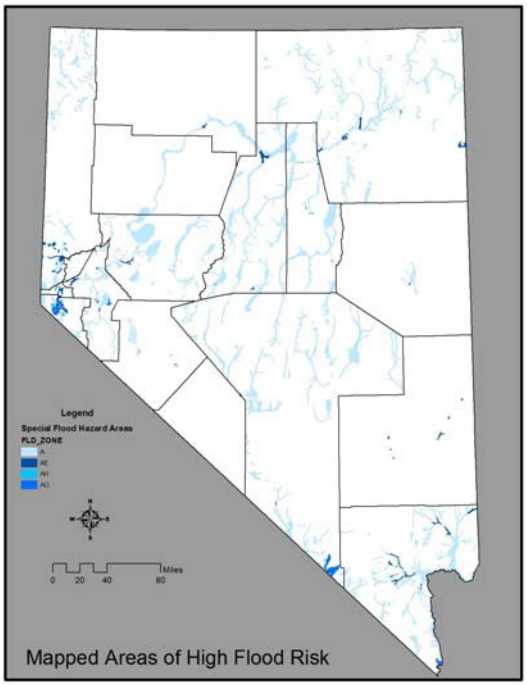
Nevada Flood Risk Portfolio

Flood Hazards and Flood Risk in Nevada's Watersheds



September 2013

A Nevada Division of Water Resources Cooperative Technical Partner (CTP) Project

Introduction:

In March 2009, Congress approved Federal Emergency Management Agency's (FEMA's) Risk MAP (Risk Mapping Assessment and Planning) Multi-Year Plan for implementation during Federal fiscal years 2010 through 2014. Risk MAP is a FEMA initiative which seeks to provide communities with flood information and tools that they can use to enhance mitigation planning and to take action to better protect their citizens.

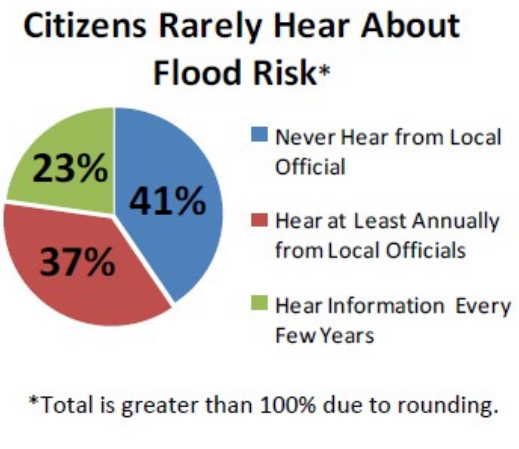
FEMA's Risk MAP vision statement says "Through collaboration with State, Local, and Tribal entities, Risk MAP will deliver quality data that increases public awareness and leads to action that reduces risk to life and property." Nevada Division of Water Resources (NDWR) has recognized the value of Risk MAP's holistic approach and has created a Nevada **Flood Risk Portfolio,** which is a collection of maps and related data tables for 41 of the 71 HUC-8 watersheds and 60 local areas in Nevada that are identified as having significant flood risk. A HUC-8 watershed, or Hydrologic Unit Code, is a system used by the US Geoligical Survey to classify watersheds. The HUC-8 watersheds that were not chosen either do not show significant flood risk to the local population, or have other entities actively working on flood mitigation projects and promoting public awareness. To advance flood risk awareness and understanding, this portfolio brings together data from many different sources to provide an overview of flood risk at the watershed and local scales. The State of Nevada, as a Cooperative Technical Partner (CTP) with FEMA Region IX, conducted this work to provide a foundation for future work to identify flood hazard mapping priorities in Nevada.

In addition to supporting identification of mapping priorities in Nevada, the Nevada Flood Risk Portfolio provides a starting point for many flood risk reduction activities. Many factors must be considered before a mitigation project can be proposed. Much of the data presented in the portfolio is needed to effectively prioritize the limited resources available for flood map updates, flood mitigation project planning and grant applications. The portfolio also provides a basis for identifying interrelationships between interested parties in each watershed and is a catalyst for defining their concerns.

