mitigation	+	-	+	+	x	-	+	+	+	x	+	x	+	+	+	-	x	+	+	-	-	x	+	**13**
SJC Flood Damage Prevention Program	+	+	+	+	x	+	+	+	+	x	x	x	+	-	+	-	x	-	-	-	-	x	+	**11**
Hood Arroyo Detention Pond, Upgrade Crossing	+	-	+	+	x	-	+	+	+	x	x	x	+	-	+	+	+	-	-	-	-	x	+	**11**
Navajo Street Crossing at Glade Arroyo	+	-	+	+	x	-	+	+	+	x	+	x	+	-	+	+	x	+	-	-	-	x	+	**12**
Streambed protection at Pinon Hills Crossing of the La Plata River	+	-	+	+	x	-	+	+	+	x	x	x	-	-	+	+	+	+	-	-	-	x	+	**11**
Install storm sewer system in old downtown Farmington area	+	-	+	+	x	-	+	+	+	x	x	x	+	-	+	+	x	+	-	-	-	x	+	**11**

Incorporate all future comprehensive planning for Farmington with the San Juan County Mitigation Project	+	-	+	+	x	-	+	+	+	x	+	x	+	-	+	-	x	+	-	-	-	x	+	**11**
Keep all waterways clear of debris and unwanted vegetation	+	-	+	+	x	-	+	+	+	x	+	x	+	-	+	-	x	+	-	-	-	x	+	**11**
Conversion Rebate Program	+	-	+	+	x	-	+	+	+	x	+	x	+	-	+	+	x	+	-	-	-	x	+	**12**
Public Education	+	-	+	+	x	-	+	+	+	x	+	x	+	-	+	-	x	+	-	-	-	x	+	**11**
Promoting Rainwater Harvesting Systems	+	-	+	+	x	-	+	+	+	x	+	x	+	-	-	-	x	+	+	-	-	x	+	**11**
Continue regular wildland urban interface (WUI) fire training for firefighters	+	-	+	+	x	-	+	+	+	x	x	x	+	-	+	-	x	x	-	-	-	x	+	**9**
Continue thinning projects to reduce the severity of a wildland fire throughout the City (Farmington)	+	-	+	+	x	-	+	+	+	x	-	x	+	+	+	-	x	x	-	-	-	x	+	**10**
Implement a maintenance program to maintain previous thinned areas. The program may include fire training on fuel removal techniques, prescribed burning, and a yearly chemical application to prevent excess growth	+	-	+	+	x	-	+	+	+	x	+	x	+	-	+	-	x	+	-	-	-	x	+	**11**

Code enforcement on private property to reduce hazardous fuels	+	-	+	-	x	-	+	+	+	x	+	x	+	+	+	-	x	-	-	-	+	x	+	**11**
Implement a Firewise™ community program with information concerning the necessity for clearing fuel from public/private lands and with instructions for creating defensible space around all structures	+	-	+	+	x	-	+	+	+	x	+	x	+	-	+	-	x	+	-	-	-	x	+	**11**
Install a local Emergency Warning System	+	-	+	+	x	-	+	+	+	x	+	x	+	+	+	-	x	+	-	-	-	x	+	**12**
Establish a current floodplain map for Bloomfield.	+	-	+	+	x	-	+	+	+	x	x	x	+	+	+	-	x	+	+	-	-	x	+	**12**
Seek updated floodplain maps for Bloomfield	+	-	+	+	x	-	+	+	+	x	x	x	+	-	+	_	x	-	+	-	-	x	+	**10**
Restrict future growth into city floodplains	+	-	+	+	x	-	+	+	+	x	+	x	+	+	+	-	x	+	+	-	-	-	+	**13**
Enact legislation establishing the need for maintaining clear waterways and fix responsibility for this maintenance	+	-	+	+	x	-	+	+	+	x	x	x	+	+	+	-	x	+	+	-	-	-	+	**12**
Identify waterways that require clearing and ensure that this maintenance is accomplished	+	-	+	+	x	-	+	+	+	x	x	x	+	+	+	-	x	x	+	-	-	x	+	**11**

Identify and stabilize public waterway banks that are being eroded	+	+	+	+	x	-	+	+	+	+	x	x	+	+	+	-	x	x	+	-	-	-	+	**13**
Create an incentive program for the conversion of older toilets and showerheads to low flow systems	+	-	+	-	x	-	+	+	+	x	+	x	+	-	+	-	x	x	+	-	-	x	+	**10**
Create a public education program concerning the use of drought resistant landscaping vegetation	+	-	+	-	x	-	+	+	+	x	+	x	+	+	+	-	x	-	+	-	-	x	+	**11**
Enact legislation for the mandatory installation of gray water recovery systems in new construction projects	+	+	+	+	x	-	-	+	+	x	-	x	+	+	+	-	x	x	+	-	-	x	+	**11**
Complete application for National Flood Insurance Program (NFIP) Community Rating System (CRS)	+	-	+	+	x	-	+	+	+	x	x	x	+	-	+	-	x	x	+	-	-	x	+	**10**
Conduct public informational sessions on Flood Hazard risks in the community and initiate meetings with individual landowners whose properties fall within the floodplain	+	+	+	+	x	-	+	+	+	x	+	x	+	+	+	-	x	x	+	-	-	-	+	**13**

Design Flood Hazard Mitigation website for the City to provide existing and future residents and business owners with easy access to vital information, data and maps, and forms on Flood Hazard Mitigation regulations and activities (Aztec)	+	+	+	-	x	-	+	+	+	x	+	x	+	+	+	-	x	x	+	-	-	-	+	**12**
Develop regulations governing the maintenance of waterways within the City (Aztec)	+	-	+	+	x	-	+	-	+	x	+	x	+	+	+	-	x	x	+	-	-	x	+	**11**
Complete cleanup and mitigation activities on properties bordering waterways, particularly underneath or near bridges experiencing high overgrowth and accumulation of debris against pylons and supports	+	-	+	+	x	-	+	+	+	x	-	x	+	+	+	-	x	x	-	-	-	-	+	**10**
Conduct regular inspections of private properties traversed by waterways to identify obstruction or overgrowth hazards	+	-	+	+	x	-	+	+	+	x	x	x	+	+	+	-	x	x	-	-	-	x	+	**10**

Conduct inspections and complete an inventory of all existing culverts and bridges crossing waterways in Aztec; replace, repair, or remove culverts and bridges as necessary (Aztec)	+	-	+	-	x	-	+	+	+	x	+	x	+	+	+	-	x	+	+	-		x	+	**12**
Complete riverbank stabilization projects along the Animas River in areas experiencing erosion and severe stream change that has the potential to impact structures and public facilities (Aztec)	+	+	+	+	x	-	+	+	+	x	x	x	+	+	+	-	x	x	+	-	-	x	+	**12**
Repair existing gabions utilized for bank stabilization (Aztec)	+	-	+	-	x	-	+	+	+	x	x	x	+	-	+	-	x	x	+	-	-	x	+	**9**
Conduct inspection of private properties to identify and inventory existing conditions in the floodplain; continue annual inspections to prevent illegal fill activities, enforcing Flood Hazard Mitigation Regulations and subsequent violations as required (Aztec)	+	-	+	-	x	-	+	+	+	x	x	x	+	-	+	-	x	x	+	-	-	x	+	**9**

Inspect, inventory, and mitigate floodplain fill/obstructions (Aztec)	+	-	+	-	x	-	+	+	+	x	+	x	+	-	+	-	x	x	+	-	-	x	+	**10**
Secure funding for the replacement of failing water storage tank (Aztec)	+	-	+	+	x	-	-	+	+	x	x	x	+	-	+	+	x	x	+	-	-	x	+	**10**
Construct a new water storage tank (Aztec)	+	-	+	+	x	-	+	+	+	x	+	x	+	+	+	-	x	+	+	-	-	-	+	**13**
Provide rebates for the conversion of existing home toilets and showerheads to low flow systems as well as renovations that include the installation of gray water recovery systems (Aztec)	+	-	+	-	x	-	+	+	+	x	x	x	+	+	+	-	x	-	+	-	-	x	+	**10**
Implement regulations restricting the amount of non-drought resistant landscaping materials that can be planted/installed in new commercial construction within the City of Aztec	+	-	+	-	x	-	+	+	+	x	x	x	+	-	+	-	x	x	+	-	-	x	+	**9**
Provide public education concerning water-wise programs and drought-tolerant vegetation (Aztec)	+	-	-	+	x	-	+	+	+	x	+	x	+	-	+	-	x	x	-	-	-	x	+	**9**

Identify areas of the river bottom in the public domain and create priorities and thinning projects to reduce the potential for wild land fire throughout the County	+	+	+	-	x	-	+	+	+	x	x	x	+	-	+	-	x	x	-	-	-	x	+	**9**
Clear the public property identified as the “Swire-Townsend” land preserve and complete invasive species mitigation to ensure fire loading does not continue to pose a threat in this area of the Cities of Aztec, Bloomfield and Farmington	+	+	+	-	x	-	+	+	+	x	x	x	+	-	+	-	x	-	-	+	-	X	+	**10**
Provide private landowners in the river bottom area with information concerning the necessity for clearing potential fuel from their land and instructions for creating defensible space around all structures	+	+	+	+	x	-	+	+	+	x	+	x	+	-	+	-	x	x	-	-	-	x	+	**11**

Finalize funding and contract agreements for Phase 1B; identify the amount and types of hazardous material presently moving through the City of Aztec	+	-	+	+	x	+	+	+	+	x	+	x	+	-	+	+	x	x	-	-	-	x	+	**12**
Complete construction of Phase 1B (Aztec)	+	-	+	+	x	-	+	+	+	x	+	x	+	+	+	+	x	x	-	-	-	x	+	**12**
Secure funding for the design and construction of Phase 2 (Aztec)	+	-	+	+	x	-	-	-	+	x	+	x	+	+	+	+	x	x	x	x	x	x	+	**10**
Mandate regulations preventing the transportation of hazardous materials through downtown Aztec, requiring all HAZMAT transports to utilize the East Aztec Arterial route, once construction is complete (Aztec)	+	-	-	+	x	-	+	+	+	x	+	x	+	+	-	-	x	x	-	-	-	x	+	**9**
Educate the public about actions to take during a HAZMAT incident (Aztec)	+	-	+	-	x	-	+	+	+	x	+	x	+	-	+	-	x	x	-	-	-	x	+	**9**

Create internal policy and procedure to ensure all proposed development, structural and non-structural, have floodplain determinations prior to approval of development	+	-	-	+	x	-	-	-	+	x	+	x	+	+	+	-	x	x	-	-	-	x	+	**8**
Partner with local utility agencies and other jurisdictions to ensure floodplain determinations are completed prior to development approval	+	-	+	-	x	-	-	-	+	x	+	x	+	+	+	-	x	x	+	-	-	x	+	**9**
Partner with Federal and State agencies to ensure floodplain determinations are completed prior to development approval	+	-	+	+	x	-	x	+	+	x	+	x	+	+	+	-	x	x	+	-	-	x	+	**11**
Identify flash flood hazard areas using past event and future development trends. Using engineering consultation, develop new Special Flood Hazard Area boundaries or enhance existing NFIP flood hazard boundaries	+	-	+	+	x	-	+	-	+	x	+	x	+	+	+	-	x	x	+	-	-	x	+	**11**

Enact legislation for San Juan County concerning the responsibility for keeping waterways clear of debris and vegetation that can magnify the effects of flooding	+	-	+	-	x	-	+	+	+	x	+	x	+	+	+	-	x	x	+	-	-	x	+	**11**
Identify and plan for bank stabilization projects along waterways in the County	+	-	+	+	x	-	-	-	+	x	+	x	+	+	+	-	x	x	+	-	-	x	+	**10**
Enact legislation regarding water use during drought conditions that raises the level of restriction as drought conditions become more severe	+	-	+	+	x	-	x	-	+	x	x	x	+	+	+	-	x	x	+	-	-	x	+	**9**
Establish a public education and awareness program to provide residents with information concerning drought and water conservation	+	-	-	-	x	-	+	+	+	x	+	x	+	-	+	-	x	x	+	-	-	x	+	**9**
Identify all unlined irrigation ditches within San Juan County and develop a plan to line them	+	-	+	-	x	-	+	+	+	x	+	x	+	-	+	-	x	x	+	-	-	x	+	**10**

Enact legislation concerning the mandatory use of low flow toilets and showerheads in all new construction within the unincorporated areas of the County	+	-	+	+	x	-	+	-	+	x	+	x	+	+	+	-	x	x	+	-	-	x	+	**11**
Enact legislation concerning the mandatory use of gray water recovery systems in all new construction within the unincorporated areas of the County	+	-	+	-	x	-	-	-	+	x	+	x	+	-	+	-	x	x	+	-	-	x	+	**8**
Provide rebates for the conversion of existing home toilets and showerheads to low flow systems and the retrofitting of gray water recovery systems	+	-	+	-	x	-	+	+	+	x	+	x	+	-	+	-	x	x	+	-	-	x	+	**10**
Identify areas of the river bottom in the public domain and create priorities and thinning projects to reduce the potential for wild land fire throughout the County	+	-	+	+	x	-	+	+	+	x	+	x	+	-	+	-	x	x	+	-	-	x	+	**11**

Provide private landowners in the river bottom area with information concerning the necessity for clearing potential fuel from their land and instructions for creating defensible space around all structures	+	-	+	-	x	-	+	+	+	x	+	x	+	-	+	-	x	+	+	-	-	x	+	**11**
Identify the amount and types of hazardous material presently moving through the County	+	-	+	-	x	-	+	+	+	x	x	x	+	-	+	-	x	x	-	-	-	x	+	**8**
Determine the most critical locations where hazardous material(s) transport accidents have been occurring within San Juan County	+	+	+	-	x	-	+	+	+	x	x	x	+	-	+	-	x	x	-	-	+	x	+	**10**
Develop a bypass route that will eliminate the transport of hazardous material through the most heavily populated areas of the County	+	-	+	+	x	+	x	+	+	x	x	x	+	+	+	-	x	x	-	-	+	x	+	**11**
Educate the public about actions to take during a HAZMAT incident	+	-	+	-	x	-	+	+	+	x	+	x	+	-	+	-	x	x	-	-	+	x	+	**10**

Improve the emergency communications system in order to provide a reverse 911 alert system for the county and its jurisdictions	+	-	+	+	x	-	+	+	+	x	+	x	+	-	+	-	x	x	-	-	-	x	+	**10**
Second Source Upgrades (Bloomfield)	+	-	+	+	x	-	+	+	+	x	x	x	+	-	+	-	x	x	-	-	-	x	+	**9**
Water Supply Protection (Kirtland)	+	-	+	+	x	-	+	+	+	x	x	x	+	-	+	+	x	x	-	-	-	x	+	**10**
Roadway Flooding (Kirtland)	+	-	+	+	x	-	+	+	+	x	+	x	+	-	+	+	x	x	-	-	-	x	+	**11**
Wildfire Prevention (Kirtland)	+	+	+	+	x	-	x	+	+	x	x	x	+	+	+	-	x	x	-	-	-	x	+	**10**
Safe Pedestrian Highway Crossing (Kirtland)	+	-	+	+	x	-	+	+	+	x	+	x	+	-	+	+	x	x	-	-	-	x	+	**11**
Wildfire Prevention and Planning (Farmington)	+	-	+	-	x	-	+	+	+	x	+	x	+	-	-	-	x	x	-	-	-	x	+	**8**
Kirtland Youth Association Backup Generator	+	-	+	+	x	-	+	+	+	x	+	x	+	-	-	+	x	x	-	-	-	x	+	**10**
Scott Reservoir (Bloomfield)	+	-	+	+	x	-	+	+	+	x	+	x	+	-	+	-	x	x	-	-	-	x	+	**10**
Nevada Street Detention Basin (Bloomfield)	+	-	+	+	x	-	+	+	-	x	-	x	+	-	+	-	x	x	-	-	-	x	+	**8**
Wash Flood Reduction Project (Bloomfield)	+	-	+	x	x	-	+	+	+	x	x	x	+	+	+	+	+	x	x	x	+	x	+	**12**
Floodplain – Utility Bill Outreach Brochure	+	-	+	x	x	-	x	-	+	x	x	x	+	-	+	+	+	x	x	x	+	x	+	**9**

Town of Kirtland - Establish a public education and awareness program to provide residents with information concerning drought and water conservation	+	-	-	-	x	-	+	+	+	x	+	x	+	-	+	-	x	x	+	-	-	x	+	**9**

The following tables identify mitigation action items for San Juan County and each participating jurisdiction, along with the following information: Hazard Addressed, Responsible Party, Overall Priority (STAPLE+E), Goal(s) Addressed, Cost Estimate, Potential Funding Source, and Current Status.

Table 32: Mitigation Action Project Prioritization, San Juan County

Action Identification	Project Name	Project Description	Hazard(s) Addressed	Responsible Department(s)	Overall Priority (STAPLE+E)	Structural Emphasis	Cost Estimates	Potential Funding Source	Current Status
San Juan 1	Partner with Federal and State agencies to ensure floodplain determinations are completed prior to development approval	Identify flood hazard areas and establish flood hazard boundaries. Develop a list of areas based on past flooding events and future development risks. Contract engineering to take the identified risk areas and develop Special Flood Hazard Areas/ Floodplain Boundary Maps. Achievable results: The identification and regulation of high-risk areas that may not have been identified by the NFIP in past mapping can reduce the risk of flood damage and danger to life in future development.	Flood	San Juan Office of Emergency Management/ Floodplain Management; San Juan Community Development	Medium (26)	Existing	Unknown	San Juan County	Carry over from 2014 plan

San Juan 2	Identify flash flood hazard areas using past event and future development trends. Using engineering consultation, develop new Special Flood Hazard Area boundaries or enhance existing NFIP Flood Hazard boundaries.	Identify flood hazard areas and establish flood hazard boundaries. Develop a list of areas based on past flooding events and future development risks. Contract engineering to take the identified risk areas and develop Special Flood Hazard Areas/ Floodplain Boundary Maps.	Flood	San Juan County Office of Emergency Management/ Floodplain Management; San Juan Community Development	Medium (26)	Existing	Unknown	San Juan County	Carry over from 2014 plan
San Juan 3	Enact legislation for San Juan County concerning the responsibility for keeping waterways clear of debris and vegetation that can magnify the effects of flooding.	Waterway cleaning legislation. The County Commission will enact legislation that establishes the need to keep San Juan County waterways clear of undesirable vegetation.	Flood	San Juan County Commission; San Juan County Attorney; San Juan County Floodplain Manager; San Juan County Volunteer Fire Department; U.S. Army Corp of Engineer	Medium (26)	Existing	Unknown	San Juan County	Carry over from 2014 plan

San Juan 4	Identify areas of the river bottom in the public domain and create priorities and thinning projects to reduce the potential for wild land fire throughout the County	Public land clearing program. All public lands along the banks of the Animas, La Plata, and San Juan Rivers will be inspected and cleared as necessary in order to reduce the potential fuel load existing in these areas. Clearing public lands along the rivers of excess fuel load will significantly reduce the potential for a major urban/wildland fire. In addition, if the local governments want private property owners to create defensible space on their properties by reducing fuel load, the County's demonstration of such actions may spur landowners to follow suit. Further benefits of such brush-clearing projects include increasing areas available for public activity along the river bottoms and reducing the amount of debris that could become water-borne during flooding.	Wildfire	County/City Emergency Managers; County/City Fire Departments; County/City Public Works; County/City Parks and Recreation	Medium (26)	Existing	Unknown	San Juan County; City of Aztec; City of Bloomfield; City of Farmington	Carry over from 2014 plan

San Juan 5	Provide private landowners in the river bottom area with information concerning the necessity for clearing potential fuel from their land and instructions for creating defensible space around all structures	Private property defensible space. All local jurisdictions will institute a public education program, such as Fire Wise™, concerning the need for defensible space around structures in the urban/wild land interface. This program will be carried out through public service announcements and directed mailings to property owners identified as having land within the urban/wildland interface. Introducing a Fire Wise™ program for property owners along the river bottoms will highlight the necessity for reducing the area's fuel load. There will be positive results throughout the entire area, even if only some of these landowners comply with the program. In addition to mitigating potential fire hazard, removing the excess fuel load will also reduce problems that occur during flooding. The accumulation of debris in culverts and similar areas	Wildfire	County/City Public Information Officers; County Emergency Manager	Medium (26)	Existing	Unknown	County/City Jurisdictions	Carry over from 2014 plan

		restricts water flow, creating backups and, in some cases, damage to structures and roadways. Removing this debris will decrease collateral damage that occurs during flooding events, as well as wildfire.							

