

# ANNEX A: The Moapa Band of Paiutes

---

## Table of Contents

<b>I.</b>	<b>RESOLUTION AND ADOPTION OF THE HAZARD MITIGATION PLAN.....</b>	<b>3</b>
<b>A.1</b>	<b>COMMUNITY PROFILE.....</b>	<b>5</b>
A.1.1	GEOGRAPHY.....	5
A.1.1.A	PHYSICAL CHARACTERISTICS / CLIMATE .....	5
A.1.2	POPULATION .....	9
A.1.3	HISTORY ORGANIZATION .....	14
A.1.4	ECONOMY .....	15
A.1.5	THE PLANNING PROCESS .....	16
A.1.6	HAZARD MITIGATION PLANNING COMMITTEE .....	17
A.1.6.1	PLANNING COMMITTEE MEETINGS & MONTHLY PROGRESS .....	17
A.1.6.2	PUBLIC INVOLVEMENT .....	18
A.1.6.3	QUESTIONNAIRE.....	20
A.1.6.4	LETTERS TO STAKEHOLDERS AND NEIGHBORING COMMUNITIES.....	22
A.1.6.5	INCORPORATION OF EXISTING PLANS AND OTHER RELEVANT INFORMATION.....	22
<b>A.2</b>	<b>HAZARD PROFILES AND VULNERABILITY ASSESSMENT .....</b>	<b>23</b>
A.2.1	HAZARD PROFILES .....	23
A.2.2	COMMUNITY ASSET INVENTORY.....	24
A.2.2.1	RANCHING / AGRICULTURE .....	27
A.2.3	CRITICAL AND ESSENTIAL FACILITY INVENTORY .....	27
A.2.3.1	LAW ENFORCEMENT.....	32
A.2.3.2	FIRE DEPARTMENT.....	35
A.2.4	GROWTH AND DEVELOPMENT TRENDS .....	36
A.2.4.1	DEVELOPMENT PROJECT - SOLAR .....	37
A.2.4.2	CLIMATE CHANGE .....	39
A.2.5	VULNERABILITY ASSESSMENT BY HAZARD.....	41
A.2.5.A	CRITICAL INFRASTRUCTURE CONCERNS.....	42
A.2.5.1	FLOODING AND FLASH FLOODING.....	44
A.2.5.2	DAM FAILURE .....	48
A.2.5.3	UTILITY FAILURE/ENERGY EMERGENCY.....	51
A.2.5.4	EARTHQUAKE.....	52
A.2.5.5	DROUGHT .....	52

A.2.5.6	HAZARDOUS MATERIALS .....	53
A.2.5.7	WILDFIRE .....	55
A.2.5.8	SUBSIDENCE.....	55
<b>A.3</b>	<b>CAPABILITY ASSESSMENT.....</b>	<b>57</b>
A.3.1	REGULATORY CAPABILITIES.....	57
A.3.1.1	INTEGRATION INTO EXISTING PLANNING MECHANISMS .....	58
A.3.2	ADMINISTRATIVE/TECHNICAL CAPABILITIES.....	59
A.3.2.1	FINANCIAL TRACKING OF GRANTS.....	60
A.3.2.2	MOAPA BAND OF PAIUTES AGENCIES/BOARDS/COMMISSIONS/COMMITTEES/DISTRICTS/SERVICES .....	61
A.3.2.3	MOAPA BAND OF PAIUTES PARTNERSHIPS .....	61
A.3.3	FISCAL CAPABILITIES .....	62
<b>A.4</b>	<b>MITIGATION STRATEGY .....</b>	<b>62</b>
A.4.1	MITIGATION GOALS AND OBJECTIVES.....	63
A.4.2	MITIGATION ACTION.....	64
A.4.2.1	FLOOD - TRIBAL HOUSING: RELOCATE OR REBUILD.....	65
A.4.2.2	FLOOD CHANNEL HARDENING.....	65
A.4.2.3	SEWER SYSTEM .....	66
A.4.2.4	FUEL REDUCTION/DEFENSIBLE SPACE PROJECT.....	67
A.4.2.5	ADDITIONAL EXIT ROADS .....	67
A.4.2.6	EARLY WARNING SYSTEM .....	68
A.4.2.7	BACK-UP GENERATORS.....	69
A.4.2.8	ALL HAZARDS – PUBLIC AWARENESS PROJECTS .....	70
A.4.3	OTHER MITIGATION EFFORTS .....	71
<b>A.5</b>	<b>PLAN ADOPTION AND ASSURANCES.....</b>	<b>71</b>
<b>A.6</b>	<b>PLAN MAINTENANCE.....</b>	<b>72</b>
<b>APPENDIX A</b>	<b>.....</b>	<b>73</b>
<b>APPENDIX B</b>	<b>.....</b>	<b>74</b>

# I. Resolution and Adoption of the Hazard Mitigation Plan



## MOAPA BAND OF PAIUTES

MOAPA RIVER INDIAN RESERVATION  
BOX 340  
MOAPA, NEVADA 89025  
TELEPHONE (702) 865-2787  
FAX (702) 865-2875

Tribal Resolution: M-15-03-15

### RESOLUTION OF THE GOVERNING BODY OF THE MOAPA BAND OF PAIUTES

#### Subject: Adopting the Moapa Band of Paiute Hazard Mitigation Plan

**WHEREAS**, the Moapa Band of Paiutes are organized under the provisions of the Indian Reorganization Act of June 1934, (Stat. 594), as amended to exercise certain rights of home rule and be responsible for the general welfare of its membership; and

**WHEREAS**, the Moapa Business Council is the governing body of the Moapa Band of Paiute Indians, by authority of the Tribe's Constitution and By-Laws; and

**WHEREAS**, the Moapa Band of Paiutes has historically experienced severe damage from natural and human-caused hazards such as flooding, wildfire, drought, thunderstorms/high winds, and hazardous materials incidents on many occasions in the past century, resulting in loss of property and life, economic hardship, and threats to public health and safety;

**WHEREAS**, the Moapa Band of Paiutes has developed and received conditional approval From the Federal Emergency Management Agency (FEMA) for its All Hazard Mitigation Plan under the requirements of the Federal Disaster Mitigation Act of 2000,

**WHEREAS**, the Plan specifically addresses hazard mitigation strategies and plan maintenance procedures for Moapa Band of Paiutes;

**WHEREAS**, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural and human caused hazards that impact Moapa Band of Paiutes, with the effect of protecting people and property from loss associated with those hazards;

**WHEREAS**, adoption of this plan will make the Moapa Band of Paiutes eligible for funding to alleviate the impacts of future hazards on the Reservation,

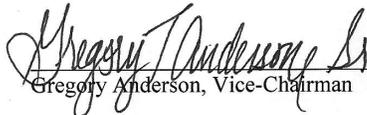
1. The Plan is hereby adopted as an official plan of Moapa Band of Paiutes.
2. The respective officials identified in the mitigation strategy of the Plan are hereby directed to pursue implementation of the recommended actions assigned to them.
3. Future revisions and Plan maintenance required by the Disaster Mitigation Act of 2000 and FEMA, are hereby adopted as a part of this resolution for a period of three (3) years from the date of this resolution.

4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Moapa Band of Paiutes Business Council annually on the first of October, of each calendar year.
5. The Moapa Band of Paiutes will comply with all applicable Federal statutes and regulations in effect with respect to the periods for which it receives grant funding, in compliance with 44 CFR.13.11 (c); and will amend our Plan whenever necessary to reflect applicable changes in Tribe, state or Federal laws and statutes as required in 44 CFR 13.11. (d).

**NOW THEREFORE BE IT RESOLVED**, that the Business Council of the Moapa Band of Paiutes hereby authorizes the approval of adopting the Moapa Band of Paiutes Hazard Mitigation Plan.

#### **CERTIFICATION**

We, the undersigned Chairman and Secretary of the Business Council of the Moapa Band of Paiute Indians, do hereby certify that the foregoing resolution was considered and passed at a duly called *Special Meeting* of the Business Council of the Moapa Band of Paiute Indians, at which a quorum was present, held on the *31<sup>st</sup> day of March 2015*, with (4) For (0) Against, (0) Abstaining and (1) Not Voting.

  
Gregory Anderson, Vice-Chairman

  
Robert Tom, Tribal Council Secretary

---

## A.1 Community Profile

---



Figure A1

---

### A.1.1 Geography

---

The Moapa Band of Paiutes (Tribe) resides on the Moapa River Indian Reservation (MRIR) in Clark County, Nevada. We are a federally-recognized Indian tribe organized under a Constitution approved by the Secretary of the Interior on April 17, 1942.

The tribal lands originally set aside in 1873 consisted of two million acres, but in 1875 it was reduced to 1000 acres. In December 1980, under the Carter Administration, an additional 70,000 acres were returned back to the Tribe. The current total land base is 71,954 acres.

Moapa Valley is the prehistoric flood plain of the Muddy River which is fed by geothermal springs and flows through the valley and drains into Lake Mead. The Valley is characterized by dry washes and rounded hills along the river that gradually rise from the valley floor to the distant ridges of the Arrow Canyon Range, the Muddy Mountains, and the Mormon Mountains. Winters are short and mild in the Valley. The sun shines 95 percent of the time. Summer temperatures are consistently over 100 degrees.

The region surrounding the reservation is famous for its sandstone rock formations. Nearby Valley of Fire State Park is a sacred area which is visited by thousands of people each year.

---

#### A.1.1.a Physical Characteristics / Climate

---

The MRIR is characterized by an arid desert climate, with mild winters and warm summers. July is the warmest month, with an average high of 106 degrees. Conversely, December is the coldest month, with a low average temperature of 38 degrees. The Moapa area

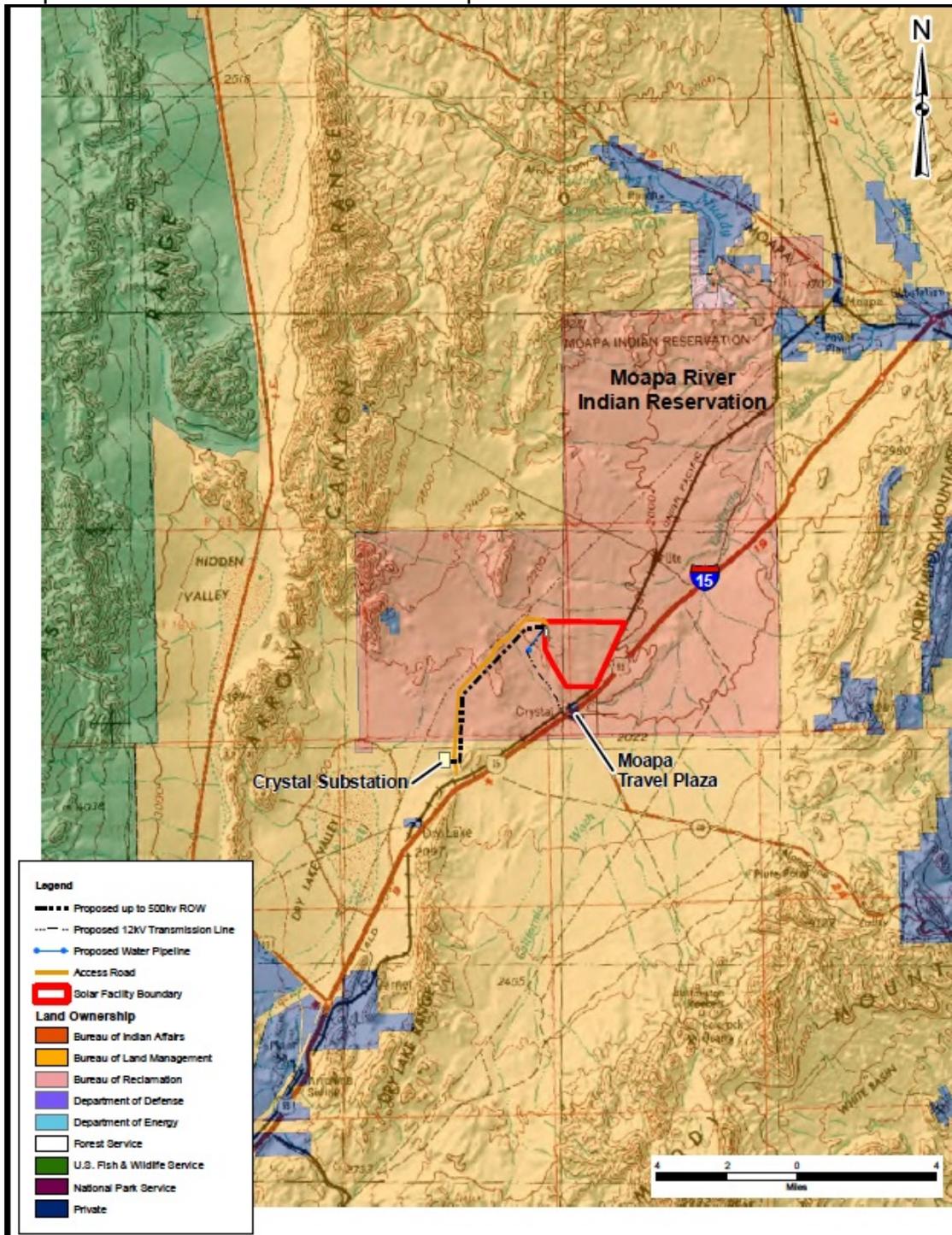
experiences a high percentage of sunny days, and little rainfall. February is generally the wettest month, with an average monthly precipitation of 1.09 inches.

**Table A1: Monthly Average Temperature and Precipitation in Moapa, NV**

<b>MONTH</b>	<b>Avg. High</b>	<b>Avg. Low</b>	<b>Avg. Rainfall</b>	<b>Record High</b>	<b>Record Low</b>
<b>Jan</b>	58	39	.83	74	19
<b>Feb</b>	63	43	1.09	87	18
<b>Mar</b>	71	48	.81	93	29
<b>April</b>	79	55	.24	100	29
<b>May</b>	90	65	.10	111	42
<b>June</b>	100	74	.10	117	48
<b>July</b>	106	81	.62	117	60
<b>Aug</b>	103	79	.64	115	62
<b>Sept</b>	96	71	.34	110	49
<b>Oct</b>	82	59	.52	102	38
<b>Nov</b>	67	47	.49	87	19
<b>Dec</b>	57	38	.76	74	12

The MRIR is located approximately eight (8) miles west of the junction of State Route 168 and I-15, near the Valley of Fire State Park. This plan covers the 71,954 acres that make up the MRIR only. The Clark County Multi Hazard Mitigation Plan covers all areas outside of the reservation borders within Clark County.

Map A1 shows the location of the Moapa Band of Paiutes Reservation within Clark County.



## Desert Tortoise (*Gopherus Agassizii*)



Figure A2 Desert Tortoise Source: Clark County

The Mojave Desert tortoise was listed as a threatened species in 1990, under the Endangered Species Act of 1973, as amended. The Mojave Desert tortoise is also protected by the State of Nevada, but this protection does not extend or apply to Tribal lands. Most of the Moapa River Indian Reservation consists of a robust population of desert tortoise habitat. No other threatened or endangered species are known to inhabit Reservation lands. Desert tortoises most commonly live within the desert scrub vegetation with activities that are concentrated in overlapping core areas, known as home ranges. They are most active during the spring and early summer when annual plants are the most common.

### Desert Tortoise Management Considerations:

- It is unlawful to touch, harm, harass, or collect a wild desert tortoise without a permit from the US Fish and Wildlife Service (USFWS).
- The BIA and the Moapa Band of Paiutes are consulting with USFWS to limit impacts to the desert tortoise.
- Desert tortoise on-site will be relocated to a suitable area within the reservation to prevent impacts; approximately 6000 acres have been set-a-side by the Tribe for this purpose.

## Moapa Dace



Figure A3 Moapa Dace Source: USFWS

The endangered Moapa dace is endemic to the upper reaches of the spring-fed Muddy River in southern Nevada which runs through the MRIR.

Note: The Endangered Moapa dace resides approximately 1 mile from the northern boundary of the MRIR.

### A.1.2 Population

---

The MRIR is located in a rural area of southeastern Nevada, in Clark County, adjacent to the Town of Moapa. Clark County is Nevada's largest county, with a population of over 1.9 million. Moapa Town has a population of approximately 1,025 residents and 379 housing units. The Moapa Band of Paiutes Native American Housing Assistance and Self Determination Act (NAHASDA) population figure for 2012 is 311 members. The MRIR falls within Census Tract 5902 and covers an area that includes a population of 1,433 residents and 567 housing units. Census Tract 5902 covers area beyond the Reservation as well. The population of Census Tract 5902 is approximately 61% American Indian or Alaska Native.

The main housing village begins at Quail Drive. Approximately 42 residential housing facilities are included in the village, most of which were constructed under HUD grants during the 1970s. Over fifty percent of enrolled Tribal members live on the reservation. The Tribe is planning to construct a multi-phase, 400 acre residential single-family housing

development east of I-15 and south of the Ute exit. This development will provide members with an additional 50 single-family housing units.

The Town of Moapa includes Ron Lewis Park and the Moapa Community Center. These facilities are not owned by the Tribe, but the Tribe and its membership has full access to them. A Head Start Facility is located on the Reservation on Lincoln Road. Moapa students attend Ute V. Perkins Elementary School in the Town of Moapa during grades K-5. Middle school students, grades 6-8, attend W. Mack Lyon Middle School in Overton, Nevada. High school students, grades 9-12, attend Moapa Valley High School in Overton, Nevada. Clark County School District operates an Educational Support Center adjacent to the Moapa Paiute Farm Office.

The Moapa Paiute Travel Plaza, which includes a casino, convenience store, cafe, gas station, and a unique fireworks store, is located centrally next to Interstate 15 and the Valley of Fire Highway at Exit 75. The Tribe also has several solar farms planned that are described in section A.2.4.1.

Public roads within and surrounding the Reservation were constructed and maintained by the Bureau of Indian Affairs, the Moapa Band of Paiutes, Clark County, or the State of Nevada. The table below provides a snapshot view of the Tribe’s inventory, including surface types, ownership, and lengths (in miles) of all Tribal Transportation Program (TTP) inventory roads serving the Tribe. The table is organized by ownership, surface type and length (in miles).

**Table A2: Most Recent (2012) Indian Reservation Roads (IRR) System Overview**

Jurisdiction	Road Mileage by Surface Type				
	Paved	Gravel	Earth	Proposed	Total Miles
BIA Roads *	1.4	0.0	0.9	0.0	2.3
Tribal Roads	0.0	0.0	9.4	0.0	9.4
State Roads	11.5	0.0	0.0	0.0	11.5
Urban Streets	0.0	0.0	0.0	0.0	0.0
Other Roads	0.0	0.0	0.0	0.0	0.0
Other Federal Roads	0.0	0.0	0.0	0.0	0.0
Other BIA Office Roads	0.0	0.0	0.0	0.0	0.0
County / Township	5.4	0.0	0.6	0.0	6.0
TOTAL	18.3	0.0	10.9	0.0	29.2
BIA Roads as % of Total	7.6%	0.0%	8.3%	0.0%	7.9%

\*BIA road mileage figures are based on the existing DOT Inventory

The 2009-2013 American Community Survey 5-Year Estimates showed the average household income for the Tribe was \$28,236. In comparing the countywide household income to that of the Tribe, the 2010 median household income (US Census Bureau) for Clark County was \$52,873.

The U.S. Census 2009-2013 American Community Survey 5-Year Estimates showed 97 households with an average household size of 3 persons. The Census 2010 statistics for ethnicity of the Tribe are shown in Table A3.

## Employment-Supplemental

The largest industry in the Moapa area is Construction, followed by Education, Health and Social Services. The Moapa Tribe is a contributor to the local economy. The Moapa Paiute Travel Plaza and Casino are tourist attractions and area employers. Tribal Administration, law enforcement and other programs employ additional members. Some Tribal members are employed at the Reid Gardner Power Station. The Moapa Band of Paiutes Tribal Administration employs full-time, part-time and contractual employees. The continued growth of reservation-based employment will improve the long-term socioeconomic status of the Tribal members. The Tribe's pending development projects, including the Solar Power Generation Stations, will supply additional jobs for tribal members – particularly during construction periods and operation and maintenance of the live facility.