The Nevada Flood Risk Portfolio will provide a first step toward community ownership of flood risk as the maps generate questions and discussion about mapped flood hazards relative to available hydrologic data, flood insurance information, at-risk facilities, and proposed and completed mitigation projects within local communities. The data compiled for the portfolio will also support the Risk Map Discovery process, which is mandatory for all new and updated flood risk projects.

With community and local feedback, continued effort, and greater Geographic Information Systems (GIS) sophistication this project can help communities with their flood risk reduction activities, which could include:

Hazard mitigation plan development, updates & enhancements
FEMA Hazard Mitigation Assistance grant applications
Non-FEMA funded mitigation strategy development Identification of areas to focus further risk analysis Local flood risk awareness outreach
Post-flood disaster analysis
Improved floodplain management, including comprehensive planning, zoning and building codes
Flood response, evacuation and recovery planning



Nevada Flood Risk Portfolio:

The Nevada Flood Risk Portfolio consists of two sets of maps: one series of watershed-sized maps and associated data tables based on the USGS defined fourth-level watershed classification or "HUC-8" watersheds, and a second series of local, detailed maps and associated data tables, at larger scales that are dependent upon the data and area that is depicted. The selection of watersheds that are depicted in the portfolio was based on population and the presence of flood risk, which was taken to be the presence of Special Flood Hazard Areas (SFHAs) mapped on Flood Insurance Rate Maps (FIRMs). The portfolio includes maps of watersheds with estimated populations over 50 persons, and has mapped SFHAs. Of the 71 HUC-8 watersheds defined for Nevada, 41 were selected and they capture the majority of Nevada's communities. Populated areas that were not chosen aready have different agencies actively working on flood mitigation projects and promoting flood awareness. The selection criteria for local, detailed maps included communities for which detailed hydrologic and hydraulic study had been conducted to define Base Flood Elevations (BFEs) or Base Flood Depths (BFDs), and which did not have ongoing flood hazard remapping or major flood control projects or activities.

Watershed sized maps, and associated data pages, provide overviews for over 40 watersheds in Nevada. Geospatial information is depicted in the format of standard Risk MAP products and show Areas of Mitigation Interest (AOMI) layer. [e.g. LIDAR, Dams, Levees, NFIP claim hot spots, flow pinch points, stream gage locations (*realtime*), rain gage locations (*realtime)*, locations of at-risk essential facilities, locations of proposed and successful mitigation projects, Special Flood Hazard Areas (SFHAs), and areas associated with other flood risk studies.] The data tables associated with each watershed map display a brief history of flooding, National Flood Insurance Program (NFIP) policy data, important Flood Insurance Study dates, local hazard mitigation plan dates, community floodplain manager and emergency manager contact information, general statistics on SFHAs, Coordinated Needs Management Strategy (CNMS) validation criteria, and other characteristics of the watershed.

A series of detailed maps were developed for local areas of significant flood risk to accompany the watershed maps. These detailed maps show much of the same geospatial information, but on a much larger scale, so that local, community features can be more easily recognized. CNMS stream centerlines are depicted as an additional, geospatial feature that has associated information on the Flood Insurance Study engineering used to determine the SFHAs. The detailed maps graphically communicate relevant information to promote local familiarity and understanding of flood risk. The data tables which accompany the detailed maps include values for Critical and Secondary Elements extracted from FEMA's CNMS database, which are parameters related to SFHA validation and form the basis for FEMA's determination of New, Validated, or Updated Engineering (NVUE) percentage. Display of NVUE data on the detailed maps provides relevant information to enable the communities to assess the validity of their mapped SFHAs and will also help the State of Nevada and FEMA with populating the CNMS database with the most accurate and current information, based on local-sourced knowledge. This effort will, in turn, help FEMA produce the most accurate and timely FIRMs for the State of Nevada.