San Juan 6	Develop a bypass route that will eliminate the transport of hazardous material through the most heavily populated areas of the County	San Juan County HAZMAT route. Based on the results of Actions 1 and 2, a long-term solution to the accidental release of hazardous material within the populated areas of San Juan County may indicate the construction of a bypass that will ensure that such traffic avoids the Aztec, Bloomfield, and Farmington areas. Such a route would ideally run southeast from U.S. 64 prior to reaching Farmington, and join U.S. 550 south of Bloomfield. In addition to the design and construction of such a route, legislation shall be enacted to mandate the use of this route by all HAZMAT carriers transferring San Juan County. The construction of a specific hazardous material route through San Juan County would reduce the risk of a HAZMAT incident affecting the most heavily populated areas of the county. Although it is	Hazardous Materials	San Juan County Engineer; San Juan County Sheriff's Department; Farmington Fire Department; New Mexico State Highway Department	Medium (26)	Existing	Unknown	San Juan County; New Mexico State Highway Department	Carry over from 2014 plan

		impossible to completely eliminate the risk of a HAZMAT event, this action would minimize the risk to the residents of the county as much as possible. Constructing an alternate hazardous material transportation route is the only way to ensure that accidents involving large amounts of hazardous material affect the minimum number of residents in San Juan County. An alternate route will never completely eliminate the possibility of a hazardous material release in a populated area of the county; however, it will minimize such exposure.							

San Juan 7	Identify and plan for bank stabilization projects along waterways in the County	Bank stabilization projects. The banks of arroyos, rivers, and other waterways in San Juan County will be inspected for erosion. Once an inventory of these areas has been made, a priority list will be created for the stabilization of problem banks based on the potential to cause damage due to further erosion.	Flood	San Juan County Floodplain Manager; San Juan County Public Works Department; U.S. Army Corp of Engineers	Low (25)	Existing	Unknown	San Juan County; New Mexico Highway Department; U.S. Army Corp of Engineers	Carry over from 2014 plan

San Juan 8	Identify all unlined irrigation ditches within San Juan County and develop a plan to line them	San Juan County irrigation ditch inventory and lining program. Establish the number of unlined irrigation ditches that exist in San Juan County and the amount of use they receive. A priority schedule for lining the irrigation ditches will be established based on their amount of use. Lining irrigation ditches will reduce the amount of water that is wasted prior to its intended arrival at agricultural locations. Presently most irrigation ditches in San Juan County are unlined dirt canals. As a result, there is a significant loss of water caused by absorption and evaporation. If these ditches were lined, the loss of water due to absorption could be avoided, but evaporation would continue to be an issue. If these ditches were completely enclosed, the loss of water from absorption and evaporation would be eliminated.	Drought	San Juan County Extension Agent; San Juan County Public Works Department; San Juan County Commission	Low (25)	Existing	Unknown	San Juan County; Irrigation Districts	Carry over from 2014 plan

San Juan 9	Provide rebates for the conversion of existing home toilets and showerheads to low flow systems and the retrofitting of gray water recovery systems	Conversion Rebate Program. The County will institute a rebate program designed to provide county residents with an incentive to replace older toilets and showerheads with low flow units. An additional incentive program will be developed concerning the installation of gray water recovery systems. These programs will further the conservation efforts in water usage and help sustain growth for the county. The estimated savings of 90,000,000 gallons of water annually, based on requiring the use of gray water recovery systems in newly-constructed residences, will be further enhanced by encouraging owners of older homes to convert to low flow toilets, showerheads, and gray water recovery systems. The result of this savings will extend the amount of economic development and	Drought	San Juan County Commission; San Juan County Attorney; San Juan County Planning Office	Low (25)	Existing	Unknown	San Juan County	Carry over from 2014 plan

		growth that can take place in the County.							

San Juan 10	Improve the emergency communications system in order to provide a “reverse 911” alert system for the County and its jurisdictions	“Reverse 911” system. Funding will be sought in order to purchase an emergency notification system for use within San Juan County and its included jurisdictions in order to provide rapid warning of HAZMAT incidents and provide instructions as to what actions residents should take for their safety. The installation of such system will provide rapid dissemination of information to San Juan County residents during a HAZMAT event. The ability to communicate emergency information in this manner will reduce the actual number of response personnel required to perform this function. During a hazardous material release incident, rapidly evacuating a populated area may be necessary to save lives and prevent injury. Using a “reverse 911” system can provide rapid dissemination	Hazardous Materials	San Juan County Emergency Manager; San Juan County Sheriff's Department	Low (25)	Existing	Unknown	San Juan County; U.S. Department of Justice	Carry over from 2014 plan

		of safety information to those living in the affected area. This type of system can also be used during other emergency response situations where rapid dissemination of information will assist the area's law enforcement efforts.							

San Juan 11	Enact legislation regarding water use during drought conditions that raises the level of restriction as drought conditions become more severe.	Drought usage restrictions. The County Commission will draft a water use restriction program based on a sliding scale with increasingly restrictive measures based on the severity of existing drought conditions. By enacting a sliding scale of water restrictions based on the severity of a drought, the available water will be used in a more efficient manner. It is understood that sustaining human life is of primary importance during drought conditions. Therefore, the loss of ornamental landscaping becomes acceptable in order to meet the basic water needs of San Juan County residents. Presently there are no formal water restrictions in place in the county. Therefore, residents can use water any way they want. By enacting water restrictions, the use of the water that is available can be regulated. Legislation of this	Drought	San Juan County Commission	Low (24)	Existing	Unknown	San Juan County	Carry over from 2014 plan

		type has been instituted in many areas of New Mexico to reduce the stress on available water resources that occurs during drought conditions.							

San Juan 12	Establish a public education and awareness program to provide residents with information concerning drought and water conservation	Public education and law awareness program. The County will provide information to the media for release to the public concerning the state of drought conditions and the level of water restrictions in force at any given time. In addition, information concerning water conservation will be provided to the public through the use of pamphlets, school age and adult education, and public meetings. The public will be better educated about the need for water use restrictions and the actions they can take in order to conserve water during drought conditions. This knowledge will assist in assuring voluntary compliance with the instituted water restrictions. A similar public education program has been instituted in Albuquerque, which lies on the Rio Grande River. As the largest community in New	Drought	San Juan County Commission; San Juan County Public Schools	Low (24)	Existing	Unknown	State of New Mexico's Engineers Office; San Juan County	Carry over from 2014 plan

		Mexico, there is a high demand on available water. The public education initiative in Albuquerque has resulted in a significant reduction in water usage in the service area of the municipal water system.							

San Juan 13	Enact legislation concerning the mandatory use of grey water recovery systems in all new construction within the unincorporated areas of the County	Required installation of gray water recovery systems. The County Commission will enact legislation requiring the installation of gray water recovery systems in all new construction within the unincorporated areas of the county. The mandatory use of gray water recovery systems will reduce the amount of water used on a daily basis. Initial benefits would be modest but would increase over the long term. Gray water is water that has been used for washing and is no longer considered to be potable, but it is not in the same category of wastewater as toilet water. A gray water recovery system captures the non-toilet water used and recycles it for use in irrigation. In 2003 the State of New Mexico enacted legislation that allows the use of gray water for irrigation use. Average household water usage is	Drought	San Juan County Commission; San Juan County Attorney's Office	Low (23)	Existing	Unknown	San Juan County	Carry over from 2014 plan

		approximately 186,363 gallons annually, including standard toilet use of approximately 12,000 gallons.							

San Juan 15	SJC Flood Damage Prevention Program	Control future development encroachment in identified Special Flood Hazard Areas within San Juan County Unincorporated. 1. Create internal policy and procedure to ensure all proposed development have floodplain determinations prior to approval of development 2. Partner with local utility agencies and other jurisdictions to ensure floodplain determinations are completed prior to development approval 3. Partner with Federal and State agencies to ensure floodplain determinations are completed prior to development.	Flood	San Juan County Emergency Management	Low (18.5)	New	Unknown	San Juan County	New Project for 2020 Plan Update

San Juan 16	Enact legislation concerning the mandatory use of low flow toilets and showerheads in all new construction within the unincorporated areas of the County	Required installation of low flow toilets and showerheads. The County Commission will enact legislation requiring the use of low flow toilets and showerheads in all new construction within the unincorporated areas of the County. The mandatory use of low flow toilets and showerheads will reduce the amount of water used on a daily basis. Initial benefits would be modest but would increase over the long term. Most toilets in use today use approximately 7 gallons of water per flush, while a low flow toilet uses less than 2 gallons per flush. The construction industry estimates that a low flow toilet saves approximately 10,000 gallons of water annually. Based on San Juan County's projected population increasing from a 2000 population of 113,801 to approximately 122,564 by 2010, there will be 8,763	Drought	San Juan County Commission; San Juan County Attorney's Office	Low (18.5)	Existing	Unknown	San Juan County	Carry over from 2014 plan

		more residents in the county. Based on an average family size of 4, this means that there could be approximately 2,190 new families in San Juan County. If each of these families resides in a home with one toilet, the estimated annual water use for toilets alone is 219,000,000 gallons.							

San Juan 17	Identify the amount and types of hazardous material presently moving through the County	San Juan County HAZMAT transport survey. Conduct a 30-day hazardous material transport survey within San Juan County. This survey will detail the number and types of hazardous material transports traversing San Juan County for one month. The survey will include the number and types of transports moving through the county, the roadway on which they were observed, and the identity of the hazardous material being carried.	Hazardous Materials	San Juan County Fire Department; San Juan County Emergency Managers	Low (18)	Existing	Unknown	San Juan County; State of New Mexico Highway Department	Carry over from 2014 plan

San Juan 18	Partner with local utility agencies and other jurisdictions to ensure floodplain determinations are completed prior to development approval	Partner with local utility agencies and other jurisdictions. Develop policies and procedures that coordinate utility service activation or placement of utility tanks and compliance with floodplain regulation. Achievable results: By creating a working relationship, including policy and procedure agreements, with local utility providers, early detection of development activity can prevent future flood related damage by increasing compliance with floodplain regulation.	Flood	Farmington Electric Utility; Aztec Electric Utility; San Juan County Water Users; New Mexico State LP&G Inspections	Low (16.5)	Existing	Unknown	San Juan County	Carry over from 2014 plan
San Juan 19	Create internal policy and procedure to ensure all proposed development, structural and non-structural, have floodplain determinations prior to approval of development	Internal policy and procedure. Development of policy and procedure requiring that prior to approval of development, including subdivisions, building permits and manufactured home placement permits, all areas will be checked for floodplain involvement and will	Flood	San Juan Cunty Assessors; San Juan County Community Development; San Juan County Floodplain Manager; San Juan County Treasurers	Low (15.5)	Existing	Unknown	San Juan County	Carry over from 2014 plan

		comply with SJC Ordinance No. 58.							
San Juan 20	Determine the most critical locations where hazardous material transport accidents have been occurring within San Juan County.	San Juan County HAZMAT response survey. Statistical data will be collected over a six-month period to examine the location of the most serious traffic accident locations in San Juan County with a concentration on identified HAZMAT routes within the county. In addition, the survey will document all accident is involving hazardous material transport and they type of material being carried. This survey will provide information concerning specific locations where the potential for a transportation-related HAZMAT event may take	Hazardous Materials	San Juan County Emergency Manager; Farmington Fire Department	Low (15)	Existing	Unknown	San Juan County	Carry over from 2014 plan

		place. An examination of this data may identify specific actions that can be taken to reduce the danger of future HAZMAT events. Knowing where hazardous material transportation accidents are most likely to occur will allow detailed analysis of the dynamics causing collisions. Such information may lead to appropriate redesign of the transportation route at those locations.							

Table 33: Mitigation Action Project Prioritization, City of Aztec

Action Identification	Project Name	Project Description	Hazard(s) Addressed	Responsible Department(s)	Overall Priority (STAPLE+E)	Structural Emphasis	Cost Estimates	Potential Funding Source	Current Status
Aztec 1	Construct a new water storage tank	Replace Water Storage Tank. Design and install new water storage tank. Installation of a new water tank will ensure the City will not be severely impacted by a drought event and will ensure the City can continue to provide treated water to its residents during a drought event.	Drought	City of Aztec Community Development Department	Medium (35.5)	Existing	Unknown	City of Aztec; State of New Mexico; FEMA	Carry over from 2014 plan
Aztec 2	Complete riverbank stabilization projects along the Animas River in areas experiencing erosion and severe stream change that has the potential to impact structures and public facilities	Riverbank Stabilization. Complete riverbank stabilization projects and repair existing stabilization infrastructure. Completion of riverbank stabilization projects will minimize risk of catastrophic riverine flooding.	Flood	City of Aztec Community Development Department; U.S. Army Corp of Engineers; FEMA	Medium (34.5)	Existing	Unknown	FEMA; City of Aztec	Carry over from 2014 plan
Aztec 3	Complete cleanup and mitigation activities on properties bordering waterways, particularly underneath or near bridges experiencing high overgrowth and accumulation of	Regulate, Inspect and Clear Waterways. Inspect waterways and inventory obstructions and hazards, addressing as required. Establish regulations emphasizing the need for maintaining	Flood	City of Aztec Community Development Department; U.S. Army Corp of Engineers; FEMA; Local Ditch Associations; Private and Public Landowners	Medium (32.5)	Existing	Unknown	FEMA; National Resource Conser. Service; Local Ditch Association; City of Aztec	Carry over from 2014 plan

	debris against pylons and supports	clear waterways in Aztec. These regulations will identify property owners as being responsible for maintaining clear waterways existing on their property and will further establish the authority to enforce the requirement for maintaining clear waterways and the penalties for noncompliance. Compiling an updated inventory of waterway impediments and existing conditions will allow the City of Aztec to effectively monitor and mitigate flood hazards. Flood							
Aztec 4	Conduct regular inspections of private properties traversed by waterways to identify obstruction or overgrowth hazards	Regulate, Inspect and Clear Waterways. Inspect waterways and inventory obstructions and hazards, addressing as required. Establish regulations emphasizing the need for maintaining clear waterways in Aztec. These regulations will identify property owners as being responsible for maintaining clear waterways existing	Flood	City of Aztec Community Development Department; U.S. Army Corp of Engineers; FEMA; Local Ditch Associations; Private and Public Landowners	Medium (32.5)	Existing	Unknown	FEMA; National Resource Conser. Service; Local Ditch Association; City of Aztec	Carry over from 2014 plan

		on their property and will further establish the authority to enforce the requirement for maintaining clear waterways and the penalties for noncompliance. Compiling an updated inventory of waterway impediments and existing conditions will allow the City of Aztec to effectively monitor and mitigate flood hazards.							
Aztec 5	Secure funding for the replacement of failing water storage tank.	Replace Water Storage Tank. Design and install new water storage tank. Installation of a new water tank will ensure the City will not be severely impacted by a drought event and will ensure the City can continue to provide treated water to its residents during a drought event	Drought	City of Aztec Community Development Department	Medium (32.5)	Existing	Unknown	City of Aztec; State of New Mexico; FEMA	Carry over from 2014 plan
Aztec 6	Provide rebates for the conversion of existing home toilets and showerheads to low flow systems as well as renovations that include the installation of gray water recovery systems	Conversion Rebate Programs. A rebate program will be developed to provide the City's residents with an incentive to replace older toilets and showerheads with low flow units. An additional incentive program	Drought	City of Aztec Community Development Department	Medium (32.5)	Existing	Unknown	City of Aztec; State of New Mexico; FEMA	Carry over from 2014 plan

		will be developed addressing the installation of gray water recovery systems. These programs will further the conservation efforts in water use and help ensure sustainable growth for the city. Based on average use of 10,000 gallons per toilet and 21,000 gallons per showerhead, each residence that converts to a low flow toilet and showerhead would save approximately 31,000 gallons of water annually.							
Aztec 7	Repair existing gabions utilized for bank stabilization	Riverbank Stabilization. Complete riverbank stabilization projects and repair existing stabilization infrastructure. Completion of riverbank stabilization projects will minimize risk of catastrophic riverine flooding.	Flood	City of Aztec Community Development Department; U.S. Army Corp of Engineers; FEMA	Medium (31.5)	Existing	Unknown	FEMA; City of Aztec	Carry over from 2014 plan

Aztec 8	Design Flood Hazard Mitigation website for the City to provide existing and future residents and business owners with easy access to vital information, data and maps, and forms on Flood Hazard Mitigation regulations and activities	Educating citizens about Flood Hazard Mitigation and Stormwater Management regulations will assist the City and its citizens in mitigating risks of exacerbating the impacts of a potential flood event and will also ensure that, should a flood event occur, citizens and business owners are prepared and can respond swiftly and effectively with minimal loss of life and property.	Flood	City of Aztec Community Development Department; Sam Juan County Office of Emergency Management; U.S. Army Corp of Engineers; FEMA; Aztec School District	Medium (27)	Existing	Unknown	City of Aztec	Carry over from 2014 plan
Aztec 9	Conduct inspections and complete an inventory of all existing culverts and bridges crossing waterways in Aztec; replace, repair or remove culverts and bridges as necessary	Regulate, Inspect and Clear Waterways. Inspect waterways and inventory obstructions and hazards, addressing as required. Establish regulations emphasizing the need for maintaining clear waterways in Aztec. These regulations will identify property owners as being responsible for maintaining clear waterways existing on their property and will further establish the authority to enforce the	Flood	City of Aztec Community Development Department; U.S. Army Corp of Engineers; FEMA; Local Ditch Associations; Private and Public Landowners	Medium (27)	Existing	Unknown	FEMA; National Resource Conser. Service; Local Ditch Association; City of Aztec	Carry over from 2014 plan

		requirement for maintaining clear waterways and the penalties for noncompliance. Compiling an updated inventory of waterway impediments and existing conditions will allow the City of Aztec to effectively monitor and mitigate flood hazards.							
Aztec 10	Finalize funding and contract agreements for Phase 1B. Identify the amount and types of hazardous material presently moving through the City	Aztec HAZMAT route. In addition to completing the design and construction of the East Aztec Arterial, regulations/legislation shall be enacted to mandate the use of this route by all HAZMAT carriers traversing Aztec. The construction of a specific hazardous material route for Aztec will reduce the risk of a HAZMAT incident affecting the city. Although it is impossible to completely eliminate the risk of a HAZMAT event, this action would minimize the risk to the residents of the city. Constructing an alternate hazardous material transportation route is the only way to	Hazardous Materials	City of Aztec Community Development Department; State of New Mexico	Medium (27)	Existing	Unknown	City of Aztec; State of New Mexico; Federal Highway Administration; FEMA	Carry over from 2014 plan

		ensure that accidents involving large amounts of hazardous material affect the minimum number of residents in Aztec.							
Aztec 11	Complete construction of Phase 1B.	Aztec HAZMAT route. In addition to completing the design and construction of the East Aztec Arterial, regulations/legislation shall be enacted to mandate the use of this route by all HAZMAT carriers traversing Aztec. The construction of a specific hazardous material route for Aztec will reduce the risk of a HAZMAT incident affecting the city. Although it is impossible to completely eliminate the risk of a HAZMAT event, this action would minimize the risk to the residents of the city. Constructing an alternate hazardous material transportation route is the only way to ensure that accidents involving large amounts of hazardous material	Hazardous Materials	City of Aztec Community Development Department; State of New Mexico	Medium (27)	Existing	Unknown	City of Aztec; State of New Mexico; Federal Highway Administration; FEMA	Carry over from 2014 plan

		affect the minimum number of residents in Aztec.							
Aztec 12	Develop regulations governing the maintenance of waterways within the City	Establish regulations emphasizing the need for maintaining clear waterways in Aztec. These regulations will identify property owners as being responsible for maintaining clear waterways existing on their property and will further establish the authority to enforce the requirement for maintaining clear waterways and the penalties for noncompliance. Compiling an updated inventory of waterway impediments and existing conditions will allow the City of Aztec to effectively monitor and mitigate flood hazards. By ensuring that all waterways, storm drainage systems, and culverts remain clear of debris and unwanted	Flood	City of Aztec Community Development Department; U.S. Army Corp of Engineers; FEMA; Local Ditch Associations; Private and Public Landowners	Medium (26)	Existing	Unknown	FEMA; National Resource Conser. Service; Local Ditch Association; City of Aztec	Carry over from 2014 plan

		vegetation, the city will ensure unrestricted flow of floodwaters and reduce the chance of flooding.							
Aztec 13	Complete application for National Flood Insurance Program (NFIP) Community Rating System (CRS)	Complete application for National Flood Insurance Program (NFIP) Community Rating System (CRS)	Flood	City of Aztec Community Development Department; San Juan County Office of Emergency Management; U.S. Army Corps of Engineers; FEMA	Low (25)	Existing	Unknown	City of Aztec	Carry over from 2014 plan
Aztec 14	Inspect, inventory and mitigate floodplain fill/obstructions	Completion of this inventory will allow the City of Aztec to effectively monitor and mitigate flood hazards.	Flood	City of Aztec Community Development Department; U.S. Army Corp of Engineers; FEMA; Local Ditch Associations; Private and Public Landowners	Low (25)	Existing	Unknown	City of Aztec	Carry over from 2014 plan
Aztec 15	Secure funding for the design and construction of Phase 2	Aztec HAZMAT route. In addition to completing the design and construction of the East Aztec Arterial, regulations/legislation shall be enacted to mandate the use of this route by all HAZMAT carriers traversing Aztec. The construction of a specific hazardous	Hazardous Materials	City of Aztec Community Development Department	Low (25)	Existing	Unknown	City of Aztec; State of New Mexico; Federal Highway Administration; FEMA	Carry over from 2014 plan

		material route for Aztec will reduce the risk of a HAZMAT incident affecting the city. Although it is impossible to completely eliminate the risk of a HAZMAT event, this action would minimize the risk to the residents of the city. Constructing an alternate hazardous material transportation route is the only way to ensure that accidents involving large amounts of hazardous material affect the minimum number of residents in Aztec.							
Aztec 16	Conduct inspection of private properties to identify and inventory existing conditions in the floodplain; continue annual inspections to prevent illegal fill activities, enforcing Flood Hazard Mitigation Regulations and subsequent violations as required	Riverbank Stabilization. Complete riverbank stabilization projects and repair existing stabilization infrastructure.	Flood	City of Aztec Community Development Department; U.S. Army Corp of Engineers; FEMA	Low (24)	Existing	Unknown	FEMA; City of Aztec	Carry over from 2014 plan