**Table A3 Moapa Band of Paiutes Demographics (2010)**

Subject	Moapa River Indian Reservation, NV	
	Estimate	Percent
<b>SEX AND AGE</b>		
Total population	317	100.0%
Male	138	43.5%
Female	179	56.5%
Under 5 years	32	10.1%
5 to 9 years	45	14.2%
10 to 14 years	42	13.2%
15 to 19 years	18	5.7%
20 to 24 years	23	7.3%
25 to 34 years	30	9.5%
35 to 44 years	41	12.9%
45 to 54 years	20	6.3%
55 to 59 years	15	4.7%
60 to 64 years	27	8.5%
65 to 74 years	13	4.1%
75 to 84 years	11	3.5%
85 years and over	0	0.0%
Median age (years)	24.8	(X)
18 years and over	184	58.0%
21 years and over	180	56.8%
62 years and over	38	12.0%

65 years and over	24	7.6%
18 years and over	184	100.0%
Male	87	47.3%
Female	97	52.7%
65 years and over	24	100.0%
Male	12	50.0%
Female	12	50.0%

Subject	Moapa River Indian Reservation, NV	
	Estimate	Percent
RACE		
Total population	317	100.0%
One race	306	96.5%
Two or more races	11	3.5%
One race	306	96.5%
White	12	3.8%
Black or African American	1	0.3%
American Indian and Alaska Native	278	87.7%
Cherokee tribal grouping	0	0.0%
Chippewa tribal grouping	0	0.0%
Navajo tribal grouping	11	3.5%
Sioux tribal grouping	19	6.0%
Asian	7	2.2%
Asian Indian	0	0.0%
Chinese	7	2.2%
Filipino	0	0.0%
Japanese	0	0.0%
Korean	0	0.0%
Vietnamese	0	0.0%
Other Asian	0	0.0%
Native Hawaiian and Other Pacific Islander	4	1.3%
Native Hawaiian	0	0.0%
Guamanian or Chamorro	4	1.3%
Samoan	0	0.0%
Other Pacific Islander	0	0.0%
Some other race	4	1.3%
Two or more races	11	3.5%
White and Black or African American	4	1.3%
White and American Indian and Alaska Native	5	1.6%
White and Asian	2	0.6%
Black or African American and American Indian and Alaska Native	0	0.0%
Race alone or in combination with one or more other races		

Total population	317	100.0%
White	23	7.3%
Black or African American	5	1.6%
American Indian and Alaska Native	283	89.3%
Asian	9	2.8%
Native Hawaiian and Other Pacific Islander	4	1.3%
Some other race	4	1.3%
HISPANIC OR LATINO AND RACE		
Total population	317	100.0%
Hispanic or Latino (of any race)	25	7.9%
Mexican	17	5.4%
Puerto Rican	0	0.0%
Cuban	5	1.6%
Other Hispanic or Latino	3	0.9%
Not Hispanic or Latino	292	92.1%
White alone	11	3.5%
Black or African American alone	0	0.0%
American Indian and Alaska Native alone	261	82.3%
Asian alone	7	2.2%
Native Hawaiian and Other Pacific Islander alone	4	1.3%
Some other race alone	2	0.6%
Two or more races	7	2.2%
Two races including Some other race	0	0.0%
Two races excluding Some other race, and Three or more races	7	2.2%
Total housing units	103	100.0%

Population Data from 2010 Census (From U.S. Census Website)

### A.1.3 History Organization



Figure A4 Traditional Southern Paiute Baskets

Source: The Clark County Museum, 2015. The majority of baskets in this collection were acquired between 1880 and 1930 by local residents with ties to early Las Vegas history including the Kiel and George families, Owen Pauff, Helen Stewart and Walter Bracken, as well as regional collectors Francis X Ammann & Bessie Johnson. The Owen Pauff collection has been part of the museum for about 40 years and includes 62 baskets. The Kyle/George collection of 21 baskets was donated to the museum in 2008.

The Moapa Paiute people strive to preserve our legends, songs and dances. However, cultural disruptions during the past two centuries have threatened the continuation of our traditional life.

Prior to the 1800's, the Moapa Paiute people were a culturally well adapted people who combined farming with hunting and gathering. They used the resources of the land with great ingenuity.

Most of the domestic objects of our ancestors were various forms of intricately designed basketry, including water jars, winnowing and parching trays, cradle boards, cooking baskets and seed beaters. They had great skill in the use of animal skins and plants. Their knowledge of nutritional and medicinal uses of plants was extensive.

The history of Moapa following white contact, dating from the 1830 opening of the Old Spanish Trail, is a tragedy. A peaceful people saw our land and water seized, and our homes frequently raided by slavers. Conflicts erupted with Mormon settlers, New Mexicans and other emigrants.

Our numbers diminished rapidly as new diseases were contracted, especially tuberculosis and measles. Insurrection and raiding for survival were brutally punished by federal troops and white settlers.

Although armed with bow and arrows, defiance did not stop the intrusion of whites into Moapa. The People were forced to flee into the desert and farming was disrupted.

In 1873, 39,000 square miles were set aside for tribal lands by the federal government. In 1875, though, the reservation was reduced to a meager 1,000 acres, followed by 60 years of neglect and corruption by white government agents.

### **A.1.4 Economy**

---

The Tribe has a diverse economy due in part to its economic development activities including solar facilities, agricultural products and retail business on the reservation. The current solar construction project is the second largest employer of tribal members on the Reservation. The Tribe also operates a travel center located at exit 75 on Interstate 15 at the entrance to the Valley of Fire. The Tribe continues to do economic development with new projects being proposed for consideration by the Moapa Band of Paiutes Business Council.

The six member Tribal Business Council, including its Chairman, oversees Moapa Band of Paiutes Tribal affairs, acting as a sovereign government under its own constitution. The Tribal Council has final authority over all contracts, leases, and business affairs of the Tribe. The Tribe's business development program is assisted by various Federal incentives and its partnership with the State of Nevada covering its collection of sales and excise taxes. All of the Tribe's business sites are on federal land, held in trust for Tribal benefit. The Tribe operates the Moapa Paiute Travel Plaza which has a casino, restaurant, gas station as well as specialty shop that sells hand crafted native artwork, liquor and fireworks. The Moapa Paiute Travel Plaza is the largest employer of Tribal members on the Reservation.

Many tribes outside of Nevada have the ability to build casinos for their economic benefit. Nevada tribes are at a disadvantage in trying to compete in an already glutted gaming market within the state. The primary source of revenue for the Tribe is derived from the Moapa Paiute Travel Plaza with the land put into trust status, and therefore under tribal jurisdiction.

The Tribe's Economic Development Department has tentatively scheduled the following construction projects on Tribal lands:

- Veteran's Park
- Recreational Vehicle (RV) Park
- Sand and Gravel Operations
- Cement Deposit
- Solar Projects
- Moapa Paiute Travel Plaza Expansion

- Hotel
- Restaurant Row
- Remodel
- Amphitheater
- Single Family Residential Development
- Power Sports Facility

## **A.1.5 The Planning Process**

---

The development of the Moapa Band of Paiutes Hazard Mitigation Plan began on January 7, 2015, with the signing of the Tribal Planning Commitment signed by the Tribal Chairman. The planning committee which consists of Moapa Band of Paiutes and Moapa Band of Paiutes Stakeholders, and collective team that included representatives from FEMA, the Nevada Division of Emergency Management, and the Clark County Office of Emergency Management began the rigorous task of developing a planning and working schedule to complete the Hazard Mitigation Plan for the Moapa Band of Paiutes. The Tribe's initiated the planning process by identifying a planning coordinator to oversee the plan development and the planning process. Due to the relatively small size of the Tribe's workforce as well as most Tribal members working at either the solar site or the Moapa Paiute Travel Plaza the Tribe utilized directors and managers from different departments within the Tribe to support the planning process. Input was collected from members of the Moapa Paiute Tribal Council and from data collected from the community.

The planning team and Tribe's committee followed a five step process:

- Phase I      Pre-planning and establish the Tribe's Steering Committee.
- Phase II     Identify and assess risks.
- Phase III    Develop a mitigation action plan.
- Phase IV    Identify policy and procedures for plan implementation.
- Phase V     Document the planning process and plan adoption.

Phase I      Involved the initial discussion and meetings to establish the scope of work and expectations in developing the Hazard Mitigation Plan. This included establishing roles, responsibilities, and processes of the Tribe's Planning Committee, and what the Tribe would need to do to collect the necessary information for the plan.

Phase II    Consisted of numerous meetings with the Planning Committee and Tribal Leadership to identify and rank the natural hazards and to identify culturally sensitive sites on the reservation.

Phase III   Involved the creation of a mitigation action plan working with the Planning Committee and the current Project Worksheets.

Phase IV   Identified policies and procedures that would affect the implementation of the plan and that the plan would need to follow once implemented.

Phase V    Involved documenting the entire planning process, developing the plan, and plan adoption.

## **STAKEHOLDER INTERVIEWS AND MEETINGS**

Interviews were conducted in person with subject matter experts from various departments and committees in the Tribe. There were public meetings held to gain further input from the community and those who showed interest in commenting on the Tribe's Hazard Mitigation Plan. This process also included input and suggestions from the Tribe's Stakeholders and Tribal Leadership, working with the Planning Committee.

### **A.1.6 Hazard Mitigation Planning Committee**

---

The planning committee used their own scope of work as well as the underlying principles of the Tribe's emergency management plan and other tribal plans to develop the Tribe's hazard mitigation plan. Where possible, plan participants will use existing plans and/or programs to develop the Tribes hazard mitigation plan, the Tribe has learned that mitigation is most successful when it is incorporated into the day-to-day function and priorities of Tribal government and tribal members. This point was one of the driving forces for the hazard mitigation planning committee. The committee built upon the recent and past events in the development of the Tribe's hazard mitigation plan. Hazard Mitigation Planning Committee members involved in the planning mechanism will be responsible for the integration of the findings / recommendations of this plan with other plans, programs as appropriate. Incorporation into existing planning mechanisms will be done through the routine actions of

- Monitoring of other plans and programs that may incorporate the hazard mitigation plan.
- Attending other planning and program meetings where mitigation should be applied into the day-to-day operations of other programs.
- Participating in other planning processes including Clark County's hazard mitigation meetings.
- Monitor community events and looking for other community programs and events that could or should be incorporated in hazard mitigation.

The successful implementation of this mitigation strategy will require constant review of existing plans and programs for a coordinated efforts looking for opportunities that promote a safe and sustainable community. Continuous efforts should be made to monitor the progress of mitigation actions identified in this plan as well as for future mitigation opportunities. This will be accomplished through the other planning mechanisms, and where appropriate, these priority actions should be incorporated into updates of this hazard mitigation plan.

The Planning Committee members for this Multi-Hazard Mitigation Plan are listed in Table A4.

#### **A.1.6.1 Planning Committee Meetings & Monthly Progress**

---

The planning effort began after the Tribal Commitment Letter was signed on January 7, 2015 by the Tribal Chairman. Meetings were held twice a week and lasted between one to three hours depending on the availability of Tribal staff. Each meeting started with a review of what was accomplished and discussed at the prior meeting. Every week a new version of the plan was released with the changes made by the committee from the prior week. Ninety days was allocated to complete the plan which took into account the time sensitive work being completed concurrently by FEMA's Public Assistance (PA) Branch. The work completed by PA added to the information needed for the plan and helped the Tribe determine which projects made sense for Hazard Mitigation work.

The Planning Committee held bi-weekly meetings and conference calls to move forward with the Tribe's hazard mitigation plan. The Moapa Band of Paiutes hazard mitigation committee will continue to participate in monthly meetings to update the plan as necessary. They will also participate in future hazard mitigation meetings with Clark County Emergency Management to ensure incorporation of the Tribe's hazard mitigation plan into the Clark County Hazard Mitigation Plan as an Annex.

### **A.1.6.2 Public Involvement**

---

A designated Tribal representative visited Tribal members living on the reservation so they could provide input through the Hazard Mitigation Questionnaire / Survey form. Tribal members living outside the reservation had a Hazard Mitigation Questionnaire / Survey mailed to them, providing the opportunity for all enrolled Moapa Band of Paiutes the opportunity to contribute to the development of the Tribe's Hazard Mitigation Plan. The public was invited to participate in the planning committee meetings by submitting their comments to the Tribe.

The Tribe defines "public" as those that live on the reservation and Tribal members that live outside of the reservation.

Public meeting notices were distributed in community flyers with the addition of meeting announcements posted on the community's public notice boards. The Planning Committee held meetings with the Elders of the Tribe to get their comments and feedback on the concerns for the community, participated in community events to discuss the hazard mitigation plan, and emergency preparedness with the community.

This plan will become an Annex to the Clark County plan which completed an extensive outreach campaign with all neighboring Tribes and communities. The intent of this plan is to address the hazards that directly affect Tribal reservation lands. With the Clark County plan update due next year, the Tribe will participate with the county in outreach efforts for the update. The Las Vegas Band of Paiutes was asked to participate in the Clark County Plan by county officials. The Moapa Band of Paiutes support this action and feel this would only strengthen the regional plan and provide an opportunity to include more Clark County residents in the planning process while recognizing the unique hazards of their group.

Meeting minutes are provided in Appendix B.

**Table A4 Moapa Hazard Mitigation Planning Committee**

Name	Department	Participation
Darren Daboda	Moapa Band of Paiutes Tribal Business Council Tribal Chairman	Provided information on the community. Attended meetings, reviewed drafts and provided input. Provided input in the Cultural Aspect, and Tribal History of the plan.
Terry Bohl	Moapa Band of Paiutes Emergency Manager, Public Works, Development, Roads	Co-chair of the Committee, chaired meetings, provided evaluation and information on the following sections, risk assessment, vulnerability analysis, mitigation strategies, plan maintenance, provided public outreach Attended meetings, reviewed drafts and provided input
Shane Parashonts	Moapa Band of Paiutes Director Human Resources	Co-chair of the Committee, chaired meetings, provided update, evaluation and information on the following sections, planning, hazard profiles, vulnerability analysis, risk assessment, mitigation strategies, plan maintenance Attended meetings, reviewed drafts and provided input
Gregory Anderson	Moapa Band of Paiutes Tribal Business Council Vice Chairman	Provided information on the community. Attended meetings, reviewed drafts and provided input. Provided input into Culturally significant information for the plan.
Robert Tom	Moapa Band of Paiutes Tribal Business Council Tribal Secretary	Provided information on the community. Attended meetings, reviewed drafts and provided input.
Ural Begay	Moapa Band of Paiutes Business Council	Provided information on the community. Attended meetings, reviewed drafts and provided input.
Delaine Bow	Moapa Band of Paiutes Business Council	Provided information on the community. Attended meetings, reviewed drafts and provided input.
Aletha Tom	Moapa Band of Paiutes Business Council	Provided information on the community. Attended meetings, reviewed drafts and provided input.
Sherryl Patterson	Moapa Band of Paiutes Administrative Assistant	Provided Input into the Planning Process Attended meetings, reviewed drafts Provided information for the Plan for the Tribe

**Table A4.1 Moapa Hazard Mitigation Stakeholders/Contributors**

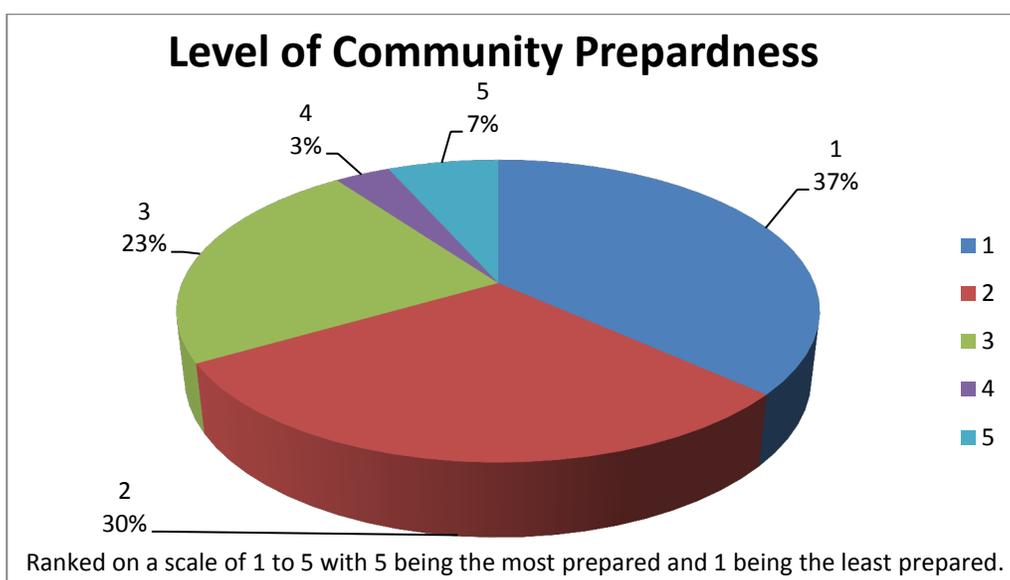
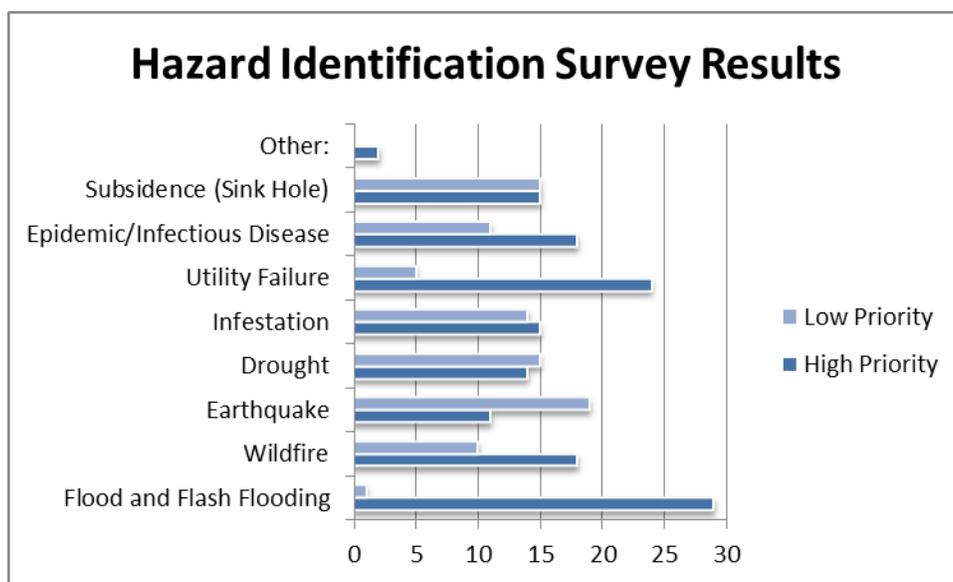
<b>Name</b>	<b>Department</b>	<b>Participation</b>
John Steinbeck Deputy Fire Chief / Emergency Manager	Clark County Fire Department	Provided evaluation and information on the following sections, wildfire, vulnerability analysis, risk assessment, mitigation strategies, plan maintenance Attended meetings, reviewed drafts and provided input
Robin Palmer	Nevada Division of Water Resources, Flood Plain Management	Provided evaluation and information on the following sections, flood, vulnerability analysis, risk assessment, mitigation strategies Attended meetings, reviewed drafts and provided input
Craig DePolo	UNR, NBMG	Provided evaluation and information on the following sections, earthquake, vulnerability analysis, risk assessment
Tim Sutko	Clark County Regional Flood Control District	Provided information on GIS Attended meetings and provided input
Irene Navis	Clark County Office of Emergency Management & Homeland Security	Provided evaluation and information on the following sections, hazards, vulnerability analysis, risk assessment, mitigation strategies, plan maintenance Attended meetings, reviewed drafts and provided input
Karen Johnson	Nevada Division of Emergency Management	Provided information on tools, guidance, plan outline, state hazards, mitigation strategies, plan maintenance Attended meetings, reviewed drafts and provided input
Debbie Tanaka	Nevada Division of Emergency Management	Provided information on tools, guidance, plan outline, state hazards, mitigation strategies, plan maintenance Attended meetings, reviewed drafts and provided input
Tom Miller	FEMA	Provided information on tools, guidance, plan outline, hazards, mitigation strategies, plan maintenance Attended meetings, reviewed drafts and provided input
Christopher Poehlmann	FEMA	Provided information on tools, guidance, plan outline, hazards, mitigation strategies, plan maintenance Attended meetings, reviewed drafts and provided input
Dan Berc	Warning Coordination Meteorologist National Weather Service	Provided information on National Weather Service and historical data related to flooding and drought. Attended meetings and provided input

### **A.1.6.3 Questionnaire**

The Tribe used several methods to distribute the hazard mitigation questionnaires. Tribal members went to the residences of Tribal members living on the reservation in order to

cause the least amount of inconvenience and receive the most responses. Copies of the questionnaire were distributed from the Tribal offices and were mailed to all Tribal members. The questionnaire requested Tribal members to pick from a list of identified hazards and rate them. There was also a blank box to fill in a hazard that they felt was a risk that should be included in the list and a rating for each individual's level of preparedness in the event of a future event.

The questionnaire provided excellent information from the community, gathering insight from the community on their perspective on the level of concern for the occurrence of natural hazards in the community and on the MRIR. It also provided insight in to the individual's level of preparedness in case of a future event, and the best way or most preferred way to distribute information and to communicate with the community. The community's response was weighted in the prioritization of the various hazards on the Reservation.



The questionnaire can be found in Appendix A.

The community was involved through public outreach, through input and collaboration with the Tribal Leadership, and open discussions with the committees and Elders of the Moapa Band of Paiutes, and participating in community events. Plans were available at the Tribal Administrative office for the public community to review and for comment.

