Pueblo of Isleta
Tribal Hazard Mitigation Plan

December 2021

Submitted by:

Security, Communications & Environmental Consulting, LLC
Minority/Service Disabled Veteran Owned Small Business

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Adoption Resolution

Record of Change

This Tribal Hazard Mitigation Plan, including Appendices, will be reviewed, and approved on a biannual basis by the Pueblo of Isleta Emergency Management Committee and following any major disasters. All updates and revisions to the plan will be tracked and recorded in the following table. This process will ensure the most recent version of the plan is disseminated and implemented.

Date	Entered By	Summary of Change	Approved By

1 Introduction

The Federal Emergency Management Agency (FEMA) defines mitigation as "*the effort to reduce loss of life and property by lessening the impact of disasters. Mitigation is taking actions now – before the next disaster – to reduce human and financial consequences later (analyzing risk, reducing risk, insuring against risk.)*"

The purpose of mitigation planning is to identify policies, processes and compensating controls that can be implemented to produce both short- and long-term mitigation strategies and activities to reduce the effects of natural hazards. Mitigation plans form the basis for Isleta's strategy to reduce losses and prevent cyclical actions in disaster damages and reconstruction.

Public Law 106-390 Disaster Mitigation Act of 2000 (DMA 2000) provides the legal basis for FEMA mitigation planning requirements for State, local and Indian Tribal governments as a condition of mitigation grant assistance. DMA 2000 amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act by repealing the previous mitigation planning provisions and replacing them with a new set of requirements that emphasize the need for State, local, and Indian Tribal entities to closely coordinate mitigation planning and implementation efforts.

This revision of the Pueblo of Isleta (Isleta) Tribal Hazard Mitigation Plan (HMP) developed and adopted in 2012 is to review those previously identified hazards; identify any new hazards to reflect current conditions as well as conditions that may affect Isleta in the near future; and prioritize compensatory measures in order to mitigate the effects of each hazard individually or as combined occurrences.

2 Pueblo of Isleta

2.1 Planning Area

The Isleta planning area consists of two distinct sections: Isleta and Comanche Ranch. Land ownership within the planning area is tribal land. The Isleta Pueblo is centered on the Rio Grande Valley, New Mexico, approximately 15 miles south of the City of Albuquerque. Isleta is bounded by Bernalillo County to the north and east, Socorro County to the south and west, Valencia County to the south, and Torrance County to the southeast. Comanche Ranch is in both Valencia and Socorro counties. The pueblo is 495 square miles with Isleta being the larger section at 331 square miles and Comanche Ranch the smaller at 16 square miles. The population as of 2020 census was 2,372 with 79.8% being over 18 year of age and 18.4% being older than 65 years or age. As of 2020 the total number of tribal members currently living within the pueblo 4999 (Isleta Census 2021).

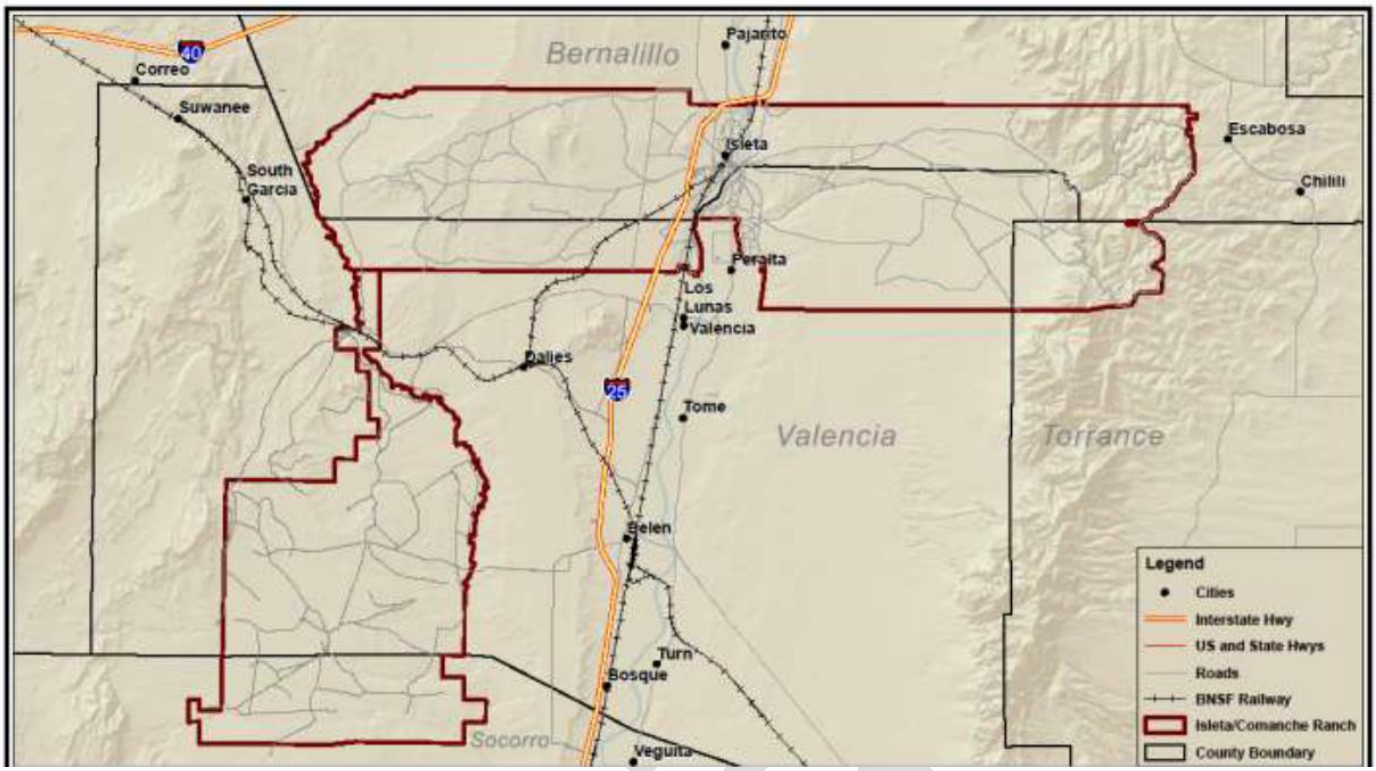


Figure 1 - Pueblos of Isleta Planning Area

There are six distinct settlements within the HMP planning area with no settlements within Comanche Ranch.

- Pueblo Village or Plaza dates back to the 14th century and was rebuilt in the early 1700s. It is home to the San Augustine Mission Church, the Pueblo's Kivas, traditional adobe homes, and many tribal buildings and functions.
- Ranchitos is an irrigated agricultural community, approximately 1.5 miles south of the Plaza with primarily use for alfalfa, corn, peppers, and livestock. Most of the housing construction in this community occurred in the 1960s and 1970s.
- Chicale is a tribal ranching community located east of the Plaza across Route 47.
- Northside is northwest of the Plaza, along New Mexico Route 147. This community is primarily agricultural and residential. Irrigation water is accessed from an aquifer system from the Rio Grande.
- Pickle Heights is southeast of the Plaza. It is the newest area of residential development within the pueblo. This community consists of subsidized housing, a new elementary school, health clinic, library, and other social service agencies. There are an additional 200 homes both under construction and in development over the next year.
- Hotel, Casino and Entertainment venues. The Isleta Resort & Casino Hotel is a six-story facility that maintains 201 guest rooms, 100,000 sq. ft. of conference and

meeting spaces, with restaurant and transportation services and 50,000 sq. ft. of casino and gaming spaces. The golf course and club house maintain a 27-hole course, a 25,000 sq. ft. clubhouse, and a 4,800 sq. ft. ballroom.

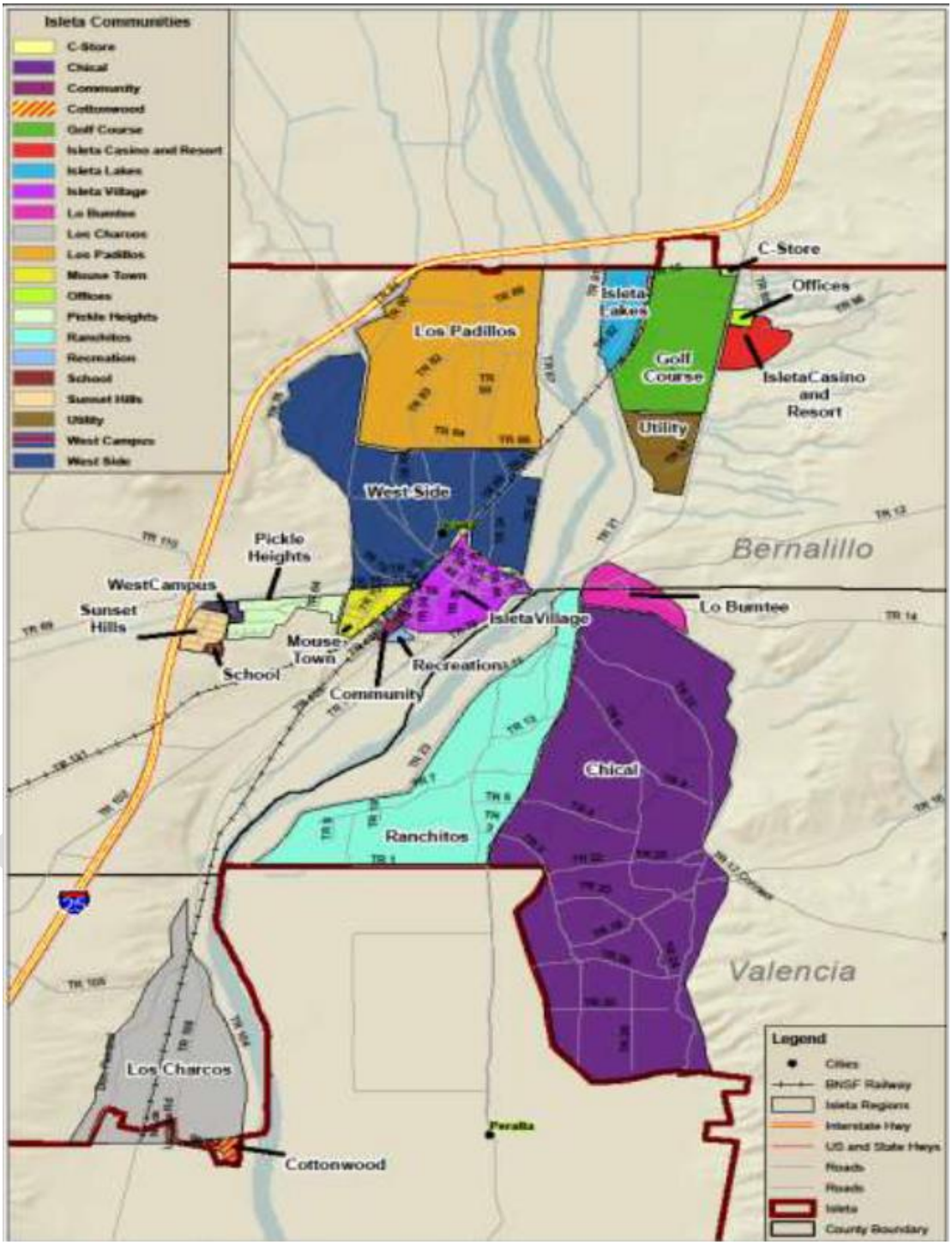


Figure 2 - Isleta Pueblo Communities

Each of the above listed settlements additionally contain unique communities which are listed in the table below in order to better define specific areas where the defined natural hazards propose an elevated risk (Isleta, Hazard Mitigation Plan, 2012).