Aztec 17	Implement regulations restricting the amount of non-drought resistant landscaping materials that can be planted/installed in new commercial construction within the City	Commercial Landscape Regulations. Improve regulations addressing landscape requirements and restrictions for commercial development to limit the amount of non-drought resistant vegetation that can be used in new landscape projects based on a specific percentage of the overall area to be landscaped.	Drought	City of Aztec Community Development Department	Low (24)	Existing	Unknown	City of Aztec; Private Developers	Carry over from 2014 plan
Aztec 18	Provide public education concerning water-wise programs and drought-tolerant vegetation	Public Education Campaign. The City will increase education and outreach activities with its residents and businesses and provide information concerning wise water usage and recommendations concerning drought resistant vegetation for use in both residential and commercial landscapes. This program would provide a long-term change in attitude concerning the appropriate use of the City's limited water resources. Presently non-native vegetation with a	Drought	City of Aztec Community Development Department; San Juan County Extension Office; State of New Mexico	Low (24)	Existing	Unknown	City of Aztec; State of New Mexico	Carry over from 2014 plan

		high demand for water is typically used for landscaping in most areas of the southwest, including Aztec. The presence of an extended drought throughout the southwest has redirected thinking concerning landscaping with native plants that require less water. In addition, many other wasteful water use habits are being reevaluated.							
Aztec 19	Mandate regulations preventing the transportation of HAZMAT materials through downtown Aztec, requiring all HAZMAT transports to utilize the East Aztec Arterial route, once construction is complete	Aztec HAZMAT route. In addition to completing the design and construction of the East Aztec Arterial, regulations/legislation shall be enacted to mandate the use of this route by all HAZMAT carriers traversing Aztec. The construction of a specific hazardous material route for Aztec will reduce the risk of a HAZMAT incident affecting the city. Although it is impossible to completely eliminate the risk of a HAZMAT event, this action would minimize the risk to the residents of the	Hazardous Materials	City of Aztec Community Development Department; State of New Mexico	Low (24)	Existing	Unknown	City of Aztec; State of New Mexico; Federal Highway Administration; FEMA	Carry over from 2014 plan

		City. Constructing an alternate hazardous material transportation route is the only way to ensure that accidents involving large amounts of hazardous material affect the minimum number of residents in Aztec.							
Aztec 20	Conduct public informational sessions on Flood Hazard risks in the community and initiate meetings with individual landowners whose properties fall within the floodplain	Educating citizens about Flood Hazard Mitigation and Stormwater Management regulations will assist the City and its citizens in mitigating risks of exacerbating the impacts of a potential flood event and will also ensure that, should a flood event occur, citizens and business owners are prepared and can respond swiftly and effectively with minimal loss of life and property.	Flood	City of Aztec Community Development Department; San Juan County Office of Emergency Management; U.S. Army Corps of Engineers; FEMA	Low (20.5)	Existing	Unknown	City of Aztec	Carry over from 2014 plan
Aztec 21	Floodplain – Utility Bill Outreach Brochure	To provide education and outreach to local community on flood hazards and resources available by enclosing a informational brochure in the Aztec Electric Bill.	Flooding	City of Aztec Community Development Department	Low (16.5)	New	Staff Time and Resources	General Fund; Other Local Funding Source	New project for 2020 plan

Aztec 22	Educate the public about actions to take during a HAZMAT incident	Public education program. Public education meetings will be designed and conducted to provide Aztec's residents with information concerning the actions they should take prior to and during a HAZMAT event. This education will be in the form of pamphlets, public meetings, and exercises with vulnerable facilities	Hazardous Materials	City of Aztec Community Development Department; San Juan County Office of Emergency Management; Farmington Fire Department	Low (14)	Existing	Unknown	San Juan County; City of Aztec	Carry over 2014 plan

Table 34: Mitigation Action Project Prioritization, City of Bloomfield

Action Identification	Project Name	Project Description	Hazard(s) Addressed	Responsible Department(s)	Overall Priority (STAPLE+E)	Structural Emphasis	Cost Estimates	Potential Funding Source	Current Status
Bloomfield 1	Identify and stabilize public waterway banks that are being eroded	Identify and stabilize public waterway banks that are being eroded. Bank stabilization projects. The banks of arroyos, rivers and other waterways in Bloomfield will be inspected for erosion. Once an inventory has been made, a priority list will be created to stabilize problem banks based on their potential to cause further erosion damage. Stabilizing	Flood	Bloomfield Floodplain Manager; Bloomfield Public Works Department U.S. Army Corp of Engineers	Medium (35.5)	Existing	Unknown	City of Bloomfield; New Mexico Highway Department; U.S Army Corp of Engineers	Carry over from 2014 plan

		waterway banks can reduce or eliminate erosion danger during flooding. Such stabilization can prevent foundation undercutting, which is a major source of structural damage during floods. When flooding occurs, the power of the waters rushing through Bloomfield's waterways erodes banks and changes the waterway over time. The use of riprap and other bank stabilization techniques can reduce or even eliminate the changes caused during flooding.							
Bloomfield 2	Install a local Emergency Warning System	Seek funding for an all-hazards siren system that can be used to warn the general population of a potential danger in a short amount of time and to notify them that the emergency has passed. The installation of an all-hazard siren system will provide rapid dissemination of information to San Juan County residents during a flood event or	Flood	Bloomfield City Council	Medium (34.5)	Existing	Unknown	City of Bloomfield	Carry over from 2014 plan

		HAZMAT event. The ability to communicate emergency information in this manner will reduce the actual number of response personnel required to perform this function. During a hazardous material release incident, rapidly evacuating a populated area may be necessary to save lives and prevent injury. Using an all-hazard system can provide rapid dissemination of safety information to those living in the affected area. This type of system can also be used during other emergency response situations where rapid dissemination of information will assist the area's law enforcement efforts.							
Bloomfield 3	Wash Flood Reduction Project	Plan, design, acquire property, and construct an improved channel along Bloomfield Wash to contain the 100-year storm. Project will be designed in conjunction with the Nevada Street Detention	Flood	Bloomfield Floodplain Manager	Medium (34.5)	New	$20,000,000	Homeland Security Grant Program; National Preparedness Grant Program; Other Local Funding Source	New project for 2020 plan

		Basin. Project will also include a trail component.							
Bloomfield 4	Enact legislation establishing the need for maintaining clear waterways and fix responsibility for this maintenance	Clear waterways: Establish legislation establishing the need to maintain clear waterways in Bloomfield. This legislation should further establish who is responsible for this maintenance and the penalties for noncompliance. The enactment of a clear waterway policy will ensure that debris and undesirable vegetation is removed from the waterways. Clearing these obstructions will reduce the potential for flooding by allowing floodwaters to move easily through waterways without choke points, which create bank overflow. Unfortunately, many waterways that run through areas accessible by vehicle are used for	Flood	Bloomfield City Council; Bloomfield City Attorney; Bloomfield Floodplain Manager; Bloomfield Public Works Department; U.S. Army Corps of Engineers	Medium (34.5)	Existing	Unknown	City of Bloomfield	Carry over from 2014 plan

		debris disposal. Although such dumping of debris is illegal, it is difficult to enforce these laws when local law enforcement is already overextended in its normal role of criminal abatement. When such dumping occurs in waterways on public land, county public works assets can be utilized in its removal.							
Bloomfield 5	Seek updated floodplain maps for Bloomfield	Updating floodplain maps. A petition to FEMA requesting the updating of Bloomfield floodplain maps will be made. Enact legislation to restrict future growth into floodplains in Bloomfield. By updating Bloomfield's floodplain maps, a more comprehensive inventory can be established for the existence of structures in floodplains. Additionally, new areas susceptible to flooding due to erosion and other types of construction will be identified. The floodplain maps	Flood	Bloomfield Floodplain Manager	Medium (32.5)	Existing	Unknown	FEMA	Carry over from 2014 plan

		for Bloomfield were last evaluated 25 years ago in 1978. Since 1978, Bloomfield has annexed many areas into the city limits. According to the San Juan County floodplain maps, which also date from 1978, some of these areas are part of the floodplain. Because Bloomfield's floodplain maps are so out of date, many of these areas cannot be regulated by the City's floodplain management system. Presently only seven residential structures are identified as being in Bloomfield's floodplain.							
Bloomfield 6	Scott Reservoir	Construct a new reservoir for the Bloomfield Water System.	Drought	Bloomfield City Council	Medium (32.5)	New	$12,700,000	Homeland Security Grant Program; BRIC Grant Program; Other Local Funding Source; Other Funding Source	New project for 2020 plan

Bloomfield 7	Nevada Street Detention Basin	Install Stormwater Detention Basin in Bloomfield Wash Drainage Area to control downstream flooding.	Flood	Bloomfield Floodplain Manager	(Medium (30.5)	New	$2,500,000	Homeland Security Grant Program; BRIC Grant Program; Other Local Funding Source	New project for 2020 plan
Bloomfield 8	Restrict future growth into the City's floodplains.	Building/zoning codes. Revise the existing building/zoning codes so that newly incorporated areas of the City that are not presently covered by the City's current floodplain maps can be regulated. At present, newly annexed areas of Bloomfield remain controlled by the unincorporated areas of the National Flood Insurance maps. As such, the Bloomfield Floodplain Manager is unable to restrict construction and use in these areas. The inclusion of all incorporated areas under Bloomfield's current floodplain restrictions will restrict growth into known floodplain areas. Enacting such legislation will	Flood	Bloomfield City Council; Bloomfield City Attorney; Bloomfield Floodplain Manager	Medium (28)	Existing	Unknown	City of Bloomfield	Carry over from 2014 plan

		reduce the overall costs from future floods. Additionally, the replacement of structures destroyed by future floods can be restricted, thereby eliminating or reducing repetitive loss. This legislation will establish the city's control over areas that have been annexed since the 1978 update of the floodplain maps.							
Bloomfield 9	Second Source Upgrades	Upgrades to the Second Source Pump Station located on the San Juan River. Project will create an alternate source of water for the Bloomfield Water System.	Drought; Hazardous Materials	Bloomfield City Council	Medium (27.75)	Existing	$2,400,838	Unknown	Carry over from 2014 plan
Bloomfield 10	Establish a current floodplain map for Bloomfield	Updating floodplain maps. A petition to FEMA requesting the updating of Bloomfield floodplain maps will be made. Enact legislation to restrict future growth into floodplains in Bloomfield. By updating Bloomfield's floodplain maps, a more comprehensive inventory can be established for the	Flood	City of Bloomfield Floodplain Manager; San Juan County Floodplain Manager	Medium (27)	New	Unknown	FEMA	Carry over from 2014 plan

		existence of structures in floodplains. Additionally, new areas susceptible to flooding due to erosion and other types of construction will be identified. The floodplain maps for Bloomfield were last evaluated 25 years ago in 1978. Since 1978, Bloomfield has annexed many areas into the city limits. According to the San Juan County floodplain maps, which also date from 1978, some of these areas are part of the floodplain.							
Bloomfield 11	Identify waterways that require clearing and ensure that this maintenance is accomplished	Waterway assessment. With legislation enacted to clear and maintain Bloomfield's waterways, each waterway will need to be examined in order to determine need. Once the waterways have been assessed, a priority plan can be established to ensure that they are cleared and maintained, and any necessary notices can be issued. As with waterways	Flood	Bloomfield City Council; Bloomfield City Attorney; Bloomfield Public Works; U.S. Army Corp of Engineers	Medium (26)	Existing	Unknown	City of Bloomfield	Carry over from 2014 plan

		located on privately-owned land, waterways located in the public domain require periodic clearing. By ensuring that all waterways, storm drainage systems, and culverts remain clear of debris and unwanted vegetation, the City will ensure that floodwaters are not restricted and minimize the risk of flooding. Restricted waterways can also result in damage to roadways and bridges due to the pressure created by the force of the water.							
Bloomfield 12	Enact legislation for the mandatory installation of gray water recovery systems in new construction projects	Required installation of gray water recovery systems. The City Council will enact legislation requiring the installation of gray water recovery systems in all new construction within the City.	Drought	Bloomfield City Council; Bloomfield City Attorney	Medium (26)	Existing	Unknown	City of Bloomfield	Carry over from 2014 plan

Bloomfield 13	Create an incentive program for the conversion of older toilets and showerheads to low flow systems	Incentive/Rebate Program. The City will develop a rebate program to provide city residents with an incentive to replace older toilets and showerheads with low flow units. An additional incentive program will be developed concerning the installation of gray water recovery systems.	Drought	Bloomfield City Council; Bloomfield City Attorney; Bloomfield City Planning Office	Low (25)	Existing	Unknown	City of Bloomfield	Carry over from 2014 plan
Bloomfield 14	Create a public education program concerning the use of drought resistant landscaping vegetation	Public Education. A program for school age children and adults will be designed to provide information concerning wise water usage and recommendations concerning drought resistant vegetation for use in both residential and commercial landscapes.	Drought	Bloomfield City Planning; County Extension Agent; New Mexico State Engineer's Offices	Low (18.5)	Existing	Unknown	City of Bloomfield; State of New Mexico Engineer's Office	Carry over from 2014 plan

Table 35: Mitigation Action Project Prioritization, City of Farmington

Action Identification	Project Name	Project Description	Hazard(s) Addressed	Responsible Department(s)	Overall Priority (STAPLE+E)	Structural Emphasis	Cost Estimates	Potential Funding Source	Current Status
Farmington 1	Wildfire Mitigation	200 acres of public and private wildfire mitigation.	Wildfire	City of Farmington Fire Department	Medium (35.5)	Existing	$450,000	Unknown	Carry over from 2014 plan
Farmington 2	Navajo Street Crossing at Glade Arroyo	Eliminate or reduce the potential for flooding within known flood risk areas. An examination of the flooding dynamics for the Glade Arroyo at Navajo Crossing will determine possible solutions. A project plan will then be created to reduce or avoid potential future flooding. Project Update: Souder, Miller & Associates has provided a design to the City of Farmington.	Flood	City of Farmington Community Works	Medium (34.5)	Existing	$2,000,000	City of Farmington; U.S. Army Corps of Engineers	Carry over from 2014 plan

Farmington 3	Hood Arroyo Detention Pond, Upgrade Crossing	Reduce the risk of flooding in arroyos with documented historical damage with the construction of a detention pond. Project Update: Bohannan Huston Inc. has provided a conceptual layout to the City of Farmington.	Flood	City of Farmington Community Works	Medium (33.5)	Existing	$2,000,000	FEMA; City of Farmington	Carry over from 2014 plan
Farmington 4	Develop a plan for additional protection of both the streambed and the newly installed box culvert structure at the Pinon Hills Crossing of the La Plata River	Develop a plan for additional protection of both the streambed and the newly installed box culvert structure at the Pinon Hills crossing of the La Plata River. Project Update: The downstream concrete apron was extended and a cable concrete articulated block mat was installed. Update: Additional protection may be required.	Flood	City of Farmington Community Works	Medium (33.5)	Existing	$1,000,000	City of Farmington	Carry over from 2014 plan
Farmington 5	Develop a plan and install storm sewer system that can adequately handle the currently developed surrounding areas near the old downtown Farmington area	Upgrade the current storm sewer system in the older Downtown area of Farmington along Main Street and Broadway Avenue between Butler and Auburn. Project Update: The Downtown Main Street, from Miller Street to Auburn	Flood	City of Farmington Community Works	Medium (33.5)	Existing	Unknown	City of Farmington	Carry over from 2014 plan

		Ave. is being reconstructed to include roundabouts, wider sidewalks, additional parking, and upgrades to the water and storm sewer. The storm sewer in Broadway Ave. will still need to be upgraded.							
Farmington 6	Incorporate all future comprehensive planning for Farmington with the San Juan County Mitigation Project	Ensure that Farmington's growth does not expand into areas that expose the community to increased flood risks. Farmington has an ongoing planning effort to ensure that its growth is done in an organized manner. It is vital that all planning efforts consider the identified hazard locations in and around Farmington to avoid increasing the community's exposure to hazard risk. To accomplish this goal, the City Council will enact legislation to ensure that all future city planning will take into consideration the San Juan County Mitigation Plan. Project Update: The Community Works Department inspects	Flood	City of Farmington Community Works	Medium (26)	Existing	$5,000	City of Farmington	Carry over from 2014 plan

		areas, that will be incorporated into the City of Farmington, for increased flood risk and a recommendation is made to City Council for approval or dis-approval.							
Farmington 7	Keep all waterways clear of debris and unwanted vegetation	Clean public waterways. Waterways lying in the publicly-held areas of Farmington will be inspected annually for the presence of debris or unwanted vegetation. Upon the completion of this inspection, debris and vegetation will be cleared based on its priority and the availability of manpower and equipment. Project Update: The Community Works Department has a cleaning schedule for all publicly-held arroyos within city limits. The arroyos are on a 3-year rotation schedule. Areas where no easement or right-of-way exists, the City will work with the property owner to	Flood	City of Farmington Community Works	Medium (26)	Existing	$5,000	City of Farmington	Carry over from 2014 plan

		grant an easement for cleaning.							
Farmington 8	Promoting Rainwater Harvesting Systems	The City Council will adopt a resolution recognizing the benefits to the City of rainwater harvesting systems. Project Update: The Community Works Department provides information on the rainwater harvesting systems to the community at the Annual Home Expo.	Drought; Flood	City of Farmington Community Works	Medium (26)	Existing	Unknown	Unknown	Carry over from 2014 plan
Farmington 9	Implement a maintenance program to maintain previous thinned areas. The program may include fire training on fuel removal techniques, prescribed burning, and a yearly chemical application to prevent excess growth	Public land clearing program. All public lands, listed as high hazard areas, located within the City of Farmington will be prioritized and cleared as necessary in order to reduce the potential fuel load in these areas. Clearing public lands of excess fuel load will significantly reduce the potential for a major urban/wild land fire. In addition, the City of Farmington wants	Wildfire	County/City Emergency Managers; City of Farmington Fire Department; City of Farmington Code Enforcement; Count/City Public Works; County/City Parks and Recreation	Medium (26)	Existing	Unknown	City of Farmington	Carry over from 2014 plan

		private property owners to create defensible space on their properties by reducing fuel load. Further benefits of such brush-clearing projects include increasing areas available for public activity along the river bottoms and reducing the amount of debris that could become water-borne during flooding.							
Farmington 10	Code enforcement on private property to reduce hazardous fuels	Continue code enforcement on private property to reduce hazardous fuels. In addition to mitigating potential fire hazards, removing the excess fuel load will also reduce problems that occur during flooding. The accumulation of debris in culverts and similar areas restricts water flow, creating backups and, in some cases, damage to structures and roadways. Removing this debris will decrease collateral damage that occurs during flooding events, as well as wildfire.	Wildfire	City of Farmington Fire Department; City of Farmington Code Enforcement	Medium (26)	Existing	Unknown	City of Farmington	Carry over from 2014 plan

Farmington 11	Implement a Firewise™community program with information concerning the necessity for clearing fuel from public/private lands and with instructions for creating defensible space around all structures	Private property defensible space. The City of Farmington will institute a public education program, such as Fire Wise™, concerning the need for defensible space around structures in the urban/wild land interface. This program will be carried out through public service announcements and directed mailings to property owners identified as having land within the urban/wild land interface. Introducing a Fire Wise™ program for property owners in the high hazard areas will highlight the necessity for reducing the area's fuel load. There will be positive results throughout the entire area, even if only some of these landowners comply with the program. In addition to mitigating potential fire hazards, removing the excess fuel load will also reduce problems that occur during flooding.	Wildfire	County/City Managers; City of Farmington Fire Department; City of Farmington Code Enforcement	Medium (26)	Existing	Unknown	City of Farmington	Carry over from 2014 plan