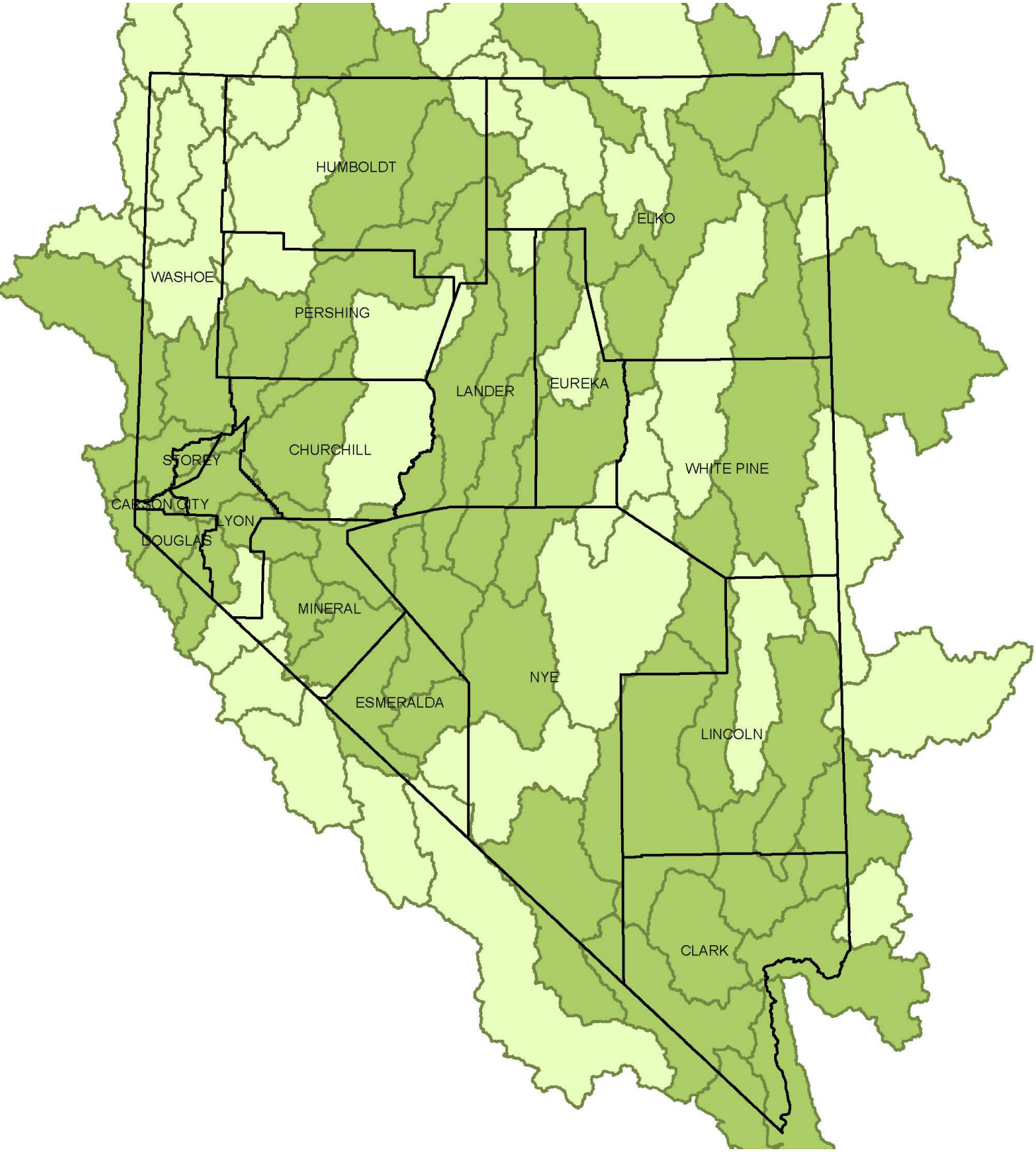


Figure 1: NV watersheds selected for project inclusion (based on population and flood risk)

National Flood Insurance Program:

The U.S. Congress established the National Flood Insurance Program (NFIP) with the passage of the National Flood Insurance Act of 1968. Participation in the NFIP is based on an agreement between a community and the Federal Government. If a community adopts and enforces a floodplain management ordinance to reduce future flood risk, the Federal Government will make flood insurance available to property owners within the community as a financial protection against flood losses. All of Nevada's counties, except for Esmeralda, and all incorporated cities, except for Lovelock, participate in the NFIP.