Settlement	Community	Structures	Land Use in Acres				
			Agriculture	Urban	Water	Non-Developed	Total Acres
Pueblo Village	C-Store	2	0	<1	0	2	3
Ranchitos	Community	23	0	8	0	6	14
	Isleta Village	434	88	98	0	41	227
	Mouse Town	88	0	22	0	45	67
	Recreation	1		4	0	4	8
	Cottonwood	2	5	<1	0	0	5
	Los Charcos	28	502	64	0	138	704
Chicale	Chicale	190	2,127	248	5	321	2,701
	Lo Bumtee	16	47	53	0	16	116
	Ranchitos	90	0	75	0	927	1,002
Northside	Los Padillos	156	880	67	2	71	1,020
	West Side	174	808	76	0	106	990
Pickle Heights	School	33	0	0	0	6	6
	Pickle Heights	121	0	23	0	72	95
	Sunset Hills	101	0	5	0	47	52
	West Campus	7	0	2	0	14	16
Casino	Golf Course	2	13	322	<1	88	424
	Casino & Resort	2	0	10	0	76	86
	Isleta Lakes	2	53	23	20	25	121
	Offices	7	0	12	0	1	13
	Utility	1	5		0	139	144
Total		1,483	4,528	1,114	28	2,145	7,815

Climate

The climate of Isleta is hot during summer months and cool during winter months (Table 4). Summertime high temperatures range in the 90 degrees Fahrenheit (°F) with lows in the upper 50s and lower 60s °F. Winter temperatures vary from highs in the upper 50s and lower 60s °F; and lows in the teens and 20s °F. The assessment area has over 300 days of sunshine per year. Average annual precipitation is 9 inches. The majority of precipitation is received during the monsoon season of summer. Average snowfall is approximately 4 inches with no accumulation.

Terrain

The terrain of the Isleta Pueblo and Comanche Range is largely high plains with shallow valleys, low hillsides, rises, ridges, and mesas in a matrix of flat and opened rangeland.

The Rio Grande flows north to south through the middle of the Isleta. The Rio Puerco flows north and south, and it borders the western boundary of the Isleta and the eastern boundary of Comanche Ranch. Elevation varies from approximately 4,940 feet along the Rio Grande valley to 8,050 feet easterly. The Manzano Mountains are located to the east of the pueblo and have elevations to 7,500 feet. The elevations of the western plains range from 4,880 feet along the Rio Grande valley to 5,180 feet along the Rio Puerco valley. The elevation of Comanche Ranch various from 5,200 feet on its northern boundary to approximately 5,360 feet in its southwest corner.

Land Use

Land use in the pueblo is agriculture, rangeland livestock grazing, and developed. Livestock grazing on rangeland is predominately the major land use. Developed land accounts for less than 1 percent land use. However, the developed land includes the five Isleta settlements and represents the land area where hazard mitigation projects should focus for the projection of human welfare and economic values.

Shrubs and grassland account for 75 and 14 percent of vegetation cover, respectively, and this vegetation type makes up the majority of the rangeland. Alpine tundra, deciduous forest, and riparian vegetation all account for less than 1 percent of vegetation cover (Interior, 2020).

Agricultural and developed lands are located in the Rio Grande Valley of Isleta. The shrub and grassland vegetation in the Isleta portion of the pueblo extends from the Rio Grande Valley easterly to the Manzano Mountains and westerly to the Rio Puerco. Comanche Ranch is predominantly shrub vegetation with a few areas of grassland. The coniferous and deciduous forests are associated with the Manzano Mountains (Isleta, Hazard Mitigation Plan, 2012).

Land Use or Vegetation Cover	Acres	Percent of Pueblo
Land use		
Developed	2,671	<1
Rangeland	284,719	93
Agriculture	6,361	2
Forestry	11,857	4
Surface water	587	<1
Vegetation cover		
Alpine tundra	46	<1
Barren or sparsely vegetated	6,371	2
Coniferous forest	11,857	4
Deciduous forest	208	<1
Grassland	41,603	14

Land Use or Vegetation Cover	Acres	Percent of Pueblo
Introduced vegetation	368	<1
Juniper-Piñon Pine Woodland	14,129	5
Riparian	3,204	<1
Shrub	228,619	75

3 Planning Process

This revision to the Isleta 2012 HMP was developed between August and October 2021 by Security Communications and Environmental Consulting LLC. of Santa Fe N.M. SC&E worked closely with the Isleta Fire Chief and Pueblo Departments, as well as with key stakeholders from Isleta (Table 1). Communications with the departments within Isleta were limited due to COVID-19 protocols and were coordinated and managed via electronic and virtual communications. Due to these limitations', external stakeholders, and community input was managed internally through the Fire Chief.

Hazard Mitigation Plan Committee		
Member	**Department/Organization**	**Email**
Lester Gary	Fire Department	lester.gary@isletapueblo.com
Jamie Jojola	Environment Department	Jamie.jojola@isletapueblo.com
Edwin Jaramillo	Public Works	edwin.jaramillo@isletapueblo.com
Kristyn Yepa	IHC Public Health	kristyn.yepa@islclinic.net
James Weldon	Transportation Department	james.weldon@isletapueblo.com
Mary Montoya	Procurement	mary.montoya@isletapueblo.com
Winsten Dan	Contract and Grants	winsten.dan@isletapueblo.co
Barbara Sanchez	Isleta Housing Authority Executive Director	iphaexecdir@isletapueblo.com
Vernon Abeita	Governor, Pueblo of Isleta	Vernon.abeita@isletapueblo.com

Step 1 – Planning and Program Review

- Current Program Review
  SC&E met with the Contract Manager Chief Gary, Isleta Fire Department, through virtual platform (i.e., Zoom) as well as in person discussing the current programs, previously defined hazards, and the current progress/completion of mitigation projects. All tasks throughout the project terms were completed as a cooperative process between SC&E and the Pueblo of Isleta Key Stakeholders.

- Integrated Programs Review and Alignment
  SC&E conducted a thorough review of existing organizational and operational capabilities and plans in order to validate and categorize identified vulnerabilities as well as to identify any additional or unforeseen vulnerabilities or gaps. The program review included the evaluation of available internal and external source materials:

- Available Department Standard Operating Procedures
- Bernalillo County Hazard Mitigation Plan
- State of New Mexico Hazard Mitigation Plan
- Hazard Assessments
- Internal/Departmental Emergency Plans
- Memorandum of Agreement(s) (MOA)
- Memorandum of Understanding(s) (MOU)

- Virtual and On-site Planning for Pueblo Managed and Maintained Lands and Critical Infrastructure
  Two in-person site visits and assessments for each of the Pueblo's managed and maintained property, critical structures, infrastructure, and systems were conducted. Additionally, neighboring response and support agencies were identified and contacted to validate capability and response efforts to support Isleta through mutual aid agreements of MOUs. Due to COVID restrictions all contact was made virtually or electronically via phone or email.

Step 2 – Threat/Hazard Identification and Risk/Vulnerability Assessment

- Hazards/Threat Identification
  An in-person site visit was conducted of all tribally managed and maintained land and infrastructure (i.e., trust land, fee land, critical facilities, enterprises, etc.) in order to identify foreseeable and realistic natural hazards which could and have negatively impacted Isleta. Isleta does not have a THIRA and defers primarily to the Bernalillo County Hazard Mitigation Plan and THIRA. Direct information related to Isleta was provide through the Fire Chief.
- Capability Identifications and Assessment
  SC&E worked closely with the Fire Chief and key stakeholders in the identification of core capabilities which includes existing programs, policies, regulations, ordinances, plans, equipment, and systems that mitigate or could be used to mitigate risks from the occurrence of the identified natural hazards such as but not limited to:
  - Flood Control Measures
  - Water Treatment
  - Medical and Health Services response
  - Fire Suppression and control (structural and wildland)
  - Law Enforcement Response
  - Information Security

- Vulnerability Assessment
  The Vulnerability Assessment was developed in a standard process of identifying GAP, Risk Ranking identified natural hazards and evaluating proposed mitigation strategies through a scenario-based process. In general, this process includes conducting a limited table-top exercise to evaluate the proposed mitigation strategy and determine its likelihood of success

Step 3 – Mitigation Strategy Development

- Development and Implementation of Mitigations
  Hazards were identified and ranked according to risk to Isleta. Mitigation projects, whether physical construction, equipment request or operational planning were developed based on the risk ranking to determine the most effective compensatory control identified to mitigate the specific risk. Culturally sensitive sites were managed internally to Isleta primarily as these site locations are confidential.

  Once the hazard mitigation strategy was determined, the responsible party was designated to maintain ownership of the project implementation and funding.

Step 4 – Plan Adoption and Maintenance

- The Pueblo's Emergency Management Committee is responsible for adapting revisions to and maintenance of the Hazard Mitigation Plan.

3.1 Community Involvement

Due to public health restrictions and the desire to maintain internal Isleta protocols related to COVID-19, community involvement was managed Isleta through the Pueblo of Isleta web page. The Draft of the Revised HMP was posted on the Isleta web page with the ability to both read the document in the browser of download a PDF version. Additionally, printed copies were available at the Isleta Administrative Office and the Library. Comments were gathered by the HMP Planning Committee via the webpage comment link, mail, or email.

3.2 Response Coordination and Planning Integration

Isleta maintains current MOUs and support through mutual aid agreements for all emergency response activities to include but not limited to, urban and wildfire response and any other response capabilities from both internal and external sources. Each external resource was communicated with to request information and invite their input into the planning process.

Internal Resources	
Agency	**Resource**
Isleta Fire Department	Structure and Wildfire/Flood Response
Isleta Police Department	Law Enforcement/Crowd and Traffic Control
Public Works	Heavy Equipment
Isleta EMS	Ambulance Service
Isleta Casino and Resort	Transportation
Isleta Casino and Resort	Alternate Care
Isleta Casino and Resort	Evacuation Shelter
Elder Center	Handicap Transportation
Golf Course	Emergency Shelter/Emergency Staging Area

External Resources	
Agency	**Resource**
Bernalillo County	Fire/Law Enforcement/EMS
Valencia County	Fire/Law Enforcement/EMS
Southern Pueblos Agency	Wildfire
NM State Forestry	Wildfire
Bosque Farms/Peralta/Los Lunas	Wildfire
Peralta	Wildfire
Los Lunas	Fire/Law Enforcement/EMS/Transportation
Bureau of Indian Affairs	Fire/Law Enforcement
NM State Police	Law Enforcement
US Air Force	Explosive Ordinance Disposal
NM State Highway Department	Transportation/Road-Bridge Inspection
Department of Homeland Security Emergency Management	Emergency Management Response Coordination

Reviews of all available internal emergency response plans, standard operating procedures (SOPs), MOUs and general operations manuals were reviewed for their direct input into this revision. In addition, the majority of existing plans and SOPs require revision or development. Documents, plans, and SOPs review include:

- 2020 Head-start Emergency Preparedness Plan
- Assisted Living Facility Evacuation Plan
- Isleta Eastside Water System ERP
- Isleta SHEA-WHIFF Water System ERP
- Isleta Resort and Casino ERP
- Isleta Wastewater System ERP
- Isleta Emergency Operations Plan (Draft)
- Bernalillo County HMP
- Rail Runner Express Emergency Preparedness Plan
- UNM EMS Consortium Rural EMS Treatment Guide

It is the intent of Isleta to develop and review all existing plans after completion and approval of this revised HMP.

3.3 Planning Review and Upkeep

The update process is an opportunity for Isleta leadership to review or develop their Threat and Hazard Identification and Risk Assessment, and Hazard Vulnerability Assessment. The review of the HMP should take place annually with Emergency Management Committee personnel, and key stakeholders. The review additionally provides an opportunity to seek additional public comment.

It is through these hazard assessment review processes that pueblo leadership will be able to determine and plan for potential losses caused by natural and man-made disasters and events, and to put the pueblo in a position to recover quickly. These hazard planning process will also be used to evaluate the four phases of emergency management to include mitigation, preparedness, response, and recovery. Finally, these assessments will provide critical data needed in developing mitigation strategies and prioritizing the mitigation projects that have been identified by leadership, and key stakeholders. It is through these appraisals that pueblo leadership will be able to seek funding sources that will bring these mitigation priorities to fruition. The goal of the pueblo is to ensure mitigation strategies and efforts are implemented that will keeping the Pueblo of Isleta and its visitors safe.