#### **A.1.6.4 Letters to Stakeholders and Neighboring Communities**

The Tribe emailed notification regarding this Annex to the Clark County HMP to the following entities:

- FEMA – Participated in planning effort.
- State NDEM, NDOT, NDWR, NDF, UNR NBMG – Participated in the planning effort.
- State Assembly & Senate Representative – Did not participate.
- Clark County – Participated in planning effort.
- National Weather Service – Provided input and review.
- Las Vegas Band of Paiute Indians-Did not participate

#### **A.1.6.5 Incorporation of Existing Plans and Other Relevant Information**

During the planning process, the Planning Committee reviewed and incorporated information from existing plans, studies, reports, and technical reports into the HMP. A synopsis of the sources used follows.

Moapa Band of Paiutes Long Range Transportation Plan	2013
Southern Nevada Unified Command Type Three Incident Management Team (IMT) Close out Report for State of Nevada Incident # 09092014-5	2014
Moapa River Flash Flood and Recovery	2014
Inter-Tribal Emergency Response Commission (ITERC) After Action Report	2014
Moapa Band of Paiutes Emergency Action Plan	2011
Moapa Band of Paiutes Census from the Federal Census	2010
Moapa Band of Paiutes Flood Event of September	2014

The Tribe is developing a long-term master plan, but at this time there is not a land use plan in place. Clark County Building Codes have been adopted. Additional regulatory capabilities are listed in Table A11, in section A.3.1.

## A.2 Hazard Profiles and Vulnerability Assessment

The intent of this section is to assess the Tribe’s vulnerability separate from that of the county’s planning area as a whole, which has already been assessed in Section 3.5 Vulnerability Assessment in the Clark County plan.

### A.2.1 Hazard Profiles

The Tribe’s planning team identified the hazards that affect the community and summarized their geographic location, probability of future occurrence, potential magnitude or severity, and planning significance specific to the Tribe (see Table A5). In the context of the countywide planning area, there are no hazards that are unique to the Tribe. Only those hazards rated with a planning significance to the Tribe of moderate and high are profiled in this annex. The Calculated Priority Risk Index (CPRI) was used to identify the hazards and rate them. In addition, the planning team studied historical data of hazards and requested feedback from the community to help determine the priorities for community members. This is further addressed in section A.2.5.

**Table A5 Hazards by Jurisdiction**

Hazard	Moapa Band of Paiutes	Clark County	City of Henderson	City of Las Vegas	City of Mesquite	City of North Las Vegas	Clark County School District	Clark County Water Reclamation District
Dam Failure	X	X						
Drought	X	X	X	X	X	X	X	X
Earthquake	X	X	X	X	X	X	X	X
Epidemic/Infectious Disease	X	X	X	X	X	X	X	X
Flood and Flash Flooding	X	X	X	X	X	X	X	X
Infestation	X	X	X	X	X	X	X	X
Subsidence	X	X	X	X		X		
Terrorism	X	X	X	X	X	X	X	X
Utility Failure	X	X	X	X	X	X	X	X
Wildfire	X	X			X		X	X
Hazardous Material Incident	X	X	X	X	X	X	X	X

## A.2.2 Community Asset Inventory

This section defines and quantifies populations, buildings, critical facilities, and other community assets at risk to natural and manmade hazards in the Tribe.

Assets directly owned and controlled by the Tribe include a range of properties and equipment from each department. These may include Tribe-owned property, critical facilities and infrastructure, cultural and natural resources and others. An inventory of key Tribal assets provided by the Moapa Band of Paiutes (MBOP), including the total occupancy, number of parcels, and assessed value of land and buildings are listed in Table A6. Figure A5 shows a photograph of one of the Tribe's most essential assets, the Moapa Paiute Travel Plaza.

**Table A6 Tribal Asset Inventory**

<b>Name of Asset</b>	<b>Type</b>	<b>Replacement Value</b>	<b>Occupancy Capacity #</b>	<b>Building Material</b>
Tribal Health Center	Critical Facility	\$450,000	20	Wood, Slab on Grade
Tribal Police Station	Critical Facility	\$400,000	15	Wood, Slab on Grade
Community Center	Critical Facility	\$1,500,000	160	Block
Senior Center	Essential Facility	\$350,000	25	Block
Housing	Residential	\$4,500,000	322	Slab on grade/Cinderblock
Tribal Court	Community Facility	\$100,000	20	Wood Slab on grade
Records/Archives	Critical Facility	Tribal Historic Records		Cinder Block
Enrollment Office	Community Facility	Tribal Historic and Current Records	2	Wood Slab on Grade
Wastewater Lagoons	Critical Facility	\$500,000		Earthen
Travel Center	Critical Facility	\$12,000,000	340	Wood
Archeological Sites	Historical	Priceless		Natural
Administrative Building	Critical Facilities	\$3,000,000	120	Concrete Block
Child Care facility	Essential Facility	\$188,000	20	Wood Slab on Grade
Head Start	Essential Facility	278,000	20	Wood Slab on Grade

<b>Equipment Barn</b>	Essential Facility	\$553,000		
<b>Vocational Rehabilitation Building</b>	Essential Facility	\$350,000	50	Wood Slab on Grade
<b>Farm Building</b>	Essential Facility	\$380,000		Wood Structure

Source: Moapa Band of Paiutes Insured Property Value as of January 21, 2015.

Moapa Paiute Travel Plaza



Figure A5: Moapa Paiute Travel Plaza



Figure A6 Salt Cedar Grove – site of Boy Scout activities and various community gatherings.

### **A.2.2.1 Ranching / Agriculture**

---

The MRIR has a rich agricultural history that is closely tied to the cultural history of the Moapa Paiute community. For centuries, the Moapa Paiutes grew fields of corn and beans, irrigated by water from the Muddy River. However, white settlers brought conflicts over land and water resources. The Moapa Paiutes were displaced and their farming activities ceased in the area. However, with the return of the Moapa Paiutes to their native lands, and the formation of a farming cooperative in 1968, the Moapa Paiutes slowly worked to restore the region’s agricultural development. Today’s major crops include alfalfa and barley. The reservation includes industrial-sized greenhouses that are currently in disrepair following a catastrophic hail storm. The greenhouses were formerly used for large scale produce production, making the Tribe a major regional supplier. The greenhouses will be fully operational following the necessary repairs. The reservation includes grazing ranges, providing space and sustenance for cattle.

### **A.2.3 Critical and Essential Facility Inventory**

---

A critical facility may be defined as one that is vital in providing utility or direction either during the response to an emergency or during the recovery operation. Such facilities include airports, fire stations, police stations and government buildings. The Critical Facilities for the Moapa Band of Paiutes are listed in Table A6:

Essential facilities are those which house or serve special needs or vulnerable/at-risk populations that cannot care for themselves during emergencies and/or require unique support services. Such facilities include schools and child care centers, health care facilities, and senior centers. An inventory of essential facilities for the Tribe is also provided in Table A6. Below is a map of the critical and essential buildings and facilities on the MRIR.



Map A2 MBOP Infrastructure Inventory

1. Administration Building
2. Irene Benn Medical Clinic
3. Moapa Tribal Police Station
4. Seniors Center
5. Vocational Rehabilitation Building
6. Tribal Store



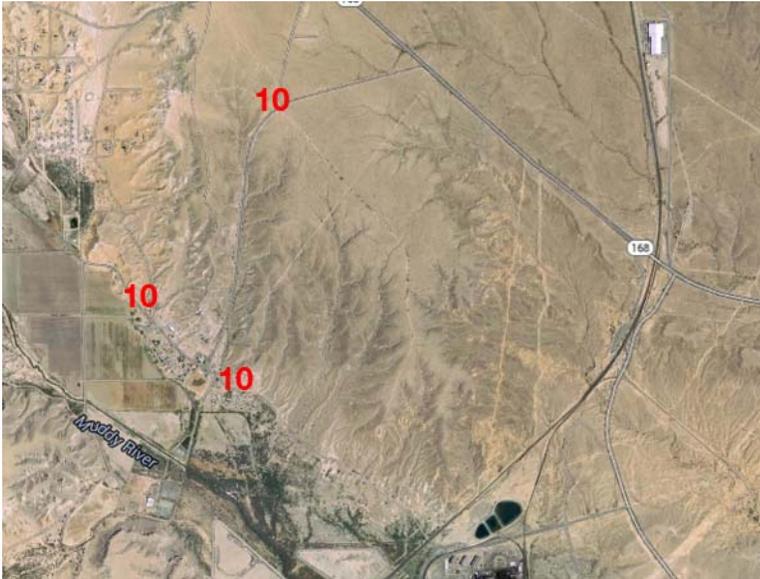
Map A3 MBOP Infrastructure Inventory

7. Sewage Lagoons



Map A4 MBOP Infrastructure Inventory

- 8. Moapa Paiute Travel Plaza
- 9. Moapa Paiute Travel Plaza Solar



Map A5 MBOP Infrastructure Inventory

## 10. Roads

### ***Other Assets***

Assessing a jurisdiction's vulnerability to disaster also involves inventorying the natural, historical, and cultural assets of the area. This step is important for the following reasons:

- The community may decide that these types of resources warrant a greater degree of protection due to their unique and irreplaceable nature and contribution to the overall economy.
- In the event of a disaster, an accurate inventory of natural, historical and cultural resources allows for more prudent care in the disaster's immediate aftermath when the potential for additional impacts is higher.
- The rules for reconstruction, restoration, rehabilitation, and/or replacement are often different for these types of designated resources.
- Natural resources can have beneficial functions that reduce the impacts of natural hazards, for example, wetlands and riparian habitat which help absorb and attenuate floodwaters, and thus support overall mitigation objectives.



Figure A7 Moapa Band of Paiutes Tribal Administration/ Community Building



Figure A8 Moapa Tribal Police Department, Tribal Court and Social Services Building

### **A.2.3.1 Law Enforcement**

---

The Moapa Tribal Police Department (MTPD) is manned by 8 officers with one Sergeant and one Chief. They are a full service 24/7 law enforcement agency. They are capable of handling any type of Law Enforcement emergency are dispatched to with little or no assistance from outside agencies. They are also the only 24/7 first responders in the Moapa Valley.

The Las Vegas Metropolitan Police Department (LVMPD) and the Nevada Highway Patrol (NHP) do not have 24 hour coverage in the area. The MTPD handles all of its own cases. The MTPD is capable of handling any type of investigation due to the Specialized Training of its officers. The only assistance that is needed is large Crime Scene Forensics. Smaller scenes can be processed by MTPD officers.

MTPD is supported by BIA and the FBI for investigative support, but they are rarely contacted.

MTPD contracts with the LVMPD for forensic services and the Clark County Coroner for Coroner/Medical Examiner assistance.

The MTPD has an MOU in place with LVMPD for Mutual Aid assistance. Clark County Fire is contracted to respond for fire/medical assistance. Mesquite PD and Clark County are utilized for prisoner incarceration along with the Bureau of Indian Affairs (BIA). 911 Services: Any 911 calls originating from the reservation are routed to the MTPD Emergency Dispatch Center where they are dispatched; any calls from off the reservation are routed to LVMPD or Clark County Fire.

For all Law Enforcement response on the reservation MTPD is the primary agency, for Fire/Medical, Clark County Fire Department (CCFD) is notified by the MTPD Dispatch and their response is from the Volunteer Manned Station 72 in Moapa. This is the station that has primary response to any fire/medical calls on the reservation. Station 73 in Logandale and Station 74 in Overton are back up stations if there is an inadequate or no response from Station 72. The closest Career Manned Station would be CCFD Station 23 located in North Las Vegas which is approximately 50 miles away from the main housing area of the reservation, however; it is closest to the Moapa Band of Paiutes (MBOP) Travel Plaza and the Tribe's business enterprises. Medic West ambulance is the secondary responder for this area and CCFD will usually meet with them and transfer patients so as not to take their station out of service for long periods of time, however a MTPD officer is also dispatched to all medical calls and will assist with patients until CCFD's arrival which usually takes from 20 to 45 minutes. It should be noted all officers are trained as medical first responders.

The MBOP would rely on the Clark County Emergency Operations Center for any long term emergency coordination such as the recent flooding in 2014. However, two Tribal PD vehicles are configured to be utilized as mobile command centers for any short term needs. Both vehicles are configured with whiteboards, inverters and dual head radios for small emergency management type needs.

For example: If there is a major accident on I-15, the tribal police would be notified in three ways:

- 1) They would be contacted directly by Nevada Highway Patrol or LVMPD which would request our response to assist their agencies until they could get enough of a response on scene.
- 2) The Emergency Dispatch center monitors the Clark County Fire Department radio system and would dispatch officers to any incidents that take place on or near the MBOP reservation.
- 3) Direct contact if an incident takes place on or around the reservation it is not uncommon for non-tribal residents to contact us directly as they know we will respond to assist and will be on scene quicker than LVMPD or NHP.

The Nevada Highway Patrol, per agreement, handles all accidents on I-15, SR169 and SR168. MTPD will assist in any way needed and in some case render medical aide and have the initial investigation completed prior to the arrival of any other agencies. The MTPD works very closely with NHP and LVMPD and we assist each other on a daily basis. All these agencies work closely and cooperate completely with each other to provide first response capabilities to the residents of the Moapa Valley.

For other types of Natural Disasters such as flooding, fire or earthquake, the MTPD would assist as needed and in several instances such as the recent flooding, we were the only agency that could respond to some areas due to the Off-road equipped/capabilities of our

patrol vehicles. MTPD was the first agency in the area to make notifications to Clark County that the area was flooding. We dispatched patrol officers out to the residential areas to start checking flooding not only on the reservation but also other areas of the Moapa Valley. When SR 168 began to become unstable and wash away, a MTPD officer made the initial notification and set up traffic control around the affected area. Also, an MTPD officer observed significant erosion in the area of the Union Pacific railroad tracks and notified their emergency dispatch to stop all trains until it could be addressed.

Under our Mutual Aid agreements and department policies, MTPD responds and assists any first responder type agencies at any time, without question. Once the scene is safe MTPD Officers will return to tribal property.

MTPD also has an MOU with the Union Pacific Railroad (UPR) granting MTPD complete Law Enforcement Authority on Railroad property and right of way on the MBOP reservation. This agreement makes it possible for MTPD to assist UPR Police with the safe operations of their railroad through tribal land. The MTPD has responded to numerous incidents on railroad property including death investigations, accidents, vehicles stuck on rail track and hazardous debris on their tracks.

MTPD also working relationships with The Bureau of Land Management (BLM), U.S. Park Service, Nevada State Parks, Mesquite PD, U. S. Drug Enforcement Administration (DEA), U.S. Immigration and Customs Enforcement (ICE) and Arizona Department of Public Safety (AZ DPS).



Figure A9 Moapa Town Volunteer Fire Station and Court House

### **A.2.3.2 Fire Department**

---

The Moapa Valley Fire District (MVFD) provides fire protection and emergency medical services for Moapa, Logandale, and Overton. The MVFD is part of the Clark County Fire Department (CCFD). Each of the three unincorporated townships has a station, including Station 72 in Moapa. Each station's membership is composed exclusively of volunteers who respond when 911 is activated for the area. These stations respond to a wide variety of incidents, including structure fires, brush fires and medical emergencies. The Moapa Band of Paiutes does not have a Fire Department so this is their only method of controlling and preventing fire on the reservation.



Figure A10 Moapa Head Start

Information on the natural, historical and cultural assets specific to the Tribe is listed as the following properties identified in Table A6.

An inventory of cultural assets, is presented in Table A7, is kept in the Moapa Band of Paiutes Tribal Administration / Community Building.

---

**Table A7. Historic Properties**

Salt Cedar Grove Boy Scout Camp area	Culturally significant area
Hogan Springs	Culturally significant area
Mormon Trail	Culturally significant area
Arrow Canyon Area	Culturally significant area
Spanish Trail	Culturally significant area
Cemetery	Culturally Significant area

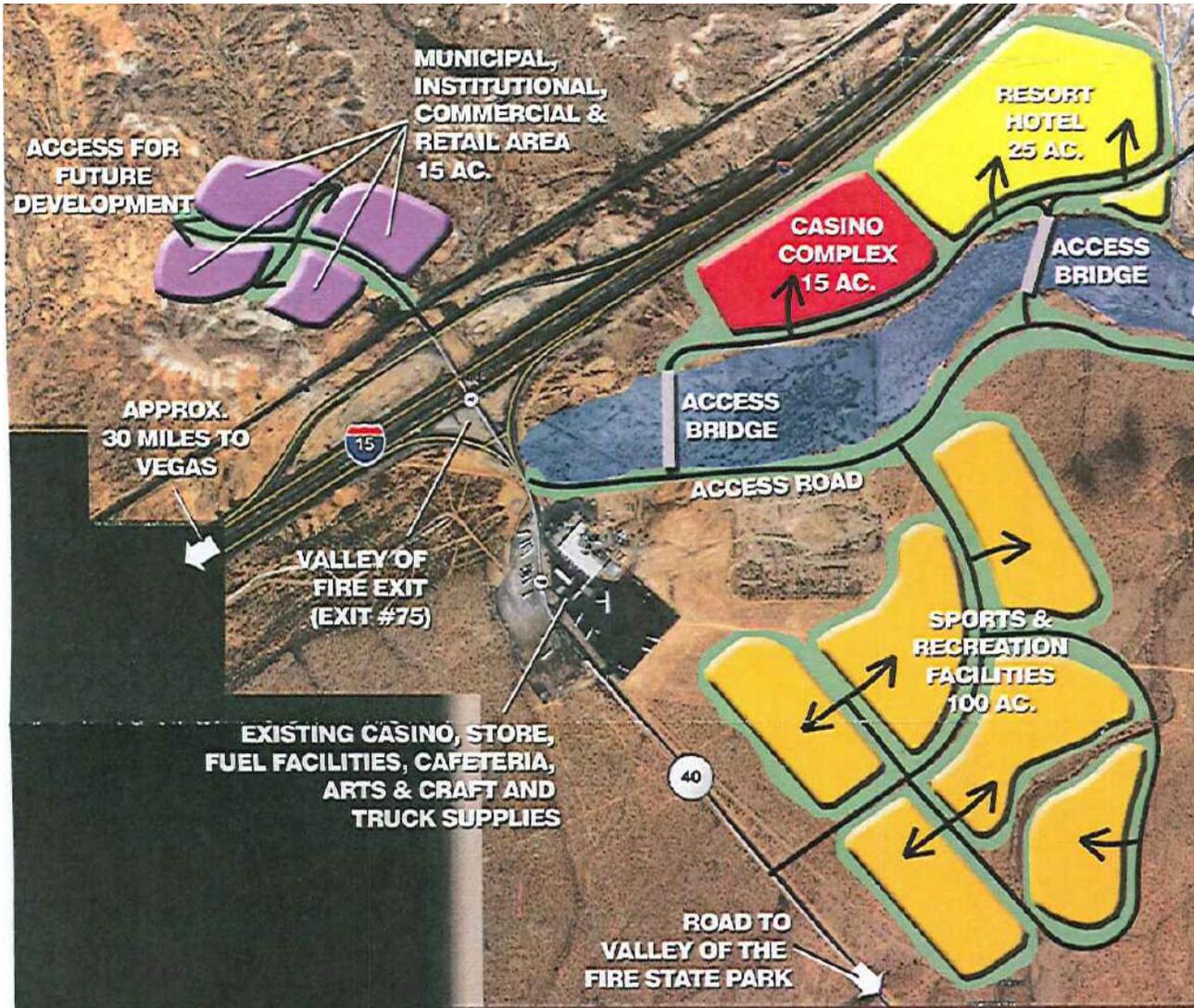
---

## A.2.4 Growth and Development Trends

The Moapa Band of Paiutes is poised to embark upon a number of major development projects over the next five (5) years. All future projects will be designed, developed, and incorporated with the mitigations concepts related to the potential hazard which could affect the specific project. Anticipated income from the planned solar generation station and a variety of grant funding sources has positioned the Tribe for transformative development in the near term. Proposed developments over the next five (5) years include:

- Solar Power Generation Station
- RV park, Valley of Fire exit off of I-15
- 15 acre casino expansion/ 25 acre resort hotel, west of Valley of Fire exit
- 100 acre sports/recreation facilities, east of Valley of Fire exit
- New Administrative and Municipal Facilities

- 400 acre residential housing development near travel plaza southeast of Ute Exit
- 200 acre industrial complex, Ute Exit
- Natural Gas Plant
- 15 acre municipal, institutional, commercial, retail area, Valley of Fire exit
- 15 Acre Cement Plant utilizing unique limestone deposits available on the Moapa Lands