Farmington 12	Continue thinning projects to reduce the severity of a wildland fire throughout the city	Public land clearing program. All public lands, listed as high hazard areas, located within the City of Farmington will be prioritized and cleared as necessary in order to reduce the potential fuel load in these areas. Clearing public lands of excess fuel load will significantly reduce the potential for a major urban/wild land fire. In addition, the City of Farmington wants private property owners to create defensible space on their properties by reducing fuel load. Further benefits of such brush-clearing projects include increasing areas available for public activity along the river bottoms and reducing the amount of debris that could become water-borne during flooding.	Wildfire	County/City Emergency Managers; City of Farmington Fire Department; City of Farmington Code Enforcement; Count/City Public Works; County/City Parks and Recreation	Low (25)	Existing	Unknown	City of Farmington	Carry over from 2014 plan

Farmington 13	Continue regular wildland urban interface (WUI) fire training for firefighters	Continue funding for training that will include familiarization of hazard areas and stop loss tactics in the event of a WUI fire	Wildfire	County/City Managers; City of Farmington Fire Department	Low (24)	Existing	Unknown	City of Farmington	Carry over from 2014 plan
Farmington 14	Wildfire Prevention and Planning	Community wildfire and prevention planning. Public education. Planning and training for community members and first responders.	Wildfire	City of Farmington Fire Department	Low (23)	New	$10,000	National Preparedness Grant Program; Other Local Funding Source; Other Funding Source	New project for 2020 plan
Farmington 15	Conversion Rebate Program	A rebate program will be developed to provide city residents with an incentive to replace older toilets and showerheads with low flow units. An additional incentive program will be developed evaluating the benefits of rainwater harvesting. Project Update: The Community Works Department has made no progress on this program.	Drought	City of Farmington Community Works	Low (19.5)	Existing	$5,000	Unknown	Carry over from 2014 plan

Farmington 16	Public Education	A program will be created for school age children and adults designed to provide information concerning wise water usage and recommendations concerning drought resistant vegetation for use in both residential and commercial landscapes. Project Update: The Community Works Department provides education to the community at the Annual Home Expo.	Flood	City of Farmington Community Works	Low (18.5)	Existing	$15,000	Unknown	Carry over from 2014 plan

Table 36: Mitigation Action Project Prioritization, Town of Kirtland

Action Identification	Project Name	Project Description	Hazard(s) Addressed	Responsible Department(s)	Overall Priority (STAPLE+E)	Structural Emphasis	Cost Estimates	Potential Funding Source	Current Status
Kirtland 1	Roadway Flooding	US 64 is the main route through the Town of Kirtland. The highway is maintained by the NMDOT. The local drainage has been adversely affected due to the roadside businesses' driveways and lot development with no consideration for drainage. The medians do not drain correctly and the right-of-way's stand water during significant rain events. This project will correct the roadway drainages.	Flooding	Town of Kirtland Mayor; New Mexico Department of Transportation	Medium (33.5)	New	$2,500,000	National Preparedness Grant Program; Pre-Disaster Mitigation Grant Program; Other Local Funding Source; Other Funding Source	New project for 2020 plan
Kirtland 2	Wildfire Protection	This project includes the clearing and cleanup of the fire fuels along the north bank of the San Juan River. The houses have cleared most brush with exception of the 100 feet north of the river. This project will protect the residence adjacent to the river.	Wildfire	Town of Kirtland Mayor	Medium (32.5)	New	$120,000	National Preparedness Grant Program; Pre-Disaster Mitigation Grant Program; Other Local Funding Source; Other Funding Source	New project for 2020 plan

Kirtland 3	Water Supply Protection	The residents of the Town of Kirtland and surrounding areas obtain their drinking water from Lower Valley Water Users Association. The Association obtains its raw water from Farmers Mutual Ditch. The ditch has begun a portion of the $9 Million upgrade project to install conduits. The conduit will protect the ditch from riverine erosion related rockslides and failures. This project will assure the residents that the water supply will be protected.	Drought; Flooding	Town of Kirtland Mayor	Medium (32.5)	New	$3,000,000	National Preparedness Grant Program; Pre-Disaster Mitigation Grant Program; Other Local Funding Source; Other Funding Source	New project for 2020 plan
Kirtland 4	Kirtland Youth Association Backup Generator	The Kirtland Youth Association Building is the only building in the Town of Kirtland large enough to be used as a community meeting location in case of an emergency. The building is owned by the Town of Kirtland. It does not have a backup generator to be used in times of power outage. The building will be used for Town officials and emergency responders.	Drought; Flooding; Wildfire	Town of Kirtland Mayor	Medium (32.5)	New	$100,000	Homeland Security Grant Program; Pre-Disaster Mitigation Program	New project for 2020 plan

Kirtland 5	Safe Pedestrian Highway Crossing	San Juan County is currently planning, designing, and constructing pedestrian walk paths for traffic in the Kirtland area. The Central Consolidated Schools is the main beneficiary of the walk paths. The schools have a high school and middle school on the south side of the highway and elementary school on the north side of the highway. There is no local pedestrian crossing for the general public. This project is to construct a safe pedestrian fly over across US 64 for all pedestrian traffic crossing the highway. It will mitigate the conflict between pedestrian and vehicular traffic.	Hazardous Materials	Town of Kirtland Mayor	Medium (26)	New	$4,000,000	Other Local Funding Source; Other Funding Source	New project for 2020 plan
Kirtland 6	Establish a public education and awareness program to provide resident with information concerning drought and water conservation	Information concerning water conservation will be provided to the residents of the Town of Kirtland through the use of pamphlets, school age and adult education, and public meetings. The public/residents	Drought	Town of Kirtland Mayor	Low (24)	New	Unknown	Other Funding Source	New project for 2020 plan

		will be better educated about the need for water use restrictions and the actions they can take in order to conserve water during drought conditions.							

Table 37: Mitigation Action Project Prioritization, City of Aztec, City of Bloomfield, and City of Farmington

Action Identification	Project Name	Project Description	Hazard(s) Addressed	Responsible Department(s)	Overall Priority (STAPLE+E)	Structural Emphasis	Cost Estimates	Potential Funding Source	Current Status
San Juan, Aztec, Bloomfield, Farmington 1	Clear the public property identified as the "Swire-Townsend" land preserve and complete invasive species mitigation to ensure fire loading does not continue to pose a threat in this area of the City	Public land clearing program. All public lands along the banks of the Animas, La Plata, and San Juan Rivers will be inspected and cleared as necessary in order to reduce the potential fuel load existing in these areas. Clearing public lands along the rivers of excess fuel load will significantly reduce the potential for a major urban/wild land fire. In addition, if the local governments want private property owners to create defensible space on their properties by reducing fuel load,	Wildfire	San Juan County/City of Aztec, Bloomfield, and Farmington Emergency Managers; San Juan County/City of Aztec, Bloomfield, and Farmington Fire Departments; San Juan County/City of Aztec, Bloomfield, and Farmington Public Works; San Juan County/City of Aztec, Bloomfield, and Farmington Parks and Recreation	Medium (32.5)	Existing	Unknown	San Juan County; City of Aztec; City of Bloomfield; City of Farmington	Carry over from 2014 plan

		the County's demonstration of such actions may spur landowners to follow suit. Further benefits of such brush-clearing projects include increasing areas available for public activity along the river bottoms and reducing the amount of debris that could become water-borne during flooding.							
San Juan, Aztec, Bloomfield, Farmington 2	Provide private landowners in the river bottom area with information concerning the necessity for clearing potential fuel from their land and instructions for creating defensible space around all structures	Private property defensible space. All local jurisdictions will institute a public education program, such as Firewise™, concerning the need for defensible space around structures in the urban/wild land interface. This program will be carried out through public service announcements and directed mailings to property owners identified as having land within the urban/wild land interface. Introducing a Firewise™ program for property owners along the river bottoms will highlight the necessity for reducing the area's fuel load. There will	Wildfire	County/City of Aztec, Bloomfield and Farmington Emergency Managers; San Juan County/City of Aztec, Bloomfield, and Farmington Fire Departments; San Juan County/City of Aztec, Bloomfield, and Farmington Public Works; San Juan County/City of Aztec, Bloomfield, and Farmington Parks and Recreation	Medium (26)	Existing	Unknown	San Juan County; City of Aztec; City of Bloomfield; City of Farmington (County/City Jurisdictions)	Carry over from 2014 plan

		be positive results throughout the entire area, even if only some of these landowners comply with the program. In addition to mitigating potential fire hazard, removing the excess fuel load will also reduce problems that occur during flooding.							
San Juan, Aztec, Bloomfield, Farmington 3	Identify areas of the river bottom in the public domain and create priorities and thinning projects to reduce the potential for wild land fire throughout the county	Public land clearing program. All public lands along the banks of the Animas, La Plata, and San Juan Rivers will be inspected and cleared as necessary in order to reduce the potential fuel load existing in these areas. Clearing public lands along the rivers of excess fuel load will significantly reduce the potential for a major urban/wild land fire. In addition, if the local governments want private property owners to create defensible space on their properties by reducing fuel load, the County's demonstration of such actions may spur landowners to follow suit. Further	Wildfire	San Juan County/City of Aztec, Bloomfield and Farmington Emergency Managers; San Juan County/City of Aztec, Bloomfield, and Farmington Fire Departments; San Juan County/City of Aztec, Bloomfield, and Farmington Public Works; San Juan County/City of Aztec, Bloomfield, and Farmington Parks and Recreation	Low (24)	Existing	Unknown	San Juan County; City of Aztec; City of Bloomfield; City of Farmington	Carry over from 2014 plan

		benefits of such brush-clearing projects include increasing areas available for public activity along the river bottoms and reducing the amount of debris that could become water-borne during flooding.							

5.5 – Planning Integration

Mitigation does not end at plan approval. Plan approval is only the beginning. The successful implementation of any number of mitigation activities and projects requires the coordination and collaboration of a number of local agencies, departments, and organizations. Each group has varying decision-making processes and authorities governing their actions. This plan, once approved, must be integrated into their decision-making processes as a tool for improving their respective resiliencies. San Juan County intends to incorporate the San Juan County Multi-Jurisdictional Natural Mitigation Plan Update into other planning documents the county, and participating jurisdiction utilizes. Such documents include, but are not limited to, The county EOP, COOP, and County Growth Plan. For the cities of Aztec, Bloomfield, Farmington, and the town of Kirtland can utilize the San Juan County Multi-Jurisdictional Natural Mitigation Plan Update to update documents like City Comprehensive Plans.

The previously approved San Juan County Multi-Jurisdictional Natural Mitigation Plan Update (2013) was integrated into other county planning documents. The previous plan update (San Juan County Multi-Jurisdictional Natural Mitigation Plan Update – 2013) was incorporated in the recently updated the 2018 San Juan County Growth Plan (https://www.sjcounty.net/home/showdocument?id=2937), the City of Farmington Comprehensive Plan (current in draft -https://www.fmtn.org/917/2040-Comprehensive-Plan), and the City of Aztec Comprehensive Plan (currently in draft - https://aztecplan.com/). San Juan County has every intention to include the approved plan update in different plan types utilized by the county and its participating jurisdictions.

This plan is not only useful for implementing mitigation activities and projects but is also critical in making development plans and capital improvement projects. The risk assessment in this plan can prevent unmanaged and dangerous development into identified hazard areas or other portions of the planning area that decrease a community's overall resiliency.

Democratic Governments and Boards

These organizations rely on agenda proposals, deliberation, discussion, and voting to solidify their decision-making. This type of decision-making makes up the majority of San Juan County's participating jurisdictions and stakeholders.

This plan should be integrated into agenda proposal's designs and cross-referenced during deliberation and discussion of the proposed activity. By using this plan's risk assessment, development and capital improvement projects can be appropriately implemented taking into consideration a community's resiliency.

The San Juan County Multi-Jurisdictional Natural Mitigation Plan Update will be incorporated into existing planning mechanisms in varying processes. These processes will be tailored to the unique characteristics of the planning mechanism and the governing structure of San Juan County and its participating jurisdictions.

Mitigation Plan Funding

Funding for development of the San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan Update was provided by a grant through the FEMA and funding from the New Mexico Department of Homeland Security and Emergency Management Agency (NMDHSEM). This was provided to establish the County's long-term strategy for reducing risk from natural hazards. San Juan County Office of Emergency Management (SJCOEM) was the recipient of the funding with the Floodplain Manager responsible for coordinating planning and development of the hazard mitigation plan.

As stated in the previous plan, the County's hazard mitigation planning process closely integrates with and is, in fact, dependent on FEMA's mitigation programs and initiatives. The driving force behind the entire planning effort is the Disaster Mitigation Act of 2000 (DMA2K), which stipulates the necessity for and content of both state and local mitigation plans. DMA2K established a timeline for plan completion and describes penalties for non-compliance. States that did not have their mitigation plans approved by the specified date (November 1, 2004) were not be able to receive public assistance funding (Category C through G) for declared disasters occurring after this date nor was any jurisdiction within the state. Funding from the Pre-Disaster Mitigation (PDM) program and the Hazard Mitigation Grant Program (HMGP) are similarly denied until the state and local mitigation plans are approved for possible support of mitigation or multiple objective actions including:

- San Juan County along with the Cities of Aztec, Bloomfield, and Farmington have been members of the National Flood Insurance Program (NFIP) since 2003. In the previous plan (2013), the Cities of Aztec, Bloomfield and Farmington are not yet participating in the Community Rating Service (CRS). As of this plan update, both San Juan County and the City of Farmington holds a CRS rating of 8.
- Prior to flood regulations in San Juan County, many structures were built in the floodplains along the Animas and San Juan Rivers. Flooding along either of these rivers or dam failure will cause destruction or damage to these The Flood Mitigation Assistance (FMA) Program is another FEMA program whereby local jurisdictions may obtain grant funds to do flood mitigation plans and projects
- Debt Capacity: Authority to incur debt through special tax, general obligation bonds, revenue bonds, and private activity bonds
- Taxes: The County and municipalities have the authority to levy sales taxes and property taxes. The County is responsible for all property tax assessment and collection
- Fees: The County and municipalities have the authority to levy fees for water, sewer, gas, trash collection, landfills, and electric service

Emergency Management Planning

All participating jurisdictions in the San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan Update, have deferred their emergency management authority to SJCOEM.

Emergency Operations Plans (EOPs) – The San Juan County EOP's next update will reflect the most probable and dangerous hazard event scenarios from this mitigation plan update's risk assessment. Additionally, the mitigation plan update will be added in its entirety as an Appendix to the EOP. This revision is the responsibility of SJCOEM for all the jurisdictions participating in this plan. Upon revision completion, all participating jurisdictions and appropriate emergency services will be notified of the revisions and sent out new copies of the EOP.

State of New Mexico Hazard Mitigation Plan (2018) – The State's HMP is required by FEMA regulations to include assessments and integration of local and tribal mitigation plans. The process of integrating the San Juan County Multi-Jurisdictional Natural Hazard Mitigation Plan Update into the State's plan is already an established process and is managed by NMDHSEM.

Infrastructure, Development & Construction Projects Related to Hazard Mitigation

All jurisdictions in San Juan County approach infrastructure, development, and construction projects related to hazard mitigation in the same way. The demographics of San Juan County allows for planning to exist only through collaboration with their Local Emergency Planning Committee (LEPC).

San Juan County Local Emergency Planning Committee (LEPC)

The San Juan County LEPC (https://www.sjcounty.net/government/emergency-management/lepc) is a conduit for all mitigation actions and projects. It is headed by SJCOEM and meets on the third Thursday of every month, although there is flexibility in their schedule.

Their meetings are held in the San Juan County Office of Emergency Management Administration Building. Members of the LEPC come from all jurisdictions and from a wide variety of local agencies and departments as well as industry and local citizenry.

Mitigation Projects & Actions Implementation

Upon adoption of a mitigation plan or other emergency management-related plans, SJCOEM will notify all participating jurisdictions when reviewing mitigation project and action selections will be the next LEPC meeting topic. Each jurisdiction then approves a list of mitigation actions and projects they want to pursue according to the mechanism listed in the table on the following page. During the LEPC meeting, SJCOEM will assist the jurisdictions in determining which grant program and path will be appropriate for the project. After selection, the jurisdictions return to SJCOEM, through the LEPC, for assistance on funding and managing the project. If additional funding is necessary, the jurisdictions will have to return to their community and pass a resolution to secure the funding. The resolution is subject to the process listed in table on the following page.

SJCOEM may assist in every facet from project inception to completion as well as working with other external organizations for tasks such as grant writing, project monitoring, and project management where appropriate.

Capital Improvement & Economic Development Planning Related to Hazard Mitigation

None of the participating jurisdictions currently have capital improvement or economic development plans.

Upon adoption of this plan, SJCOEM will notify each participating jurisdictions' governing authority. The notification will also contain a special notice to incorporate the following procedure to any capital improvement or economic development plans related to hazard mitigation that may be developed in the future.

Upon project conception, the county commissioners, mayors, and council members, may contact SJCOEM for funding guidance and grant assistance. In San Juan County and its participating jurisdictions, improvement and development projects rely on grant funding. SJCOEM may advise the project proposing jurisdiction on which grant program is appropriate.

Following a funding source decision, the proposals will then be returned to the project proposing jurisdiction and undergo a vote by the appropriate governing body for approval. Upon approval by the governing body, SJCOEM may assist in applying for the grant funding for the new improvement or development project.

All economic development plans initiated or supported by a jurisdiction will undergo a hazard application process in which all hazard risk assessments from the HMP plan will be weighed into the benefit cost analysis. This can be done at the local level prior to working with the San Juan County LEPC or SJCOEM, or exist as a known future consideration and requirement. However, if done at the local level, it must be reviewed and approved by the San Juan County LEPC.

Appendix A – Reference Documents

Federal Meteorological Handbook No. 1, Surface Weather Observations and Reports, *U.S. Department of Commerce / NOAA, 2005*

Guidelines and Specifications for Flood Hazard Mapping Partners, *FEMA, 2002*

Local Mitigation Plan Review Guide, *FEMA, 2011*

Local Mitigation Planning Handbook, *FEMA, 2013*

Mitigation Ideas A Resource for Reducing Risk to Natural Hazards, *FEMA, 2013*

Multi-hazard Loss Estimation Methodology – Flood Model – HAZUS®-MH – User Manual, *FEMA, 2012*

Multi-hazard Loss Estimation Methodology – Flood Model – HAZUS®-MH – Technical Manual, *FEMA, 2012*

Multi-Hazard Mitigation Planning Guidance Under the Disaster Mitigation Act of 2000, *FEMA, 2008*

National Mitigation Framework, *Department of Homeland Security, 2013*

Understanding Your Risks: Identifying Hazards and Estimating Losses (FEMA 386-2), *FEMA, 2001*

Appendix B – Data Sources

Quantitative Data Sources

FEMA

NOAA/NCEI (formerly NCDC)

U.S. Census Bureau

United States Environmental Protection Agency TRI Explorer

San Juan County/Farmington Fire, HazMat Division

Geographic Data Sources

BOLDplanning Inc.

Google® Maps

FEMA HAZUS®-MH (4.2)

FEMA NFHL

NOAA/NWS Storm Prediction Center

San Juan County, NM, GIS Department

U.S. Census Bureau

United States Environmental Protection Agency TRI Explorer

U.S Drought Monitor

Vegetation Drought Response Index (VegDRI)

San Juan County, NM, Floodplain Management Department

State of New Mexico Hazard Mitigation Plan, 2018

San Juan Basin Community Wildfire Protection Plan, 2014

THE DAILY TIMES

AFFIDAVIT OF PUBLICATION

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Theresa Barrera
SAN JUAN COUNTY/LEGALS ACCOUNT
100 S. OLIVER DR
ATTN FIN DEPT THERESA BARRERA
AZTEC NM 87410

I, being duly sworn say: THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newsaper duly
qualified for the purpose within the State of New Mexico for publication and appeared in the internet at The Daily Times web site on the following days(s):

07/12/19

Legal Clerk

Subscribed and sworn before me this
13th of July 2019.

State of WI, County of Brown
NOTARY PUBLIC

9-19-21
My Commission Expires

Ad#:0001291021
P O :
# of Affidavits :0.00

Notice
San Juan County Hazard Mitigation Plan
Kick-Off Meeting

Hazard Mitigation planning is an initiative aimed at lessening the impact of natural hazards that the County and its jurisdiction face. This is done by completing an assessment of the hazards and how vulnerable the County is to those hazards. The next step is to come up with mitigation projects for each hazard that affects the County and its jurisdictions.
The public is invited to add input to the plan. By participating in this meeting, you can represent your community and give valuable experiences and ideas to the planning process.
To learn more please join us at the meeting.

August 6, 2019
San Juan County Fire Operations, 209 S Olive Dr., Aztec, NM 87410
10:00 a.m. - Noon

Please RSVP (to ensure we have enough handouts) to Michele Truby-Tillen, CFM mtruby@sjcounty.net by Aug. 1, 2019

Legal No. 1291021 published in The Daily Times on July 12, 2019.