The Isleta Fire Department Chief is responsible to ensure continued HMP stakeholder involvement meets the requirements as outlined in 44 CFR Part 201. To facilitate the goal of continued public involvement in the planning process, the Isleta Fire Department Chief will coordinate with the administrative office to continue to seek public involvement during any review and update to the HMP through as needed public education activities, workshops, and public hearings. Other means for continued public involvement include communications through newsletters, mailings, the pueblo's website (http://www.isletapueblo.com) (Isleta, Hazard Mitigation Plan, 2012).

The Isleta EMS is the responsible entity for managing all aspects of the HMP for the Pueblo of Isleta. Changes will be made to the plan to accommodate actions that have failed or are not considered feasible after a review of their adherence to established criteria, timeframe, community priorities, and/or funding resources. Updates to this plan will:

- Consider changes in vulnerability due to action implementation.
- Document success stories where mitigation efforts have proven effective.
- Document areas where mitigation actions were not effective.

- Document any new hazards that may arise or were previously overlooked.
- Incorporate new data or studies on hazards and risks.
- Incorporate new capabilities or changes in capabilities.
- Incorporate growth and development-related changes to inventories.
- Incorporate new action recommendations or changes in action prioritization.
- Document and maintain ALL incidents associated with the HMP to include After Action Reports for future HMP updates.

Updating of the plan will be enacted through written changes and submissions to the Tribal Council (Isleta, Hazard Mitigation Plan, 2012).

4 Risk Assessment and Hazard Identification

This risk assessment identifies the level of risk for each of the identified natural hazards and provides the factual basis for the development of strategies that will reduce risk of losses that could potentially impact the pueblo. Ranking is based on actual occurrences of specific events over the past 10 years, while at the same time utilizing the realization that there are contributing challenges posed by changing future conditions (i.e., more intense storms, frequent heavy precipitation, heat waves, drought). The mitigation planning regulation (44 CFR Part 201) requires consideration of the probability of future hazard events as part of the risk assessment in order to reduce risks and potential damage.

The primary focus of this revision to the 2012 HMP are natural hazards as required by FEMA and indicated in the Tribal Mitigation Plan Review Guide which states, "*The plan shall include a description of the natural hazards that can affect the tribal planning area. (Note: There is no requirement to include manmade hazards in the mitigation plan. FEMA will not require removal of this information, but if these hazards are included, they will not be reviewed to meet the requirements).*"

In addition to ranking the natural hazards it is additionally important realize the effects these natural hazards will have on critical areas of the Pueblo (i.e., housing, infrastructure, rail, pipelines, other transportation nodes).

In most instance risk is ranked based on the standard formula, $T \, x \, V = R$ (Threat x Vulnerability = Risk). For example, the threat of wildfire is high within the Bosque area of Isleta and in turn due to decreased rainfall and snowmelt the vegetation is dry increasing vulnerability to Isleta lands and structures. Therefore, threat is high; vulnerability is high which results in high risk.

The method utilized in this assessment, $R = T\ x\ V\ x\ [1 - P(E)]$ provides a more comprehensive method for defining risk (Sandia, 2000). In general, this method of defining risk allows for greater detail in identifying threat and incorporates protective effectiveness (i.e., equipment and capability to respond to an event). In addition, if the risk remains high after evaluation the formula can then be utilized to identify additional mitigation measures that would reduce overall risk (Sandia, 2000). The purpose in ranking probability and consequence between 1 and 9 as opposed to 0 and 10 allows for both the probability of occurrence and the capability of survivability. For example, though there has not been an occurrence of a volcanic eruption in the last several hundred year the ability to rank the probability as a 1 allows for the chance that it may occur. Conversely, ranking the consequence of the event a 9 additionally allows for the chance of some survivability.

- **Probability** = The likelihood that this event has and/or will occur based on historical data.
    - Ranking = 1 to 9 with 9 being highly probable

- **Consequence** = The effect (i.e. damage, injury, life threatening, stop operational function) on physical property, persons and reputation
    - Ranking = 1 to 9 with 9 being high consequence

- **Response** is rank by two individual characteristics timeliness and capability. Timeliness is the ability for the responding parties to put personnel in place, while capability is the technical skill and equipment to manage the event. In general, timelines and capability is a reflection of how well planned, trained and exercised the response is to any of the defined hazards events.

    - **Timeliness**
        - 9 = Timely Response (i.e. ability to recognize the event and take action to mitigate)
        - 5 = Delayed Response (i.e. delay in recognition of the event)
        - 0 = No response (i.e. No recognition and/or no ability to respond)
    - **Capability**
        - 9 = Technical training and equipment in place to respond
        - 5 = Technical training yet lack equipment/Lack training yet have equipment
        - 0 = No training or No equipment

Once the values are determined, those values are then transitioned into their decimal equivalent for accuracy in the use of the formula. For example, wildfire probability was

determined to be a 9 (high). This 9 is then transitioned to a 0.9 for use in the risk formula. For the purpose of this ranking it was determined that a risk score of 0.25 would be considered the maximum level of acceptable risk. Ranking between 0.26 and 0.50 are considered medium risk and 0.51 and above are considered high risk.

	Event Occurrence		Response			
Natural Hazards	**Probability**	**Consequence**	**Timeliness**	**Capability**	**PE**	**Risk**
Wildfire	0.9	0.9	0.5	0.5	0.25	0.61
Flood	0.7	0.9	0.5	0.5	0.25	0.47
Severe Weather[1]						
Hail	0.5	0.5	0.5	0.5	0.25	0.19
Lightening	0.8	0.3	0.5	0.5	0.25	0.18
Wind	0.9	0.6	0.5	0.5	0.25	0.41
Winter Storm	0.8	0.7	0.5	0.5	0.25	0.42
Drought	0.5	0.5	0.5	0	0	0.25
Earthquake	0.1	0.9	0.1	0	0	0.09
Volcano	0.1	0.9	0.1	0	0	0.09

Twelve vulnerable critical facilities were identified and taken into consideration as part of the asset inventory for each identified hazard. Loss estimates were completed for 100% loss. In order to estimate the potential dollar losses to vulnerable critical structures and their contents significant consideration was given to the substantial increase in the cost of material and delays in availability of all items. Bloomberg Reports estimates that the cost of commercial construction has increased approximately 65% between 2019 to present (2021). It is additionally outlined in *2021 Guide to US Building Commercial Construction Cost* that these costs are not likely to decrease over the next three to five years. Therefore, cost estimates are based on current cost assumptions, though these costs can be modified over time as construction cost decrease and the availability of goods increases to pre-COVID-19.

[1] *Note: Some weather events include multiple hazards. For example, a thunderstorm is a weather event that can include multiple specific hazards, such as flooding, high winds, hail, and lightning. The thunderstorm would be the cause of the hazards, not the hazard itself. A recommended strategy would be to identify the hazards (flooding, high winds, etc.) and not the cause (Thunderstorms).*

Name or Description Asset	Critical Facility	Vulnerable Population	Economic Asset	Building Size (sq. ft.)	Replacement Value ($)	Contents Value ($)	Occupancy or capacity (#)
Church	X	X		7500	$2,199,733.80	$85,740.20	100
Administrative Complex	X		X	116070	$22,613,905	$1,986,441	1000+
Elderly Center	X	X		7250	$1,802,471.55	$1,529,369.80	50
Health Services	X	X		42,900	$15,134,611.80	$931,768.60	35
School	X	X		32,400	$7,148,580.45	$575,595	250+
Golf Course Club House			X	25,000	$28,875,000.00	$17,500,000	50
Isleta Casino & Resort			X	150,000	$516,310,806.00	$312,915,640	3500+
Isleta Lakes			X	5,000	$20,625.00	$17,500.00	25
Utility	X		X	4,064	$13,565,253.90	$11,509,912.40	5
Solid Waste	X			196	$345,887.85	$293,480.60	5
Offices			X	5,000	$8,425,894.95	$7,149,244.20	10