Map A6 - Future Development Plans

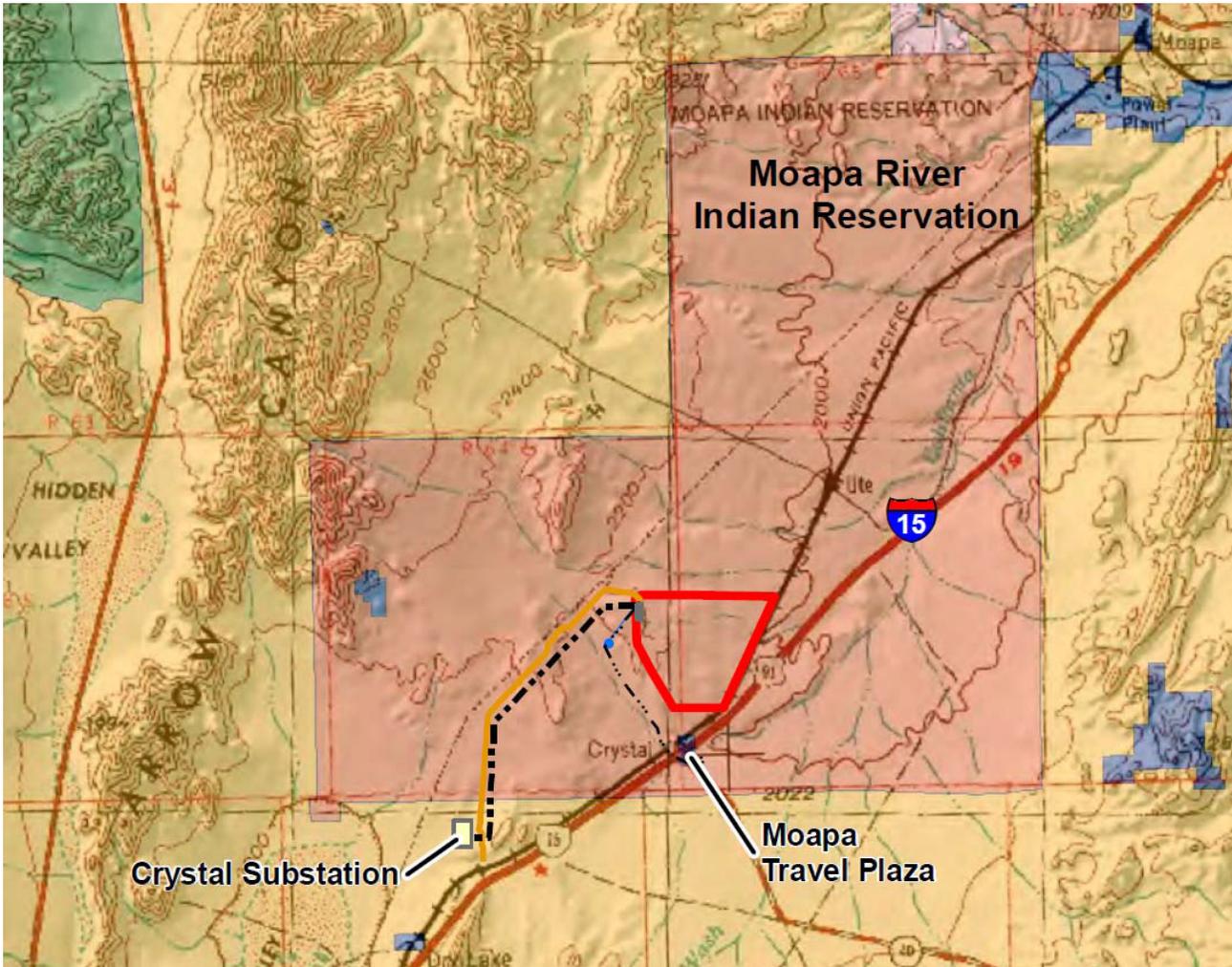
#### A.2.4.1 Development Project - Solar

The First Solar Moapa Solar Project is a significant project for the Moapa Band of Paiutes. The project entails construction of a 250 MW solar PV generation facility on 2,000 acre site on reservation land. The project is located west of I-15 and northwest of the Valley of Fire interchange. The project will require construction of an eight (8) mile access road, as well as the addition of a 500 kV transmission line (tying in to the electrical grid at the existing Crystal substation), a one-mile water pipeline, and a three-mile 12kV transmission line linking the Moapa Paiute Travel Plaza to the substation. Initial phases of the project are

anticipated to operational in Q2 of 2015. A temporary construction staging area will be established during the course of the project, including an operations and maintenance building with septic system. This project is a multi-agency effort involving the Bureau of Indian Affairs (BIA), the Moapa Band of Paiutes (Tribe), the Bureau of Land Management (BLM), the Environmental Protection Agency (EPA), and the Army Corps of Engineers (Corps), in addition to the developer, First Solar.

This project will be the largest solar project in the U.S., once complete. The project is anticipated to offer numerous short-term and long-term benefits to Tribal members, including:

- 400 jobs available to Tribal members and others during the construction of the facility
- (through 2015)
- 20 operating jobs, once the project is complete
- Long-term air quality benefits, by reducing the use of fossil fuels for future energy production
- Provide lease income as a revenue source for the Tribe, as well as future income from(a portion) of the power sales income generated by the plant production of a renewable, “green” energy source on reservation land provides an attractive alternative to the Reid Gardner Station (which the Tribe is actively protesting due to pollution and air quality concerns).



Map A7 - Solar Facility Location (Traced in Red) (Source: EIS for Project, Prepared by Malcolm Pirnie Inc. for the BLM and Moapa Band of Paiutes)

#### **A.2.4.2 Climate Change**

---

Climate change continues to be an increasing concern. Changes in climate impacts our ecosystem in a variety of ways. For one, we have seen an increase in the number of flooding events on the MRIR. We have seen changes in the weather patterns, the temperatures, and we need to prepare and plan for the changes that are expected to occur. The Moapa Band of Paiutes will utilize research and data collected by the Institute for Tribal Environmental Professionals (ITEP), at Northern Arizona University, that focuses on climate change Tribes are facing in the Arizona and New Mexico regions. This will help the Tribe be aware of trends that it needs to plan and prepare for on the MRIR. Evidence of Climate Change includes the Hail Storms that damaged the Tribe's Green Houses.

In March, 2015, FEMA released the "State Mitigation Plan Review Guide" which provides enhanced guidance which places increased emphasis on planning for climate change through enhanced mitigation plans. State, local, and tribal mitigation plans will be required to acknowledge the very real impacts of climate change, and to incorporate mitigation

strategies into their plan updates. This new guidance builds in previous guidance, as well as the FEMA Climate Change Adaptation Policy Statement issued in 2012.

While the Moapa Band of Paiutes and other tribes in the southwest have been adapting to climate change for millennia, this recent change in federal guidance provides an ideal opportunity for the Moapa Band to enhance its already significant planning, economic development, environmental protection, and public health and safety efforts. Moving ahead in advance of prescribed deadlines allows the Tribal Council to demonstrate leadership and initiative to “get ahead of the curve” in mitigation planning for climate change. Indeed, tribal leadership is demonstrated from the outset, as all of the hazards ranked by the Moapa Band as having the highest threat potential can be linked to climate change. In a desert environment, intensifying drought and heat can increase the threat of wildfires, and can negatively impact both water quality and water supply. The dangers of flooding can increase as the climate changes, both in the short and long term. Public health concerns can become more acute, and the risk of epidemics and pandemics will move to the forefront.

The potential impacts to the environment, economy, and overall health and safety of the reservation’s residents due to climate change has not been assessed. However, the Moapa Band does recognize the importance of addressing climate change and has already taken steps to mitigate the short and long term effects. For example:

- The First Solar Moapa Solar Project will result in the construction of a 250 MW solar PV generation facility, which will tie into the existing electrical grid. Outcomes of this project include air quality improvements, reduction in the use of fossil fuels for energy production, and increased economic viability for tribal residents. Future development of additional solar capacity on the reservation will only serve to enhance tribal sustainability and further mitigate climate change impacts.
- As a result of recent flood events, an inventory and evaluation of existing critical infrastructure including water, wastewater, and flood control facilities has been conducted, with future vulnerability assessments planned. Improvements to the structural integrity of existing critical infrastructure will help these facilities withstand the effects of climate change over time.
- Funding sources have been identified through the mitigation planning process to improve and/or replace existing critical infrastructure which will increase efficiency, promote public safety, and protect the environment.

While steps are in place to incorporate climate change planning into existing tribal efforts, additional steps can be taken to further mitigate impacts:

- Identify ways for tribal leadership to show support for climate change mitigation initiatives (e.g. resolutions, policies, plans, investment in critical infrastructure, and public outreach programs.)
- Increase awareness among tribal leadership, residents, prospective business partners, and visitors that climate change has the potential to impact the people, culture, environment, and economic vitality of the community.
- Continue to evaluate threats and vulnerabilities associated with climate change and address gaps in capabilities.
- Incorporate climate change mitigation strategies in land use, environmental protection, public health and safety, and economic development plans.

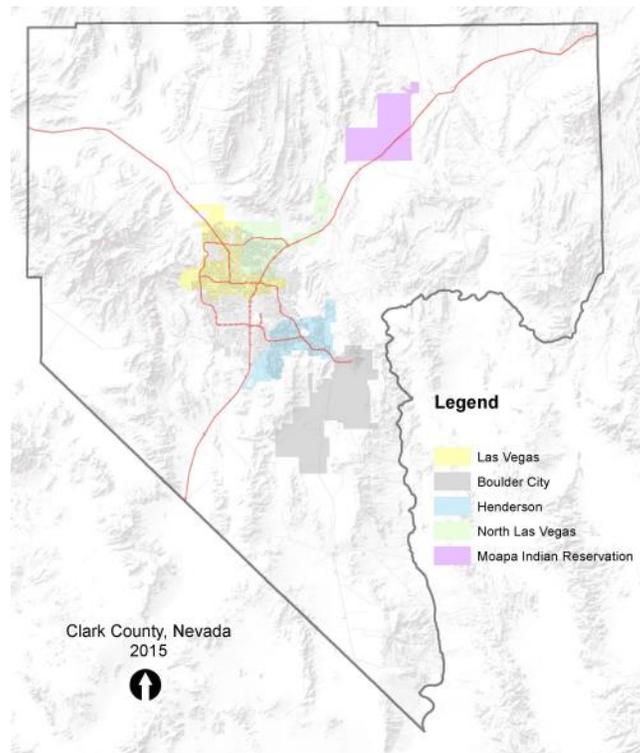
- Coordinate planning efforts with federal, state, local, and other tribal partners.
- Pursue additional resources to implement climate change adaptation initiatives.

Implementing climate change strategies such as those outlined above will ensure that the Moapa Band of Paiutes continues to adapt, remain resilient, and improve the quality of life of its residents for generations to come.

## **A.2.5 Vulnerability Assessment by Hazard**

---

The vulnerability assessment analyzes the population, property, and other assets at risk to the Tribe from hazards ranked of low, medium, or high significance that may vary from other parts of the planning area. For each hazard, there is a brief hazard/problem description, any past occurrences that have been provided by the Moapa Band of Paiutes, and a vulnerability overview for the hazards specific to the Tribe. The hazards included are listed in Table A8. The Clark County Hazard Mitigation Plan includes mapping of all hazards (Appendix C). Map A8 show's MRIR location on the Clark County Hazard Map.



Map A8

The Hazards listed in Table A8 were prioritized in rating from High to Low, utilizing the Calculated Priority Risk Index (CPRI) found in Table A9, historical data, and the collective input from the community. The Planning Committee analyzed the collected data in establishing the Hazard priority and the potential vulnerability for future hazards in the community. CPRI priority ratings are as following: High (3.40 to 2.95), Medium (2.50 to 2.40), and Low (1.90 to 1.35).

**Table A8. Hazards with High, Medium, or Low Planning Significance**

	Hazard	Moapa
1	Flood and Flash Flood	High
2	Dam Failure	High
3	Utility Failure	High
4	Earthquake	High
5	Drought	Medium
6	Hazardous Material Event	Medium
7	Wildfire	Medium
8	Subsidence	Low
9	Terrorism	Low
10	Epidemic/Infectious Disease	Low
11	Infestation	Low

**Table A9. Calculated Priority Risk Index (CPRI)**

Hazard	Probability				Magnitude/Severity				Warning Time				Duration				CPRI Score
	Unlikely	Possibly	Likely	Highly Likely	Negligible	Limited	Critical	Catastrophic	<6 hours	6-12 hours	12-24 hours	>24 hours	<6 hours	<24 hours	<1 week	>1 week	
<b>NATURAL</b>																	
Dam / Levee Failures			X				X		X							X	3.25
Drought			X			X						X				X	2.5
Dust/Sand Storms	X				X					X			X				1.3
Earthquakes			X			X			X							X	2.95
Extreme Cold/Heat				X		X				X						X	3.25
Flooding/Flash Flood				X			X				X					X	3.4
Infestations	X					X						X				X	1.6
Landslides/Mudslides	X					X			X							X	2.05
Monsoon	X					X					X				X		1.65
Pandemic Outbreak		X				X						X				X	2.05
Thunderstorms/High Winds		X				X					X		X			X	2
Wildfires		X				X			X						X		2.4
Epidemic / Infectious Disease	X					X					X				X		1.35
Subsidence	X				X				X				X				1.45
<b>MAN MADE</b>																	
Arson		X				X			X					X			2.3
Explosion/Fire	X					X			X					X			1.85
Fuel/Resource Shortage		X				X				X					X		2.25
Hazardous Mat's Incidents		X				X			X							X	2.5
Power/Utility Failure			X			X			X							X	2.95
Sabotage	X				X				X				X				1.45
Special Event		X			X				X				X				1.9
Transportation Accident		X			X				X				X				2.2
Terrorism		X			X				X				X				1.9
Urban Fires		X				X			X				X				2.2

**A.2.5.a Critical Infrastructure Concerns**

For the past two (2) years, the Moapa Band of Paiutes has worked very closely with several Solar Power Providers from around the United States. The Moapa Band of Paiutes has current partnerships with two (2) companies, First Solar and RES America to construct up to seven (7) solar facilities on tribal land over the next ten (10) years. Each of these

Solar Generation facilities will provide between 250 – 350 MW of clean solar power to thousands of consumers, not only within the State of Nevada but also in California and Utah.

Due to this growing Infrastructure being located on Federally Recognized Tribal Land and the sheer number of facilities potentially located on the reservation. The MRIR may and most likely will fall within the DHS or State of Nevada Critical Infrastructure Facility guidelines, which will mandate specific security requirements, protocols and emergency response requirements along with inspections from the DHS / State of Nevada Critical Infrastructure inspectors.

These guidelines might fall under two categories, one being the fact that the multiple facilities will be providing power to multi-state users which would fall under Nevada Silver Shield guidelines and the other would be the possible storage/use of hazardous material/substances that are regulated by DHS.

The majority of the facilities will be located well within the tribal boundaries and in semi secured locations; however one facility will be located on both sides of SR 168 just west of the Town of Moapa and will be easily accessed from the road with only a security fence for protection. This would require more robust security requirements and emergency response from the MTPD.

With recent events throughout the World and the United States involving Terrorist Attacks and threats to Critical Infrastructure facilities, the power generation facilities located on the MBOP reservation might be inviting targets for individuals with terroristic agendas. The State of Nevada and Clark County have located within its boundaries various groups, such as the Earth Liberation Front, the Animal Liberation Front, Sovereign Citizens movement and lone wolf individuals with radical beliefs that might be willing to attempt to disrupt the facility to the point it would be taken offline.

Also of concern would be individuals with personal beliefs or grievances that might be tempted to become Active Shooters at a high profile facility such as a power facility for personal notoriety, sensationalism or to bring light to specific topics or grievances such as the destruction of the land and animal habitat or the encroachment of modern society to what is and has been considered pristine land.

As the MBOP and the MTPD goes forward with its planned expansion of the reservation boundaries as well as the expansion of tribal business, the Tribe is forced to take a proactive look and approach to the above mentioned concerns and attempt to put in place policies, procedures and response protocols that would require the expansion of the MTPD as well as its response capabilities. Those capabilities would not only involve tactical concerns but also response equipment such as a Mobile Command Post with video and communication capabilities.

The Moapa Paiute Travel Plaza could also be considered Critical Infrastructure to the Tribe as it is the main source of income to the Tribe as a whole. This facility is located on a busy interstate and could be considered a prime target for Robbery, Extortion or an Active Shooter scenario. With the Tribes attempt to bring business to the Travel Plaza by providing free concerts, fireworks sales, alcohol sales and various events, the MBOP and

the MTPD will again be required to take a proactive approach to providing a safe environment and location in which the MBOP and its various corporate business partners as well as its customers can grow and prosper. As these projects become reality, the hazard mitigation plan will be updated accordingly.

### **A.2.5.1 Flooding and Flash Flooding**

---

<b>Planning Significance:</b>	<b>High</b>
-------------------------------	-------------

A flood occurs when the existing channel of a stream, river, canyon, or other watercourse cannot contain excess runoff from rainfall or snowmelt, resulting in overflow on to adjacent lands.

A floodplain is the area adjacent to a watercourse or other body of water that is subject to recurring floods. Floodplains may change over time from natural processes, changes in the characteristics of a watershed, or human activity such as construction of bridges or channels. River channels change as water moves downstream, acting on the channel banks on the channel bottom. On the outside of the channel curve, the banks are subject to erosion as the water scours against them. On the inside of a channel curve, the banks receive deposits of sand and sediment transferred from the eroded sites. In areas where flow contains a high-sediment load, the course of a river or stream may shift dramatically during a single flood event.

During the week of September 8, 2014, the remnants of Hurricane Norbert moved over portions of the Southwest United States. The increase in moisture associated with this weather system led to a large increase in thunderstorm activity across Clark County, Nevada starting on September 7 and peaking on September 8. The largest amount of rainfall occurred over the Moapa River Valley just north of Interstate 15 (I-15). A series of strong thunderstorms continued to generate over the MRIR in the late afternoon. Clark County Regional Flood Control District Alert gauges in the area reported rainfall amounts of 2.5 to over 4 inches over large areas in a short period of time (1 to 2 hours). The highest rainfall amount recorded from an alert station was 4.63 inches at Weiser Wash. Storm total rainfall estimates from radar peaked at over 8 inches of rainfall just north of I-15 along Highway 168. These estimates seem reasonable given the surface data.

This excessive rainfall caused a rapid, life-threatening flash flood over larger portions of the Moapa River Valley and associated tributaries over the next 24 hours. For example, the United States Geological Service (USGS) river gauge in Moapa recorded an 8-foot. rise in water level in just 1 to 2 hours. This water then flowed downstream toward the towns of Overton and Moapa Valley causing significant rises in water level and flooding. National Oceanic and atmospheric Administration (NOAA) Atlas 14 data for the location recorded 4.63 inches of rainfall indicating this is a 1,000-year flood event. This means a flood of this magnitude has a 0.1 percent annual probability of occurring in this area. This gives context to the rarity of the event.

The Moapa Band of Paiutes experiences drainage issues in many areas of the Reservation, particularly during monsoon season. On August 22, 2012, The Moapa Valley

was hit with over 1.42 inches of rainfall over two days, leading to a significant amount of water flowing down the California Wash. Seven Flooding conditions resulted in many areas of the Valley, including I-15 at the Valley of Fire interchange (Exit 75) near the Moapa Paiute Travel Plaza. The Tribe had to shut down a portion of I-15 for eight (8) hours due to high water (approximately five feet) flowing over the freeway. The drainage issues experienced along the Valley of Fire interchange are being addressed by the Nevada Department of Transportation in the pending interchange reconstruction project.

**History:** Since 1965, four Presidential Disaster declarations have been issued for flood events effecting Clark County. While floods can, and have occurred in almost every month of the year, the most damaging storms typically occur between July and September. The previous flooding event of a similar magnitude occurred in August 1981. The Thunderstorm rained up to 6.5 inches in less than an hour, resulting in record floods. There were extensive damages on and around the reservation, resulting in tens of millions of dollars. The damage costs for this event are listed in Table A10. In the past three years there have been 6 flooding events on the Reservation, occurring: August 2012, September 2012, two in August 2013, and two in September 2014.

#### Moapa Band of Paiutes - Photos of Flood Event



Figure A11 of the September 2014 Flood on the MRIR.



Figure A12 of the September 2014 Flood



Figure A13 September 2014 Flood on the MRIR



Figure A14 2012 Flood at the Moapa Paiute Travel Plaza/ California Wash.

**Table A10 Moapa Band of Paiute Indians—Flood Estimated Damage Costs**

<i>Flood Damages</i>					
Property Type	Parcels	Improved Value (\$)	Contents Value (\$)	Total Value (\$)	Loss Estimate (\$)
Residential	3	65,000	15,000	80,000	35,000
Commercial	5	0	0	0	0
Industrial	0	0	0	0	0
Agricultural	13	7,300,000	400,000	1,700,000	1,700,000
Open Space		0	0	0	0
Other		0	0	0	0
Unidentified		0	0	0	0
Sewer Lagoons		600,000			239,000
Roads	9.9 mi	5,181,200			562,000
<b>TOTAL</b>	<b>21</b>	<b>13,146,200</b>	<b>415,000</b>	<b>1,780,000</b>	<b>2,536,000</b>

Source: Tribal Historical Records / FEMA Project Worksheets 2015.

There are critical, essential, and community facilities within the MRIR that intersect the Clark County mapped floodplain. More information is needed in this area since the Tribe is not participating in the National Flood Insurance Program (NFIP) at this time. Clark County is part of the NFIP, but the Tribal areas are not mapped, which would make an assessment of the 100- to 500-year flood risks very difficult. It is possible to create an overlay of

possible flood areas, but they would not be official or as detailed as NFIP Flood Insurance Rate Maps (FIRMs). After this overlay is put on the map, identification of Critical / Essential facilities could be identified to help in determining their risk to the hazards identified. The Tribe has met with FEMA and the State of Nevada's Flood Plain Manager to discuss participation in the National Flood Insurance Program.