RECEIVED
JUL 18 2019
FINANCE - Admin.

VICKY FELTY
NOTARY PUBLIC
STATE OF WISCONSIN

SAN JUAN COUNTY 2019 HAZARD MITIGATION UPDATE KICK OFF MEETING

NAME		AGENCY	ADDRESS	CITY	ZIP	E-MAIL	PHONE	INITIAL
Steven	Saavedra	COA P/Z/Floodplain	201 W Chaco St	Aztec	NM 87410	ssaavedra@aztecnm.gov	505-334-7605	
Steve	Mueller	COA Manager	201 W Chaco St	Aztec	NM 87410	smueller@aztecnm.gov		
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David	Karst	COB PD Chief	711 Ruth Lane	Bloomfield	NM 87413	karstd@bloomfieldnm.gov	5056081499	
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Nate	Duckett	COF Mayor				nduckett@fmtn.org	505-599-1103	
Rob	Mayes	COF Manager				rmayes@fmtn.org		
Lisa	Hale-Blueeys	COF Floodplain Manger				lhblueeyes@fmtn.org		
Ed	Smylie	COF EM	800 Municipal Dr	Farmington	NM 87401	esmylie@fmtn.org	505-599-1369	
David	Burke	COF Fire	850 Municipal Dr	Farmington	NM 87401	dburke@firenet.org		
Steve	Hebbe	COF PD	850 Municipal Dr	Farmington	NM 87401	shebbe@fmtn.org		
Robert	Mitchell	COF Fire	850 Municipal Dr	Farmington	NM 87401	rmitchell@firenet.org		
Georgette	Allen	COF-PIO	800 Municipal Dr	Farmington	NM 87401	gallen@fmtn.org		
Ryan	Briggs	LEPC Board	101 N Browning PKWY	Farmington	NM 87401	rbriggs@fmtn.org		
Brent	Hamilton	LEPC Health Committee				bhamilton@sjrmc.net		
Billy	Huish	LEPC Board	3101 South Side River Rd	Farmington	NM 87401	bhuish@fms.k12.nm.us		
Kerry	Jones	NWS-ABQ				kerry.jones@noaa.gov		
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Fran	Fillerup	SJC Administrative Office	100 S Oliver Dr	Aztec	NM 87410	ffillerup@sjcounty.net	505-334-5420	
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David	Barnett	SJC Community Dev			NM 87410	dbarnett@sjcounty.net	505-334-4248	
Faye	Anderson	SJC Housing Auth			NM 87410	fanderson@sjcounty.net	505-334-4544 x6412	
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Jim	Crowley	SJC Commission	100 S Oliver Dr	Aztec	NM 87410	mailed	505-334-4271	
Jack	Fortner	SJC Commission	100 S Oliver Dr	Aztec	NM 87410	mailed	505-334-4271	
Mike	Sullivan	SJC Commission	100 S Oliver Dr	Aztec	NM 87410	mailed	505-334-4271	
Glojean	Todacheene	SJC Commission	100 S Oliver Dr	Aztec	NM 87410	mailed	505-334-4271	
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Criag	Daugherty	SJC Fire	209 S Oliver Dr	Aztec	NM 87410	daughertyc@sjcounty.net	505-334-1180	
John	Mohler	SJC Fire	209 S Oliver Dr	Aztec	NM 87410	mohlerj@sjcounty.net	505-334-1181	
Mike	Mestas	SJC OEM	209 S Oliver Dr	Aztec	NM 87410	mmestas@sjcounty.net	505-334-4714	
John	Robinson	SJC OEM	209 S Oliver Dr	Aztec	NM 87410	jrobinson@sjcounty.net	505-334-7700	
Ali	Rye	SJC OEM	209 S Oliver Dr	Aztec	NM 87410	arye@sjcounty.net	505-334-7700	
Michele	Truby Tillen	SJC OEM	209 S Oliver Dr	Aztec	NM 87410	mtruby@sjcounty.net	505-334-7700	
Brice	Current	SJC Under Sheriff	211 S Oliver Dr	Aztec	NM 87410	currentb@sjcso.com		
Mark	Duncan	TOK Mayor	100 S Oliver Dr	Aztec	NM 87410	mduncan@sjcounty.net	505-334-4265	
Dan	Flack	TOK Engineer				dflack@dtfengineering.com		
Larry	Hathaway	SJC/TOK	213 S Oliver Dr	Aztec	NM 87410	lhathaway@sjcounty.net	505-334-4550	
Greg	Allen	SJSC				gallensjsci@gmail.com	(505) 419-8939	
Bonnie	Hopkins	NMSU Extention				bhopkins@nmsu.edu		
Shawn	Williams	NM State Engineers				shawn.williams@state.nm.us		
Veronica	Chavez	NMDHSEM - Floodplain				VeronicaE.Chavez@state.nm.us		
Sara	Gerlitz	NMDHSEM-Mitigation				SaraM.Gerlitz@state.nm.us	5056602308	
Catherine	Watson	NMDHSEM-Finance				Catherine.Watson@state.nm.us		
Steve	Morse	COA	610 Western Dr	Aztec	NM 87410	smorse@aztecnm.gov	(505) 444-8664	
Julie	Garcia-Mohler	COB MOC	1152 S Church	Bloomfield	NM 87413	jgarcia-mohler@bloomfieldnm.gov	632-8448	
Jeff Blackburn	Blackburn	COA	563 S Ash	Aztec	87410	jblackburn@aztecnm.gov	334-7666	
Rick Griffith		NMSU CES	2133 Oliver			RickGrif@NMSU.edu	505 334 9996	

San Juan County, NM Hazard Mitigation Plan Survey

Project Engagement

VIEWS	PARTICIPANTS	RESPONSES	COMMENTS	SUBSCRIBERS
496	184	817	156	27

Where do you live?

None

10 months ago

Everynight around 11:00-12:00 I have to close my window because of the awful smell the gas plant put off in Bloomfield. I have been here 4 years now and wonder if I am going to eventually die from inhaling this. It is terrible.

10 months ago

Most hazard in Bloomfield? The trees, bushes planted all along mediums. When in turn lanes to cross over they are an obstruction because you can not see the oncoming cars. Cut them down.

10 months ago

Please make sure all water ways are kept cleaned out/clear of trash and debris

10 months ago

Crime and drugs and dumping of illegal waste a lot hazardous. Bloomfield is just full of weeds and dirty torn up parking lots. Aztec is dirty needles and drugs being sold in every corner and parks. Farmington traffic and drugs. San juan county needs to face the facts. Crime and drugs are out of control and many of it isnt being managed proactively.
Time to clean up our structures
Deal with the crime and drug problems
And really take care of your people.

10 months ago

As well as the Drunk individuals roaming the City.

10 months ago

Concerned when people burn their weeds.

10 months ago

This county is overgrown. Trees hitting powerlines and sparking (happened to me this summer). Elderly people who have trouble keeping up with overgrown yards. The drought makes it worse and more likely to catch fire.

10 months ago

The so called "salvage" yard on road 5467, will be a Superfund project if SJC does not enforce the laws they voted in. No fence, no regulations followed. Come on SJC!

11 months ago

For my particular home/neighboorhood. Flash flooding is also an issue in certain locations.

11 months ago

Change San Juan County laws for vaping and cigarettes. Make vaping stores move out 15 miles from county border, change cigarette and smoking laws to age 25. Agree Dry county. Higher penalty for those holding drugs and even higher penalty for those selling them. Get them out of here!!!

11 months ago

San Juan is already do this use less water when in need.

11 months ago

Water storage, future water rights, and drought proofing infrastructure is paramount to our area. Face it, with the ignorant and science-denying administration and president we have now, climate change is accelerating. Farmington will be unlivable if the current trends don't change.

11 months ago

Add food born illness

11 months ago

It was a tie between flooding and wildfire. We experience both of these events often.

11 months ago

What hazard is your area LEAST at risk for?

33%	Hazard Materials	38 ✔
24%	Flood / Flash Flooding	28 ✔
24%	Wildfire	28 ✔
20%	Not Sure	23 ✔
1%	Drought	1 ✔

115 Respondents

so many natural gas lines all around the area, who is monitoring for leakage/breakage?

11 months ago ⊕2 Agree

Biggest haematology ares is the Envirotech land farm. There's always a chemical smell when ur visiting Angel peak and the surrounding areas.

10 months ago

None

10 months ago

although it can always happen we don't have much forest area

11 months ago

Only because we have a fire/rescue service and hydrant infrastructure to mitigate this. I do live in an area where the homes and vegetation are closely spaced.

11 months ago

At fast when hazard materials happens, have common sense.

11 months ago

Add active shooter

11 months ago

I am used to drought after 30+ years . Hazard materials are a concern because of indiscriminate dumping.

11 months ago

Tell us about your concerns about the following hazards

	No Concern	Some Concern	Moderate Concern	Significant Concern
Flood / Flash Flooding	19% No Concern	38% Some Concern	33% Moderate Concern	11% Significant Concern
Drought	- No Concern	12% Some Concern	30% Moderate Concern	58% Significant Concern
Wildfire	15% No Concern	35% Some Concern	33% Moderate Concern	18% Significant Concern
Hazard Materials	11% No Concern	51% Some Concern	22% Moderate Concern	17% Significant Concern

104 respondents

What is your occupation?

No data to display...

List historical instances when a weather event caused a disruption to your area. List Date, event, and short description.

Drought Last summer and current

8 months ago

Drought in2018-2019

10 months ago

Drought. Last summer

10 months ago

drought

10 months ago

We have been impacted by drought.

10 months ago

The drought has caused us to make water saving changes

10 months ago

I don't have any historical experience since I just moved here in July 2019 but I have heard about the floods in 2010 & 2013.

10 months ago

Flash floods in 2010 and 2013

10 months ago

wildfire, drought, semi-truck accidents

10 months ago

Can't think of any

10 months ago

This yr we've had lots of fires in my area. Last year a really bad fire burned along the river

10 months ago

1996 flooded arroyo behind LaJara trailer area on and thur Johnson

10 months ago

A couple of years ago when there was tons of rain and water pipes were washed out. We didn't have water for 3-4 days.

10 months ago

Hazard material dumped into animas 3 years ago

10 months ago

Plugged culverts caused massive flooding over night 64 and wrecked several homes.

10 months ago

Flash flood 2 or 3 years ago newby lane area in Bloomfield. Theres a runoff ditch from the main ditch that flooded and got about 50 foot wide

10 months ago

Flash flooding down 350. About 2 or 3 years ago

10 months ago

Animas River drought, down to a trickle, summer of 2018.

11 months ago

Things that happen to the Animas River. Jun 15 2019 overflowing of The Animas River it flooded Berg Park in Farmington, Jun 29,2018 the 416 fire near Durango Colorado Animas River suffered and are air too.

11 months ago

August 26th, 2015- 500 year flood

11 months ago

Fire in Durango cause poor air quality 2028.
The mine spill a few years back that turned out River yellow!
Every time it rains or the snow melts a lake appears and stays for a long time at intersection of hwy 64 and Road 6509. This is due to no drainage.

11 months ago

Hasnt yet.

11 months ago

September 2015

11 months ago

Gold king mine spill

11 months ago

MICHELLE LUJAN GRISHAM
GOVERNOR

NEW MEXICO DEPARTMENT OF HEALTH

KATHYLEEN M. KUNKEL
CABINET SECRETARY

AMENDED PUBLIC HEALTH ORDER
NEW MEXICO DEPARTMENT OF HEALTH
CABINET SECRETARY KATHYLEEN M. KUNKEL

MARCH 16, 2020

Public Health Emergency Order Limiting Mass Gatherings and Implementing Other Restrictions Due to COVID-19

WHEREAS, on January 30, 2020, the World Health Organization (WHO) announced the emergence of a novel Coronavirus Disease 2019 (referred to as "COVID-19") that had not previously circulated in humans, but has been found to have adapted to humans such that it is contagious and easily spread from one person to another and one country to another;

WHEREAS, on January 31, 2020, the United States Department of Health and Human Services (HHS) Secretary declared a public health emergency as a precautionary tool to facilitate preparation and availability of resources to assure that the federal government had appropriate resources to combat the spread of the COVID-19 virus in our nation through its support of state and community-led preparedness and response efforts;

WHEREAS, as of March 15, 2020, the New Mexico Department of Health has confirmed thirteen (13) cases of individuals infected with COVID-19 in New Mexico;

WHEREAS, on March 11, 2020, Michelle Lujan Grisham, the Governor of the State of New Mexico, declared in Executive Order 2020-004 ("EO 2020-004") that a Public Health Emergency exists in New Mexico under the Public Health Emergency Response Act, and invoked the All Hazards Emergency Management Act by directing all cabinets, departments and agencies to comply with the directives of the declaration and the further instructions of the Department of Health;

WHEREAS, as of March 12, 2020, I issued a Public Health Emergency Order to Limit Mass Gatherings Due to COVID-19, which limited certain public gatherings;

WHEREAS, the further spread of COVID-19 in the State of New Mexico poses a threat to the health, safety, wellbeing and property of the residents in the State due to, among other things, illness from COVID-19, illness-related absenteeism from employment (particularly among public safety and law enforcement personnel and persons engaged in activities and businesses critical to the economy and infrastructure of the State), and potential closures of schools or other places of public gathering; and

WHEREAS, the New Mexico Department of Health possesses legal authority pursuant to the Public Health Act, NMSA 1978, Sections 24-1-1 to -40, the Public Health Emergency Response Act, NMSA 1978, Sections 12-10A-1 to -10, the Department of Health Act, NMSA 1978, Sections 9-7-1 to -18, the authority granted in EO 2020-004, and in any inherent

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constitutional police powers of the New Mexico state government, to preserve and promote public health and safety, to adopt isolation and quarantine, and to close public places and forbid gatherings of people when deemed necessary by the Department for the protection of public health.

NOW, THEREFORE, I, Kathyleen M. Kunkel, Cabinet Secretary of the New Mexico Department of Health, in accordance with the authority vested in me by the Constitution and the Laws of the State of New Mexico, do hereby declare the current outbreak of COVID-19 a condition of public health importance as defined in the New Mexico Public Health Act, NMSA 1978, Section 24-1-2(A) as an infection, a disease, a syndrome, a symptom, an injury or other threat that is identifiable on an individual or community level and can reasonably be expected to lead to adverse health effects in the community, and that poses an imminent threat of substantial harm to the population of New Mexico.

The following definitions are adopted for the purposes of this Order:

Definitions: As used in this Public Health Order, the following terms shall have the meaning given to them, except where the context clearly requires otherwise:

(1) "Condition of public health importance" means an infection, a disease, a syndrome, a symptom, an injury or other threat that is identifiable on an individual or community level and can reasonably be expected to lead to adverse health effects in the community.

(2) "Disease" means an illness, including those caused by infectious agents or their toxic products which may be transmitted to a susceptible host.

(3) "Individuals" means natural persons.

(4) "Gathering" means any grouping together of individuals in a single connected location.

(5) "Mass gathering" means any public or private gathering that brings together one hundred (100) or more individuals in a single room or connected space in close proximity to one another, such as an auditorium, stadium, arena, large conference room, meeting hall, theaters, or any other confined indoor or outdoor space, but does not include normal operations at airports, or other spaces where 100 or more individuals may be in transit. "Mass gathering" also does not include family gatherings such as weddings or funerals, shelters, retail stores or grocery stores, typical office environments, courthouses, correctional and detention facilities, schools and educational institutions, hospitals, clinics, nursing homes, and other health care and congregate care facilities, and places of worship operating during "normal business hours".

(6) "Normal business hours" means the normal workday or typical time of operation for a "typical office environment".

(7) "Secretary" or "Secretary of Health" means the Cabinet Secretary of the Department of Health.

(8) "Typical office environments" includes private entities, governmental organizations, political subdivisions, or other entities engaged in commercial, industrial, or professional activities. "Typical office environments" does not include restaurants, bars, breweries, eateries, and other similar service establishments.

I HEREBY DIRECT AS FOLLOWS:

(1) All Mass Gatherings are hereby prohibited under the powers and authority set forth in the New Mexico Public Health Act, and all regulations promulgated pursuant thereto.

(2) All restaurants, bars, breweries, eateries, and other food service establishments shall operate at no greater than fifty percent of maximum occupancy, and no greater than fifty percent of seating capacity. Individual tables and booths may not seat more than six people, and all occupied tables and booths must be separated by at least six feet. Patrons may not be seated at bars and standing patrons shall not be served.

(3) All casinos and horse racing facilities, and attendant restaurant or bar operations shall close during the pendency of this Order. This directive excludes those casinos operating on Tribal lands.

I FURTHER DIRECT as follows:

(1) This Order shall be broadly disseminated in English, Spanish and other appropriate languages to the citizens of the State of New Mexico.

(2) This Order declaring restrictions based upon the existence of a condition of public health importance shall not abrogate any disease-reporting requirements set forth in the New Mexico Public Health Act.

(3) This Order shall remain in effect for the duration of Executive Order 2020-004. This Order may be renewed consistent with any direction from the Governor.

I FURTHER ADVISE the public to take the following preventive precautions:

- **New Mexico citizens are strongly advised to stay at home and undertake only those outings absolutely necessary for their health, safety, or welfare.**
- Avoid contact with people who are sick.
- Wash your hands often with soap and water for at least 20 seconds, especially after blowing your nose, coughing, or sneezing, or having been in a public place. If soap and water are not available, use a hand sanitizer that contains at least 60% alcohol.
- To the extent possible, avoid touching high-touch surfaces in public places – elevator buttons, door handles, handrails, handshaking with people, etc. Use a tissue or your sleeve to cover your hand or finger if you must touch something.
- Avoid touching your face, nose, eyes, etc.
- Clean and disinfect your home to remove germs: practice routine cleaning of frequently touched surfaces (for example: tables, doorknobs, light switches, handles, desks, toilets, faucets, sinks & cell phones).
- Avoid crowds, especially in poorly ventilated spaces. Your risk of exposure to respiratory viruses like COVID-19 may increase in crowded, closed-in settings with little air circulation if there are people in the crowd who are sick.
- Avoid all non-essential travel including plane trips and cruise ships.

THIS ORDER amends the Public Health Emergency Order to Limit Mass Gatherings Due to COVID-19 issued on March 12, 2020, supersedes any other previous orders, proclamations, or directives in conflict. This Order shall take effect immediately and shall remain in effect until otherwise rescinded.

ATTEST:

MAGGIE TOULOUSE OLIVER
SECRETARY OF STATE

DONE AT THE EXECUTIVE OFFICE
THIS 16TH DAY OF MARCH 2020

WITNESS MY HAND AND THE GREAT
SEAL OF THE STATE OF NEW MEXICO

KATHYLEEN M. KUNKEL
SECRETARY OF THE STATE OF NEW MEXICO
DEPARTMENT OF HEALTH

MICHELLE LUJAN GRISHAM
GOVERNOR

NEW MEXICO DEPARTMENT OF HEALTH

KATHYLEEN M. KUNKEL
CABINET SECRETARY

PUBLIC HEALTH ORDER
NEW MEXICO DEPARTMENT OF HEALTH
CABINET SECRETARY KATHYLEEN M. KUNKEL

JULY 13, 2020

Public Health Emergency Order Clarifying that Current Guidance Documents, Advisories, and Emergency Public Health Orders Remain in Effect; and Amending the March 23, 2020, April 6, 2020, April 11, 2020, April 30, 2020, May 5, 2020, May 15, 2020, May 27, 2020, June 1, 2020, June 12, 2020, June 15, 2020, and June 30, 2020 Public Health Emergency Orders Closing All Businesses and Non-Profit Entities Except for those Deemed Essential and Providing Additional Restrictions on Mass Gatherings Due to COVID-19

PREFACE

The purpose of this amended Public Health Emergency Order is to amend restrictions on mass gatherings and business operations, which were implemented in response to the spread of the Novel Coronavirus Disease 2019 ("COVID-19"). Continued social distancing and self-isolation measures are necessary to protect public health given the potentially devastating effects that could result from a rapid increase in COVID-19 cases in New Mexico. While this Order continues some loosened restrictions on mass gatherings and business operations, the core directive underlying all prior public health initiatives remains intact; **all New Mexicans should be staying in their homes for all but the most essential activities and services.** When New Mexicans are not in their homes, they must strictly adhere to social distancing protocols and wear face coverings to minimize risks. These sacrifices are the best contribution that each of us can individually make to protect the health and wellbeing of our fellow citizens and the State as a whole. In accordance with these purposes, this Order and its exceptions should be narrowly construed to encourage New Mexicans to stay in their homes for all but the most essential activities.