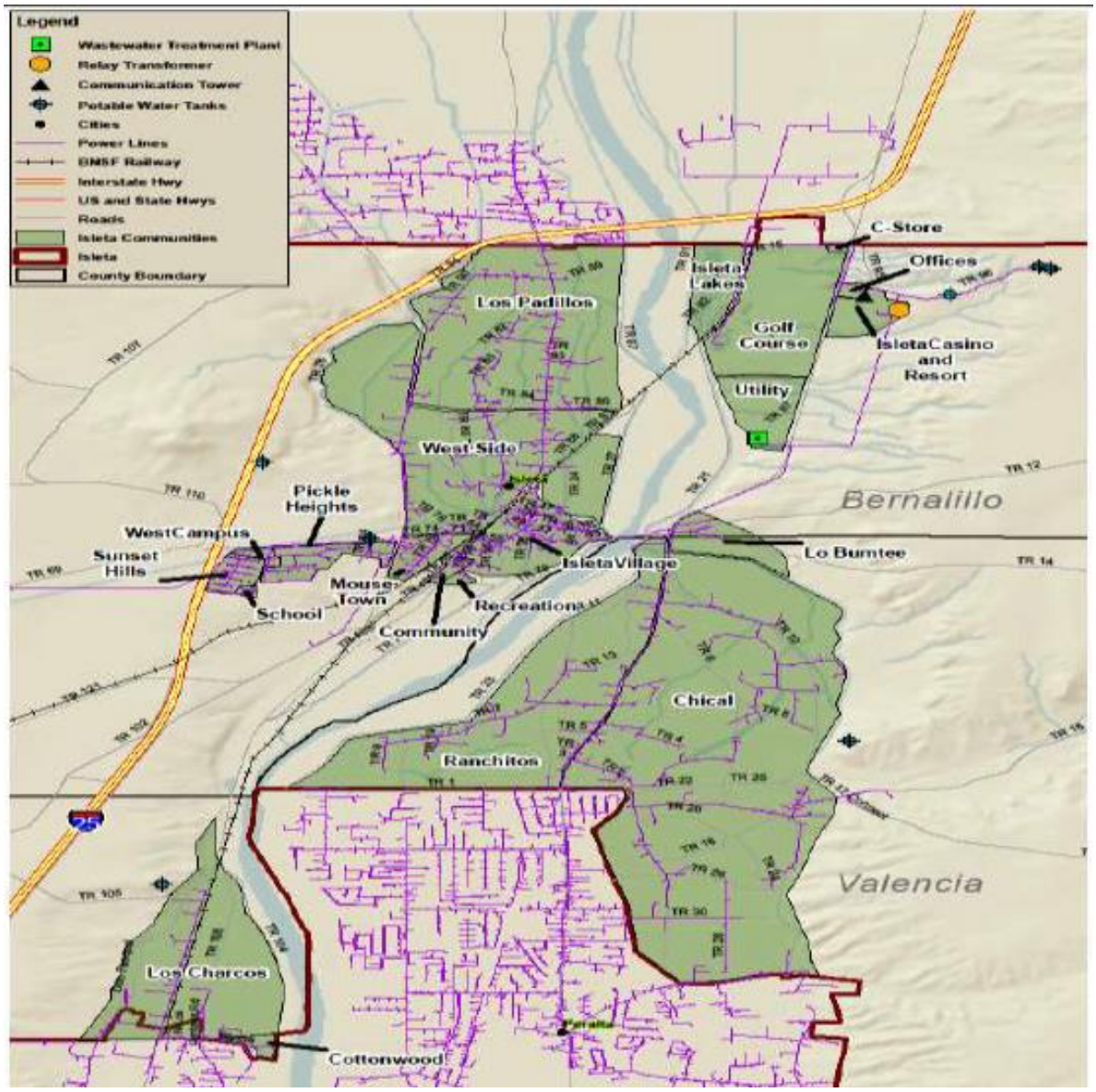


Figure 3 - Infrastructure Map Credit Isleta 2012 HMP

4.1 Wildfire

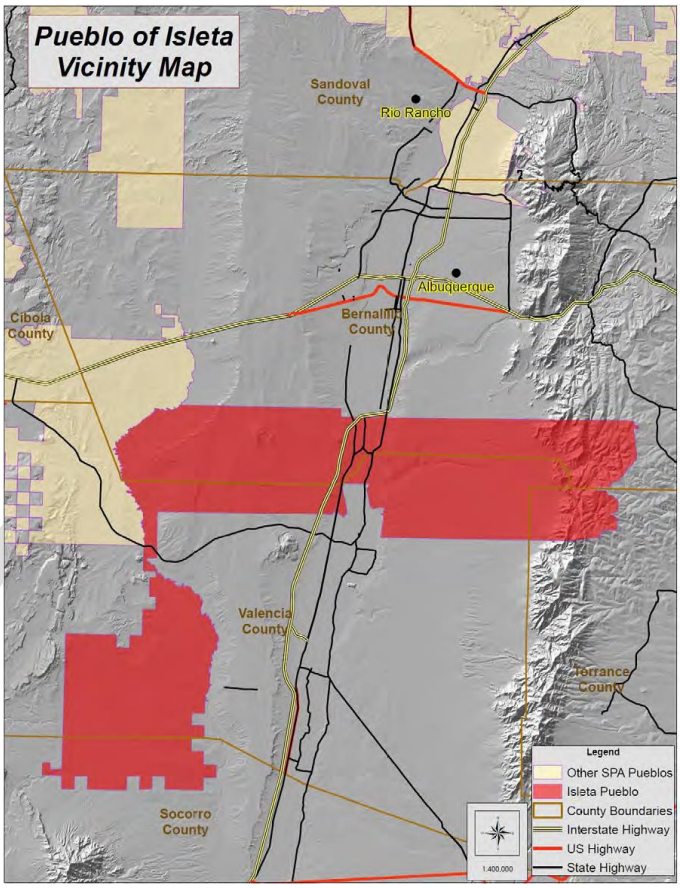
Profile

	Event Occurrence		Response			
Natural Hazards	**Probability**	**Consequence**	**Timeliness**	**Capability**	**PE**	**Risk**
Wildfire	0.9	0.9	0.5	0.5	0.25	0.61

Wildfire is ranked as the # 1 Hazard to Isleta. The Pueblo of Isleta Tribal Lands encompasses approximately 301,272 acres within Valencia, Bernalillo, Socorro, and Torrance Counties. The Pueblo is governed by a Governor and Tribal Council made up of elected representatives who act in accordance with the Pueblo of Isleta Tribal

Constitution. The Governor is authorized by the Constitution to direct and administer the civil affairs of the Pueblo in conformity with applicable ordinances, procedures, and policies enacted by the Tribal Council (POI, 2020).

Several roads cross through the reservation to include Interstate Highway 25 (I-25), which traverses from north to south in the central portion of the reservation; New Mexico State Highway 47 crosses through the Pueblo on the eastern side; and New Mexico State Highway 85, passes through the western side of the reservation. The Burlington Northern-Santa Fe (BNSF) railroad track is in the central corridor of the reservation. In addition to roads crossing on the reservation, the power, communication, utility, and natural gas companies have right-of-way through the reservation as well as, a variety of farm structures such as irrigation ditches, fences, windmills, and corrals are maintained within the reservation boundaries. The Pueblo lookout tower as well as a repeater for two-way radio communication is located in the Manzano Mountains (Isleta, Hazard Mitigation Plan, 2012).



Credited 1 - Isleta 2021 WFMP

Wildfire ignition risk potential (IRP) is a surrogate metric to assess the probability of fire occurrence within the pueblo, which primarily in a spatial analysis of the landscape of the pueblo to define location patterns of fire ignitions throughout the pueblo. IRP is defined as the number of fires per 1,000 acres for the years 1972 to 2008. No fires occurred in the low-risk areas. One fire occurred in the moderate-risk areas. Two or more fires occurred in the high-risk areas. The low-risk lands occupied 74 percent of the pueblo and occurred in areas away from communities and roads. Six percent of the pueblo was classified as high fire potential in proximity to the 6 Isleta residential areas, roads, agricultural lands, and the railroad corridor. The moderate-risk areas accounted for 20 percent, and they occurred on lands between the high- and low-risk areas.

The Pueblo has maintained its dedication to the preservation of cultural values, while

sustaining and enhancing natural resources for future generations.

Extent – Wildfire severity relates to soil heating, large fuel and duff consumption, consumption of the litter and organic layer beneath trees and isolated shrubs, and mortality of buried plant parts. Low-severity fires, mixed-severity fires, and stand replacement fires result in less than 25, 25 to 75, and greater than 75 percent of vegetation canopy consumed by the fire, respectively. Most Isleta fires are stand replacing fires due to the nature of the vegetation-fuel where most fires occur. The responsible and appropriate use of prescribed fire and managing fire for resource benefit, in addition to non-fire fuel treatments across a landscape-scale, will be incorporated to help reduce fuels levels (USFS, 2021).

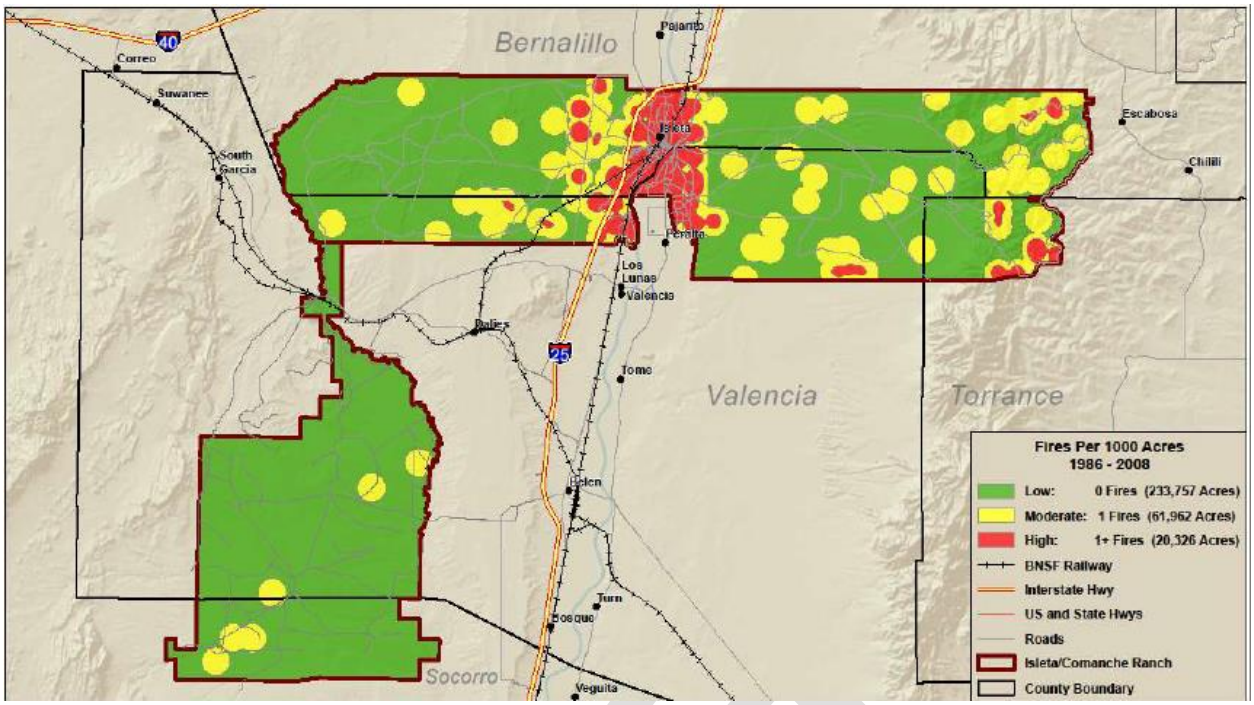
History – Historical records of wildfires occurring on Isleta lands is limited due to a limitation of dedicated resources prior to October of 2020 when a full time Fire Chief position was established and filled. Data obtained from multiple sources to include but not limited to the Southwest Coordination Center (SWCC), US Forestry and limited available Isleta records show there have been 96 wildfire events over the past

Figure 4 - Ignition Risk Potential

15 years. These records additionally indicates that 41 percent of all wildfires burned less than 9.9 acres per fire, while less than 1 percent of all fires burned over 3,000 acres regardless of ignition source. Lightning caused 12 percent of all wildfires and 88 percent were human caused. The largest burning fires were human caused. The following listing of Wildfires over the past ten years is listed below (USFS, 2021).

Event	Month/Year	Extent of Damages
Dog Head	June/2016	No historical information available
Los Charcos	May 2020	98 Acres

Probability – Fire frequency in the pueblo is considerable with the fire season extending throughout the year. However, the probability of fire is not evenly disturbed within the year. Fifty-seven percent of all fires occur during the months of February, March, and April, while 9 percent occur during the months of August, September, and October. Humans cause the greater number of fires through such things as escaped fire from field, ditch, and trash burning in comparison with lightening caused wildfire. Eighty percent of all wildfires as reported by the Isleta Pueblo Fire Department originated from field burns. Even though there is a high frequency of fires, there have not been any structure or infrastructure losses within the pueblo due to wildfire.



The probability of occurrence was based on historical data. Probability was determined based on the number for events over time. Consequence, though there have been no historical record of loss of critical assets, was determined to be high as any occurrence which did infiltrate the upper areas of Isleta would result in significant loss. High consequence can also be attributed to the restricted time of response due to the limitation of a primarily volunteer fire department.

Inventory – There are over 284,719 acres and 1,400 structures on Isleta with over 50% of those being exposed to flooding events. Based on the variant in wildfire probabilities estimated losses from wildfire could be in excess of $590 million for structural loss, $350 million in loss of interior content and an economic loss of $507,380,753. The initial Hazard Mitigation Plan developed in 2012 saw few mitigation measures put in place. Additionally, scheduled measures identified to be developed in the later part of 2018 were canceled due to the onset of the COVID-19 Pandemic.

Name or Description Asset	Wild Fire	Building Size (sq. ft.)	Replacement Value ($)	Contents Value ($)
Church	X	7500	$2,199,733.80	$85,740.20
Admirative Complex	X	116070	$22,613,905	$1,986,441

Name or Description Asset	Wild Fire	Building Size (sq. ft.)	Replacement Value ($)	Contents Value ($)
Elderly Center	X	7250	$1,802,471.55	$1,529,369.80
Health Services	X	42,900	$15,134,611.80	$931,768.60
School	X	32,400	$7,148,580.45	$575,595
Golf Course Club House	X	25,000	$28,875,000.00	$17,500,000
Isleta Casino & Resort		150,000	$516,310,806.00	$312,915,640
Isleta Lakes	X	5,000	$20,625.00	$17,500.00
Utility	X	4,064	$13,565,253.90	$11,509,912.40
Solid Waste	X	196	$345,887.85	$293,480.60
General Offices	X	5,000	$8,425,894.95	$7,149,244.20

Development Changes – The initiation of the Isleta Pueblos Bosque and Riverine Restoration project which began in May 2021 and will continue over the next ten years (Isleta, Water Resources, 2021). The project will reduce the risk of wildfire though the proposed restoration activities include reducing cover of fire-prone nonnative plant species, integrating defensible spaces in strategic locations, and removing jetty jacks to improve access in strategic locations for fire management personnel. Specific measures will be dependent on the current arrangement, density, and cover of nonnative species, potential fire ignition points, and the location and arrangement of jetty jack lines. Nonnative vegetation removal could include any combination of chainsaw treatment, herbicide application, and mastication. Mastication would be managed to avoid deep wood chip accumulations and care would be taken to minimize ground disturbance to the extent possible (Interior, 2020).

Multi-Jurisdictional – All wildfire activities will be conducted in accordance with the Pueblo of Isleta Wildland Fire Management Plan 2021 which defines the 'Fire Cache' with the current ability to support a Type-3 incident and approximately two Type-2 crews and three additional Type-6 engines. Addition support is available through Mutual Aid Agreements listed in Section 3.2 (BIA, 2021).