Flood Insurance Rate Maps:

A Flood Insurance Rate Map, or FIRM, is a map created in support of the National Flood Insurance Program (NFIP) for floodplain management and flood insurance purposes. Also known as flood hazard maps, FIRMs are used by community officials, lenders, insurance agents, and homeowners to identify flood risk, make informed floodplain management decisions, and determine appropriate flood insurance rates. A FIRM will generally show a community's Base Flood Elevations (BFEs), flood zones, and floodplain boundaries. In addition to high-risk Special Flood Hazard Areas (SFHAs), low- and moderate-risk flood hazard zones are represented on these FIRMs.

In 2003, at the beginning of FEMA's five-year Flood Map Modernization (Map Mod) program, an estimated 70 percent of the nation's flood hazard maps were more than 10 years old (ref Department of Homeland Security Report OIG-55—44, September 2005). FEMA updated and digitized flood hazard maps across the country during the Map Mod program to provide more accurate assessments of flood risk and to make the maps more consumer-friendly. In Nevada, these flood hazard map updates began in earnest in 2008 and continues today.

To leverage the successes of Map Mod and to further enhance the utility and value of flood hazard mapping, FEMA developed the Risk Mapping Assessment and Planning (Risk MAP) Strategy. The Risk Map initiative is a 5 year program, running from 2010 through 2014, and its intent is to integrate flood hazard mapping with mitigation planning and actions, while encouraging beneficial partnerships and innovative uses of flood hazard and risk assessment data to ensure the greatest possible reduction in flood losses.

Special Flood Hazard Areas:

High risk flood zones, also known as a Special Flood Hazard Areas (SFHAs), are delineated on Flood Insurance Rate Maps (FIRMs) to represent areas subject to inundation by the base (1-percent-annual-chance) flood. The base flood is often called a "100-year flood." The area of inundation by the base flood is determined using accepted engineering methods and hydrologic and hydraulic analyses that are defined in FEMA's Guidelines and Specifications for Flood Hazard Mapping Partners.

Structures in designated SFHAs and subject to a 1-percent-annual-chance flood have a one-in-four chance of incurring flood damage during the term of a 30-year mortgage. A federal mandatory purchase requirement for flood insurance applies to structures in SFHAs that are used as collateral for a mortgage or loan backed by a federally regulated lender or servicer. Flood insurance rates are lower in areas of low- or moderate-risk, but flooding can still occur in these areas. Therefore, FEMA recommends flood insurance coverage, even if it is not required by law or by a lender.

Because of scale limitations, FIRMs cannot reflect every rise in terrain, and some areas of high ground may be included in high-risk areas. FEMA developed the Letter of Map Amendment (LOMA) process to address this situation. The LOMA process allows property owners to request an official FEMA flood zone determination for their property. There is no fee for FEMA's review of a LOMA request, but the

property owner is responsible for providing site-specific property information, typically by a licensed surveyor. If the submitted information supports the request, FEMA will issue an official document removing the high-risk designation from the property, and the mandatory federal flood insurance requirement will no longer apply. A lender may still require flood insurance as a condition of the loan, but premiums are lower for structures considered to be outside the high-risk area.