### A.2.5.2 Dam Failure

---

Planning Significance:	High
------------------------	------



Figure A15 Dead End Dam Breach

Dam failure is the structural collapse of a dam that releases the water stored in the reservoir behind the dam. A dam failure is usually the result of the age of the structure, inadequate spillway capacity used in construction, or structural damage caused by an earthquake or flood. When a dam fails, a large quantity of water is suddenly released with a great potential to cause human casualties, economic loss, and environmental damage. This type of disaster is especially dangerous because it can occur suddenly, providing little warning and evacuation time for the people living downstream. The flows resulting from dam failure generally are much larger than the capacity of the downstream channels and therefore lead to extensive flooding. Flood damage occurs as a result of the momentum of the flood caused by the sediment-laden water flooding over the channel banks and impact debris carried by the flow.

Events: A 2014 dam failure contributed to major damages to the Moapa Band of Paiutes Reservation lands and infrastructure. The Segmiller Dam and the Dead End Dam were built in the 1930's by the Conservation Core of America under the Hoover Administration, which later became the Army Core of Engineers. The dams were constructed as a retention system to prevent the occurrence of flooding in the valley.

There are six dams on or near the Moapa Paiute Indian Reservation.

1. Dead End Dam
2. Segmiller / Hogan Springs Dam

3. South Wash #2 Detention Dam/Check Dam
4. Jackass Dam 1
5. Jackass Dam 2
6. Arrow Canyon Dam

The three dams on the reservation that were breached are:

1. Dead End Dam
2. Segmiller / Hogan Springs Dam
3. South Wash #2 Detention Dam / Check Dam

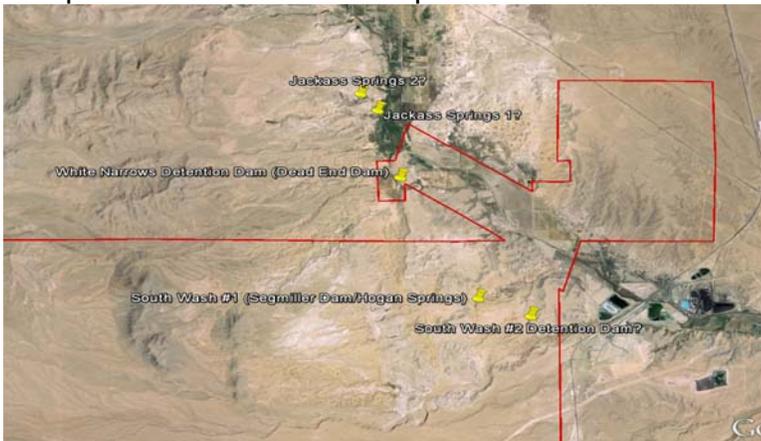
They are rated as a high risk hazard to the Moapa Band of Paiutes. Three dams are located on property controlled by the Bureau of Land Management which failed in the 2014 flood event on the reservation. It has not been determined if these dams will be repaired or removed at the time of this plan's writing.

The three dams located off of the Moapa River Indian Reservation that were breached are:

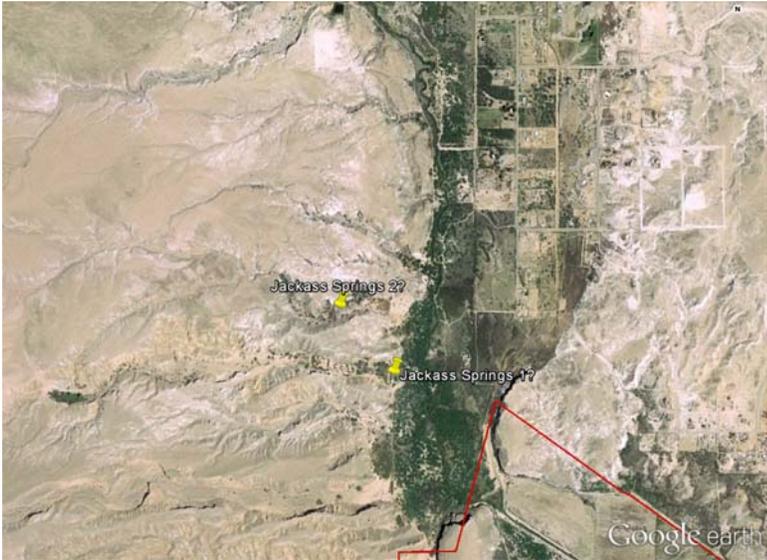
1. Jackass Dam 1 – Off Reservation, in jurisdiction of Bureau of Land Management.
2. Jackass Dam 2 – Off Reservation, in jurisdiction of Bureau of Land Management.
3. Arrow Canyon Dam – Off Reservation, Bureau of Land Management Responsibility.

**History:** In 1982, Dead End Dam breached at its center. The dam was repaired by BIA through a contract to the Tribe.

Moapa Band of Paiutes – Maps of Dams on or near the MRIR:



Map A9 Dams near and on the MRIR.



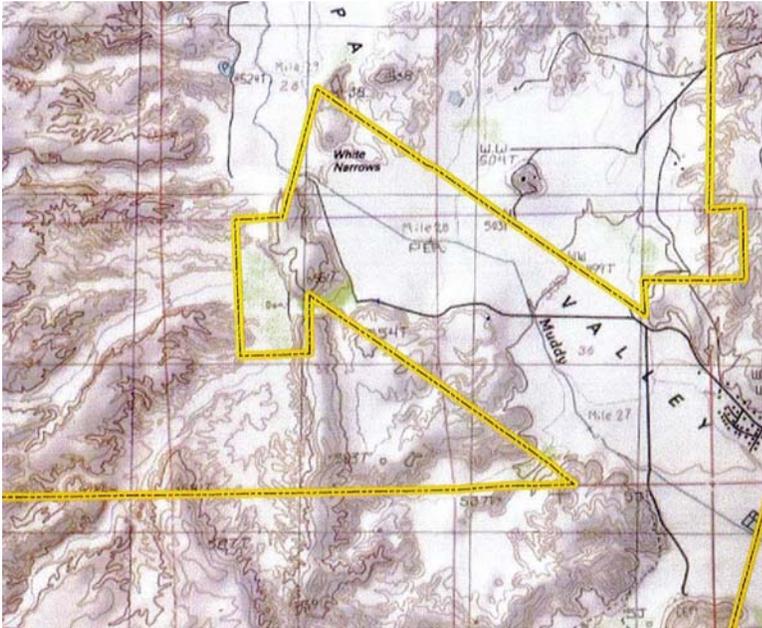
Map A10 Jackass Dam 1 and Jackass Dam 2



Map A11 Segmiller Dam



Map A12 South Wash #2 Detention Dam / Check Dam



Map A13 White Narrows Dam

### A.2.5.3 Utility Failure/Energy Emergency

---

Planning Significance:	High
------------------------	------

Utility failure includes the failure of power, transportation, water, and pipeline systems.

There are three categories of electronic power outages:

1. Transient fault – a momentary (few seconds) loss of power typically caused by a temporary fault on a power line.
2. Brownout or sag – a drop in voltage, causing poor performance of equipment.
3. Blackout – total loss of power lasting from a few minutes to a few weeks depending on the nature of the electrical network.

There are two electrical substations on or near the MRIR. These units are vulnerable to the hazards detailed in the plan.

An energy emergency may affect the Moapa Band of Paiutes with an electricity outage or a fuel, coal or gas supply shortage. These incidents may be caused by electrical blackouts, pipeline malfunctions, fuel shipment disruptions or an unanticipated surge in demand.

The Moapa Band of Paiutes community is especially vulnerable to energy emergencies. The community is located close to a coal fired electrical generator which will be phased out of the power grid and shut down shortly. It is not uncommon to have power outages from time to time. Severe storms often cause the community to experience brief power outages.

**History:** During recent flood events electrical power was lost to the reservation when one of the substations was flooded, resulting in a Blackout lasting for up to 16 hours

## A.2.5.4 Earthquake

---

Planning Significance:	High
------------------------	------

The MRIR lies within an area with a moderate to high potential for strong earthquake shaking. Seismicity within the area is considered about average for the central Basin and Range Province (Ryall and Douglas 1976). The USGS indicates there is a 40 percent chance of a magnitude 5.0 or greater earthquake on or near the MRIR in the next 50 years. The California Wash fault runs through MRIR, and as stated in Section 3.3.3 of the Clark County plan, the State of Nevada is one of the three most seismically active states in the U.S., and Clark County is located in one the most seismically active areas in Nevada. Figure 3.5 in Section 3.3.3 of the Clark County plan identifies the major fault lines in Nevada.

All of Clark County is susceptible to the effects of earthquakes. The location of seismic activity in the State of Nevada from 1852-2005 is indicated in Figure 3.6 in Section 3.3.3 of the Clark County plan. Clark County has higher probabilities of occurrence and the built environments of Las Vegas make for severe potential impacts.

To assess risks and vulnerability to the state, the Nevada Bureau of Mines and Geology ran FEMA's loss-estimation model, HAZUS-MH, in May 2009. Loss estimates were provided, using five earthquake scenarios located at an epicenter in downtown Las Vegas. (Details needed)

The scenario model was run to emulate earthquakes along a fault line near (Las Vegas) see Figure 3.26 in the earthquake vulnerability discussion in Section 3.5.3 Vulnerability by Hazard for the area of impact from the model in the Clark County Hazard Mitigation Plan. Each of the earthquake scenarios can create surface offsets, may be of long duration, and can cause significant damage. A magnitude 7 earthquake can cause widespread structural and nonstructural damage, and requires a significant "recovery period" for communities to get back to the way they were before the quake.

Table 3.40 in the Clark County plan in the earthquake vulnerability of Section 3.5.3 helps quantify the HAZUS-MH loss estimation for the Clark County planning area. Damage estimates in the earthquake vulnerability discussion in Section 3.5.3 were created to show impacts to the County as a whole, and do not include any city specific data. Property damage would be greatest in Las Vegas where development is the greatest.

**History:** There has not been any recent seismic activity on the MRIR, but the Tribe recognizes the potential for the natural hazard given the surrounding fissures or fault zones that are in Clark County, NV and the potential for loss in the occurrence of such an event.

## A.2.5.5 Drought

---

Planning Significance:	Medium
------------------------	--------

Drought is a normal, recurrent feature of virtually all climatic zones, including areas of both high and low rainfall, although characteristics will vary significantly from one region to another. Drought differs from normal aridity, which is a permanent feature of the climate in areas of low rainfall. Drought is the result of a natural decline in the expected precipitation over an extended period of time, typically one or more seasons in length. Other climatic characteristics, such as high temperature, high wind, and low relative humidity, impact the severity of drought conditions.

The impact of a drought on the MRIR is primarily one of water supply; however, the impact to natural resources on the reservation is also a concern. A multiple year drought can severely compromise the water supply within the reservation and adversely impact natural resources. With the unpredictability of drought and globally changing climate conditions, the Moapa Band of Paiute Indians continues to promote water conservation throughout the community.

The MBOP community has a public water system that serves the community. The source of water comes from the Muddy River and groundwater aquifers. A drought of any lasting significance could impact the amount of water that flows through the Muddy River, as this is the source of water for this community.

**History:** While the Reservation has adequate water supply and water rights, Clark County has experienced severe drought conditions. From 2002 to 2010, Nevada and Clark County were in a prolonged period of drought. Drought is especially a concern because it increases the probability of wildfires and water shortages, and destruction of vegetation. In 2011, Clark County experienced a dry year overall. 2012 was wetter than normal in Clark County, but 2013 and 2014, despite the devastating flood at Moapa, were still dry years on the whole for Clark County.

### **A.2.5.6 Hazardous Materials**

---

<b>Planning Significance:</b>	<b>Medium</b>
-------------------------------	---------------

Hazardous Materials, identified by the Environmental Protection Agency (EPA), are those materials that can have an immediate health effects and hazardous properties.

#### **Nevada National Security Site (NNSS) – Low-Level Radioactive Waste Shipments**

A significant amount of low-level radioactive waste travels through Clark County during its journey to the Nevada National Security Site (NNSS). Potential dangers posed by radioactive waste are typically concentrated in the immediate vicinity of the disposal sites or along the transportation routes.

The NNSS is located approximately 63 miles northwest of the Reservation or 131 miles by car, in Nye County, Nevada. Current agreements between the U.S. Department of Energy

(DOE) and the State of Nevada allow for shipments of low level radioactive materials and mixed waste materials to and from the NNSS.

Two draft environmental impact statements, one for “Greater than Class C” waste as well as a Site Wide environmental impact statement (SWEIS) which is considering various alternatives for uses of the NNSS will impact the type, volume, and frequency of shipments along the I-15 corridor over the next decade or longer. According to the Greater than Class C EIS, there is a potential for 12,600 total truck shipments. In addition, the DOE plans approximately 403 (many overweight) shipments of U-233 to the NNSS over the next decade. While the majority of shipments will impact U.S. 93, I-15, as a designated potential route, may experience a significant number of shipments.

All shipments to the NNSS currently arrive via truck, so there is currently no impact resulting from these shipments resulting from rail. However, many other hazardous commodities traverse near the Reservation by rail, as identified in commodity flow studies conducted by Clark County within the past 5 years. Current commodity flow information is available through the local office of the Union Pacific Railroad.

### **Transport of High Level Radioactive Waste through Clark County**

In 2002, the United States Congress overrode the Governor of Nevada’s veto of the selection of Yucca Mountain as the site for a high radioactive waste repository. If the site is ever licensed by the U.S. Nuclear Regulatory Commission, the Yucca Mountain site will be used to store 77,000 metric tons high level radioactive waste and spent nuclear fuel currently located at nuclear reactor sites across the county as well as defense nuclear waste. On June 3, 2008, the U.S. Department of Energy (DOE) submitted a license application seeking authorization to build a geologic repository to the Nuclear Regulatory Commission. On February 1, 2010, the Obama Administration released the Federal Fiscal Year 2011 national budget, which included the elimination of all funding for continuation of the project. On March 3, 2010, the DOE filed a Motion to Withdraw the license application. Currently, activities related to the license application, transportation, and public safety and security plans have been suspended. The future of the project remains uncertain at this time. The Nuclear Regulatory Commission has suspended all work on the license application citing budget constraints. In January 2011, the Blue Ribbon Commission on America’s Nuclear Future identified a path forward and the DOE is moving forward with developing plans based on those recommendations. Most recently, the U.S. Circuit Court of Appeals, D.C. Circuit, has ruled that the U.S. Nuclear Regulatory Commission (NRC) and the DOE must move forward with the licensing proceeding following the process outlined in the Nuclear Waste Policy Act. The NRC has released repository safety documents, but there has been no movement forward by the DOE.

If the project moves forward, it is the U.S. Department of Energy’s (DOE) intent to transport most of the waste by railroad, which would potentially impact Tribal lands adjacent to existing Union Pacific right-of-way.

The DOE’s transportation plan is vague when describing specific routes, exact quantities of waste and the percentage of waste that would be transported via truck or rail. The Caliente Corridor Record of Decision (ROD) completed in 2004 and the DOE’s application to the

U.S. Surface Transportation Board for authorization to construct a 319-mile rail line through Nevada to Yucca Mountain remains pending.

Until such time as the Nuclear Waste Policy Act of 1987 is repealed, Southern Nevada remains the singular designated final storage site for military and civilian high-level nuclear waste.

**History:** There has not been any occurrence of hazardous material events on the Reservation.

### **A.2.5.7 Wildfire**

---



Wildfire is an uncontrolled fire spread through vegetation fuels, exposing and possibly consuming structures. They often begin unnoticed and spread quickly. Wildfires can be human-caused through acts such as arson, campfires, or improper burning of debris, or can be caused by natural events such as lightning.

Because of the vegetation along the riverbanks, and the growth of weeds as a result of the 2014 flood, fuel loads have increased in and around the reservation bringing the fire danger from a Low to the Medium hazard to the Moapa Band of Paiutes.

**History:** There has been no occurrence of wildfires on the MRIR. In 2010 there was a wildfire approximately 1.5 miles North West of the Reservation at Warm Springs that burned over 600 acres. The fire was man made, and was accidentally started by a work crew trimming vegetation in the area.

### **A.2.5.8 Subsidence**

---

Planning Significance:	Low
------------------------	-----

Subsidence occurs when declining water levels lead to inelastic water compaction. A lesser amount of subsidence occurs with the recoverable compression of coarse-grained sands and gravel deposits. A common feature that accompanies subsidence is earth fissures, which are tension cracks in the sediment above the water table.

Subsidence is rated as a low hazard to the Moapa Band of Paiutes.

### **A.2.5.9 Terrorism**

---

Planning Significance:	Low
------------------------	-----

Terrorism, as defined by the Code of Federal Regulations is, "... the unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment hereof, in furtherance of political or social objectives" (28 C.F.R. Section 0.85). Weapons used for terrorist activities are not always weapons produced by the terrorist, but can sometimes come in the form of one's own resources being used against them.

Terrorism is not considered to be a high hazard by the Moapa Band of Paiutes. However, with the construction of a major solar power center, we could become a target for terrorists who wish to disrupt power generated by these units and may decide to include this as a hazard in future updates.

### **A.2.5.10 Epidemic/Infectious Disease**

---

Planning Significance:	Low
------------------------	-----

A disease is a pathological condition of a part, organ, or system of a living organism resulting from various causes, such as infection or exposure to toxins, and characterized by an identifiable group of signs or symptoms. An epidemic is when a disease affects a disproportionately large number of individuals within a population, community or region at the same time. Infectious diseases are caused by a pathogen which enters the body, triggering development of an infection. Such pathogens may include bacteria, viruses, fungi, prion, or protozoans. Infectious diseases can have a range of causes and are often contagious or communicable, meaning they can be passed from person to person and can also be transmitted through numerous modes including direct contact, insect bites, food and water contamination, or airborne inhalation. Many infectious diseases can make the body vulnerable to secondary infections, which are caused by other organisms taking advantage of an already weakened immune system.

Epidemic and infectious disease is rated as a low hazard to the Moapa Band of Paiutes. The Clark County health district has conducted surveillance of mosquito populations, specifically monitoring West Nile virus. During the 2014 Flood, there was an influx of mosquitos on the MRIR due to the standing water on and surrounding the MRIR. There were no reports of West Nile virus on the MRIR, but there were positive mosquitoes in the town of Moapa.

### **A.2.5.11 Infestation**

---

Planning Significance:	Low
------------------------	-----

The Federal Executive Order 13112 defines infestation and invasive species as:

1. Non-native (or alien) to the ecosystem under consideration.
2. Whose introduction causes or is likely to cause economic or environmental harm or harm to human life.

Invasive species can be plants, animals, and other organisms (i.e. microbes). Human actions are the primary means of invasive species introductions. Infestations can cause the destruction of crops and natural resources. Plant infestation is highly flammable and assists in the spread of wildfire. Infestation can include the following:

- Noxious Weeds
- Cheat grass
- Red Brome
- African Honey Bees
- Banded Elm Bark Beetle

Infestation is rated as a low hazard to the Moapa Band of Paiutes.

### **A.3 Capability Assessment**

---

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. The capabilities assessment is divided into 5 sections: regulator mitigation capabilities, administrative and technical mitigation capabilities, fiscal mitigation capabilities, mitigation outreach and partnerships, and other mitigation efforts.

Clark County maintains an annually updated Hazardous Materials Response Plan which is reviewed and approved annually by Clark County's Local Emergency Planning Committee (LEPC) as well as the Nevada State Emergency Response Commission (SERC). Capabilities with regard to hazardous materials are maintained and updated through the LEPC and overseen by the SERC.

Clark County Fire Department's Hazardous Materials Coordinator is available for consultation and support to the Tribe. The City of Las Vegas Fire Department and the City of Henderson Fire Department maintain a specially trained Hazardous Material Response Team (HMRT) for the specific purpose of responding to chemical emergencies. This HMRT, in association with any developing HMRT, can provide expertise and equipment especially developed to help control and abate a hazardous materials incident.

The Las Vegas Metropolitan Police Department's ARMOR team would respond to events related to potential CBRNE events. The ARMOR team can also call upon the National Guard Civil Support Team for larger CBRNE events.

#### **A.3.1 Regulatory Capabilities**

---

Table A11 lists the regulatory mitigation capabilities, including planning and land management tools, typically used to implement hazard mitigation activities and indicates that such capabilities are in place by the Moapa Band of Paiutes. The Moapa Band of Paiutes will adhere to the regulations, polices, programs, and regulatory capabilities related to hazard prone areas as described in the Clark County Plan, including pre-disaster hazard mitigation management and post-disaster mitigation management.