Summary – Wildfire is the number one hazard of concern in the Pueblo of Isleta because it occurs in every month of the year, it occurs throughout the pueblo, and it is constant risk to human welfare, livestock, agricultural lands, rangeland and forests, structures, and critical infrastructure. Over 80 percent of all wildfires occurring in the pueblo are human caused.

The Pueblo has an abundance of grass fuels throughout the Pueblo and has maintained firebreaks throughout the community which have effectively reduced grass fire potential. Woodland stands surrounding the town are sparse and rocky,

have little propensity for large fire growth. (You may want to add the applicable maps from the Pueblos WFMP)

Wildfire in the pueblo can occur throughout the year (Table 12). Several areas have been identified as being highly vulnerable to WUI fire (Appendix A, Map 7, Table 13). A considerable number of people would be impacted by a wildfire, especially populations living or working near forest, rangeland, and agricultural areas; residents with asthma or other respiratory sensitivity; and young and elderly residents. DHSEM identifies Bernalillo County (Isleta is within this boundary area) as one of the highest in terms of vulnerable to wildfires (BIA, 2021)

4.2 Flooding

Profile

	Event Occurrence		Response			
Natural Hazards	**Probability**	**Consequence**	**Timeliness**	**Capability**	**PE**	**Risk**
Flood	0.7	0.9	0.5	0.5	0.25	0.47

Flooding is ranked as the #2 Hazard to Isleta**.** Isleta is centered on the Rio Grande Valley, New Mexico, thirteen miles south of the City of Albuquerque. Isleta is bounded by Bernalillo County to the north and east, Socorro County to the south and west, Valencia County to the south, and Torrance County to the southeast. Comanche Ranch occurs in Valencia County and Socorro County. The Rio Grande flows north to south through the middle of the Isleta. The Rio Puerco flows north and south, and it borders the western boundary of the Isleta and the eastern boundary of Comanche Ranch. Most of the population is concentrated near the Rio Grande River (Interior, 2020).

Extent

Flash floods have been and will continue to be a significant threat to the State of New Mexico. Much has been done over the years to divert the flow of water around the Isleta and Los Lunas area. Prior to construction of levees on the Rio Grande, the river caused extensive flooding. The Rio Grande Levees from Isleta Pueblo to Belen provide protection against floods to 7,500 cubic feet per second (cfs), which is approximately a 26-year flood event. The 100-year flood in this reach varies from 12,800 cfs at Belen to 14,800 at the Village of Bosque Farms.

Past event flood data has not been accounted for from previous events on the pueblo. To determine some type of severity, FEMA HAZUS-MH Level 1 was employed. The flood analysis is based on 100-year flooding event incorporating actual essential facility

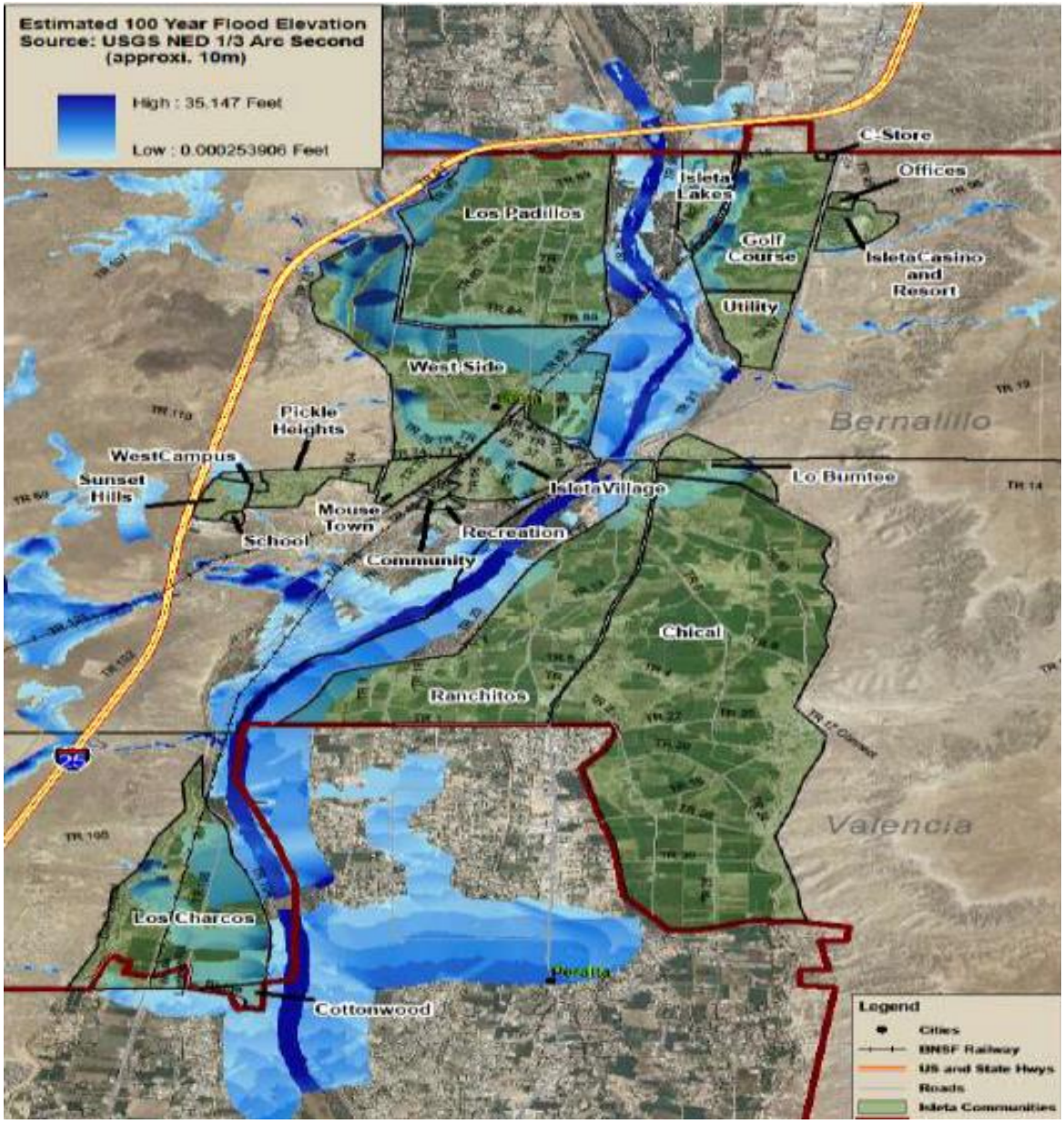
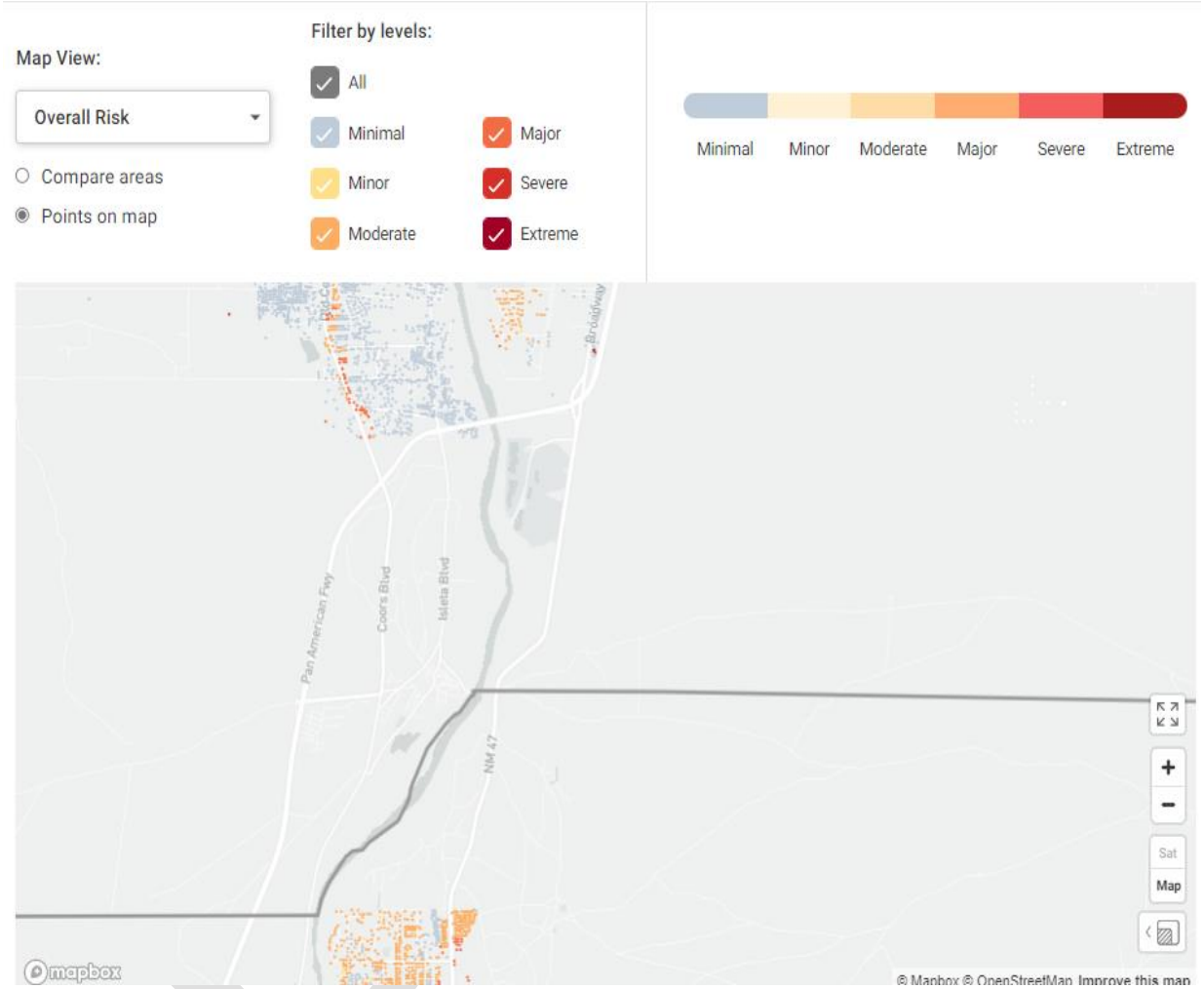


Figure 5 - 100 year Flood Elevation

locations within Isleta Pueblo. The pueblo hazard exposure provides a detailed listing of the damage from this analysis, which can be used to enhance the pueblo's mitigation strategies and deploy actions on the pueblo to decrease or in some areas eliminate areas of high severity.

History

Over the past 20 years Valencia County experienced six flood events totaling over $653,000. Though no flood data exists in the NCDC, the Isleta is prone to flash flooding events during severe storm events. The Albuquerque plan identified flood events but was localized within the city center. Valencia county, which incorporates the southern portion



of Isleta routinely experiences flood events due to heavy rainstorms that damaged county roads, cause minor residential and flash flooding. Pueblo residents and emergency management officials have stated past events have occurred on the pueblo but there is insufficient data at the time the plan was being developed.

Records management was limited and there is no significant historical data that can be added at this time.

Probability - Flood was considered a medium risk for the pueblo, though the frequency of the flood affecting the pueblo is considered moderate. As stated in past events, flooding

has occurred around the pueblo and residents have identified occurrences as well. As future events occur, the plan will be updated to reflect frequency and note damages.

Inventory –There are over 284,719 acres and 1,400 structures on Isleta with over 50% of those being exposed to flooding events. Based on the variant in flooding probabilities estimated losses from flooding could be in excess of $34 million for structural loss, $10 million in loss of interior content and an economic loss of $30,767,125. The initial Hazard Mitigation Plan developed in 2012 saw few mitigation measures put in place. Additionally, scheduled measures identified to be developed in the later part of 2018 were canceled due to the onset of the COVID-19 Pandemic.