State Overview and Challenges

Mapped Areas of High Flood Risk in Nevada

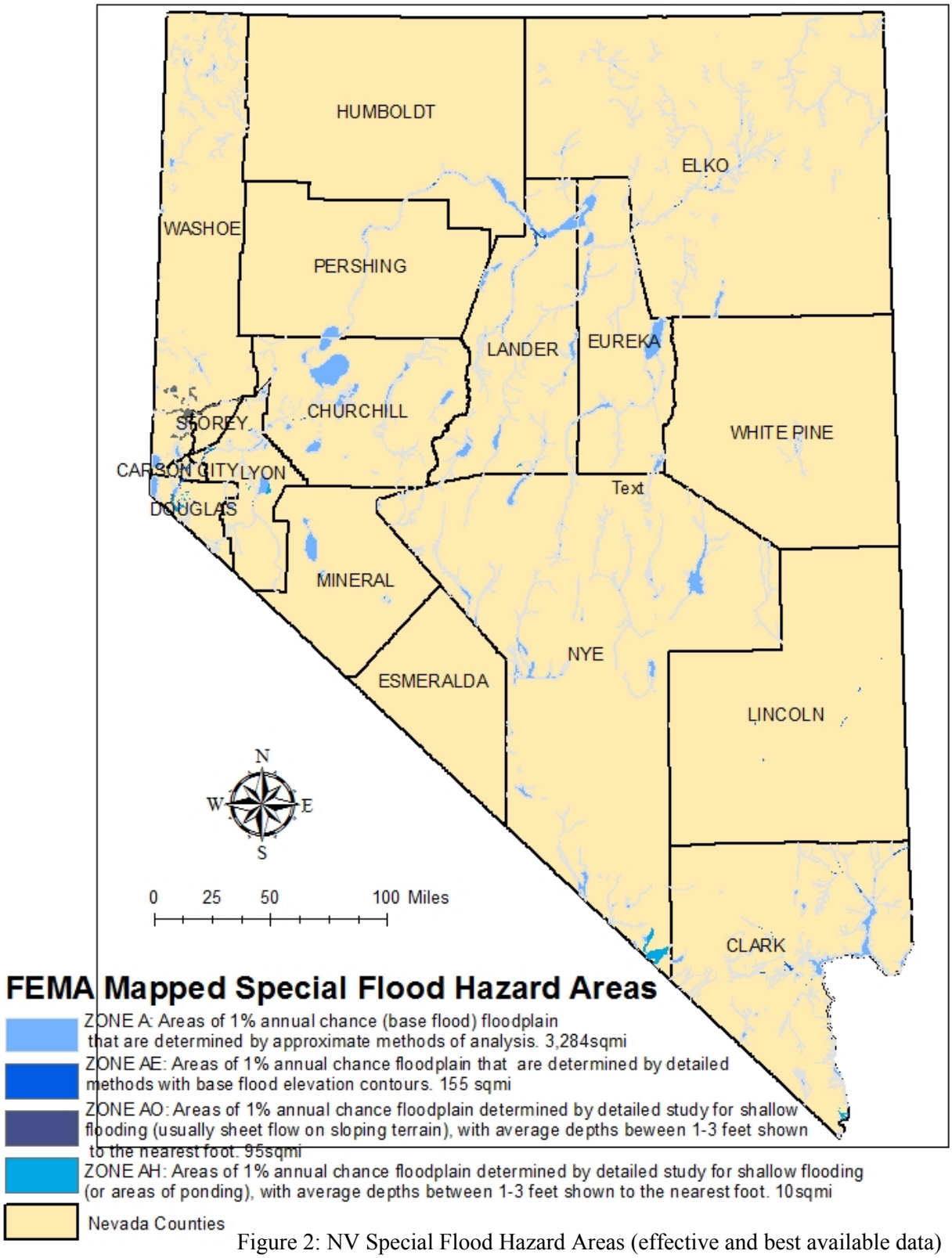


Figure 2: NV Special Flood Hazard Areas (effective and best available data)

Current Flood Hazard Mapping Issues:

In the past, assorted levels of flood hazard mapping analysis were conducted in many areas of Nevada with varying results. As seen in the state wide flood map (Figure 2), some counties with equally low population densities have a greater amount of areas mapped with SFHAs then their neighbors, and flood zones have been mapped that terminate at political boundaries. There are many reasons for this and the Nevada Flood Risk Portfolio documents important input for FEMA to consider in scoping any new mapping projects in Nevada.

Zone A:

As the map in Figure 2 depicts, the largest type of mapped Special Flood Hazard Area in Nevada is Zone A, also known as "Approximate Zone A" or "Unnumbered A Zone". These zones cover nearly 3,300 square miles, or 92.5% of all the mapped SFHA in Nevada. Because detailed analyses are not performed for such areas, no Base Flood Depths or Base Flood Elevations (BFEs) are shown within these zones, but mandatory flood insurance purchase requirements apply. Some of the Approximate Zone A areas in Nevada were developed from Flood Prone Area Maps and consisted of grey-scale USGS quadrangle maps. The floodplain delineations on these original maps may have been based on the flood of record (therefore, not necessarily the 100-year or even an estimated 100-year), recent large floods, high water marks, historic accounts of the last big flood, or some simple flood depth calculations at a very limited number of points along the channel. The delineations would sometimes be based on USGS Quads with 10- and 20- foot contour intervals in rural areas. Approximate A Zones will be addressed during the Coordinated Needs Management Strategy (CNMS) database update; in an attempt to give a more detailed, accurate depiction of the floodplain in these areas.