---

**Table A11. Regulatory Capabilities**

Regulatory Tool (ordinance, codes, plan)	Yes / No	Comments
Hazard Mitigation Plan	Yes	Tribal Council Chambers, Office of Emergency Management
Zoning Ordinance	No	
Subdivision Ordinance	No	
Growth Management Ordinance	Yes	5 Year Master Plan
Floodplain Ordinance	No	
Other special purpose ordinance		
Building Code	Yes	Unified building code
BCEGS Rating	No	
Fire Department ISO Rating	No	
Erosion or sediment control program	Yes	Needs to be reconstructed
Storm water management program	Yes	Needs to be reconstructed
Site plan review requirements	No	
Capital improvement plan	Yes	5 Year Master Plan
Economic development plan	Yes	Economic Development Dept.
Local emergency operations plan	Yes	Current
Other special plans	No	
Flood insurance study or other engineering study for streams	No	
Elevation certificates	No	

---

**A.3.1.1 Integration into Existing Planning Mechanisms**

---

Another important implementation mechanism that is highly effective and low-cost is incorporation of the hazard mitigation plan recommendations and their underlying principles into other Tribal plans and mechanisms. Where possible, plan participants will use existing plans and/or programs to implement hazard mitigation actions. Mitigation is most successful when it is incorporated into the day-to-day functions and priorities of government and development. The point is reemphasized here. As described above, the Moapa Band of Paiutes has implemented policies and programs to reduce losses to life and property from hazards. This plan builds upon the momentum developed through previous and related planning efforts and mitigation programs and recommends implementing actions, where possible, through these other program mechanisms. These existing mechanisms include:

- Local Emergency Operations Plan
- Hazard Mitigation Plan
- Economic Development Plan
- Storm Water Management Plan
- Community Development Plan

The successful implementation of this mitigation strategy will require constant and vigilant review of existing plans and programs for coordination and multi-objective opportunities that promote a safe, sustainable community. Efforts should continuously be made to monitor the progress of mitigation actions implemented through these other planning mechanisms and, where appropriate, their priority actions should be incorporated into updates of this hazard mitigation plan. Future developments will be addressed and incorporated into the plan.

Integration efforts include incorporating FEMA mitigation programs, initiatives, Public Assistance (PA) efforts, and community awareness efforts to safeguard the MRIR in the event of future events.

### **A.3.2 Administrative/Technical Capabilities**

---

The Moapa Band of Paiutes Emergency Management Program operates under the direction of the Moapa Band of Paiutes Tribal Council. Day-to-day operations and direction for the program is conducted under the management of the Tribal Chairman who has delegated coordination actions to the Moapa Band of Paiutes Emergency Coordinator.

The final responsibility for all emergency management belongs to the Tribal Chairman. The Tribal Chairman and Council are responsible for all policy-level decisions. They are also required to be the approving body for public information releases to the public. During response operations, the elected officials will be available to their constituents to handle non-routine problems.

The Tribal Emergency Management has responsibility for coordinating the entire emergency management program, within the boundaries of the Reservation, and can make routine decisions within the limits of disaster authority. During emergency operations, the Emergency Manager ensures that all parties are working in a concerted, supportive effort to overcome the disaster.

### A.3.2.1 Financial Tracking of Grants

---

Moapa Band of Paiute Indians maintains control over Grant Projects with FundWare Accounting Software. Budgets are created and input into the software after being approved by the Tribal Council and signed off by the Tribal Chairman, Secretary, CFO, Administrator Department Head and the Contracts and Grants Manager. Financial information is tracked separately for each grant. All costs are verified by Grant managers, Contracts and Grants manager, Payroll, and Accounts Payable before entering the system. The expenditures are posted to the system and reports are routinely printed and verified by Grant Manager and Fiscal Staff (see attached report REAB5 below). Report information is available in a summarized Budget Variance Report and detail General Ledger Reports. These Reports then become the basis of Reporting to Granting Agencies on the SF-425 Financial Report. Each project worksheet and grant will be identified by the associated fund number, program number, and project description. Below is an example of how the finances of these grants and projects will be tracked.

Fund Number	Program Number	Project Description
67	00	Flood - Tribal Costs
67	40	Flood - Debris Removal
67	41	Flood - Emergency Costs
67	42	Flood - Segmiller Dam Protective
67	43	Flood - Volunteer Labor
67	44	Flood - NDEM
67	45	Flood - Dirt Road Repairs
67	46	Flood - Paved Road Repairs
67	47	Flood - Segmiller Dam Repair
67	48	Flood - Dead End Dam Repair
67	49	Flood - Channel Repair
67	50	Flood - River Bank Stabilization
67	51	Flood - Warehouse Contents
67	52	Flood - Pole Barn
67	53	Flood - Fiber Optic Repair
67	54	Flood - Lagoon Silt Removal
67	55	Flood - Lagoon Fencing
67	56	Flood - Irrigation System
67	57	Flood - Irrigation Ditches
67	58	Flood - Farm Fencing
67	59	Flood - Scouting Area

Table A12 identifies the personnel responsible for activities related to mitigation and loss prevention in the Tribe.

**Table A12. Administrative and Technical Capabilities**

<b>Personnel Resources</b>	<b>Yes/No</b>	<b>Department/Position</b>	<b>Comments</b>
Planner/engineer with knowledge of land development/land management practices	Yes	Tribal Planner	
Engineer/professional trained in construction practices related to buildings and/or infrastructure	No		
Planner/engineer/scientist with an understanding of natural hazards	No		
Personnel skilled in GIS	No		Indian Health Service
Full time building official	Yes	Public Works Director	
Floodplain manager	Yes		Clark County
Emergency manager	Yes	Emergency Services Manager	
Grant writer	Yes		
Warning systems/services	Yes		Clark County
(Reverse 9-11, cable override, outdoor warning signals)			Notification system per Emergency Management

**A.3.2.2 Moapa Band of Paiutes  
Agencies/Boards/Commissions/Committees/Districts/Services**

The following agencies and services provide support to the Moapa Band of Paiute Indians in the event of a natural or manmade hazard:

- 911 Dispatch Center
- Emergency Operations Center
- Clark County Volunteer Fire Department. The closest volunteer staffed fire station is Station No. 72 in Moapa, approximately 2.3 miles from Moapa River Reservation.

**A.3.2.3 Moapa Band of Paiutes Partnerships**

The following partnerships exist to help protect the Moapa Band of Paiutes against natural or manmade hazards:

- Bureau of Indian Affairs
- Bureau of Land Management
- Clark County Regional Flood Control
- Clark County Fire Department
- Inter-Tribal Emergency Response Commission (ITERC)
- Southern Nevada Health District
- Federal Emergency Management Agency (FEMA)

### A.3.3 Fiscal Capabilities

Table A13 identifies financial tools or resources that the Moapa Band of Paiutes could potentially use to help fund activities in addition to Economic Development Activities.

**Table A13. Moapa Band of Paiutes—Fiscal Capabilities**

Financial Resources	Accessible/Eligible to Use (Yes/No)	Comments
Community Development Block Grants	Yes	Build Homes
Capital improvements project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric services	Yes	
Impact fees for new development	Yes	
Incur debt through general obligation bonds	No	
Incur debt through special tax bonds	Yes	
Incur debt through private activities	Yes	
Withhold spending in hazard-prone areas	Yes	
USDA	Yes	
HUD	Yes	
BIA	Yes	
NRCS	Yes	
FEMA HMA	Yes	
FEMA HMGP	Yes	

### A.4 Mitigation Strategy

Mitigation planning is the systematic process of learning about the hazards that can affect the planning area, setting clear goals to address the hazards, identifying appropriate actions and following through with an effective mitigation strategy. Mitigation can protect the critical community facilities, infrastructure, reduces the liability, minimizes community disruption, and safeguards the people on the Moapa River Indian reservation. The Moapa Band of Paiutes will continue to refer to the mitigation plan for compliance with the established mitigation strategies. Specific activities will include the following:

- Participation with Clark County Nevada and FEMA in mapping and identifying the flood plain on the MRIR.
- Reviewing the flood prevention strategy and identifying opportunities to strengthen the Tribe’s hazard mitigation efforts to safeguard its people and the Reservation.

**The purpose of the mitigation strategy is to:**

1. Protect the Tribe, tribal community, people, property, and the natural environment
2. Ensure continuity of critical economic and tribal government facilities, enterprises, and infrastructure
3. Promote and protect Tribal sovereignty, self-governance and identity
4. Increase public awareness of natural hazards and involvement in hazards planning and tribal emergency management activities

#### **A.4.1 Mitigation Goals and Objectives**

---

The Moapa Band of Paiutes adopts the hazard mitigation goals and objectives developed by the Hazard Mitigation Planning Committee for the Clark County Multi-Jurisdiction Hazard Mitigation Plan and are described in their Mitigation Strategy.

The Moapa Band of Paiutes Tribal leadership and the Hazard Mitigation Planning Committee have developed the following goals to be used by the Tribes Emergency Management, Law Enforcement, Governing Leadership, and Executives as guidelines to follow when responding to a natural hazard on the MRIR. These goals were designed to be broad enough to apply to all natural hazards identified and addressed in this plan and correspond with the goals described in the Clark County Hazard Mitigation Plan.

- Goal #1: Minimize human, economic, and environmental disruption from natural hazards.
- Goal #2: Implement policies and programs designed to reduce or eliminate the impacts of natural hazards on the people and the property on the Moapa River Indian reservation.
- Goal #3: Enhance public education, training, preparation, and outreach about disaster resistance and expand public awareness of natural hazards and their impact.
- Goal #4: Enhance intergovernmental cooperation with surrounding communities, agencies, and partnerships in hazard mitigation efforts and responses to hazards and disasters.
- Goal #5: Promote and enhance the use of natural resource protection measures as a means to reduce the impacts of natural hazards on the people and property on the Moapa River Indian Reservation.
- Goal # 6: Develop plans, programs and strategies to mitigate the impacts of climate change on the people, culture, environment, and economy of the Moapa River Indian Reservation.

The planning team for the Moapa Band of Paiutes identified and prioritized the following mitigation actions based on the risk assessment. Background information on how each action will be implemented and administered, such as ideas for implementation, responsible agency, potential funding, estimated cost, and timeline also are included.

## A.4.2 Mitigation Action

The mitigation strategy will be implemented and administered under the direction of the MBOP Emergency Manager and designated Project Manager. The MBOP Emergency Manager and Project Manager will monitor the progress of all projects and mitigation efforts on the MRIR, to ensure mitigation strategy and actions are implemented and followed. This includes the monitoring of all mitigation plans, measures to track the progress of projects, reporting mechanisms for projects, the closeout procedures for approved mitigation projects, and incorporating other tribal planning mechanisms into mitigation efforts. A summary of the Mitigation Actions are listed below in Table A14.

The prioritization process for the mitigation actions used the STAPLE+E guidelines in determining high, moderate or low priority. Low hazards may not be included in the mitigation action section of this plan. This will be reviewed during the next update.

**Table A14. Mitigation Actions**

Hazard Mitigated by Projects	Tribal Housing Relocation	Flood Channel Hardening	Sewer System Upgrade	Clear excess Fire fuels from Critical Facilities	Early Warning System	All Hazards Public Awareness
Does Action Effect New or Existing Buildings	Existing	New/Existing	New/Existing	Existing	New/Existing	New/Existing
Flood and Flash Flood	X	X			X	X
Dam Failure	X	X			X	X
Utility Failure	X					X
Earthquake	X					X
Drought						X
Hazardous Material Event					X	X
Wildfire				X		X
Subsidence						X
Terrorism					X	X
Epidemic/Infectious Disease			X			X
Infestation						X

#### **A.4.2.1 Flood - Tribal Housing: Relocate or Rebuild.**

---

**Jurisdiction:** Moapa Band of Paiutes

**Priority:** High

**Issue/Background:** The homes on the Reservation were built in a flood plain in the early 1960's. Historically, the Tribe has experienced repeated flooding from the monsoon rains that the region receives annually. Over the past three years, the Tribe has experienced two flood events that have resulted in flooding across the reservation. The MBOP has a need to have all of the buildings inspected for structural integrity for possible relocation or elevation out of the floodplain or to rebuild in a more protected area. The MBOP has essential, historic and economic facilities that need to be inspected and prioritized as to their ability to withstand any significant stress and impact that different disasters pose to them. The end result would be a report on all of the structures located on the MRIR. This report would be essential if MBOP were to seek funding to elevate, relocate or rebuild housing units vulnerable to the hazards outlined in this plan.

**Ideas for Implementation:** The current situation is the availability of funding that may be available through many sources. The project would address the repeated flooding by either starting to relocate Tribal homes to a location outside of the flood plain or a point outside the high water levels.

**Responsible Office:** Public Works

**Partners:** Emergency Services, Planning dept., FEMA, BIA

**Potential Funding:** Block grants, HUD, BIA, FEMA HMGP, CDBG Grant Funding

**Cost Estimate:** \$8,000,000 to \$10,000,000

**Benefits (Losses Avoided):** This would mitigate the repeated flooding of the Tribal residential communities and allow the flood plain to become a natural flood plain with no damages to the reservation itself.

**Timeline:** 1 to 3 years depending on funding availability

#### **A.4.2.2 Flood Channel Hardening**

---

**Jurisdiction:** Moapa Band of Paiutes

**Priority:** High

**Issue/Background:** The Moapa Band of Paiutes has experience a minimum of two flooding events every year during the monsoon season. The flood channels on the reservation are earthen flood channels that have not been able to handle the flow of water due to them being earthen channels with no hardening of the channels.

**Ideas for Implementation:** Hardening the flood channels with K-Rails and Rip-Rap.

**Responsible Office:** Emergency Manager

**Partners:** N/A

**Potential Funding:** Hazard Mitigation Grant Funding

**Cost Estimate:** \$150,000 to \$200,000

**Benefits (Losses Avoided):** By directing the flow of floodwaters, the reservation will have a better chance of avoiding future devastating floods. The watershed leading onto the Reservation would be directed into these channels and directed off the Reservation.

**Timeline:** 180 to 360 days.

### **A.4.2.3 Sewer System**

---

**Jurisdiction:** Moapa Band of Paiutes

**Priority:** High

**Issue/Background:** The Tribe is in the process of developing an RV Park and housing development in the area of the Moapa Paiute Travel Plaza. With the recent flooding events and the history of past flooding on the reservation a waste water facility on the Reservation could and would alleviate the sewer lagoons from being flooded and damaged.

**Ideas for Implementation:** The Tribe would be able to use mitigation funds to develop a waste water system in conjunction with Indian Health Services at the Reservation to serve the community and take the Tribe off the old sewer lagoon system that is currently in the flood plain.

**Responsible Office:** Public Works

**Partners:** Indian Health Services

**Potential Funding:** Hazard Mitigation Grant Funding

**Cost Estimate:** \$1,000,000 to \$1,500,000

**Benefits (Losses Avoided):** Repeat damages by flooding and damages to current lagoon system that is located in the flood plain.

**Timeline:** 180 to 360 days.

#### **A.4.2.4 Fuel Reduction/Defensible Space Project**

---

**Jurisdiction:** Moapa Band of Paiutes

**Priority:** Medium

**Issue/Background:** The Tribe has several areas that have accumulated dry brush and other flammable material that has created a fire danger that could threaten critical facilities.

**Ideas for Implementation:** Remove excess flammable fuel from areas that could threaten the people and buildings from a wildfire by using trained crews with supervision from the Department of Emergency Management. Clark County Fire Department may be able to provide training or guidance to implement the project.

**Responsible Office:** Emergency Management Department

**Partners:** FEMA and Clark County Fire Department

**Potential Funding:** Hazard Mitigation Grant Funding

**Cost Estimate:** \$100,000 to \$150,000

**Benefits (Losses Avoided):** The threat of wildfire on or near the Moapa River Reservation has increased with the accumulation of fuels that were caused by the recent flood activity and the drought. With these fuels being removed there is less chance of a wildfire destroying or damaging critical facilities or causing injury or death to Moapa River Reservation residents and visitors.

**Timeline:** 180 days to 360 days.

#### **A.4.2.5 Additional Exit Roads**

---

**Jurisdiction:** Moapa Band of Paiutes

**Priority:** High

**Issue/Background:** The Tribe currently has only one road in and out of the Reservation. During the last flooding event, the Tribe became isolated due to extensive damage to the only access road.

**Ideas for Implementation:** Create an additional road exiting the reservation to the south west of the reservation. This would allow for an additional egress, regress road for the reservation.

**Responsible Office:** Public Works / Roads Department

**Partners:** FEMA and Bureau of Indian Affairs

**Potential Funding:** Hazard Mitigation Grant Funding

**Cost Estimate:** \$500,000 to \$1,000,000

**Benefits (Losses Avoided):** This new road would allow for rapid evacuation if the only other road into and out of the reservation should become impassable. This would also allow for help to reach the Tribe in the occurrence of future natural hazards on the Reservation.

**Timeline:** 180 days to 360 days.

#### **A.4.2.6 Early Warning System**

---

**Jurisdiction:** Moapa Band of Paiutes

**Priority:** Medium / High

**Issue/Background:** The Moapa Band of Paiutes has experienced multiple flooding events in the past three years. On September 9, 2014 one flood resulted in the failure of 6 dams. Three dams were on the reservation and resulted in significant damage to the Reservation.

**Ideas for Implementation:** The Tribe would install an early warning system at the two dams that still exist on the Reservation. In addition, the Tribe would install several early flood retention monitors along the Muddy River that passes through the Reservation. We would also purchase a reverse 911 system to call Tribal Members with warnings / evacuations, with instructions.

**Responsible Office:** Tribe's Emergency Management

**Partners:** FEMA, BIA, Clark County Flood Management, Clark County Emergency Management,

**Potential Funding:** Hazard Mitigation Grant Funding, Tribe

**Cost Estimate:** \$50,000 to \$100,000

**Benefits (Losses Avoided):** Any early warning systems will assist the Tribe in its efforts to move community members out of the flood plain in the event of another major flooding event or possible dam failure. It will allow for the Tribe to take preventive measures prior to a large flooding.

**Timeline:** 90 to 180 days.

## A.4.2.7 Back-up Generators

---

**Jurisdiction:** Moapa Band of Paiutes

**Priority:** Medium / High

**Issue/Background:** This project relates to the goals of the Tribal mitigation plan by providing emergency power to critical facilities due to risks from destructive winds, floods and seismic activity that could disrupt electric power.

Electrical power is essential for first responders and medical facilities in the event of an emergency or a disaster particularly in regards to dispatch and communication requirements. When power is lost, dispatch and communications are inhibited leading to interruption in response time to requests for assistance and risk of loss of life or property damage. Floods and Flash Floods are common within the MRIR and frequently cause power outages of hours to days of interruption. Recent Federal disaster declarations for flood damage are an example of an event that can cause power outages.

The permanently installed backup generators will provide uninterruptable power to critical facilities thereby avoiding losses associated with interruption to facility operations due to power failure caused by natural or other type of events.

**Ideas for Implementation:** Selected contractor will provide labor and materials to supply two diesel generators for emergency power to The Tribal Administration Building, the Moapa Tribal Police Department, Vocational Rehabilitation Building, and the Irene Benn Medical Clinic. Work will include transport and installation of generator at each site. All wiring, control panels or regulators needed in order to tie the generator into the existing system will be installed by the contractor in accordance with applicable codes and regulations. The generators will be enclosed units to protect them from the elements. Concrete slabs and trenching for each of the sites will be completed to contractor specifications by The Moapa Band of Paiutes personnel using materials and equipment supplied by the Moapa Band of Paiutes.

The proposed project is to install stand-alone backup diesel powered generators at four critical facilities in Clark County on the Moapa River Indian Reservation. These generators have been sized to allow for uninterrupted, full operation of the facilities during power failure caused by natural or manmade events. The effective operational life of stand-alone generators is calculated at 20 years. The critical facilities to be equipped with the backup generators are:

- Tribal Administration Building
- Moapa Tribal Police Department
- Vocational Rehabilitation Building
- Irene Benn Medial Clinic

Following receipt of bids from eligible contractors and selection by The Moapa Band of Paiutes, the contractor will provide The Moapa Band of Paiutes with plans and specifications for the concrete slabs required for mounting the generators at each of the four sites. The Moapa Band of Paiutes will provide labor, materials, equipment and machinery to pour these four slabs to specification and to trench for cabling. Upon

completion of the four slab foundations, the contractor will deliver, install and connect the generators at each of the four sites according to the bid details. All work conducted will be done by qualified personnel and will be inspected to meet all existing codes and requirements.

**Responsible Office:** Tribe's Emergency Management

**Partners:** FEMA, BIA, Clark County Flood Management, Clark County Emergency Management,

**Potential Funding:** Hazard Mitigation Grant Funding, Tribe

**Cost Estimate:** \$500,000

**Benefits (Losses Avoided):** To address the concern, safety, and well-being of the membership in the event of a utility failure, the Tribe will install back-up generators for the critical facilities to protect the elders, children, and community members in times of inclement weather.

**Timeline:** 90 to 180 days.

#### **A.4.2.8 All Hazards – Public Awareness Projects**

---

**Jurisdiction:** Moapa Band of Paiutes

**Priority:** Medium

**Issue/Background:** The Moapa Band of Paiutes has identified and is impacted by hazards listed in this plan. Circulating information to the public is critical to ensure the community is informed of the potential hazards, updates on projects and plans, and to conduct future outreach initiatives to incorporate input from the community on preparedness, prevention, and mitigation activities to safeguard the community.