It is hereby **ORDERED** that:

1. All current guidance documents and advisories issued by the Department of Health remain in effect.

2. The following Public Health Emergency Orders remain in effect through the current Public Health Emergency and any subsequent renewals of that Public Health Emergency or until they are amended of rescinded:

   A. March 13, 2020 Public Health Emergency Order to Temporarily Limit Nursing Home Visitation Due to COVID-19;

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B. April 30, 2020 Public Health Emergency Order Modifying Temporary Restrictions on Non-Essential Health Care Services, Procedures, and Surgeries; and

C. March 24, 2020 Public Health Emergency Order Temporarily Regulating the Sale and Distribution of Personal Protective Equipment Due to Shortages Caused by COVID-19.

3. The June 30, 2020 Public Health Emergency Order Amending the March 23, 2020, April 6, 2020, April 11, 2020, April 30, 2020, May 5, 2020, May 15, 2020, May 27, 2020, June 1, 2020, June 12, 2020, and June 15, 2020 Public Health Emergency Orders Closing All Businesses and Non-Profit Entities Except for those Deemed Essential and Providing Additional Restrictions on Mass Gatherings Due to COVID-19 is hereby amended as follows:

ORDER

WHEREAS, on March 11, 2020, because of the spread of the novel Coronavirus Disease 2019 ("COVID-19"), Michelle Lujan Grisham, the Governor of the State of New Mexico, declared that a Public Health Emergency exists in New Mexico under the Public Health Emergency Response Act, and invoked her authority under the All Hazards Emergency Management Act;

WHEREAS, Governor Michelle Lujan Grisham has renewed the declaration of a Public Health Emergency through July 30, 2020;

WHEREAS, COVID-19 continues to spread in New Mexico and nationally. Since, Executive Order 2020-004 was issued, confirmed COVID-19 infections in New Mexico have risen to almost 15,000 and confirmed cases in the United States have risen to more than 3.1 million, with significant recent spikes in cases in some of our neighboring states;

WHEREAS, the further spread of COVID-19 in the State of New Mexico poses a threat to the health, safety, wellbeing and property of the residents in the State due to, among other things, illness from COVID-19, illness-related absenteeism from employment (particularly among public safety and law enforcement personnel and persons engaged in activities and businesses critical to the economy and infrastructure of the State), potential displacement of persons, and closures of schools or other places of public gathering;

WHEREAS, social distancing and the consistent and proper use of face coverings in public spaces are the most effective ways New Mexicans can minimize the spread of COVID-19 and mitigate the potentially devastating impact of this pandemic in New Mexico; and

WHEREAS, the New Mexico Department of Health possesses legal authority pursuant to the Public Health Act, NMSA 1978, Sections 24-1-1 to -40, the Public Health Emergency Response Act, NMSA 1978, Sections 12-10A-1 to -10, the Department of Health Act, NMSA 1978, Sections 9-7-1 to -18, and inherent constitutional police powers of the New Mexico state government, to preserve and promote public health and safety, to adopt isolation and quarantine,

and to close public places and forbid gatherings of people when deemed necessary by the Department for the protection of public health.

NOW, THEREFORE, I, Kathyleen M. Kunkel, Cabinet Secretary of the New Mexico Department of Health, in accordance with the authority vested in me by the Constitution and the Laws of the State of New Mexico, and as directed by the Governor pursuant to the full scope of her emergency powers under the All Hazard Emergency Management Act, do hereby declare the current outbreak of COVID-19 a condition of public health importance as defined in the New Mexico Public Health Act, NMSA 1978, Section 24-1-2(A) as an infection, a disease, a syndrome, a symptom, an injury or other threat that is identifiable on an individual or community level and can reasonably be expected to lead to adverse health effects in the community, and that poses an imminent threat of substantial harm to the population of New Mexico.

The following definitions are adopted for the purposes of this Order:

Definitions: As used in this Public Health Order, the following terms shall have the meaning given to them, except where the context clearly requires otherwise:

(1) "Essential business" means any business or non-profit entity falling within one or more of the following categories:

a. Health care operations including hospitals, walk-in-care health facilities, pharmacies, medical wholesale and distribution, home health care workers or aides for the elderly, emergency dental facilities, nursing homes, residential health care facilities, research facilities, congregate care facilities, intermediate care facilities for those with intellectual or developmental disabilities, supportive living homes, home health care providers, drug and alcohol recovery support services, and medical supplies and equipment manufacturers and providers;

b. Homeless shelters, food banks, and other services providing care to indigent or needy populations;

c. Childcare facilities necessary to provide services to those workers employed by essential businesses, essential non-profit entities, and other operating non-essential businesses;

d. Grocery stores, supermarkets, food banks, farmers' markets and vendors who sell food, convenience stores, and other businesses that generate the majority of their revenue from the sale of canned food, dry goods, fresh fruits and vegetables, pet food, feed, and other animal supply stores, fresh meats, fish, and poultry, and any other household consumer products;

e. Farms, ranches, and other food cultivation, processing, or packaging operations;

f. All facilities routinely used by law enforcement personnel, first responders, firefighters, emergency management personnel, and dispatch operators;

g. Infrastructure operations including, but not limited to, public works construction, commercial and residential construction and maintenance, airport operations, public transportation, airlines, taxis, private transportation providers, transportation network companies, water, gas, electrical, oil drilling, oil refining, natural resources extraction or mining operations, nuclear material research and enrichment, those attendant to the repair and construction of roads and highways, gas stations, solid waste collection and removal, trash and recycling collection, processing and disposal, sewer, data and internet providers, data centers, technology support operations, and telecommunications systems;

h. Manufacturing operations involved in food processing, manufacturing agents, chemicals, fertilizer, pharmaceuticals, sanitary products, household paper products, microelectronics/semi-conductor, primary metals manufacturers, electrical equipment, appliance, and component manufacturers, and transportation equipment manufacturers;

i. Services necessary to maintain the safety and sanitation of residences or essential businesses including security services, towing services, custodial services, plumbers, electricians, and other skilled trades;

j. Veterinary and livestock services, animal shelters, and facilities providing pet adoption, grooming, daycare, or boarding services;

k. Media services including television, radio, and newspaper operations;

l. Automobile repair facilities, bike repair facilities, and retailers who generate the majority of their revenue from the sale of automobile or bike repair products. Contactless car washes, which are those that do not require person-to-person interaction between customers and employees, are permitted to operate;

m. Hardware stores and self-storage facilities;

n. Laundromats and dry cleaner services;

o. Utilities, including their contractors, suppliers, and supportive operations, engaged in power generation, fuel supply and transmission, water and wastewater supply;

p. Funeral homes, crematoriums and cemeteries;

q. Banks, credit unions, insurance providers, payroll services, brokerage services, and investment management firms;

r. Real estate services including brokers, title companies, and related services;

s. Businesses providing mailing and shipping services, including post office boxes;

t. Laboratories and defense and national security-related operations supporting the United States government, a contractor to the United States government, or any federal entity;

u. "Restaurants" are those operations that generated at least 50% of their sales from dine-in services from the sale of food during the last calendar year. Sales made to customers for off-site consumption such as the sale of growlers, wholesale revenues, and to-go items are excluded from this calculation. "Local breweries" are those businesses licensed pursuant to NMSA 1978, § 60-6A-26.1. Restaurants may provide either delivery or carryout service. No dine-in service may be provided in indoor seating areas. Restaurants and local breweries may provide dine-in service in outdoor seating areas only at up to 50% of their outdoor fire code occupancy. Outdoor dine-in service may only be provided to patrons who are seated. Tables must be placed with at least six feet of distance between tables. No more than six patrons may be seated at any single table. No bar or counter seating is permitted. Restaurants and local breweries must operate in compliance with applicable occupancy restrictions and COVID-Safe Practices (CSPs) for Restaurants" section of the "All Together New Mexico: COVID-Safe Practices for Individuals and Employers". Local wineries and distillers may operate but only for carry out service.

v. Professional services, such as legal or accounting services, but only where necessary to assist in compliance with legally mandated activities; and

w. Logistics, and also businesses that store, transport, or deliver groceries, food, materials, goods or services directly to residences, retailers, government institutions, or essential businesses.

(2) "Individuals" means natural persons.

(3) "Gathering" means any grouping together of individuals in a single connected location.

(4) "Mass gathering" means any public gathering, private gathering, organized event, ceremony, parade, or other grouping that brings together five (5) or more individuals in a single room or connected space, confined outdoor space or an open outdoor space. "Mass gathering" does not include the presence of five (5) or more individuals where

those individuals regularly reside. "Mass gathering" does not include individuals who are public officials or public employees in the course and scope of their employment.

(5) "Houses of worship" means any church, synagogue, mosque, or other gathering space where persons congregate to exercise their religious beliefs.

(6) "Close-contact business" includes barbershops, hair salons, tattoo parlors, nail salons, spas, massage parlors, esthetician clinics, tanning salons, guided raft tours, guided balloon tours, gyms, and personal training services for up to two trainees.

(7) "Recreational facilities" include indoor movie theaters, museums, bowling alleys, miniature golf, arcades, amusement parks, concert venues, event venues, performance venues, go-kart courses, adult entertainment venues, and other places of indoor recreation or indoor entertainment.

(8) "Bars" are defined as food and beverage service establishments that derived more than 50% of their revenue in the prior calendar year from the sale of alcoholic beverages. Bars must remain closed during the pendency of this Public Health Order.

(9) "COVID-Safe Practices" ("CSPs") are those directives, guidelines, and recommendations for businesses and other public operations that are set out and memorialized in the document titled "All Together New Mexico: COVID-Safe Practices for Individuals and Employers". That document may be obtained at the following link https://cv.nmhealth.org/covid-safe-practices/.

(10) "Places of lodging" means all hotels, motels, RV parks, co-located short-term condominium rentals with a central check-in desk, and short-term vacation rentals.

(11) "Retail space" means any essential business that sells goods or services directly to consumers or end-users such as grocery stores or hardware stores and includes the essential businesses identified in the categories above: 1(d), 1(l), 1(m), 1(p), and 1(s).

I HEREBY DIRECT AS FOLLOWS:

(1) Except as provided elsewhere in this Order, all "mass gatherings" are hereby prohibited under the powers and authority set forth in the Public Health Act. An indoor or outdoor parade of any sort is a mass gathering; parades are therefore prohibited under this Order.

(2) "Houses of worship" may hold services and other functions, indoors or outdoors, provided that they comply with the "COVID-Safe Practices (CSPs) for Houses of Worship" section of the "All Together New Mexico: COVID-Safe Practices for Individuals and Employers". Further, "houses of worship" may not exceed 25% of the maximum occupancy of any enclosed building, as determined by the relevant fire marshal or fire department. Nothing in this order is intended to preclude these faith-based institutions from holding services through audiovisual means.

(3) Essential businesses" may open but must operate in accordance with the pertinent "COVID-Safe Practices (CSPs)" section(s) of the "All Together New Mexico: COVID-Safe Practices for Individuals and Employers" and also any identified occupancy restrictions.

(4) "Recreational facilities" must remain closed.

(5) Any business that is not identified as an "essential business" or a "recreational facility" may open provided that the total number of persons situated within the business does not exceed 25% of the maximum occupancy of any enclosed space on the business's premises, as determined by the relevant fire marshal or fire department.

(6) Businesses identified as a "retail space" may operate provided that the total number of persons situated within the business does not exceed 25% of the maximum occupancy of any enclosed space on the business's premises, as determined by the relevant fire marshal or fire department. Any business opening pursuant to this provision must comply with the pertinent CSP's set out in the "All Together New Mexico: COVID-Safe Practices for Individuals and Employers". A "retail space" may not allow a person who is without a mask or multilayer cloth face covering to enter the premises except where that person is in possession of a written exemption from a healthcare provider.

(7) Indoor shopping malls are permitted to operate provided that the total number of persons within the mall at any given time does not exceed 25% of the maximum occupancy of the premises, as determined by the relevant fire marshal or fire department. Further, loitering within the indoor shopping mall is not permitted and food courts must remain closed.

(8) "Close contact businesses" may operate at up to 25% of the maximum occupancy of any enclosed space on the business's premises, as determined by the relevant fire marshal or fire department, but may not conduct group fitness classes. All individuals inside a "close contact business" must wear face-coverings.

(9) Public swimming pools may open but such facilities are limited to lane-swimming and lessons with up to two students only. Play and splash areas shall be closed. Public swimming pools may not exceed 50% of their maximum occupancy.

(10) If customers are waiting outside of a business, the business must take reasonable measures to ensure that customers maintain a distance of at least six-feet from other individuals and avoid person-to-person contact.

(11) Bars are not permitted to operate other than for take-out and delivery if otherwise permitted under their applicable licenses.

(12) "Places of lodging" shall not operate at more than 50% percent of maximum occupancy. Health care workers who are engaged in the provision of care to New Mexico residents or individuals utilizing lodging facilities for extended stays, as temporary housing, or for purposes of a quarantine or isolation period shall not be counted for purposes of determining maximum occupancy. All places of lodging should comply with the "COVID-Safe Practices (CSPs) for Hotels, Resorts, & Lodging" section of the "All Together New Mexico: COVID-Safe Practices for

Individuals and Employers". In the case of vacation rentals, occupancy shall be determined based upon the number properties managed by a property manager.

(13) Unless a healthcare provider instructs otherwise, all individuals shall wear a mask or multilayer cloth face covering in public settings except when eating, drinking, or swimming. Further, all individuals should comply with the "COVID-Safe Practices (CSPs) for All New Mexicans" section of the "All Together New Mexico: COVID-Safe Practices for Individuals and Employers".

(14) All casinos shall close during the pendency of this Order. This directive excludes those casinos operating on Tribal lands. Horse racing facilities may operate without spectators.

(15) This Order does not limit animal shelters, zoos, and other facilities with animal care operations from performing tasks that ensure the health and welfare of animals. Those tasks should be performed with the minimum number of employees necessary, for the minimum amount of time necessary, and with strict adherence to all social distancing protocols.

(16) Golf courses may open provided that they operate in accordance with the "COVID-Safe Practices (CSPs) for Golf Course" section of the "All Together New Mexico: COVID-Safe Practices for Individuals and Employers". Restaurants and other golf course concessions must adhere to operative CSP's.

(17) Outdoor tennis facilities may open for outdoor use only and provided that they operate in accordance with the pertinent "All Together New Mexico: COVID-Safe Practices for Individuals and Businesses".

(18) Organized amateur contact sports are prohibited. For purposes of this order, "contact sports" includes, inter alia, football, wrestling, basketball, and soccer. This prohibition extends to adult or youth recreational leagues and club sports, as well as any school-sponsored or school-sanctioned leagues and teams. This prohibition should be broadly construed and is intended to include organized practices and games and any other in-person group activities.

(19) State parks may open on a modified basis, subject to staff availability, and shall only be open to New Mexico residents. They may only be open for day use. Camping areas, visitor centers, and any other large enclosed indoor spaces normally open to the public shall remain closed. As a condition of entering a state park, all visitors must demonstrate proof of residency through one of the following means: a New Mexico license plate on their vehicle; a New Mexico driver's license or ID card; a valid New Mexico vehicle registration; a federal document attesting to residency; or a military identification.

(20) Summer youth programs may operate on a limited basis that complies with the pertinent CSP's set out in the "All Together New Mexico: COVID-Safe Practices for Individuals and Employers".

(21) The New Mexico Department of Public Safety, the New Mexico Department of Homeland Security and Emergency Management, the Department of the Environment, and all other State departments and agencies are authorized to take all appropriate steps to ensure compliance with this Order.

(22) In order to minimize the shortage of health care supplies and other necessary goods, grocery stores and other retailers are hereby directed to limit the sale of medications, durable medical equipment, baby formula, diapers, sanitary care products, and hygiene products to three items per individual. NMSA 1978, § 12-10A-6 (2012).

I FURTHER DIRECT as follows:

(1) This Order shall be broadly disseminated in English, Spanish and other appropriate languages to the citizens of the State of New Mexico.

(2) This Order declaring restrictions based upon the existence of a condition of public health importance shall not abrogate any disease-reporting requirements set forth in the New Mexico Public Health Act.

(3) Nothing in this Order is intended to restrain or preempt local authorities from enacting more stringent restrictions than those required by the Order.

(4) This Order shall take effect on July 13, 2020 and remain in effect through July 30, 2020.

I FURTHER ADVISE the public to take the following preventive precautions:

- **New Mexico citizens should stay at home and undertake only those outings absolutely necessary for their health, safety, or welfare.**
- Retailers should take appropriate action consistent with this order to reduce hoarding and ensure that all New Mexicans can purchase necessary goods.
- Avoid crowds.
- Avoid all non-essential travel including plane trips and cruise ships.

ATTEST:

Maggie Toulouse Oliver

MAGGIE TOULOUSE OLIVER
SECRETARY OF STATE

DONE AT THE EXECUTIVE OFFICE
THIS 13TH DAY OF JULY 2020

WITNESS MY HAND AND THE GREAT
SEAL OF THE STATE OF NEW MEXICO

KATHYLEEN M. KUNKEL
SECRETARY OF THE STATE OF
NEW MEXICO DEPARTMENT OF HEALTH

San Juan County Office of Emergency Management
209 South Oliver • Aztec, NM 87410
(505) 334-7700 • www.SJCOEM.com

PRESS RELEASE
July 27, 2020

Media Contact: Devin Neeley, Public Relations Manager
(505) 386-8325 • Devin.Neeley@SJCounty.net

For Immediate Release

San Juan County Seeks Public Input on Draft of Updated Multi-Jurisdictional Natural Hazard Mitigation Plan

AZTEC, NM— The San Juan County Office of Emergency Management is in the process of updating the County's Multi-Jurisdictional Natural Hazard Mitigation Plan.

Mitigation planning helps local leaders better understand the risks from a variety of hazards and develop long-term strategies that will reduce the impacts of future events on people, property, and the environment.

As a key part of the project, the County is seeking input from area residents and businesses on the draft plan.

All are encouraged to provide feedback during the public comment period, which will be open July 27- August 7, 2020. Feedback can be submitted online at SJCounty.net/HMPFeedback

Once the final plan is adopted, it will be submitted to the State of New Mexico and the Federal Emergency Management Agency (FEMA) for approval.

"Hazard mitigation planning is the foundation of San Juan County's emergency management program," said Michele Truby-Tillen, Floodplain Manager for San Juan County. "The project helps us to understand and minimize hazards with the greatest potential impacts on our communities, while opening needed funding sources."

The Federal Disaster Mitigation Act of 2000 (DMA 2000) requires counties to update their plan every five years in order to maintain eligibility for certain federal disaster assistance and hazard mitigation funding programs.

-30-

Building a Stronger Community

THE Durango HERALD

New Mexico

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San Juan County, N.M., seeks public comments on natural hazard mitigation plan

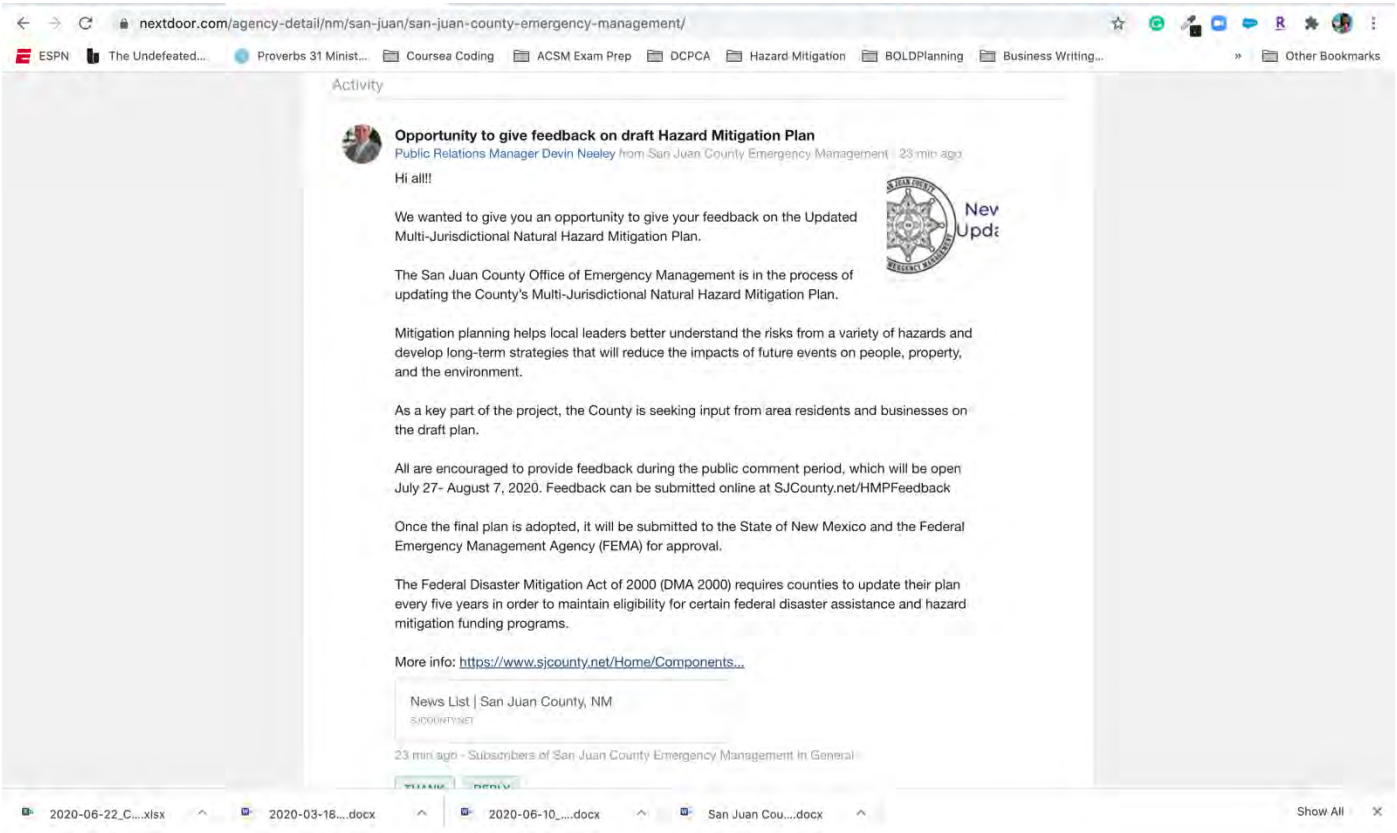
Monday, July 27, 2020 8:27 PM

The San Juan County Office of Emergency Management is in the process of updating the county's Multi-Jurisdictional Natural Hazard Mitigation Plan.