One of the hardships, with these zones, is that there is no engineering data available to support efforts by building officials and developers in making reasonable determinations of a safe elevation to which new development or substantial improvements should be elevated. Likewise, property owners typically bear the financial burden of providing survey information or to have hydrologic and hydraulic analyses done to determine a Base Flood Elevation, in order to process a Letter of Map Amendment. Consequently, Flood Insurance Premiums are not rated on the elevation difference of the lowest floor and the Base Flood Elevation, like other policies, and thus have standardized (and sometimes higher) rates.

Topography:

Accurate Flood Insurance Rate Maps are critical to the fair and effective implementation of the National Flood Insurance Program (NFIP), enabling enforcement of floodplain management requirements in high hazard areas due to flooding and identifying property owners at highest risk, who are required to purchase flood insurance as a result of the Federal mandatory purchase requirement for flood insurance. Inaccurate flood hazard maps create substantial difficulties by undermining confidence in the NFIP, leaving some property owners unaware of their true flood risk, and imposing unnecessary costs on others whose risk may be overstated.

A primary goal of the Risk MAP program is to improve the accuracy of the flood hazard data by addressing gaps in flood hazard data to form a solid foundation for risk assessment, floodplain management, and actuarial soundness of the NFIP. Incorporation of accurate elevation data is an important element in improving the quality of flood hazard maps. Many of Nevada's Flood Insurance Rate Maps were derived from the best available data at the time of analysis, and in places, may not be very precise. The use of 10-meter Digital Elevation Models (DEMs) or 5-meter IFSAR (Interferometric Synthetic Aperature Radar) data, with a contour interval of plus or minus 15 feet, for creating Flood Insurance Rate Maps which depict 2 foot flood depths, has been questioned numerous times in public meetings.

To address this issue, an inventory of publicly available topographic data sets was made and the Nevada Flood Risk Portfolio is currently the most complete depiction of known areas of available, high precision LiDAR (Light Image Detecting and Ranging) topographic surveys in Nevada, which are involved with the development of an enhanced elevation business plan, managed and guided by the Nevada Geographic Information Society (NGIS), a 501(c)6 professional organization, whose goal is furthering geographic information science in Nevada.

Flood Insurance:

X

Policy Statistics
Nevada
AS OF 12/31/2012

County Name	Community Name	Policies In-force	Insurance In-force whole $	Written Premium In-force
CHURCHILL COUNTY	CHURCHILL COUNTY *	161	40,310,500	94,801
	FALLON, CITY OF	158	28,884,100	134,617
CLARK COUNTY	BOULDER CITY, CITY OF	18	5,362,000	7,411
	CLARK COUNTY *	3,675	743,629,300	1,458,801
	HENDERSON, CITY OF	506	139,557,300	256,946
	LAS VEGAS, CITY OF	764	216,464,100	385,372
	MESQUITE, CITY OF	131	33,096,400	63,174
	NORTH LAS VEGAS, CITY OF	254	72,273,200	115,133
DOUGLAS COUNTY	DOUGLAS COUNTY *	1,115	300,154,300	781,072
ELKO COUNTY	ELKO COUNTY *	27	5,453,200	28,511
	ELKO, CITY OF	77	13,886,700	90,497
	WELLS, CITY OF	1	86,500	491
	WEST WENDOVER, CITY OF	6	4,111,000	12,619
EUREKA COUNTY	EUREKA COUNTY*	11	2,319,900	11,039
HUMBOLDT COUNTY	HUMBOLDT COUNTY*	12	1,411,400	6,641
	WINNEMUCCA, CITY OF	4	630,000	1,106
INDEPENDENT CITY	CARSON CITY, CITY OF	644	160,651,200	522,549
LANDER COUNTY	LANDER COUNTY*	167	22,797,200	172,570
LINCOLN COUNTY	CALIENTE, CITY OF	114	20,740,600	70,618
	LINCOLN COUNTY*	12	1,749,700	6,229
LYON COUNTY	FERNLEY, CITY OF	82	20,502,500	31,854
	LYON COUNTY*	364	80,364,500	227,347
	YERINGTON, CITY OF	109	22,959,900	64,485
MINERAL COUNTY	MINERAL COUNTY *	262	31,675,600	118,097
NYE COUNTY	NYE COUNTY *	3,284	699,617,300	1,362,772
PERSHING COUNTY	PERSHING COUNTY *	1	28,800	304
STOREY COUNTY	STOREY COUNTY*	217	41,572,400	109,120
WASHOE COUNTY	RENO, CITY OF	1,161	308,917,900	832,080
	SPARKS, CITY OF	383	159,697,000	1,059,461
	WASHOE COUNTY*	1,014	258,917,000	756,849
WHITE PINE COUNTY	ELY, CITY OF	114	14,186,100	112,208
	WHITE PINE COUNTY*	23	4,198,400	10,135
Total for Nevada		14,871	3,456,206,000	8,904,909