**Ideas for Implementation:** Public awareness is an ongoing project. Providing information to the Tribal residents and businesses will allow them to prepare for and respond to threats. Additionally making information available provides residents the information they need to mitigate. Public Awareness materials and information can be obtained from FEMA, the State of Nevada, Clark County, Southern Nevada Water Authority and Clark County Flood Authority and distributed to Tribal residents and businesses. Information can be shared in public meeting forums, posting information on the MBOP website, Facebook page, and by creating an e-mail distribution list to send out information, to keep the community connected and informed.

**Responsible Office:** Emergency Management

**Partners:** FEMA, BIA, State of Nevada, Clark County

**Potential Funding:** BIA, Block grants, HUD, FEMA HMGP, CDBG Grant Funding

**Cost Estimate:** \$20,000

**Benefits (Losses Avoided):** Damage to property and avoided injury or loss of life.

**Timeline:** Ongoing project.

### **A.4.3 Other Mitigation Efforts**

---

The following mitigation programs and projects are currently in place to protect the Moapa Band of Paiutes against natural and manmade hazards:

- Moapa Band of Paiutes Levee / Floodwall Project
- Moapa Band of Paiutes Dam repair and flood diversion projects
- Protection of Culturally important areas from flood damage near the Boy Scout Jamboree area.

### **A.5 Plan Adoption and Assurances**

---

The Moapa Band of Paiutes will adopt this plan in accordance with FEMA requirements for plan adoption requiring formal adoption by the governing body of the Indian Tribal government prior to submittal to FEMA for final review and approval.

Copy of the signed resolution is included in Section I of the Hazard Mitigation Plan.

With the formal adoption of this plan by the tribal governing body, the Moapa Band of Paiutes assures that their tribal government will comply with all applicable Federal statutes and regulations in effect with respect to the periods for which it receives grant funding, in compliance with 44 CFR 13.1(c) and will amend its plan whenever necessary to reflect changes in tribal or Federal laws and statutes as required in 44 CFR 13.11(d).

## **A.6 Plan Maintenance**

---

The hazard mitigation planning does not end with the adoption of this plan. This planning program is a continuous process of profiling hazard events, assessing vulnerabilities as new information arises and conditions change, monitoring changes assets and affected populations, keeping current on evolving mitigation measures, and actively participating in the Clark County Plan updates and protective measures.

The Moapa Band of Paiutes Hazard Mitigation Plan will be maintained in the 5-year cycle to ensure that it will remain an active and relevant document. The plan maintenance process establishes a method and schedule for monitoring the plan, reviewing, evaluating, and updating the plan on a regular basis. As an Annex to the Clark County Plan, the Moapa Band of Paiutes will actively participate in the County's updating process for the plan. Section 8 of the Clark County Hazard Mitigation Plan provides a detail of the maintenance process.

The Tribe will continue to work with Clark County as a Partner on their annual and 5-year cycle review and update as an Annex to the Clark County Plan. This Annex A to the Clark County Plan will be part of the update of the Clark County plan in 2016. The Moapa Band of Paiutes will follow the methods, practices and schedule outlined in the Clark County plan to monitor, evaluate and update this Annex A to the Clark County Plan.

The plan will be monitored and evaluated on an Annual basis by the Tribe's Emergency Manager, and identified members of the planning committee and Tribal Leadership. Findings will be reported to the Tribal Council and the community through the community newsletters, and will be reported at the Moapa Band of Paiutes Annual Meeting in December.

Monitoring the plan will ensure mitigation efforts are being implemented and followed. It will provide a process for project timelines to be reviewed and revised, and will ensure that mitigation projects are properly closed out. This will also provide a channel to identify additional mitigation needs, and the modification of the mitigation goals and objectives as necessary. The Moapa Band of Paiutes will amend its plan whenever necessary to reflect changes in Tribal or Federal laws and statutes as required.

# Appendix A

---

## Hazard Identification Survey

The Tribe's hazard prevention planning team is identifying the hazards that will most likely affect our community, in our geographic area. We would like to get your input on what you feel is a high priority to the Tribe, this questionnaire is designed to help the planning team identify your concerns about the natural and human-caused hazards. Please check the box (either High Priority or Low Priority) that you feel are the top priorities for the Tribe to consider in its Hazard Mitigation (Prevention) Plan:

<u>High Priority</u>	<u>Low Priority</u>	<u>Hazard</u>
<input type="checkbox"/>	<input type="checkbox"/>	Flood and Flash Flooding
<input type="checkbox"/>	<input type="checkbox"/>	Wildfire
<input type="checkbox"/>	<input type="checkbox"/>	Earthquake
<input type="checkbox"/>	<input type="checkbox"/>	Drought
<input type="checkbox"/>	<input type="checkbox"/>	Infestation
<input type="checkbox"/>	<input type="checkbox"/>	Utility Failure
<input type="checkbox"/>	<input type="checkbox"/>	Epidemic/Infectious Disease
<input type="checkbox"/>	<input type="checkbox"/>	Subsidence (Sink Hole)
<input type="checkbox"/>	<input type="checkbox"/>	Other: _____

Please rank how prepared you feel you and your household are for the probable impacts of natural hazard events.

(Rank on a scale of **1 to 5** with 5 being the most prepared and 1 being the least prepared).

**1      2      3      4      5**

What is the most effective way for you to receive information from the Tribe? (Check all that apply)

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Flyers                         | <input type="checkbox"/> Public Meetings | <input type="checkbox"/> Mail                          |
| <input type="checkbox"/> E-mail                         | <input type="checkbox"/> Facebook        | <input type="checkbox"/> Announcements at Tribal Store |
| <input type="checkbox"/> Announcements at Tribal Office | <input type="checkbox"/> Other: _____    |  |

Other Comments:

Please return all survey responses by 2/13/2015 in order to have your feedback incorporated into the Tribes' plan.

## Appendix B

---

### Planning Committee Meeting Minutes

#### **Planning Committee Meetings & Monthly Progress**

*January 6, 2015*

Committee members in attendance:

Christopher Poehlmann (FEMA)

Tom Miller (FEMA)

Karen Johnson (NDEM)

Debbie Tanaka (NDEM)

Irene Navis (CCOEM)

Shane Parashonts (MBOP)

During the kick-off meeting at the Tribe, the Committee discussed the objectives of the DMA 2000, the hazard mitigation planning process, the public outreach process, and the steps involved in updating the HMP and achieving the Tribe's goals. The planning process was discussed including the purpose of the plan and the plan tasks, goals and actions. Members received a copy of the Clark County Hazard Mitigation Plan (HMP) and a draft of the Tribe's annex to Clark County's HMP.

*January 13, 2015*

Committee members in attendance:

Christopher Poehlmann (FEMA)

Tom Miller (FEMA)

Debbie Tanaka (NDEM)

Shane Parashonts (MBOP)

Christopher Poehlmann (FEMA), Tom Miller (FEMA), Debbie Tanaka (NDEM) and Shane Parashonts (MBOP) reviewed the information discussed during the kick-off meeting and progress that was made from the last meeting. Shane Parashonts stated that he and Terry Bohl, the Tribe's Emergency Manager, Business Development Director and Public Works Director identified individuals who may be part of the Committee, such as Susan \_\_\_\_\_ and Sherryl Patterson, the Tribe's Administrative Assistant. Christopher asked Shane to review the population and demographics data Karen Johnson (NDEM) compiled from the United States Census and requested information on historical data for disasters and the need to create a map identifying hazard areas, boundaries and critical facilities. Shane stated that he will look through previous grant applications for the historical data. Christopher informed Shane of the importance of public meetings and recommended the use of their Tribal newsletter as a venue for outreach to Tribal members. Christopher mentioned possible mitigation projects, such as a protective measure for the cemetery, improving waterways rather than rebuilding dams and purchasing a back-up generator for their critical facilities. There was also discussion on creating an additional road in and out of the Reservation but it was not determined if it would be an eligible project. Christopher explained that the Bureau of Indian Affairs is the only Federal entity whose funding may be used as match. A recurring meeting for Tuesdays and Thursdays at 9am was established.

### ***January 15, 2015***

Christopher Poehlmann (FEMA)  
Debbie Tanaka (NDEM)  
Irene Navis (CCOEM)  
Shane Parashonts (MBOP)  
Michael Qualheim (MBOP)

Christopher Poehlmann (FEMA), Tom Miller (FEMA), Debbie Tanaka (NDEM), Irene Navis (CCOEM), Shane Parashonts (MBOP) and Michael Qualheim (MBOP) reviewed the information during the January 13, 2015 meeting. Christopher reiterated the importance of the public meetings, the possible use of the Tribal newsletter as an outreach effort and asked Shane if he was able to review the population and demographics data. Shane was unable to verify the information but mentioned that he will review it. Irene stated that if the Tribe would like to host a meeting off of the Reservation, they could use a nearby school. Christopher discussed the need for historical data for disasters and Irene identified several sources and sent it to Debbie for distribution. Christopher discussed the sections of the annex and mentioned additional items that the Tribe may want to include, such as climate change and unhealthy air due to the coal ash. Christopher explained that he, as a FEMA employee, is unable to write the annex for the Tribe. Instead, he is able to gather the information but the Tribe needs to verify the accuracy of the information. Christopher stated he will be the keeper of the document and will use track changes.

### ***January 20, 2015***

Christopher Poehlmann (FEMA)  
Karen Johnson (NDEM)  
Debbie Tanaka (NDEM)  
Irene Navis (CCOEM)  
Shane Parashonts (MBOP)

Christopher Poehlmann (FEMA), Karen Johnson (NDEM), Debbie Tanaka (NDEM), Irene Navis (CCOEM) and Shane Parashonts (MBOP) reviewed the information discussed during the January 15, 2015 meeting. Christopher urged Shane to develop a schedule for public meetings and utilization of the Tribal newsletter. Irene stated that she can post information for the Tribal meetings on Clark County's website. Christopher discussed the importance of having other members present during these meetings, even if they are able to participate for a portion of the time. Christopher stated the importance in identifying the critical facilities on a map. Irene stated that she found old photos of the Tribe and Reservation and would forward it and the Tribe can determine if they would like to include any of the photos in the annex. Christopher explained the economy section of the annex, mitigation strategy and actions and talked about possible mitigation projects. Christopher went through the fourteen day assessment which covered what we have done and what needs to be completed. The Committee decided to have the template emailed once a week, with track changes.

### ***January 22, 2015***

Christopher Poehlmann (FEMA)  
Tom Miller (FEMA)

Karen Johnson (NDEM)  
Debbie Tanaka (NDEM)  
Shane Parashonts (MBOP)

Christopher Poehlmann (FEMA), Tom Miller (FEMA), Karen Johnson (NDEM), Debbie Tanaka (NDEM) and Shane Parashonts (MBOP) reviewed the information discussed during the January 20, 2015 meeting. The main topic of discussion was the public meetings. Shane mentioned that he will use the template Karen provided and that while he appreciates Irene Navis' (CCOEM) offer to host the meeting in a public facility off of the Reservation, he expressed transportation concerns and will therefore have the meeting on the Reservation. Christopher explained how some Tribes used a questionnaire to engage the community and Shane stated that would be of interest to use. Christopher will email a template to Shane. Tentative timelines were set and the process to distribute, collect and include in the plan were discussed. Christopher, Tom and Karen expressed the need for Tribal members to participate in the planning process. Christopher asked if there is a person that could provide cultural information, Shane stated there is a cultural/historical committee and Christopher offered to also meet with them in the evenings and/or weekends, if that works better for their schedules. Tom explained that some Tribal members may not feel comfortable speaking and explained how writing pads may be used for individuals to express their thoughts. Debbie provided a copy of the meeting minutes for the January 6, 2015, January 13, 2015, January 15, 2015 and the January 20, 2015 meetings. Christopher stated that virtual mini meetings that would last 15-20 minutes, will be set-up to discuss specific topics. Christopher explained that the exchange of information for the plan will continue to be sent to Debbie until he receives his laptop replacement. Debbie stated that she will not be traveling to Las Vegas next week but will participate in the meetings by phone and will return to Las Vegas the first week of February.

***January 27, 2015***

Christopher Poehlmann (FEMA)  
Phillip Wang (FEMA)  
Karen Johnson (NDEM)  
Debbie Tanaka (NDEM)  
Shane Parashonts (MBOP)

Christopher Poehlmann (FEMA), Phillip Wang (FEMA), Karen Johnson (NDEM), Debbie Tanaka (NDEM) and Shane Parashonts (MBOP) reviewed the information discussed during the January 22, 2015 meeting, moved the January 29, 2015 meeting from 9am to 1pm and rescheduled the February 5, 2015 meeting to February 6, 2015.

Shane asked about the Hazard Identification section of the annex and whether or not the Tribe should include subsidence in their survey to the community. Christopher mentioned that it may be best to use layman's terms, such as the use of the term, sink holes. Shane also asked if terrorism and infestation are not hazards that qualify for FEMA funding, if they should include them in their annex. Phillip stated that while they may not qualify for FEMA mitigation funding, they may be eligible under other programs, such as USDA.

Shane stated that the survey that will be distributed to Tribal members for community outreach. Karen mentioned that she will email Shane a sample and Shane stated that this week, staff will ask Tribal members to complete the survey and they will collect them and provide the results at a community meeting.

Christopher explained the difference between Public Assistance and Hazard Mitigation projects and expressed the importance of identifying hazard mitigation projects, that section 404 mitigation funding may be approximately \$800k, that the State is offering it to the Tribe and if the Tribe is not able to use all of the funding, it will be opened to the County and then Statewide. Karen stated that the Tribe should identify projects they would like to do within the next five year and that they can apply directly to FEMA for Pre-Disaster Mitigation funding. Karen mentioned that if the mitigation actions are not identified in the plan, FEMA will not be able to pay for the projects through Pre-Disaster Mitigation funding. Some possible projects discussed were for protection of a water plant, sewage plant and cultural sites such as the cemetery, caves or anywhere the Tribe determines to be cultural or historical. Karen stated that the Tribe does not need to identify the cultural locations on a map.

Christopher asked about the status of the identification of critical facilities and Shane stated that the critical facilities have been identified, such as their administrative building, senior center, clinic, police department and a few others and they will identify them on a map.

Christopher asked about the Tribe's Public Assistance and Hazard Mitigation Administrative Plans and Karen explained that since the State is the grantee, the Tribe does not need to create those documents.

Debbie stated that she will send the meeting minutes to the group either the day of the meetings or the day after and asked if there should be any additions or changes, to let her know. Christopher stated that the meeting minutes will be included in the annex or referenced as an attachment to show the efforts of the Committee.

Christopher stated that he was unable to work on the annex, as he was waiting for a FEMA laptop and equipment but he should be up and running the first week of February.

### ***January 29, 2015***

Christopher Poehlmann (FEMA)  
Tom Miller (FEMA)  
Phillip Wang (FEMA)  
Karen Johnson (NDEM)  
Debbie Tanaka (NDEM)  
Shane Parashonts (MBOP)  
Michael Qualheim (MBOP)

Christopher Poehlmann (FEMA), Tom Miller (FEMA), Phillip Wang (FEMA), Karen Johnson (NDEM), Debbie Tanaka (NDEM), Shane Parashonts (MBOP) and Michael Qualheim (MBOP) reviewed the information discussed during the January 27, 2015 meeting.

Shane thanked Karen for the survey template and stated he spoke with Chairman Daboda about the survey, who provided guidance, to use straight-forward information to avoid confusion. Shane stated that this week, Tribal members will go house-to-house to distribute and collect the surveys. The Tribe will also deliver surveys to members who do not live on the Reservation.

Shane asked about the process for the annex and Christopher and Tom explained that Christopher will submit the annex to FEMA for review, who will then return a Request for Information and complete a crosswalk. Tom explained the crosswalk is to make sure all the pieces are there and will reference page locations of where specific information can be found in the annex. Christopher explained that it will then be adopted by the Tribe and stated that it is important for Tribal leadership to be involved in the process. Shane stated that as the Committee will be working on sections for the Tribal Council to review and comment, it will work well.

Christopher went through different sections of the annex and the Committee discussed environmental aspects including the Moapa dace and the desert tortoise as well as cultural topics including basket weaving. Tom advised to make sure the pictures used are reflective of the Tribe and Shane stated that they have a native craftsman that can help with verifying that the pictures reflect the culture of the Tribe and may have additional pictures he may want to include in the annex.

Christopher stated that the annex will be updated once a week, encouraged the Committee to use Track Changes and provide feedback to him by Wednesday at noon so that he can incorporate the revisions in the update on Thursdays. Every Tuesday, the Committee will discuss the changes and provide clarification, if needed.

Tom suggested that the meeting minutes be included as an addendum rather than include it in the body of the annex. Phillip agreed that the Committee to include the minutes in the appendix. Christopher stated that the sign-in sheets will be also be included as an addendum or appendix.

Christopher stated that FEMA is not writing the annex and it will include what the Tribe decides and expressed that the sooner the annex is completed, the sooner the Tribe may apply for mitigation awards. He also mentioned that there may be a potential mitigation project at the Travel Plaza as it is located in a navigable waterway according to the US Army Corps of Engineers' maps.

Tom explained that the Hazard Mitigation Grant Program (HMGP) can fix what was destroyed in a disaster and other things that were not damaged can be added on. Tom explained that there may be \$800k in HMGP funding, with a 25% cost share. Karen mentioned that the State is requesting a 10% cost share, as the Tribe may qualify as a small and impoverished community.

Christopher stated that his FEMA laptop and equipment is up and running and asked everyone to use his FEMA email address, [Christopher.Poehlmann@fema.dhs.gov](mailto:Christopher.Poehlmann@fema.dhs.gov)

***February 3, 2015***

Christopher Poehlmann (FEMA)  
Tom Miller (FEMA)  
Karen Johnson (NDEM)  
Debbie Tanaka (NDEM)  
Irene Navis (CCOEM)  
Shane Parashonts (MBOP)  
Mike Qualheim (MBOP)  
Linda Donahue (MBOP)

The Committee reviewed the information discussed during the January 29, 2015 meeting.

Christopher asked that everyone provide their track changes by Wednesday, February 4, 2015 by noon and stated that the new version of the annex will be distributed to the group on Thursday, February 5, 2015. Christopher stated that he will send Shane sections of the annex to verify accuracy of the information and that the maps that were used by Public Assistance could be incorporated in the annex. Christopher will meet with Public Assistance staff regarding hazard mitigation projects on Wednesday, February 4, 2015.

Christopher stated that we are about 30 days into the agreement with the Tribe and have only approximately 60 days to finalize the document. Christopher also mentioned that Public Assistance will be leaving by Friday, February 13, 2015. Shane stated that he and Michael are working on the annex as well as Public Assistance, in addition to their regular duties and will be able to dedicate more time to the annex as their responsibilities with Public Assistance wind down.

Shane stated that Deanna Domingo and the Vice Chair of the Tribe, Greg Anderson are part of the Tribe's Cultural Committee and would be a resource to this Committee. Shane will ask about the authenticity of the pictures of the baskets Christopher included in the annex.

Christopher asked what aspects Shane would like to work on next week and Shane stated the easiest would be the data and history of the Tribe. Karen stated the information she included in the annex was from the Tribe's Travel Plaza website and may need to be updated.

Christopher provided a copy of the original annex document Karen created, as well as printed copies of the documents Irene provided, to Michael Qualheim.

Tom discussed the methods to prioritize the hazards and explained that it may differ from Clark County's prioritization. He mentioned that it is important to define prioritization, such as frequency, cost and impact and how it was determined. He will send Chris some samples.

Christopher explained the capability assessment as the Tribe's capability to respond and recover and mentioned that the Tribal police may need extra equipment to respond to an event. Irene stated there are four rural fire stations (71, 72, 73 and 74) in the area and she will send capacity information. Karen stated the positions within the Tribe that will respond to an event should be included and referred to the example provided in the table of the

document. She explained the purpose to keep the Reno Sparks Indian Colony information in the document was to provide examples.

Karen stated the importance of having the maps in the plan and that critical facilities need to be marked on a map, with the cost to replace each critical facility and Tom added that building characteristics, such as it being a wood-frame, reinforced steel, unreinforced masonry, etc. need to be included as well.

Shane asked about the National Flood Insurance Program (NFIP) and Christopher and Karen explained that there are NFIP requirements, such as a local Floodplain Manager, adopt building codes and complete audits. Shane stated he would be interested in learning more about the NFIP after the annex has been completed. Karen stated Robin Palmer is the State Floodplain Manager and he would be able to provide more information.

Shane stated the surveys were distributed to and collected from Tribal members today and will continue on Wednesday, February 4, 2015, mentioned the Tribe's Chairperson, Darren Daboda, and the Emergency Manager, Business Development Director and Public Works Director, Terry Bohl, may participate in the next meeting on Friday, February 6, 2015 at the farm building and that we may be able to prioritize the hazards.

### ***February 6, 2015***

Christopher Poehlmann (FEMA)  
Denis Coliten (FEMA)  
Richard Martin (NDEM)  
Karen Johnson (NDEM)  
Debbie Tanaka (NDEM)  
Irene Navis (CCOEM)  
Shane Parashonts (MBOP)  
Terry Bohl (MBOP)  
Mike Qualheim (MBOP)  
Sherryl Patterson (MBOP)

The Committee reviewed the information discussed during the February 3, 2015 meeting.