Name or Description Asset	Flood	Building Size (sq. ft.)	Replacement Value ($)	Contents Value ($)
Church	X	7500	$2,199,733.80	$85,740.20
Elderly Center	X	7250	$1,802,471.55	$1,529,369.80
Health Services	X	42,900	$15,134,611.80	$931,768.60
School	X	32,400	$7,148,580.45	$575,595.00
Isleta Lakes	X	5,000	$20,625.00	$17,500.00
General Offices	X	5,000	$8,425,894.95	$7,149,244.20
		Totals	$34,731,917.55	$10,289,217.80

Development Changes – Isleta is currently engaged in the Bosque Restoration Program. This multi-year project is designed would implement restoration activities that lower bank lines and excavate backwater channels; promote overbank flood return drainage to the river; and remove jetty jacks along channel bank lines and berms

Multi-Jurisdictional – All flood activities will be responded to with support is available through Mutual Aid Agreements listed in Section 3.2 and in accordance to the Isleta Emergency Operations Plan.

Summary – One major river network, Rio Grande, has been identified to yield a significant loss estimate within the Pueblo of Isleta planning area. The Pueblo of Isleta is centered on the Rio Grande Valley, New Mexico, thirteen miles south of the City of Albuquerque. Given the right conditions, Isleta is subject to flooding and as determined by the HMP and past occurrences is regarded as having a medium vulnerability to flooding, especially in areas closest to the Rio Grande River area where the Isleta population predominates, and structures are of older design.

4.3 Severe Weather (Hail, Lightening, Wind, Winter Storm)

	Event Occurrence		Response			
Natural Hazards	**Probability**	**Consequence**	**Timeliness**	**Capability**	**PE**	**Risk**
Severe Weather[2]						
Hail	0.5	0.5	0.5	0.5	0.25	0.19
Lightening	0.8	0.3	0.5	0.5	0.25	0.18
Wind	0.9	0.6	0.5	0.5	0.25	0.41
Winter Storm	0.8	0.7	0.5	0.5	0.25	0.42

Profile

Severe weather is ranked as the #3 Hazard to Isleta. The entire planning area is subject to severe weather conditions, but areas most vulnerable where the population is concentrated, and buildings are of older design include:

- Pueblo Village or Plaza home to the San Augustine Mission Church, the pueblo's Kivas, traditional adobe homes, and many tribal buildings and functions.
- Ranchitos where most housing construction in this community took place in the 1960s and 1970s.
- Pickle Heights is southeast of the Plaza. It is the newest area of residential development within the pueblo but consists of subsidized housing, a new elementary school, health clinic, library, and other social service agencies, a large population.

Extent - Severe weather is difficult to predict precisely in pattern, frequency, and degree of severity. The impact from severe weather events (high wind, lightening, hail, winter storms, extreme heat, and tornadoes) has been moderate, with localized flooding occurring from severe thunderstorms and minor damages to specific locations from hail and lightning.

History

Hail:

Records management was limited and there is no significant historical data that can be added at this time.

[2] *Note: Some weather events include multiple hazards. For example, a thunderstorm is a weather event that can include multiple specific hazards, such as flooding, high winds, hail, and lightning. The thunderstorm would be the cause of the hazards, not the hazard itself. A recommended strategy would be to identify the hazards (flooding, high winds, etc.) and not the cause (Thunderstorms).*

Lightning:

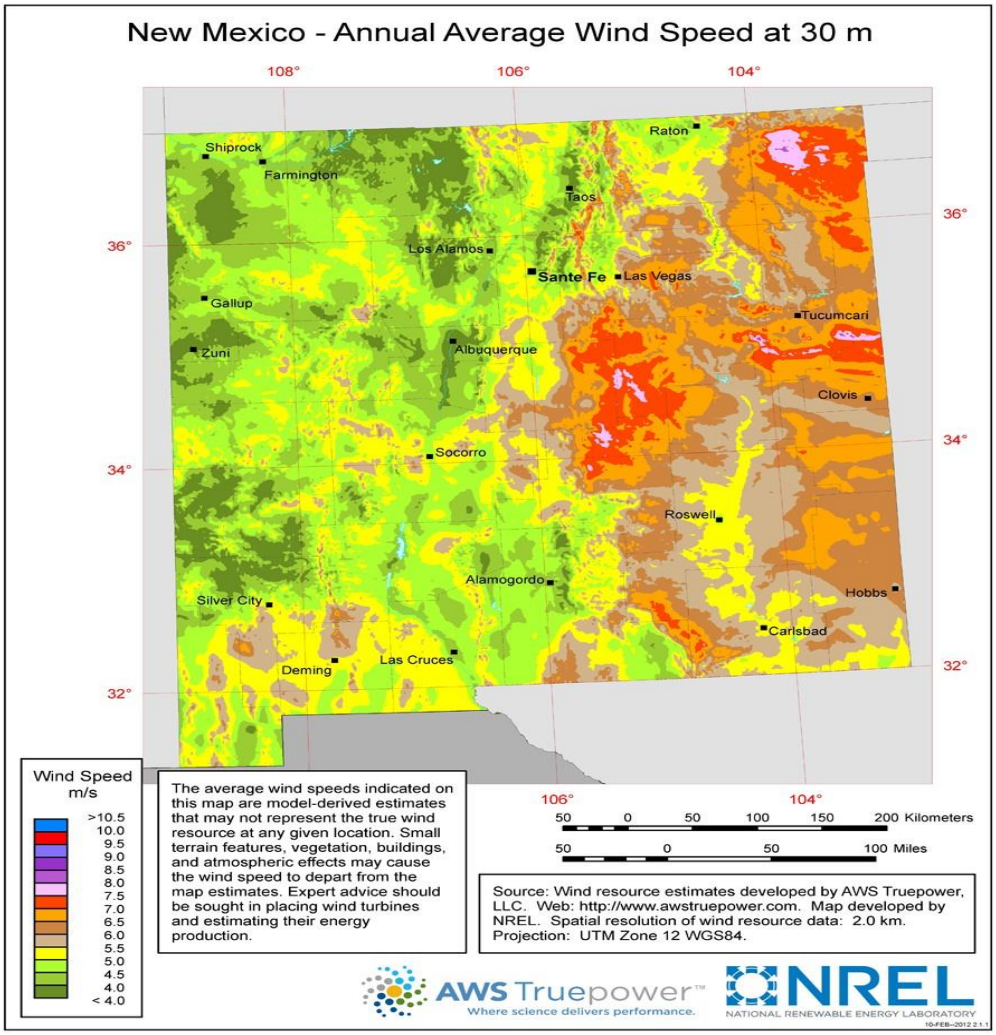
Event	Date(s)	Extent of Damages
	August 28, 2010	Lightning damaged the Social Services building causing damage to radios, computers and phone systems estimated at over $6,700.
		Lightning storm struck a pole outside the Pueblo Health Center traveling into the electrical lines through the building. This event damaged phone lines, phone system, and computers. Estimated damage is over $9,200.
	August 3, 2008	Lightning took out the network radios at the MIS department causing damages more than $12,000.
	June 29, 2008	A lightning strike took out the cameras and pumps at the Isleta Travel Center causing damages of $19,434

High Wind Events:

Event	Date(s)	Extent of Damages
	April 29, 2010	High winds caused damage to buildings on the pueblo to include Recreation Center, Physical Therapy, Diabetes, Natural Resources and MIS buildings. Damages were identified at $51,000.00
	April 9, 2010	High winds caused over $13,200 in damages to buildings causing the roof to blow off the Procurement Building.

Winter Storm:

Records management was limited and there is no significant historical data that can be added at this time.



Probability - The probability or chance of occurrence was calculated based on historical data identified in the tables above. Each event type was ranked separately. Probability was determined based on the number for events and their occurrence over time with lightning, wind storms and winter storms which included severe cold had a high likelihood of occurrence with medium to low consequence levels. Isleta response and capability both in timeliness and capability was determined to be moderate as there are limited response requirements in managing these events. The majority of responses to these type of events are singular response for individual injury.

Inventory – There are over 284,719 acres and 1,400 structures on Isleta with over 50% of those being exposed to flooding events. Based on the variant in flooding probabilities

estimated losses from flooding could be in excess of $34 million for structural loss, $10 million in loss of interior content and an economic loss of $259, 883,759. The initial Hazard Mitigation Plan developed in 2012 saw few mitigation measures put in place. Additionally, scheduled measures identified to be developed in the later part of 2018 were canceled due to the onset of the COVID-19 Pandemic.

Multi-Jurisdictional – All flood activities will be responded to with support is available through Mutual Aid Agreements listed in Section 3.2 and in accordance to the Isleta Emergency Operations Plan.

Summary - Critical facilities that are vulnerable to severe weather damage are those of older construction and in poor condition, especially in the more rural and isolated areas of the pueblo. No specific critical facilities have been identified as particularly vulnerable to high winds. As recorded by the pueblo, past lightning events have caused damage to newer constructed buildings and their contents and are difficult to predict their degree of severity or strike pattern.

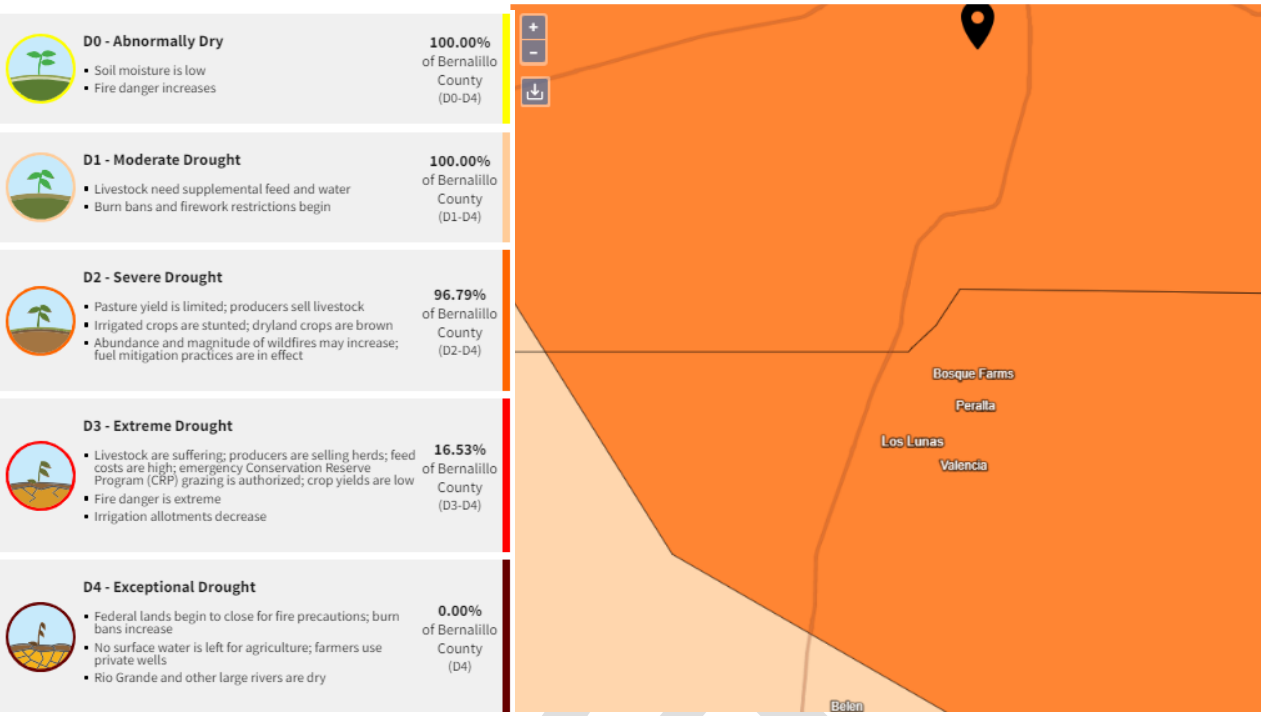
4.4 Drought

	Event Occurrence		Response			
Natural Hazards	**Probability**	**Consequence**	**Timeliness**	**Capability**	**PE**	**Risk**
Drought	0.5	0.5	0.5	0	0	0.25

Profile

Drought is ranked as the # 4 Hazard to Isleta. The entire planning area is subject to drought conditions, but areas most vulnerable on the pueblo include 284,719 acres of rangeland used for livestock grazing and 6,361 acres of agriculture land use and 2,671 acres of develop land use. Livestock grazing on rangeland is the major land use. 2021 has been the 16th driest year to date in 127 years with a decrease of 3.03 inches of precipitation from normal. https://www.drought.gov/states/new-mexico/county/bernalillo

Extent - Developed land accounts for less than one percent land use. However, the developed land includes the five Isleta communities and represents the land area where hazard mitigation projects should focus for the projection of human welfare and economic values.