Mitigation planning helps local leaders better understand the risks from a variety of hazards and develop long-term strategies that will reduce the impacts of future events on people, property and the environment. As a key part of the project, the county is seeking input from residents and businesses.

All are encouraged to provide feedback during the public comment period, which is open through Aug. 7. Feedback may be submitted online at www.SJCounty.net/HMPFeedback (//durangoherald.com/lms/loading.html#rotftwetu=aHR0cHMlM0EvL2R1cmFuZ29oZXJhbGQuY29tL2FydGljbGVzLzMzMzI4OC1zYW

Once the final plan is adopted, it will be submitted to the state of New Mexico and the Federal Emergency Management Agency for approval. The Federal Disaster Mitigation Act of 2000 requires counties to update their plans every five years to maintain eligibility for certain federal disaster assistance and hazard mitigation funding programs.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Activity
Opportunity to give feedback on draft Hazard Mitigation Plan
Public Relations Manager Devin Neeley from San Juan County Emergency Management · 23 min ago
Hi all!!
We wanted to give you an opportunity to give your feedback on the Updated Multi-Jurisdictional Natural Hazard Mitigation Plan.
The San Juan County Office of Emergency Management is in the process of updating the County's Multi-Jurisdictional Natural Hazard Mitigation Plan.
Mitigation planning helps local leaders better understand the risks from a variety of hazards and develop long-term strategies that will reduce the impacts of future events on people, property, and the environment.
As a key part of the project, the County is seeking input from area residents and businesses on the draft plan.
All are encouraged to provide feedback during the public comment period, which will be open July 27- August 7, 2020. Feedback can be submitted online at SJCounty.net/HMPFeedback
Once the final plan is adopted, it will be submitted to the State of New Mexico and the Federal Emergency Management Agency (FEMA) for approval.
The Federal Disaster Mitigation Act of 2000 (DMA 2000) requires counties to update their plan every five years in order to maintain eligibility for certain federal disaster assistance and hazard mitigation funding programs.
More info: https://www.sjcounty.net/Home/Components...
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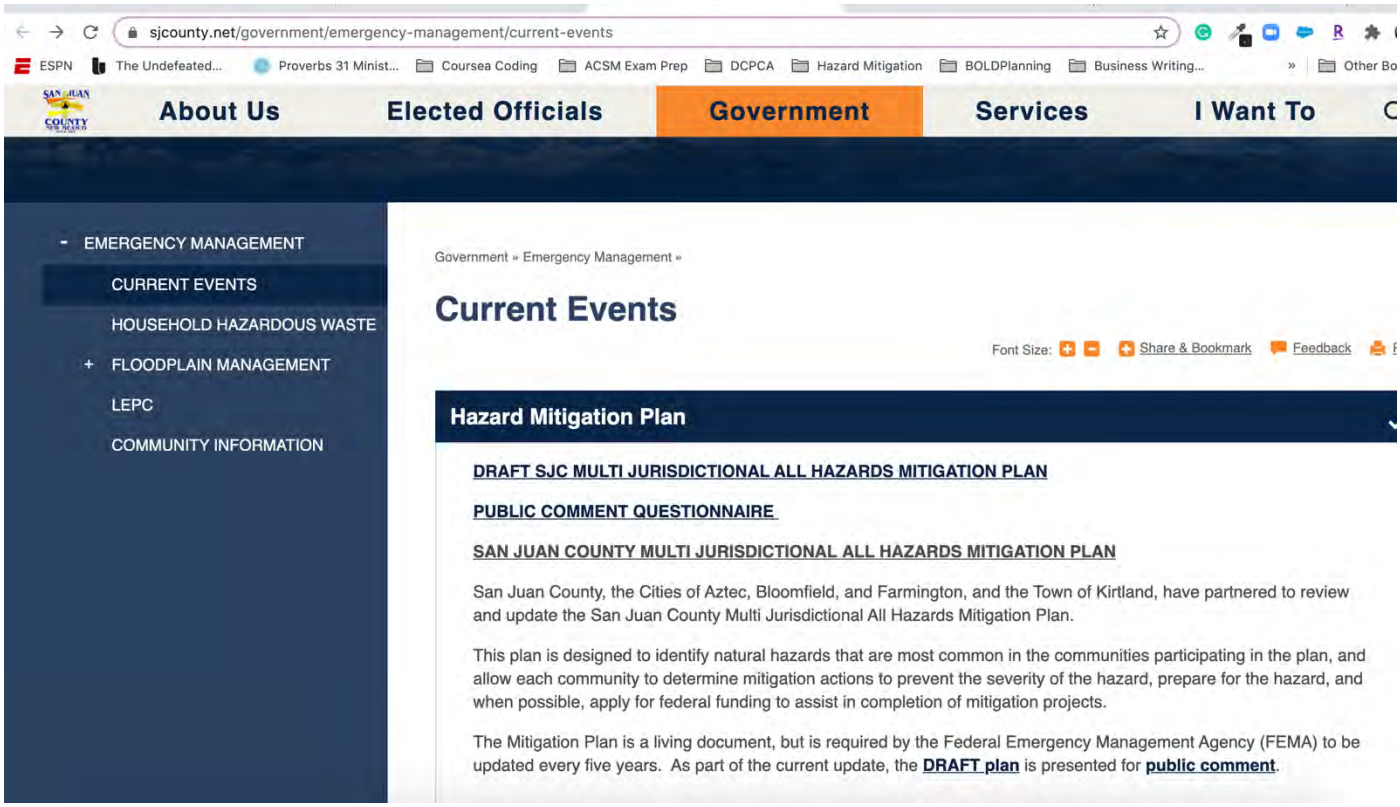
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Hazard Mitigation Plan
DRAFT SJC MULTI JURISDICTIONAL ALL HAZARDS MITIGATION PLAN
PUBLIC COMMENT QUESTIONNAIRE
SAN JUAN COUNTY MULTI JURISDICTIONAL ALL HAZARDS MITIGATION PLAN
San Juan County, the Cities of Aztec, Bloomfield, and Farmington, and the Town of Kirtland, have partnered to review and update the San Juan County Multi Jurisdictional All Hazards Mitigation Plan.
This plan is designed to identify natural hazards that are most common in the communities participating in the plan, and allow each community to determine mitigation actions to prevent the severity of the hazard, prepare for the hazard, and when possible, apply for federal funding to assist in completion of mitigation projects.
The Mitigation Plan is a living document, but is required by the Federal Emergency Management Agency (FEMA) to be updated every five years. As part of the current update, the DRAFT plan is presented for public comment.


PublicInput.com
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San Juan County, NM Hazard Mitigation Plan - Open Comment Survey
VIEWS
16
PARTICIPANTS
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San Juan County, NM Hazard Mitigation Plan - Open Comment Survey

Translate

The San Juan County Office of Emergency Management (SCJOEM), in partnership with Tennessee-based BOLDplanning, Inc, is in the process of updating the County's Multi-Hazard Mitigation Plan. Mitigation planning helps local leaders better understand risks from natural hazards, and develop long-term strategies that will reduce the impact of future events on people, property, and environment. As part of the activity, the County, including the jurisdictions Aztec, Bloomfield, Farmington, and the Town of Kirtland, is seeking feedback from residents and businesses to incorporate into the plan. Please review the draft of the plan located on the County's website and use this survey is to provide feedback and input on this Multi-Hazard Mitigation Plan update before submission to the New Mexico Department of Homeland Security and Emergency Management and FEMA.

If you have any questions about the survey or issues using the survey, please contact Emily Long at (615) 469-5558 or email HELP@boldplanning.com Thank you so much for your participation, BOLDplanning and San Juan County OEM greatly appreciate it!

What is your Name (First and Last Name)?

Share your thoughts and ideas...

Your name (optional)

Name

Email

Email

Comment

Post Publicly

* What is your email address?

Share your thoughts and ideas...

Your name (optional)

Name

Email

Email

Comment

Post Publicly

* What is your zip code?

Share your thoughts and ideas...

Your name (optional)

Name

Email

Email

Comment

Post Publicly

* What do you do for work and what is your job title?

Share your thoughts and ideas...

Comment

Post Publicly

Section 1: Planning Area

Use the space below to provide your feedback and comments related to this section of the San Juan County HMP Plan.

Share your thoughts and ideas...

Your name (optional)

Name

Email

Email

Comment

Post Publicly

Section 2: Local Resources & Procedures

Use the space below to provide your feedback and comments related to this section of the San Juan County HMP Plan.

Share your thoughts and ideas...

Your name (optional)

Name

Email

Email

Comment

Post Publicly

Section 3: Planning Area

Use the space below to provide your feedback and comments related to this section of the San Juan County HMP Plan.

Share your thoughts and ideas...

Your name (optional)

Name

Email

Email

Comment

Post Publicly

Section 4: Hazard Risk Assessment

Use the space below to provide your feedback and comments related to this section of the San Juan County HMP Plan

San Juan County HMP Plan.

Share your thoughts and ideas...

Your name (optional)

Name

Email

Email

Comment

Post Publicly

Section 5: Mitigation Strategies

Use the space below to provide your feedback and comments related to this section of the San Juan County HMP Plan.

Share your thoughts and ideas...

Your name (optional)

Name

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Post Publicly

Provide any additional feedback or comments related to the San Juan County Multi-Hazard Mitigation Plan Update.

Share your thoughts and ideas...

Your name (optional)

Name

Email

Email

Comment

Appendix D – Critical Facilities & Infrastructure

Table 38: Critical Facilities

Critical Facilities for San Juan County, New Mexico, and the Cities of Aztec, Bloomfield, and Farmington, New Mexico, and the Town of Kirtland, New Mexico	
Name	**Facility Type**
[redacted]	[redacted]

Table 38: Critical Facilities (Cont'd)

Critical Facilities for San Juan County, New Mexico, and the Cities of Aztec, Bloomfield, and Farmington, New Mexico, and the Town of Kirtland, New Mexico	
Name	**Facility Type**
[redacted]	[redacted]

Table 38: Critical Facilities (Cont'd)

Critical Facilities for San Juan County, New Mexico, and the Cities of Aztec, Bloomfield, and Farmington, New Mexico, and the Town of Kirtland, New Mexico	
Name	**Facility Type**
[redacted]	[redacted]

Appendix E – Mitigation Project Prioritization

Table 39: Mitigation Project Prioritization, San Juan County

Mitigation Project Prioritization, San Juan County											
Mitigation Project or Activity	**Jurisdiction**	**STAPLE+E**	**Total Impact**	**Effectiveness Multiplier**	**Hazards**				**Hazard Total**	**Risk Assessment Number (HRT Value)**	**Priority**
					Droughts	**Hazardous Materials**	**Flooding**	**Wildfire**			
Partner with Federal and State agencies to ensure floodplain determinations are completed prior to development approval	San Juan County	26	11	1	-	-	15	-	15	15	**Medium**
Identify flash flood hazard areas using past event and future development trends. Using engineering consultation, develop new Special Flood Hazard Area boundaries or enhance existing NFIP Flood Hazard boundaries	San Juan County	26	11	1	-	-	15	-	15	15	**Medium**

Enact legislation for San Juan County concerning the responsibility for keeping waterways clear of debris and vegetation that can magnify the effects of flooding	San Juan County	26	11	1	-	-	15	-	15	15	**Medium**
Identify areas of the river bottom in the public domain and create priorities and thinning projects to reduce the potential for wild land fire throughout the County	San Juan County	26	11	1	-	-	-	15	15	15	**Medium**
Provide private landowners in the river bottom area with information concerning the necessity for clearing potential fuel from their land and instructions for creating defensible space around all structures	San Juan County	26	11	1	-	-	-	15	15	15	**Medium**

Develop a bypass route that will eliminate the transport of hazardous material through the most heavily populated areas of the County	San Juan County	26	11	1.5	-	10	-	-	10	10	**Medium**
Identify and plan for bank stabilization projects along waterways in the County	San Juan County	25	10	1	-	-	15	-	15	15	**Low**
Identify all unlined irrigation ditches within San Juan County and develop a plan to line them	San Juan County	25	10	1	15	-	-	-	15	15	**Low**
Provide rebates for the conversion of existing home toilets and showerheads to low flow systems and the retrofitting of gray water recovery systems	San Juan County	25	10		15	-	-	-	15	15	**Low**

Improve the emergency communications system in order to provide a “reverse 911” alert system for the County and its participating jurisdictions	San Juan County	25	10	1.5	-	10	-	-	10	10	**Low**
Enact legislation regarding water use during drought conditions that raises the level of restriction as drought conditions become more severe	San Juan County	24	9	1	15	-	-	-	15	15	**Low**
Establish a public education and awareness program to provide residents with information concerning drought and water conservation	San Juan County	24	9	1	15	-	-	-	15	15	**Low**

Enact legislation for the mandatory installation of gray water recovery systems in new construction projects	San Juan County	23	8	1	15	-	-	-	15	15	**Low**
Educate the public about actions to take during a HAZMAT incident	San Juan County	20	10	1	-	10	-	-	10	10	**Low**
SJC Flood Damage Prevention Program	San Juan County	18.5	11	0.5	-	-	15	-	15	15	**Low**
Enact legislation concerning the mandatory use of low flow toilets and showerheads in all new construction within the unincorporated areas of the County	San Juan County	18.5	11	0.5	15	-	-	-	15	15	**Low**

Identify the amount and types of hazardous material presently moving through the County	San Juan County; New Mexico State Highway Department	18	8	1	-	10	-	-	10	10	**Low**
Partner with local utility agencies and other jurisdictions to ensure floodplain determinations are completed prior to development approval	San Juan County	16.5	9	0.5	-	-	15	-	15	15	**Low**
Create internal policy and procedure to ensure all proposed development, structural and non-structural, have floodplain determinations prior to approval of development	San Juan County	15.5	8	0.5	-	-	15	-	15	15	**Low**

Determine the most critical locations where hazardous material transport accidents have been occurring within San Juan County	San Juan County	15	10	0.5	-	10	-	-	10	10	**Low**

Table 40: Mitigation Project Prioritization, City of Aztec

Mitigation Project Prioritization, City of Aztec											
Mitigation Project or Activity	**Jurisdiction**	**STAPLE+E**	**Total Impact**	**Effectiveness Multiplier**	**Hazards**				**Hazard Total**	**Risk Assessment Number (HRT Value)**	**Priority**
					Droughts	**Hazardous Materials**	**Flooding**	**Wildfire**			
Construct a new water storage tank	City of Aztec	35.5	13	1.5	15	-	-	-	15	15	**Medium**
Complete riverbank stabilization projects along the Animas River in areas experiencing erosion and severe stream change that has the potential to impact structures and public facilities	City of Aztec	34.5	12	1.5	-	-	15	-	15	15	**Medium**

Complete riverbank stabilization projects along the Animas River in areas experiencing erosion and severe stream change that has the potential to impact structures and public facilities	City of Aztec	33.5	11	1.5	-	-	15	-	15	15	**Medium**
Complete cleanup and mitigation activities on properties bordering waterways, particularly underneath or near bridges experiencing high over-growth and accumulation of debris against pylons and supports	City of Aztec	32.5	10	1.5	-	-	15	-	15	15	**Medium**
Conduct regular inspections of private properties traversed by waterways to identify obstruction or overgrowth hazards	City of Aztec	32.5	10	1.5	-	-	15	-	15	15	**Medium**

Secure funding for the replacement of failing water storage tank.	City of Aztec	32.5	10	1.5	15	-	-	-	15	15	**Medium**
Provide rebates for the conversion of existing home toilets and showerheads to low flow systems as well as renovations that include the installation of gray water recovery systems	City of Aztec	32.5	10	1.5	15	-	-	-	15	15	**Medium**
Repair existing gabions utilized for bank stabilization	City of Aztec	31.5	9	1.5	-	-	15	-	15	15	**Medium**
Design Flood Hazard Mitigation website for the City to provide existing and future residents and business owners with easy access to vital information, data and maps, and forms on Flood Hazard Mitigation regulations and activities	City of Aztec	27	12	1	15	-	-	-	15	15	**Medium**

Conduct inspections and complete an inventory of all existing culverts and bridges crossing waterways in Aztec; replace, repair, or remove culverts and bridges as necessary	City of Aztec	27	12	1	-	-	15	-	15	15	**Medium**
Finalize funding and contract agreements for Phase 1B; identify the amount and types of hazardous material presently moving through the City	City of Aztec	27	12	1.5	-	10	-	-	10	10	**Medium**
Complete construction of Phase 1B	City of Aztec	27	12	1.5	-	10	-	-	10	10	**Medium**
Develop regulations governing the maintenance of waterways within the City	City of Aztec	26	11	1	-	-	15	-	15	15	**Medium**

Complete application for National Flood Insurance Program (NFIP) Community Rating System (CRS)	City of Aztec	25	10	1	15	-	-	-	15	15	**Low**
Inspect, inventory, and mitigate floodplain fill/obstructions	City of Aztec	25	10	1	-	-	15	-	15	15	**Low**
Secure funding for the design and construction of Phase 2	City of Aztec	25	10	1.5	-	10	-	-	10	10	**Low**
Conduct inspection of private properties to identify and inventory existing conditions in the floodplain; continue annual inspections to prevent illegal fill activities, enforcing Flood Hazard Mitigation Regulations and subsequent violations as required	City of Aztec	24	9	1	-	-	15	-	15	15	**Low**

Implement regulations restricting the amount of non-drought resistant landscaping materials that can be planted/installed in new commercial construction within the City	City of Aztec	24	9	1	15	-	-	-	15	15	**Low**
Provide public education concerning water-wise programs and drought-tolerant vegetation	City of Aztec	24	9	1	15	-	-	-	15	15	**Low**
Mandate regulations preventing the transportation of HAZMAT materials through downtown Aztec, requiring all HAZMAT transports to utilize the East Aztec Arterial route, once construction is complete	City of Aztec	24	9	1.5	-	10	-	-	10	10	**Low**

Conduct public informational sessions on Flood Hazard risks in the community and initiate meetings with individual landowners whose properties fall within the floodplain	City of Aztec	20.5	13	0.5	-	-	15	-	15	15	**Low**
Floodplain – Utility Bill Outreach Brochure	City of Aztec	16.5	9	0.5	-	-	15	-	25	15	**Low**
Educate the public about actions to take during a HAZMAT incident	City of Aztec	14	9	0.5	-	10	-	-	10	10	**Low**

Table 41: Mitigation Project Prioritization, City of Bloomfield

Mitigation Project Prioritization, City of Bloomfield											
Mitigation Project or Activity	**Jurisdiction**	**STAPLE+E**	**Total Impact**	**Effectiveness Multiplier**	**Hazards**				**Hazard Total**	**Risk Assessment Number (HRT Value)**	**Priority**
					Droughts	**Hazardous Materials**	**Flooding**	**Wildfire**			
Identify and stabilize public waterway banks that are being eroded	City of Bloomfield	35.5	13	1.5	-	-	15	-	15	15	**Medium**
Install a local Emergency Warning System	City of Bloomfield	34.5	12	1.5	-	-	15	-	15	15	**Medium**
Wash Flood Reduction Project	City of Bloomfield	34.5	12	1.5	-	-	15	-	15	15	**Medium**
Enact legislation establishing the need for maintaining clear waterways and fix responsibility for this maintenance	City of Bloomfield	34.5	12	1.5	-	-	15	-	15	15	**Medium**
Seek updated floodplain maps for Bloomfield	City of Bloomfield	32.5	10	1.5	-	-	15	-	15	15	**Medium**