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* Unincorporated areas of county only

LOSS STATISTICS
AS OF 12/31/2012

COUNTY NAME	COMMUNITY NAME	TOTAL LOSSES	CLOSED LOSSES	OPEN LOSSES	CWOP LOSSES	TOTAL PAYMENTS
CHURCHILL COUNTY	CHURCHILL COUNTY *	3	3	0	0	9,850.78
CLARK COUNTY	BOULDER CITY, CITY OF	6	3	0	3	21,682.92
	CLARK COUNTY *	271	161	5	105	4,176,132.53
	HENDERSON, CITY OF	49	31	2	16	239,054.48
	LAS VEGAS, CITY OF	213	132		80	2,298,891.74
	MESQUITE, CITY OF	3	3	0	0	48,879.25
	NORTH LAS VEGAS, CITY OF	3		0		3.10
DOUGLAS COUNTY	DOUGLAS COUNTY *	148	117	0	31	2,943,995.17
ELKO COUNTY	ELKO COUNTY *	5	2	0	3	5,245.67
	ELKO, CITY OF	7	3	0		19,486.25
EUREKA COUNTY	EUREKA COUNTY*			0	0	587.73
HUMBOLDT COUNTY	WINNEMUCCA, CITY OF	12		0	5	44,385.43
INDEPENDENT CITY	CARSON CITY, CITY OF	85	47	0	38	521,051.17
LANDER COUNTY	LANDER COUNTY*	3	1	0	2	1,058.48
LINCOLN COUNTY	CALIENTE, CITY OF	3	0	0	3	.00
LYON COUNTY	LYON COUNTY*	11		0		167,209.24
	YERINGTON, CITY OF		2	0	0	86,447.11
MINERAL COUNTY	MINERAL COUNTY *		1	0	1	2,662.80
NYE COUNTY	NYE COUNTY *	51	18	0	33	249,343.76
PERSHING COUNTY	PERSHING COUNTY *			0		18,852.65
STOREY COUNTY	STOREY COUNTY*	11		0		40,962.78
WASHOE COUNTY	RENO, CITY OF	216	168	0	48	6,195,144.33
	SPARKS, CITY OF	192	166		19	17,630,006.02
	WASHOE COUNTY*	178	128		49	3,826,193.26
WHITE PINE COUNTY	ELY, CITY OF	6		0	5	389.63
TOTAL FOR NEVADA		1,485	1,012	16	457	38,547,516.28

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Acronyms & Definitions

100-YEAR FLOOD (also called the Base Flood) is the flood having a one percent chance of being equaled or exceeded in magnitude in any given year. Contrary to popular belief, it is not a flood occurring once every 100 years.

BFE- **Base Flood Elevation** is the computed elevation to which floodwater is anticipated to rise during the base flood. Base Flood Elevations (BFEs) are shown on Flood Insurance Rate Maps (FIRMs) and on the flood profiles. The BFE is the regulatory requirement for the elevation or flood proofing of structures under the National Flood Insurance Program. The relationship between the BFE and a structure's elevation is a primary factor which determines the flood insurance premium.

FEMA- **Federal Emergency Management Agency's** "Mission" is to provide leadership and support to reduce the loss of life and property and to protect the nation's institutions from all types of hazards, through a comprehensive, risk-based, all-hazards emergency management program of mitigation, preparedness, response, and recovery.

CNMS- **Coordinated Needs Management Strategy** FEMA's Geospatial flood hazard mapping inventory that organizes, stores, and analyzes flood hazard mapping needs information; and influences map update funding allocation decisions.