History - Identified as a concern by the pueblo, no previous drought data exists from the pueblo. According to the NCDC, no drought events have been recorded for Isleta or the surrounding four counties (Bernalillo, Valencia, Torrance, and Socorro) between January 1, 1950, and May 31, 2010. Between 1995 and May 2007, there were three state declared disasters for effects related to drought, primarily for loss of domestic drinking water: May 1996, May 2000, and June 2002. The total cost for drought related events for this period is $279,459. However, indirect costs are estimated to be between $50 to one hundred million.

Records management was limited and there is no significant historical data that can be added at this time.

Probability - Drought is a regular event in all areas of New Mexico; it visits the state in recurring cycles. Experts predict that drought conditions are likely to continue for the near future. This has become a reality in the overall expectation of Isleta and therefore the state of ‘draught’ is continuous with continued efforts to manage and adapt to the continual existence. The risk associated with draught in this instance is within the acceptable level.

Inventory – Isleta continues to adapt to the presence of draught conditions. The overall effect of critical assets is limited to general repair and maintenance of systems. There is no expectation of loss of critical assets.

Development Changes - The previous Hazard Mitigation Plan is out of date and therefore capabilities available and mitigation program will be developed as part of the mitigation process determined by this HMP.

Multi-Jurisdictional – All draught activities will be managed with support from external sources available through Mutual Aid Agreements listed in Section 3.2, in accordance to the Isleta Emergency Operations Plan and through cooperation with the state of New Mexico environmental Department and the University of New Mexico research programs on draught.

Summary – Drought on the Isleta significantly affect human activities, wildfire suppression, natural resources, and water dependent activities, such as agriculture. The consequences of a moderate-to-severe drought on the pueblo pose significant challenges. Drought damages agricultural crops, causes injury and potential death to livestock and wildlife through undernourishment, and in general forces a decline in land values. Droughts can also cause a water shortage, affecting both humans (lessened potable water supply) and hydroelectric power generators, as well as negatively impacting riverine navigation and recreation.

4.5 Earthquake

	Event Occurrence		Response			
Natural Hazards	**Probability**	**Consequence**	**Timeliness**	**Capability**	**PE**	**Risk**
Earthquake	0.1	0.9	0.1	0	0	0.09

Profile - Earthquake is ranked as the # 5 Hazard to Isleta. The entire planning area is subject to earthquake events that could impact people, property, and the natural environment. According to the United States Geological Service (Frankel et al. 2002) the highest risk for an earthquake in New Mexico is in the area along the Rio Grande between Socorro and Albuquerque, where the pueblo is located between the two cities (Figure 9; USGS 2009). This area has a 30 percent chance of a magnitude 5.0 or larger earthquake within 50 km any given year.

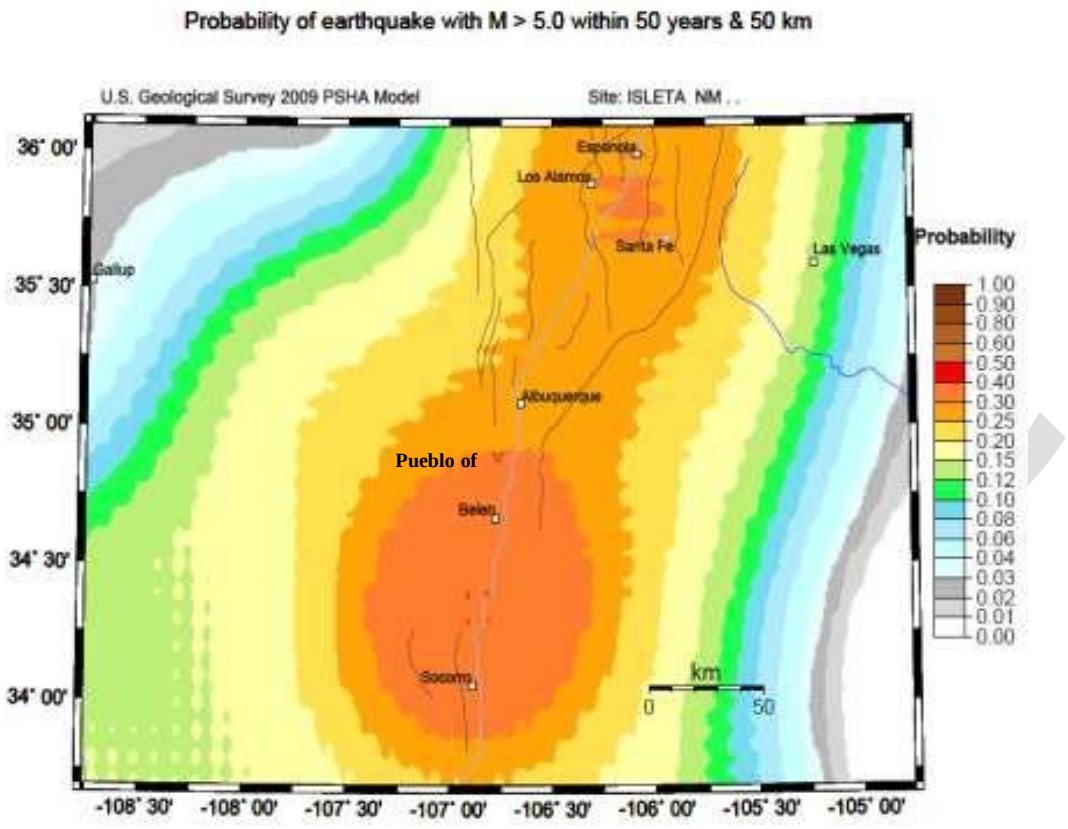


Figure 6 -Credit Isleta 2012 HMP

Extent - The severity of an earthquake depends on the amount of energy released from the fault or epicenter of the earthquake. The severity is described in terms of magnitude and intensity. Magnitude characterizes the total energy released, and intensity subjectively describes effects at a particular place. While an earthquake has only one magnitude, its intensity varies throughout the affected region.

History - Significant earthquakes with epicenters on the pueblo have not been detected in recent history, but the area has numerous faults with the potential for a large magnitude earthquake. With very few damaging tremblors in the past one hundred years, there is not much historical data to suggest which areas and specific structures would be most susceptible to damage.

Probability - The information on the probability and severity of an earthquake event is based on the relationship between PGA, magnitude, and intensity, which is approximate and depends upon such specifics as the distance from the epicenter and the depth of the epicenter. The probability of occurrence is low, however the consequence of such an event would be high. Additionally, as the event would be a regional incident the availability

of initial response would be limited to that available through Isleta capabilities with additional support unavailable for a minimum of 72 hours.

Inventory - Assets exposed to earthquake events and estimated potential losses would be significant.

Name or Description Asset	Earthquake	Building Size (sq. ft.)	Replacement Value ($)	Contents Value ($)
Church	X	7500	$ 2,199,733.80	$ 85,740.20
Admirative Complex	X	116070	$ 22,613,905.00	$ 1,986,441.00
Elderly Center	X	7250	$ 1,802,471.55	$ 1,529,369.80
Health Services	X	42,900	$ 15,134,611.80	$ 931,768.60
School	X	32,400	$ 7,148,580.45	$ 575,595.00
Golf Course Club House	X	25,000	$ 28,875,000.00	$ 17,500,000.00
Isleta Casino & Resort		150,000	$ 516,310,806.00	$ 312,915,640.00
Isleta Lakes	X	5,000	$ 20,625.00	$ 17,500.00
Utility	X	4,064	$ 13,565,253.90	$ 11,509,912.40
Solid Waste	X	196	$ 345,887.85	$ 293,480.60
General Offices	X	5,000	$ 8,425,894.95	$ 7,149,244.20
		Totals	$ 616,442,770.30	$ 354,494,691.80

Development Changes – The previous Hazard Mitigation Plan is out of date and therefore capabilities available and mitigation program will be developed as part of the mitigation process determined by this HMP.

Multi-Jurisdictional – Response capability would not be available for a minimum of 72 hours which would be the standard time for FEMA and other disaster services to arrive in the State. Additionally, these services would be prioritized to the highest effected area.

HRV Summary – The potential for an earthquake is with the acceptable level of risk. Critical facilities that are vulnerable to earthquake damage are those of older construction and in poor condition, especially in the older sections of the village and more rural and isolated areas of the pueblo.

4.6 Volcano

	Event Occurrence		Response			
Natural Hazards	**Probability**	**Consequence**	**Timeliness**	**Capability**	**PE**	**Risk**
Volcano	0.1	0.9	0.1	0	0	0.09

Profile - Volcano is ranked as the # 6 Hazard to Isleta. The entire planning area would be subject to the effect of a volcanic eruption which has been determined an extremely low probability.

Extent - In the event of a volcanic event, agriculture is adversely impacted, especially in non-irrigated areas such as dry land farms and rangelands. A volcanic event can impact individuals (farm owners, tenants, and farm laborers), the agricultural industry, other agriculture-related sectors, and other industries such as tourism and recreation.

History – The lack of prolonged activity of the volcanic fields in New Mexico, therefore, it is less than likely that there would be an eruption in the near future. Studies of the fields center more around their formation and past events, rather than focusing on potential future events.

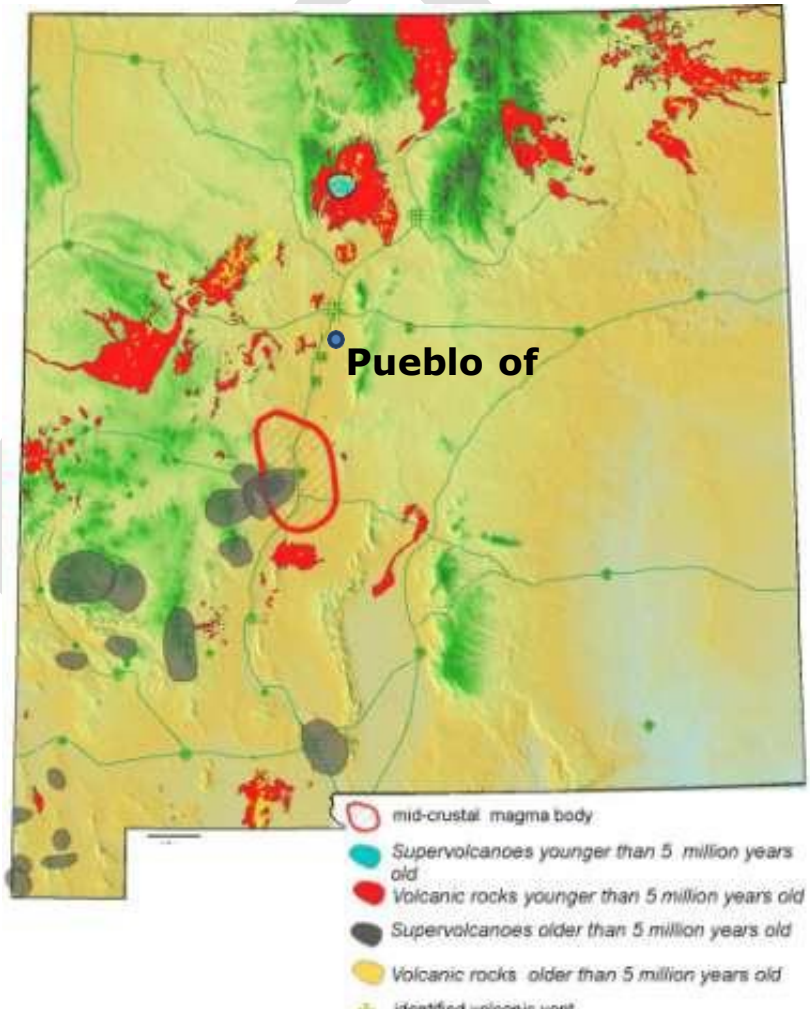


Figure 7 - Credit Isleta 2012 HMP

Probability - Due to the low probability of a volcanic event, the pueblo has a 1 percent chance of experiencing the effects of a volcano. The volcano identified on the western edge of the pueblo has been dormant for 2,000 years. The probability of occurrence is low, however the consequence of such an event would be high. Additionally, as the event would be a regional incident the availability of initial response would be limited to that available through Isleta capabilities with additional support unavailable for a minimum of 72 hours.