Scott Reservoir	City of Bloomfield	32.5	10	1.5	15	-	-	-	15	15	**Medium**
Nevada Street Detention Basin	City of Bloomfield	30.5	8	1.5	-	-	15	-	15	15	**Medium**
Restrict future growth into the City's floodplains	City of Bloomfield	28	13	1	-	-	15	-	15	15	**Medium**
Second Source Upgrades	City of Bloomfield	27.75	9	1.5	15	10	-	-	25	12.5	**Medium**
Establish a current floodplain map for Bloomfield	City of Bloomfield	27	12	1.5	-	-	15	-	15	15	**Medium**
Identify waterways that require clearing and ensure that this maintenance is accomplished	City of Bloomfield	26	11	1	-	-	15	-	15	15	**Medium**
Enact legislation for the mandatory installation of gray water recovery systems in new construction projects	City of Bloomfield	26	11	1	15	-	-	-	15	15	**Medium**

Create an incentive program for the conversion of older toilets and showerheads to low flow systems	City of Bloomfield	25	10	1	15	-	-	-	15	15	**Low**
Create a public education program concerning the use of drought resistant landscaping vegetation	City of Bloomfield	18.5	11	0.5	15	-	-	-	15	15	**Low**

Table 42: Mitigation Project Prioritization, City of Farmington

Mitigation Project Prioritization, City of Farmington											
Mitigation Project or Activity	**Jurisdiction**	**STAPLE+E**	**Total Impact**	**Effectiveness Multiplier**	**Hazards**				**Hazard Total**	**Risk Assessment Number (HRT Value)**	**Priority**
					Droughts	**Hazardous Materials**	**Flooding**	**Wildfire**			
Wildfire Mitigation	City of Farmington	35.5	13	1.5	-	-	-	15	15	15	**Medium**
Navajo Street Crossing at Glade Arroyo	City of Farmington	34.5	12	1.5	-	-	15	-	15	15	**Medium**
Hood Arroyo Detention Pond, Upgrade Crossing	City of Farmington	33.5	11	1.5	-	-	15	-	15	15	**Medium**
Streambed protection at Pinon Hills Crossing of the La Plata River	City of Farmington	33.5	11	1.5	-	-	15	-	15	15	**Medium**
Install storm sewer system in old downtown Farmington area	City of Farmington	33.5	11	1.5	-	-	15	-	15	15	**Medium**

Incorporate all future comprehensive planning for Farmington with the San Juan County Mitigation Project	City of Farmington	26	11	1	-	-	15	15	15	15	**Medium**
Keep all waterways clear of debris and unwanted vegetation	City of Farmington	26	11	1	-	-	15	-	15	15	**Medium**
Promoting Rainwater Harvesting Systems	City of Farmington	26	11	1	15	-	15	-	30	15	**Medium**
Implement a maintenance program to maintain previous thinned areas. The program may include fire training on fuel removal techniques, prescribed burning, and a yearly chemical application to prevent excess growth	City of Farmington	26	11	1.5	-	-	-	15	15	15	**Medium**

Implement a maintenance program to maintain previous thinned areas. The program may include fire training on fuel removal techniques, prescribed burning, and a yearly chemical application to prevent excess growth	City of Farmington	26	11	1.5	-	-	-	15	15	15	**Medium**
Code enforcement on private property to reduce hazardous fuels	City of Farmington	26	11	1	-	-	-	15	15	15	**Medium**
Implement a Firewise™ community program with information concerning the necessity for clearing fuel from public/private lands and with instructions for creating defensible space around all structures.	City of Farmington	26	11	1	-	-	-	15	15	15	**Medium**

Continue thinning projects to reduce the severity of a wildland fire throughout the City	City of Farmington	25	10	1	-	-	-	15	15	15	**Low**
Continue regular wildland urban interface (WUI) fire training for firefighters	City of Farmington	24	9	1	-	-	-	15	15	15	**Low**
Wildfire Prevention and Planning	City of Farmington	23	8	1	-	-	-	15	15	15	**Low**
Conversion Rebate Program	City of Farmington	19.5	12	0.5	-	-	15	-	15	15	**Low**
Public Education	City of Farmington	18.5	11	0/5	15	-	15	-	30	15	**Low**

Table 43: Mitigation Project Prioritization, Town of Kirtland

Mitigation Project Prioritization, Town of Kirtland											
Mitigation Project or Activity	**Jurisdiction**	**STAPLE+E**	**Total Impact**	**Effectiveness Multiplier**	**Hazards**				**Hazard Total**	**Risk Assessment Number (HRT Value)**	**Priority**
					Droughts	**Hazardous Materials**	**Flooding**	**Wildfire**			
Wildfire Prevention	Town of Kirtland	32.5	10	1.5	-	-	-	15	15	15	**Medium**
Roadway Flooding	Town of Kirtland	33.5	11	1.5	-	-	15	-	15	15	**Medium**
Water Supply Protection	Town of Kirtland	32.5	10	1.5	15	-	15	-	30	15	**Medium**
Kirtland Youth Association Backup Generator	Town of Kirtland	32.5	10	1.5	15	-	15	15	45	15	**Medium**
Safe Pedestrian Highway Crossing	Town of Kirtland	26	11	1.5	-	10	-	-	10	10	**Medium**
Water Supply Protection	Town of Kirtland	32.5	10	1.5	15	-	15	-	30	15	**Medium**
Establish a public education and awareness program to provide residents with information concerning drought and water conservation	Town of Kirtland	24	9	1	15	-	-	-	15	15	**Low**

Table 44: Mitigation Project Prioritization, San Juan County, City of Aztec, City of Bloomfield, and City of Farmington

Mitigation Project Prioritization, City of Aztec, City of Bloomfield, and City of Farmington											
Mitigation Project or Activity	**Jurisdiction**	**STAPLE+E**	**Total Impact**	**Effectiveness Multiplier**	**Hazards**				**Hazard Total**	**Risk Assessment Number (HRT Value)**	**Priority**
					Droughts	**Hazardous Materials**	**Flooding**	**Wildfire**			
Clear the public property identified as the "Swire-Townsend" land preserve and complete invasive species mitigation to ensure fire loading does not continue to pose a threat in this area of the City	City of Aztec; City of Bloomfield; City of Farmington	32.5	10	1.5	-	-	-	15	15	15	**Medium**
Provide private landowners in the river bottom area with information concerning the necessity for clearing potential fuel from their land and instructions for creating defensible space around all structures	City of Aztec; City of Bloomfield; City of Farmington	26	11	1	-	-	-	15	15	15	**Medium**

Identify areas of the river bottom in the public domain and create priorities and thinning projects to reduce the potential for wild land fire throughout the County	City of Aztec; City of Bloomfield; City of Farmington	24	9	1	-	-	-	15	15	15	**Low**

Appendix F – Community Repetitive Loss Data for San Juan County, and the cities of Aztec, Bloomfield, and Farmington, New Mexico

Community Repetitive Loss for Community – San Juan County, NM

Community Repetitive Loss

COMMUNITY : SAN JUAN COUNTY *

Community | State | Regional | National

	AE, A1-30, AO, AH, A	VE, V1-30, V	B, C, X	TOTAL
RL Buildings (Total)	0	0	1	1
RL Buildings (Insured)	0	0	1	1
RL Losses (Total)	0	0	2	2
RL Losses (Insured)	0	0	2	2
RL Payments (Total)	$.00	$.00	$6,374.92	$6,374.92
Building	$.00	$.00	$6,374.92	$6,374.92
Contents	$.00	$.00	$.00	$.00
RL Payments (Insured)	$.00	$.00	$6,374.92	$6,374.92
Building	$.00	$.00	$6,374.92	$6,374.92
Contents	$.00	$.00	$.00	$.00

Post - FIRM SFHA RL Buildings:	0
Insured Buildings with 4 or More Losses:	0
Insured Buildings with 2-3 Losses > Building Value:	1
Total Target RL Buildings:	1

Insurance Overview

As of 09/02/2020

Community:	AZTEC, CITY OF	**State:**	NEW MEXICO
County:	SAN JUAN COUNTY	**CID:**	350065

Overview | Occupancy | Zone | Pre/Post FIRM

Total by Community

Total Number of Policies:	17
Total Premiums:	$10,738
Insurance in Force:	$4,407,500
Total Number of Closed Paid Losses:	18
$ of Closed Paid Losses:	$401,738

Group Flood Insurance

Total Number of Policies:	0
Total Premiums:	$0
Insurance in Force:	$0
Total Number of Closed Paid Losses:	0
$ of Closed Paid Losses:	$0

Post Firm Minus Rated Policies

Total Number of Minus Rated Policies:	0
A Zone Minus Rated Policies:	0
V Zone Minus Rated Policies:	0

Manufactured Homes

Total Number of Policies:	1
Total Number of Closed Paid Losses:	0
$ of Closed Paid Losses:	$0

ICC

Total Number of ICC Closed Paid Losses:	0
$ of ICC CLosed Paid Losses:	$0

1316

Number of Properties by Community:	0

Substantial Damage Losses

Number of Substantial Damage Closed Paid Losses:	1

Insurance Occupancy

As of 09/02/2020

Community:	AZTEC, CITY OF	**State:**	NEW MEXICO
County:	SAN JUAN COUNTY	**CID:**	350065

Overview | **Occupancy** | Zone | Pre/Post FIRM

	Policies in Force	Premium	Insurance in Force	Number of Closed Paid Losses	$ of Closed Paid Losses	Adjustment Expense
Single Family	17	$10,738	$4,407,500	15	$392,878.75	$18,470.62
2-4 Family	0	$0	$0	0	$0.00	$0.00
All Other Residential	0	$0	$0	0	$0.00	$0.00
Non Residential	0	$0	$0	3	$8,859.05	$2,210.00
Total	17	$10,738	$4,407,500	18	$401,737.80	$20,680.62

	Policies in Force	Premium	Insurance in Force	Number of Closed Paid Losses	$ of Closed Paid Losses	Adjustment Expense
Condo	0	$0	$0	0	$0.00	$0.00
Non Condo	17	$10,738	$4,407,500	18	$401,737.80	$20,680.62
Total	17	$10,738	$4,407,500	18	$401,737.80	$20,680.62

Community Repetitive Loss for Community – Aztec, NM (Cont'd)

Community Repetitive Loss

COMMUNITY : AZTEC, CITY OF

Community | State | Regional | National

	AE, A1-30, AO, AH, A	VE, V1-30, V	B, C, X	TOTAL
RL Buildings (Total)	1	0	4	5
RL Buildings (Insured)	1	0	1	2
RL Losses (Total)	3	0	7	10
RL Losses (Insured)	3	0	2	5
RL Payments (Total)	$97,969.07	$.00	$285,890.32	$383,859.39
Building	$86,597.67	$.00	$234,608.51	$321,206.18
Contents	$11,371.40	$.00	$51,281.81	$62,653.21
RL Payments (Insured)	$97,969.07	$.00	$114,906.34	$212,875.41
Building	$86,597.67	$.00	$87,258.70	$173,856.37
Contents	$11,371.40	$.00	$27,647.64	$39,019.04

Post - FIRM SFHA RL Buildings:	1
Insured Buildings with 4 or More Losses:	0
Insured Buildings with 2-3 Losses > Building Value:	2
Total Target RL Buildings:	2

Community Repetitive Loss for Community – Bloomfield, NM

Insurance Overview

As of 09/02/2020

Community:	BLOOMFIELD, CITY OF	**State:**	NEW MEXICO
County:	SAN JUAN COUNTY	**CID:**	350066

Overview | Occupancy | Zone | Pre/Post FIRM

Total by Community

Total Number of Policies:	8
Total Premiums:	$4,095
Insurance in Force:	$1,972,000
Total Number of Closed Paid Losses:	3
$ of Closed Paid Losses:	$1,408

Group Flood Insurance

Total Number of Policies:	0
Total Premiums:	$0
Insurance in Force:	$0
Total Number of Closed Paid Losses:	0
$ of Closed Paid Losses:	$0

Post Firm Minus Rated Policies

Total Number of Minus Rated Policies:	0
A Zone Minus Rated Policies:	0
V Zone Minus Rated Policies:	0

Manufactured Homes

Total Number of Policies:	0
Total Number of Closed Paid Losses:	1
$ of Closed Paid Losses:	$1,408

ICC

Total Number of ICC Closed Paid Losses:	0
$ of ICC CLosed Paid Losses:	$0

1316

Number of Properties by Community:	0

Substantial Damage Losses

Number of Substantial Damage Closed Paid Losses:	0

Insurance Occupancy

As of 09/02/2020

Community:	BLOOMFIELD, CITY OF	**State:**	NEW MEXICO
County:	SAN JUAN COUNTY	**CID:**	350066

Overview | **Occupancy** | **Zone** | **Pre/Post FIRM**

	Policies in Force	Premium	Insurance in Force	Number of Closed Paid Losses	$ of Closed Paid Losses	Adjustment Expense
Single Family	8	$4,095	$1,972,000	2	$1,407.74	$225.00
2-4 Family	0	$0	$0	0	$0.00	$0.00
All Other Residential	0	$0	$0	0	$0.00	$0.00
Non Residential	0	$0	$0	1	$0.00	$70.00
Total	8	$4,095	$1,972,000	3	$1,407.74	$295.00

	Policies in Force	Premium	Insurance in Force	Number of Closed Paid Losses	$ of Closed Paid Losses	Adjustment Expense
Condo	0	$0	$0	0	$0.00	$0.00
Non Condo	8	$4,095	$1,972,000	3	$1,407.74	$295.00
Total	8	$4,095	$1,972,000	3	$1,407.74	$295.00

Community Repetitive Loss

COMMUNITY : BLOOMFIELD, CITY OF

Community | **State** | **Regional** | **National**

	AE, A1-30, AO, AH, A	VE, V1-30, V	B, C, X	TOTAL
RL Buildings (Total)				
RL Buildings (Insured)				
RL Losses (Total)				
RL Losses (Insured)				
RL Payments (Total)				
Building				
Contents				
RL Payments (Insured)				
Building				
Contents				

Post - FIRM SFHA RL Buildings:

Insured Buildings with 4 or More Losses:
Insured Buildings with 2-3 Losses > Building Value:
Total Target RL Buildings: 0

Insurance Occupancy

As of 09/02/2020

Community:	FARMINGTON, CITY OF	**State:**	NEW MEXICO
County:	SAN JUAN COUNTY	**CID:**	350067

Overview | Occupancy | Zone | Pre/Post FIRM

	Policies in Force	Premium	Insurance in Force	Number of Closed Paid Losses	$ of Closed Paid Losses	Adjustment Expense
Single Family	59	$37,840	$17,893,900	12	$20,519.54	$3,275.00
2-4 Family	0	$0	$0	1	$0.00	$70.00
All Other Residential	0	$0	$0	0	$0.00	$0.00
Non Residential	22	$60,745	$14,266,600	1	$3,785.05	$280.00
Total	81	$98,585	$32,160,500	14	$24,304.59	$3,625.00

	Policies in Force	Premium	Insurance in Force	Number of Closed Paid Losses	$ of Closed Paid Losses	Adjustment Expense
Condo	0	$0	$0	0	$0.00	$0.00
Non Condo	81	$98,585	$32,160,500	14	$24,304.59	$3,625.00
Total	81	$98,585	$32,160,500	14	$24,304.59	$3,625.00

Insurance Overview

As of 09/02/2020

Community:	FARMINGTON, CITY OF	**State:**	NEW MEXICO
County:	SAN JUAN COUNTY	**CID:**	350067

Overview | Occupancy | Zone | Pre/Post FIRM

Total by Community

Total Number of Policies:	81
Total Premiums:	$98,585
Insurance in Force:	$32,160,500
Total Number of Closed Paid Losses:	14
$ of Closed Paid Losses:	$24,305

Group Flood Insurance

Total Number of Policies:	0
Total Premiums:	$0
Insurance in Force:	$0
Total Number of Closed Paid Losses:	0
$ of Closed Paid Losses:	$0

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Post Firm Minus Rated Policies

Total Number of Minus Rated Policies:	5
A Zone Minus Rated Policies:	5
V Zone Minus Rated Policies:	0

Manufactured Homes

Total Number of Policies:	1
Total Number of Closed Paid Losses:	0
$ of Closed Paid Losses:	$0

ICC

Total Number of ICC Closed Paid Losses:	0
$ of ICC CLosed Paid Losses:	$0

1316

Number of Properties by Community:	0

Substantial Damage Losses

Number of Substantial Damage Closed Paid Losses:	0

Community Repetitive Loss for Community – Farmington, NM (Cont'd)

Community Repetitive Loss

COMMUNITY : FARMINGTON, CITY OF

Community | **State** | **Regional** | **National**

	AE, A1-30, AO, AH, A	VE, V1-30, V	B, C, X	TOTAL
RL Buildings (Total)				
RL Buildings (Insured)				
RL Losses (Total)				
RL Losses (Insured)				
RL Payments (Total)				
Building				
Contents				
RL Payments (Insured)				
Building				
Contents				

Post - FIRM SFHA RL Buildings:

Insured Buildings with 4 or More Losses:
Insured Buildings with 2-3 Losses > Building Value:
Total Target RL Buildings: 0

Appendix G – Plan Adoption Resolutions

Awaiting Signed Resolution Letters from the following jurisdictions:

Resolution, San Juan County

Resolution, City of Aztec

Resolution, City of Bloomfield

Resolution, City of Farmington

Resolution, Town of Kirtland

Appendix H – State of New Mexico Approval Letter

Pending adoption

Appendix I – FEMA Approval Letter (Approval Pending Adoption Letter)

U.S. Department of Homeland Security
FEMA Region 6
800 N. Loop 288
Denton, TX 76209

FEMA

December 14, 2020

Chelsea Morganti, State Hazard Mitigation Officer
New Mexico DHS and Emergency Management, Preparedness Bureau
Office of Emergency Management
P.O. Box 27111
Santa Fe, NM 87502-1628

RE: Approvable Pending Adoption of the San Juan County, New Mexico Multi- Jurisdiction Hazard Mitigation Plan
Funding Source: PDM; PL-06-NM-2017 #003

Dear Ms. Morganti:

This office has concluded its review of the referenced plan, in conformance with the Final Rule on Mitigation Planning (44 CFR § 201.6). Formal approval of this plan is contingent upon the adoption by the participants on Enclosure A, as well as the receipt of the final draft of the plan containing all plan components.

Adopting resolutions must be submitted to this agency for review and approval no later than one year from the date of this letter. Failure to submit these resolutions in a timely manner could lead to a required update of the plan prior to FEMA approval.

Once this final requirement has been met, a letter of official approval will be generated. The Local Hazard Mitigation Planning Tool, with the reviewer's comments has been enclosed to further assist the jurisdictions in complying with planning requirements.

If you have any questions, please contact Lisa Hecker, HM Community Planning FIT, at (940) 536-8315.

Sincerely,

Ronald C. Wanhanen
Chief, Risk Analysis Branch

Enclosure

cc: Christy King, R6-MT-HM

www.fema.gov

Enclosure A

Attached is the list of approved participating governments included in the December 14, 2020 review of the referenced Hazard Mitigation plan.

	Community Name
1)	Aztec
2)	Bloomfield
3)	Farmington
4)	Kirtland
5)	San Juan County

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Adoption Submittal (Final)

Following the issuance this of Approvable Pending Adoption letter, all participants are provided one year to adopt the plan and submit it through the State to FEMA. For multi- jurisdictional plans, multiple adoptions should be submitted as a complete package as outlined below.

The State must submit the plan files via:

Floodmaps File eXchange (FFX): https://www.floodmaps.fema.gov/ffx/

Risk Management Directorate (RMD) SharePoint:

https://rmd.msc.fema.gov/Regions/VI/Mitigation%20Planning/Forms/AllItems.aspx

Note: You will be requested to register if you have not already done so.
All plans containing Protected Critical Infrastructure Information (PCII) must be submitted through the Floodmaps File Exchange (FFX) to ensure secure file submissions.

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1. Final draft of the plan in MS Word or pdf format containing:
   a. The final plan formatted as a single document.
   b. Documentation demonstrating adoption by the participating jurisdictions seeking approval. (i.e. copies of signed resolutions, official meeting minutes, etc.…) Note: Adoption resolutions can be separate files. Additional adoptions are not required to provide a copy of the plan.
   c. Remove strikethroughs, highlights and all Track Changes must be accepted in the final plan.

2. Send an email addressed to R6-MTD-Planning@fema.dhs.gov as notification that the electronic file has been submitted. Please DO NOT send plans to the email inbox as it has very strict size limitations which will lock the inbox and not allow additional emails to be received. The email must include the following information:

   a. Include the follow when applicable: (Note: A submittal letter is no longer required.)
      i. Subject line [Approval Review for Name of Plan, State]
      ii. FEMA funding source, grant or disaster number, and project number (when applicable)
      iii. List of adopting jurisdictions
      iv. Plan File name (file name must include date submitted)

3. Submittals which do not conform to the above requirements will be returned to the State for resubmission