There were some technical issues and Christopher offered to use the FEMA conference line for future meetings.

Denis explained FEMA and NDEM will be doing an exit briefing in the Tribe's hall on Friday, February 13<sup>th</sup> at 2pm. Sherryl stated that the Tribal Council would be in attendance. Terry stated that the Tribe received an invoice for sand for the sand bags and use of a truck, which he or Sherryl will send to Amy Campbell of FEMA Region IX. Denis asked Sherryl for information about the archaeologist, such as credentials, hourly wage, etc. to include in the Project Worksheet for Public Assistance. Shane stated that he received the Statement of Loss from the insurance agency and he will send the Schedule of Values to Denis, Christopher and Karen.

Denis and Terry discussed possible mitigation projects such as including rip rap to protect the cemetery and environmental and cultural concerns, the Travel Plaza, sewer lagoon and

Lincoln Street channel. Terry explained that the flood came from North and West of the Tribe. Shane and Terry discussed other hazards such as wildfire and that it was low risk, as a boundary to protect structures was created and earthquake as a high priority, with unreinforced masonry buildings such as the administrative building, senior center and health center as well as every home on the Reservation, as they were built around 1963. Terry stated that the Tribe abides by Clark County's building codes. Irene stated that she will talk to Clark County to include the Tribe into their plan to survey for unreinforced masonry buildings.

Shane stated critical facilities have been identified on a map and he would meet with the Chairperson and/or the Vice Chairperson to identify additional sites. Karen mentioned that a list of insured values for the critical facilities should be included in a table and the solar site and Travel Plaza should be included, even though the Tribe does not own the critical infrastructures because the solar site and the Travel Plaza generates revenue for the Tribe. Terry stated that I-15 should be included because of the reliance on the highway for transportation of Tribal members and employees on and off the Reservation. When the highway is closed, gas cannot be delivered to their Travel Plaza, which would also decrease revenue for the Tribe.

Shane provided a hard copy of the Hazard Identification Survey that was distributed to the Tribal members and will email an electronic copy to Christopher to include in the annex. Karen stated that flood issues should be included in the annex and Christopher stated that Michael Hornick of FEMA Region IX and Rob Palmer, the State Floodplain Manager will be traveling to Clark County during the first week of March and may coordinate a meeting with the Tribe to discuss the National Flood Insurance Program.

Shane confirmed the authenticity of the baskets in the picture that Christopher added to the annex, as belonging to the Tribe and asked that the source is referenced. Christopher stated that he found it in the Collection section of the Clark County Museum and he will include that reference. Irene asked if Clark County would need to change their references listed in their Hazard Mitigation Plan. Karen stated, no, and that the references will be included in the annex.

Christopher stated that the next update to the annex will be Thursday, February 12, 2015 and due to the technical issues with his FEMA laptop, he will transfer the information to Tom Miller, if necessary.

### ***February 10, 2015***

Christopher Poehlmann (FEMA)  
Tom Miller (FEMA)  
Karen Johnson (NDEM)  
Debbie Tanaka (NDEM)  
Shane Parashonts (MBOP)

The Committee reviewed the information discussed during the February 6, 2015 meeting.

Shane stated that approximately twenty (20) surveys were received from the community and they will continue to do more outreach. Christopher asked if the public meetings have

been set because the dates will be needed to include in the annex and Shane stated that the dates have not been set yet. Christopher asked if the Tribe conducted outreach to other Tribes, Shane stated no and Christopher stated that should other Tribes be contacted, it should be included in the annex, whether or not the Tribes respond and any contributions they may provide.

Tom mentioned he sent forms to identify hazards to Christopher, who stated he will forward to Shane. Shane asked if hazardous materials at the power station should be included as it has coal ash. Christopher stated that it will be important to include it because of the transportation as well as mutual aid agreements and emergency response information.

Christopher stated that the funding for hazard mitigation should address the Tribe's vulnerabilities and he and Tom went through each of the sections of the annex and why they are important. Tom stated that the order in which the hazards are prioritized should be the order for the table, discussion and mitigation strategies.

Christopher asked Debbie where the demographic information she provided in the update to the annex was from and she stated it was from the data Karen provided through the US Census Bureau 2009-2013 American Community Survey 5-Year Estimates that had specific information pertaining to the Moapa Band of Paiutes.

Christopher provided an overview of what to expect in the next few days, including a run through with the Federal Coordinating Officer, Mark Landry, and the Public Assistance Crew Chief, Denis Coliten on Wednesday, February 11, 2015 and the Exit Briefing on Friday, February 13, 2015.

### ***February 12, 2015***

Christopher Poehlmann (FEMA)  
Tom Miller (FEMA)  
Debbie Tanaka (NDEM)  
Shane Parashonts (MBOP)

The Committee reviewed the information discussed during the February 10, 2015 meeting.

Christopher explained that the Transitional Briefing may occur on Friday, February 12, 2015 or Tuesday, February 17, 2015.

Shane explained that the Chairman provided information on the cultural sites and history and would like to include Yucca Mountain in the annex, as there has been discussion of transportation nuclear materials to the area. Christopher stated that the jamboree area may have cultural sites and that there may be a potential mitigation project to protect it. Tom cautioned about identifying the cultural sites in the annex.

Christopher asked if the solar farms were on the Tribe's land and Shane stated that currently, solar farms are on the Tribe's land and if a Bill goes through, additional solar farms would be placed on the Reservation and that there would be enough power to support two-thirds of the population in Los Angeles.

Shane stated that there are approximately thirty (30) surveys that have been returned and they are pursuing efforts to get responses from members who reside outside of the Reservation.

Christopher stated that Sherryl Patterson will be added to the Planning Committee table.

Christopher went through the mitigation strategy sample Tom provided and Shane agreed that it would be easier to use a document that has already been developed.

Christopher mentioned that there is a very pure form of limestone on the Reservation and asked Tom if it should be listed as an asset for the Tribe. Tom stated that it could be included as a potential source of income and progress towards it can be included in the update to the plan.

Shane stated he talked with the Chief of Tribal Police, who provided information on response, dispatch, capability and information on the coordination with the Las Vegas Metropolitan Police Department, Nevada Highway Patrol and fire departments.

Christopher stated that Clark County will be holding meetings to update their Hazard Mitigation Plan. Shane stated that Irene Navis will invite him to the meetings that are applicable for the Tribe to make best use of their time.

Christopher stated that the original projection for Public Assistance costs were \$1.2 million but they are now looking at \$8 million and may increase as the sewer lagoons and reparation of dams will need to be added. Tom asked about the dams and Christopher stated that FEMA will be the primary funder and that FEMA's legal advisor stated that FEMA has the legal right to fund the dams, as the US Army Corps of Engineers and the Bureau of Indian Affairs sent letters to FEMA stating that they are not claiming the dams. Tom stated that it may be of interest to summarize about the dams in the annex to capture the circumstances and accomplishments.

Shane asked if it would be possible to move residential homes to a different location because of their risk of floods. Tom stated that Michael Hornick of FEMA Region IX and the State Floodplain Manager would be the people to talk to about the National Flood Insurance Program, however, it could be included as a future development. Christopher mentioned the possibility of a seismic project as the buildings are unreinforced masonry and to site the seismic cracks in the houses.

### ***February 19, 2015***

Christopher Poehlmann (FEMA)  
Tom Miller (FEMA)  
Debbie Tanaka (NDEM)  
Irene Navis (CCOEM)  
Shane Parashonts (MBOP)

Christopher stated that he sent the updated plan to the Committee and will upload it in a file sharing site for Karen and Debbie, as the file was too large and could not go through

the NDEM email system. Christopher mentioned that he made changes with the areas highlighted in green were new additions, yellow sections needed to be updated and red areas were to be deleted because of redundancy. Irene stated that she is working on the hazardous waste/material section.

Christopher asked Tom about the inclusion of the questionnaire and Tom stated it could be included in the appendix, the results may be included in a table and there should be a statement of where the questionnaires are kept.

Shane and Chris mentioned they are working on the police department information and Irene stated that in the Moapa and Moapa Valley area, there are resident officers who are paid through the Las Vegas Metropolitan Police Department, which is co-funded by the City of Las Vegas and Clark County. Irene also discussed Nevada Task Force and Search and Rescue.

Irene asked if the Medical Reserve Corps should be included, as they assist with public health, in relation to epidemics.

Christopher provided a recap of the Public Assistance program and stated that the roads will be redone, there were hazard mitigation projects Terry Bohl identified and the total costs could exceed \$10 million.

The Committee decided the date and time of the next meeting to be on Wednesday, February 25, 2015 at 2pm. Debbie stated that she will be out of the office for the next two weeks and that Karen Johnson will be participating and creating the meeting notes. Christopher stated that he will send the teleconference call-in number and access code to the Committee.

### ***February 25, 2015***

Christopher Poehlmann (FEMA)  
Tom Miller (FEMA)  
Karen Johnson (NDEM)  
Irene Navis (CCOEM)  
Shane Parashonts (MBOP)

Discussion of the Tribe providing information over the next month. Concern about getting the plan completed with the lack of involvement from the Tribe.

### ***February 26, 2015***

Christopher Poehlmann (FEMA)  
Tom Miller (FEMA)  
Karen Johnson (NDEM)  
Irene Navis (CCOEM)  
Shane Parashonts (MBOP)

Discussion of getting plan completed. Tribal Cultural meeting to be held later that day. Michael Hornik will be out on Wednesday to discuss NFIP. Karen stated getting the area mapped, joining the NFIP and purchasing flood insurance are mitigation actions.

Work needs to be done on mitigation actions and discussed with other Tribal members. Chris spoke about finishing the plan and plan for next month additional meetings will be needed. Conference line will need to extended to March. Tuesdays and Thursdays. Chris stated he will be coming out to the Tribe more often.

***March 3, 2015***

Christopher Poehlmann (FEMA)  
Tom Miller (FEMA)  
Karen Johnson (NDEM)  
Shane Parashonts (MBOP)  
Darren Daboda (MBOP)

Discussion with cultural historical person cancelled. Sheryl Patterson a long time employee of the Tribe has been reviewing and providing comment on this section.

Section 1 to be complete this week. Section 2 next week.

Meeting with Terry last week regarding Tribal participation. Tribal meeting tonight to go over issue. Tom requires commitment and contribution from the Tribe (other than Shane) from this point forward. Karen suggested that with the Chairman's support providing sections to Tribal individuals and have them work with Chris to complete.

The Chairman joined the meeting to discuss Tribal committee member participation. Input is critical from different departments. Tom requests that members participate and review strategy and plan maintenance. Chairman will review the sections that need additional input with Chris. Samples have been provided by Chris. Plan is to complete one section per week.

FEMA and State Flood Plain Managers will come to Moapa Thursday at 10am to discuss NFIP and potential projects. Working meeting continues after the call to review plan edits with Chairman and Shane.

***March 3, 2015***

Christopher Poehlmann (FEMA)  
Tom Miller (FEMA)  
Karen Johnson (NDEM)  
Shane Parashonts (MBOP)  
Darren Daboda (MBOP)  
Terry Bohl (MBOP)  
Mike Qualheim (MBOP)  
Sherryl Patterson (MBOP)  
Irene Navis (CC Emergency Management)  
Tim Sutko (CC Public Works)

Terry stated that Section 1 is complete and Darren is working on the Cultural section. Terri will continue to make redline changes on the rest of the document completed to date.

Tim Sutko from CC Public Works joined the meeting to discuss rain and stream gauges on Tribal land. The suggested Hogan and Segmiller wash gauges would be installed, monitored and maintained at no cost to the Tribe and information is public info. so it can be obtained by the Tribe. He stated he would need access 2 times per year for maintenance. He will work with Terry. Tim will send a photo of the gauge which will require a 12" pipe concreted into the ground. Tim's contact info is 702-685-0000 and [tsutko@regionalflood.org](mailto:tsutko@regionalflood.org).

Terry asked if a rep. from Regional Flood could come out and make recommendations on flood channel rip rap project.

Chris reminded the Tribe that the plan would need to be reviewed and approval would need to be on the Council agenda. Section 2 is homework for the next meeting.

### ***March 13, 2015***

Christopher Poehlmann (FEMA)  
Tom Miller (FEMA)  
Debbie Tanaka (NDEM)  
Shane Parashonts (MBOP)  
Irene Navis (CC Emergency Management)  
Tim Sutko (CC Regional Flood Control District)

Christopher, Tom, Shane and Irene discussed the importance of including Yucca mountain in the annex. Irene stated that the Department of Energy has a different process in determining federal recognition of Tribes. Christopher mentioned that in Fukushima, Japan, radiation over the legal limit was detected 150 miles from the shore.

Christopher stated that the FEMA and State Floodplain Managers met with the Tribe and discussed the possibility of relocating residential units out of the floodplain. Irene stated that she will share the county's report of the flood to the Committee early next week and it can be used as a reference or be included in the plan.

Christopher mentioned that Mark Landry, the FEMA Federal Coordinating Officer for this disaster returned to New England but is still available if help is needed and offered his continued support.

Christopher asked if Karen and Debbie were able to access the updated plan through the file sharing site. Debbie stated she was able to access it. Debbie asked Christopher, with only 18 days till the end of the month, if he will be able to extend his stay in Las Vegas. Tom stated that he will check with Region.

Tim mentioned that he has rain gage information and Christopher will include it, pending the Tribe's input.

### ***March 17, 2015***

Christopher Poehlmann (FEMA)  
Tom Miller (FEMA)  
Debbie Tanaka (NDEM)  
Shane Parashonts (MBOP)  
Irene Navis (CC Emergency Management)

Christopher mentioned that the Tuesday call-in information will be good through the month of March and he will check on Thursday's call-in information and will send an email to the Committee.

Christopher stated that he, Terry Bohl and Sherryl Patterson of the Tribe reviewed Sections 1 (Community Profile) and 2 (Hazard Profiles and Vulnerability Assessment) and that Shane asked the Tribal Council to provide comments to those sections by Thursday, March 18<sup>th</sup>. Christopher also stated that Section 3 (Capabilities) will be finished this week and he is working on Section 4 (Mitigation Strategy).

Christopher stated he is working at the Tribe everyday, with meetings with different staff members. Christopher and Tom discussed that if the annex is not completed by March 31<sup>st</sup>, there may be a possibility that there could be an extension for 1-2 weeks. Shane confirmed that the annex should be finished by March 31<sup>st</sup>.

Christopher and Irene shared information on Yucca Mountain, including history, challenges and available reports.

Christopher expressed we may want to include Tim Sutko of the Clark County Regional Flood Control District as a Committee member, as he has participated in the meetings and Irene agreed. Tom asked if the Tribal Council listed as Stakeholders/Contributors have been involved in the process. Shane stated that while they may not have participated during the meetings/teleconference calls, they have provided feedback or information.

Shane asked about the County's sign-off process on the Tribe's annex and Irene mentioned that she will draft a letter stating that Clark County Emergency Management has participated in the development of the annex, they will allow the Tribe's annexation into the Clark County multijurisdictional hazard mitigation plan and Chief Steinbeck will sign the letter after the annex has been completed. Irene mentioned the Clark County multijurisdictional hazard mitigation plan has a due date of 2017, that she will include the Tribe and explained the type of information she will need from the Tribe such as verification that the information is still current and for mitigation actions.

Shane asked Tom if he had a sample draft resolution, which Tom will provide.

***March 24, 2015***

Christopher Poehlmann (FEMA)  
Tom Miller (FEMA)  
Shane Parashonts (MBOP)  
Irene Navis (CC Emergency Management)

The Committee discussed Yucca Mountain and hazardous materials and went through each section of the annex together.

Christopher stated that Shane will upload the latest version of the annex on Dropbox and provide the login information on Thursday, March 26, 2015.

Christopher mentioned that he and Shane will be meeting with Tribal elders to discuss the annex.

***March 26, 2015***

Christopher Poehlmann (FEMA)  
Tom Miller (FEMA)  
Shane Parashonts (MBOP)  
Irene Navis (CC Emergency Management)

Christopher stated that he and Shane will be meeting with the Tribal elders to discuss the annex.

***March 31, 2015***

Christopher Poehlmann (FEMA)  
Shane Parashonts (MBOP)  
Irene Navis (CC Emergency Management)  
Karen Johnson (NDEM)  
Debbie Tanaka (NDEM)

Shane stated that the Tribe approved the annex resolution and Christopher thanked the Committee for their efforts. Christopher mentioned that he will continue to be located in Las Vegas until April 17<sup>th</sup>, at the latest. He is currently waiting for feedback from the Tribe on whether or not they would need him till that day.

Irene stated that she will provide information on climate change for the annex. Irene also mentioned that she can promote the Tribe's annex through the County's website. Shane stated he will provide the final copy in PDF format to her.

Christopher stated that Shane and Tom submitted changes to the annex and that the updated version of the annex will be made available through Dropbox.

Christopher mentioned that there will be an outreach event on the Reservation on Friday, regarding domestic violence and child abuse prevention and that he will attend, provide copies of the annex and answer questions related to the annex.

Karen mentioned that the Committee should start working on the crosswalk. She will email Christopher the crosswalk.

Shane asked if anyone was good at formatting the Table of Contents and the Committee discussed the challenges with conversion of programs and that it may be easier to do hard entering and then checking the page numbers.

**April 2, 2015**

Christopher Poehlmann (FEMA)  
Shane Parashonts (MBOP)  
Irene Navis (CC Emergency Management)  
Karen Johnson (NDEM)  
Debbie Tanaka (NDEM)

Irene mentioned that the Tribe may be interested in applying for a homeland security grant as a funding source for funding for core capabilities. Christopher stated that the Tribe does not have a grant writer and Shane has been filling in. Shane stated they hope to fill that position and Irene stated that she would be able to provide assistance in the application, should they decide to apply.

Christopher stated he and Shane will finish the Crosswalk today and the annex update will be sent to the Committee this afternoon, which will include a mitigation strategy table that is not as complex and easier to read and will incorporate Karen's suggested changes.

Christopher mentioned that the Region requested information on projects for Hazard Mitigation Grant Program projects and he included the possible projects the Tribe has identified, such as emergency generators for critical facilities. Christopher stated that Terry Bohl suggested creating another road in and out of the Reservation but Christopher was not sure if that would be an eligible mitigation project. Christopher will suggest creating defensible space and understands that there may be environmental concerns.

Irene asked Tom if FEMA could send a letter to the County about Clark County Office of Emergency Management's involvement with the development of the Tribe's annex and include unique aspects to educate County Commissioners and politicians are able to get a better understanding of Clark County Office of Emergency Management's role. Tom stated he is already working on this. Christopher stated a similar letter should also be sent to the City of Las Vegas Emergency Management, as they provided a location for the Joint Field Office and allowed use of their facilities and supplies.

Christopher stated the Tribal Council signed the Resolution. Irene asked if the letter stating that Clark County received, approves and agrees to incorporate the Tribe's annex into their plan will be okay. Shane and Christopher stated that will be okay.

Karen stated that Debbie will send the earthquake section to Craig dePolo of Nevada Bureau of Mines and Geology and the dam section to the newly hired Dam Safety person and Karen will send the climate change and severe weather sections to National Weather Service for their review and comment.

Tom mentioned that he is happy with the progress the Committee has made, Karen stated that Nevada is lucky that disasters are not too frequent, which allows staff's dedication and Irene expressed that Clark County Office of Emergency Management is an extension of the State team and will continue to provide support.

Irene stated that she is not able to attend the Tuesday, April 7<sup>th</sup> meeting but she will review the update to the annex.

**April 7, 2015**

Christopher Poehlmann (FEMA)

Tom Miller (FEMA)

Shane Parashonts (MBOP)

Karen Johnson (NDEM)

Debbie Tanaka (NDEM)

Christopher stated that he and Shane are working on the Crosswalk. There are some areas that needed additional information, they will continue to work on it and send it to the group by Thursday. Christopher and Shane stated the annex includes maps that show all critical facilities on the Reservation. Christopher mentioned that back-up emergency generators may be a mitigation project the Tribe may be interested in doing.

Christopher stated he will incorporate the additional information from the National Weather Service and the Nevada Division of Water Resources into the annex today and Shane will include updated images.

Karen stated that Craig dePolo has not provided feedback on the earthquake section yet but the annex can reflect that it was provided to him. Tom also stated that we can include a statement that additional information is forthcoming with the update.

Karen asked about the timeline, with Christopher leaving Las Vegas next week. Christopher stated the Crosswalk will be sent to the Committee by Thursday, Karen and Tom will review and submit changes and the final version of the annex will be sent to FEMA next week.

Christopher stated the final version of the annex will also be provided to Irene to post on the Clark County website.

Christopher asked if Moapa Band of Paiutes is the only Tribe that will be included in Clark County's Hazard Mitigation Plan. Karen stated that Clark County will reach out to the Las Vegas Paiute Tribe to be included in Clark County's update. Karen mentioned to Shane that if he knows anyone at the Las Vegas Paiute Tribe, that he should reach out to them and let them know his experience and share information.