Inventory - Assets exposed to earthquake events and estimated potential losses would be significant.

Name or Description Asset	Volcano	Building Size (sq. ft.)	Replacement Value ($)	Contents Value ($)
Church	X	7500	$ 2,199,733.80	$ 85,740.20
Admirative Complex	X	116070	$ 22,613,905.00	$ 1,986,441.00
Elderly Center	X	7250	$ 1,802,471.55	$ 1,529,369.80
Health Services	X	42,900	$ 15,134,611.80	$ 931,768.60
School	X	32,400	$ 7,148,580.45	$ 575,595.00
Golf Course Club House	X	25,000	$ 28,875,000.00	$ 17,500,000.00
Isleta Casino & Resort		150,000	$ 516,310,806.00	$ 312,915,640.00
Isleta Lakes	X	5,000	$ 20,625.00	$ 17,500.00
Utility	X	4,064	$ 13,565,253.90	$ 11,509,912.40
Solid Waste	X	196	$ 345,887.85	$ 293,480.60
General Offices	X	5,000	$ 8,425,894.95	$ 7,149,244.20
		Totals	$ 616,442,770.30	$ 354,494,691.80

Development Changes - The previous Hazard Mitigation Plan is out of date and therefore capabilities available and mitigation program will be developed as part of the mitigation process determined by this HMP.

Multi-Jurisdictional – Response capability would not be available for a minimum of 72 hours which would be the standard time for FEMA and other disaster services to arrive in the State. Additionally, these services would be prioritized to the highest effected area.

HRV Summary – Based on past occurrence of volcanism in the state (Figures 13 and 14; NMMNHS 2010), it is estimated that there is a 1 percent chance that some type of volcanic eruption could occur somewhere in New Mexico, specifically on Isleta, in the next one hundred years, and a 10 percent chance that an eruption will occur in the next 1,000 years.

5 Mitigation Strategy

5.1 Current Grant Information

There is no current grant funding provided to the Pueblo of Isleta specific to the mitigation of hazards identified in this Hazard Mitigation Plan.

5.2 Hazard Mitigations

#1	Wildfire
Hazard Description	Wildfires pose a significant threat to the pueblo, especially to the urban areas located in and around the Rio Grande Bosque and the counties that surround the pueblo (Bernalillo, Valencia, Torrance, and Socorro). The East Mountains are at risk due to the lack of access and water availability. The threat has worsened in recent years due to drought and the bark beetle infestation.
Mitigation Project 1	Develop a Community Wildfire Protection Plan (CWPP). The CWPP would evaluate vegetation – fuels management projects including fuel breaks, Bosque vegetation thinning, fire-wise defensible space, and construction.
Goal	Reduce the threat and effect of catastrophic wildfire to encourage fuels reduction and resource protection.
Funding Source/Cost	Request for BIA Grant
Timeline	2nd Quarter of 2022
Responsible Party	Fire Department
Mitigation Project 2	Evaluate the need to establish a fire ordinance code such as the "International Wildland-Urban Interface Code
Goal	Reduce the threat and effect of catastrophic wildfire to encourage fuels reduction and resource protection.
Funding Source/Cost	None needed
Timeline	2nd Quarter of 2022
Responsible Party	Fire Department
Mitigation Project 3	Develop a community outreach program to reduce the number of human-caused fires and increase adherence to fire-wise landscaping and construction practices.
Goal	Increase preparedness for natural disasters by Tribal residents and the Pueblo as a whole. Reduce the number of human caused fires resulting from agricultural burning.
Funding Source/Cost	IAD Grant
Timeline	Completed
Responsible Party	Fire Department

#2	Flooding
Hazard Description	Isleta is highly susceptible to flash floods, with occurrences every year. Rapid runoff of large volumes of water result from heavy thunderstorms in the summer, sparse vegetative cover, and fine-grained soils, and the situation is exacerbated by wildfire and drought, which reduce vegetative cover and expose the soil to even greater runoff.
Mitigation Project 1	Develop a plan to implement a sandbag system to protect essential structures and homes.
Goal	Reduce the possibility of damage or losses to existing assets, particularly critical infrastructure and facilities owned by the Pueblo

#2	Flooding
Funding Source/Cost	POI
Timeline	2nd Quarter of 2022
Responsible Party	Public Works
Mitigation Project 2	Develop training program for agency and assign responsibilities for such things as to maintain roads and drinking water quality.
Goal	Review and enhance response capabilities to Flood events on the pueblo
Funding Source/Cost	
Timeline	
Responsible Party	Roads Department
Mitigation Project 3	Evaluate the current condition of the drainage system and make necessary repairs or improvements to facilitate water runoff.
Goal	Review current pueblo Infrastructure and implement maintenance control.
Funding Source/Cost	
Timeline	
Responsible Party	Roads Department
Mitigation Project 4	Develop a community outreach program to educate residents on actions to take during a flood event.
Goal	Increase preparedness for natural disasters by Tribal residents and the Pueblo as a whole.
Funding Source/Cost	
Timeline	
Responsible Party	Emergency Management

#3	Severe Weather
Hazard Description	There are a number of actions that can be used to mitigate severe weather hazards. Unlike flood and wildfire, which have limited geographic extents, severe weather potentially affects the entire pueblo. Therefore, strategies for identifying severe weather mitigation actions usually involve identifying individual structures with known/assumed vulnerability or particular critical facilities. Additional efforts might include actions that can reach the entire pueblo through public education or that improve pueblo implementation capabilities and strengthening regulations
Mitigation Project 1	Evaluate, update, and adopt building codes and ordinances.
Goal	Implement programs to facilitate and reduce the cost of natural response and recovery.
Funding Source/Cost	
Timeline	
Responsible Party	Emergency Management
Mitigation Project 2	Develop a community outreach program to educate residents on actions to take during a severe storm.

#3	Severe Weather
Goal	Increase preparedness for natural disasters by Tribal residents and the Pueblo as a whole.
Funding Source/Cost	
Timeline	
Responsible Party	Emergency Management
Mitigation Project 3	Determine ways to protect structures and building operations from the effects of lightning strikes.
Goal	Reduce the possibility of damage or losses to existing assets, particularly critical infrastructure and facilities owned by the Pueblo
Funding Source/Cost	
Timeline	
Responsible Party	POI
Mitigation Project 4	Public education and public notification regarding severe weather.
Goal	Update pueblo community outreach, and educational presentations and materials, to be disseminated throughout the pueblo.
Funding Source/Cost	
Timeline	
Responsible Party	Emergency Management
Mitigation Project 5	Improve emergency communication capabilities to facilitate better warning and emergency response to severe weather conditions and/or events.
Goal	Install or upgrade new infrastructure to increase communication capabilities within the pueblo thus providing a more defined emergency notification system and protocol.
Funding Source/Cost	
Timeline	
Responsible Party	Emergency Management

#4	Drought
Hazard Description	Droughts on Isleta affect the entire pueblo and can disrupt public and rural water supplies for human and livestock consumption; water quality; natural soil water or irrigation water for agriculture; water for forests and for fighting forest fires; and water for recreation. The following actions are focused to reduce the effects of droughts on the pueblo.
Mitigation Project 1	Develop a plan of action to execute during prolong drought. Plan would include water conservation measures and community outreach.
Goal	Enhance the education and development of water conservation capability for the pueblo.
Funding Source/Cost	
Timeline	
Responsible Party	Department of Natural Resources

#4	Drought
Mitigation Project 2	Develop a plan to evaluate all wells, pumps, and irrigation ditches for needed repair and maintenance.
Goal	Enhance the education and development of water conservation capability for the pueblo.
Funding Source/Cost	
Timeline	
Responsible Party	Department of Natural Resources

#5	Earthquakes
Hazard Description	Based upon historical seismic data, the risk of damage from earthquakes on the Isleta is still possible. Any action should focus on assessing the potential vulnerabilities of critical facilities and cultural or sacred sites.
Mitigation Project 1	Evaluate the need to establish building ordinance code.
Goal	Reduce the chances for damage and loss to existing critical structures, residences, and other infrastructure.
Funding Source/Cost	
Timeline	
Responsible Party	Construction Operations
Mitigation Project 2	Develop a community outreach program to educate residents on earthquake and volcano awareness and actions to take during such an event.
Goal	Increase awareness of potential earthquakes and appropriate action to take in an advent of an earthquake.
Funding Source/Cost	
Timeline	
Responsible Party	Emergency Management
Mitigation Project 3	Develop organizational capabilities to assess damages for reoccupy building and housing
Goal	
Funding Source/Cost	
Timeline	
Responsible Party	Construction Operations

#6	Volcano
Hazard Description	The probability of a volcanic eruption is extremely low. Any action should focus on assessing the potential vulnerabilities of critical facilities, cultural and sacred sites.
Mitigation Project 1	Develop a community outreach program to educate residents on volcano awareness and actions to take during such an event.
Goal	Increase awareness of volcanoes and appropriate action to take in an advent of a volcanic eruption.
Funding Source/Cost	

#6	Volcano
Timeline	
Responsible Party	Emergency Management
Mitigation Project 2	Evaluate response capabilities for mass evacuation.
Goal	Reduce the chances for significant loss of life.
Funding Source/Cost	
Timeline	
Responsible Party	Public Safety

6 Plan Updates

This Hazard Mitigation Plan was developed in support of the initial HMP developed in 2012 and revised to reflect current priorities.

Monitoring, evaluating, and updating the Plan is critical to maintaining its relevance to ensure that the Tribal HMP remains an active and relevant document as stated in Tribal Mitigation Plan Review Guide (FEMA 2017). Effective implementation of mitigation activities paves the way for continued momentum in the planning process and gives direction for the future project and planning updates.

The HMP will establish a permanent hazard mitigation team to lead the implementation of the plan and continue the hazard mitigation planning process beyond this Plan. The Isleta Fire Chief is responsible for conducting a thorough on-site review of all mitigation project actions every six months and reporting project status back to the HMP Team. The Isleta Fire Chief will meet with all tribal department directors and Tribal Council semi-annually to discuss and evaluate progress on achieving goals and objectives outlined in the HMP. These meetings will serve to identify any obstacles to completing identified actions and report to the Pueblo of Isleta Governor and Tribal Council. Quarterly reports will be made to the Tribal Council and budget requests will be submitted in accordance with identified Isleta Finance department requirements.

The Isleta HMP will be evaluated annually and will be updated at a minimum of every five years or as deemed necessary based on changes in hazard profiles, needed to address new or unexpected mitigation goals and objectives, new/alternate funding opportunities and as required by Tribal government. A revised copy of the plan will be completed and submitted for public comment and Tribal Council approval.

7 Assurances and Plan Adoption

Once the plan is approved the Tribal Governor will provide formal correspondence to all departments to begin utilizing the mitigation plan in daily, monthly, quarterly, and annual meetings and processes. Each department will review the HMP and choose mitigation action(s) to add to their operational plan/budget. Each department will be required to provide annual inputs and participate in updates and reviews as required by the Tribal Council and Governor.

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Appendix 1 – Public Comments

Insert PDF of all comments received from the public and the resolution or modification to the plan as a result.

Appendix 2 – Capabilities List

Insert Capabilities List