CRS- **Community Rating System** A program developed by FEMA to provide incentives for those communities in the Regular Program that have gone beyond the minimum floodplain management requirements to develop extra measure to provide protection from flooding.

FLOODWAY means the channel of a river, or watercourse, and the adjacent land areas that must be reserved in order to discharge the 100-year flood, without cumulatively increasing the water surface elevation more than one foot.

FIRM- **FLOOD INSURANCE RATE MAP** is the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both areas of special flood hazards and the risk premium zones applicable to the community. The map also shows base flood elevations and 500- year floodplain boundaries where a detailed study has been conducted and, may show regulatory floodway boundaries if they have been defined.

FIS-**FLOOD INSURANCE STUDY** is the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Insurance Rate Map, and water surface elevation of the base flood. The basis for a Flood Insurance study is an engineering study performed by FEMA or its contractors to identify special flood hazard areas, flood insurance risk zones, and other flood data in a community.

LOMA-**LETTER OF MAP AMENDMENT** is the administrative procedure in which the Federal Insurance Administrator reviews scientific or technical data submitted by the owner or lessee of property, who believes the property has incorrectly been included in a designated special flood hazard area (SFHA). If approved by FEMA, a LOMA does not amend the currently effective Flood Insurance Rate Map, however, it establishes administratively that a property is not located in a SFHA.

LOMR-**LETTER OF MAP REVISION** is an official revision to the currently effective Flood Insurance Rate Map. If approved by FEMA, a LOMR may officially change flood zones, floodplain and floodway

delineations, flood elevations, and planimetric features. All requests for LOMRs must be made to FEMA through the chief executive officer of the community, since it is the community that must adopt any changes and revisions to the map.

MANDATORY PURCHASE REQUIREMENT means, under the provisions of the Flood Disaster Protection Act of 1973, individuals, businesses, and others buying, building, or improving properties located in identified areas of special flood hazards, within participating communities, are required to purchase flood insurance as a prerequisite for receiving any type of direct or indirect federal financial assistance (e.g., any loan, grant, guaranty, insurance, payment, subsidy, or disaster assistance), when the building or personal property is the subject of, or, security for such assistance.

NFIP- **National Flood Insurance Program** is a Federal program enabling property owners in participating communities to purchase insurance protection against losses from flooding. The NFIP was established by the U.S. Congress on August 1, 1968, and has been broadened and modified by subsequent acts of Congress in 1973, 1994, and 2012.

WATERSHED (also called a **Drainage Basin**). It is that area of land which may contribute flow from runoff to a particular watercourse.

ZONE A *(UNNUMBERED)* are Special Flood Hazard Areas subject to inundation from the 100-Year flood. Because detailed hydraulic analyses have not been performed, no base flood elevations or depths are shown on Flood Insurance Rate Maps. Mandatory flood insurance purchase requirements apply.

ZONE AE and A1-30 are Special Flood Hazard Areas subject to inundation by the 100-Year flood determined in a Flood Insurance Study by detailed methods. Base flood elevations are shown on Flood insurance Rate Maps within these zones. Mandatory flood insurance purchase requirements apply. *(Zone AE is used on new and revised maps in place of Zones A1-30.)*

ZONE AH are Special Flood Hazard Areas subject to inundation by 100-Year shallow flooding ***(usually areas of ponding)*** where average depths are between one and three feet. Base flood elevations derived from detailed hydraulic analyses are shown on Flood Insurance Rate Maps in this zone. Mandatory flood insurance purchase requirements apply.

ZONE AO are Special Flood Hazard Areas subject to inundation by 100-Year shallow flooding ***(usually sheet flow on sloping terrain)*** where average depths are between one and three feet. Average flood depths derived from detailed hydraulic analyses are shown on Flood Insurance Rate Maps within this zone. Mandatory flood insurance purchase requirements apply.

ZONE B, C, and X are areas that have been identified in the community flood insurance study as areas of moderate or minimal hazard from the principal flood source in the area. However, buildings in these zones could be flooded by severe, concentrated, rainfall, coupled with inadequate local drainage systems. Flood Insurance **is available** in participating communities, but **is not required** by regulation in these zones. *(Zone X is used on new and revised maps in place of Zones B and C.)*

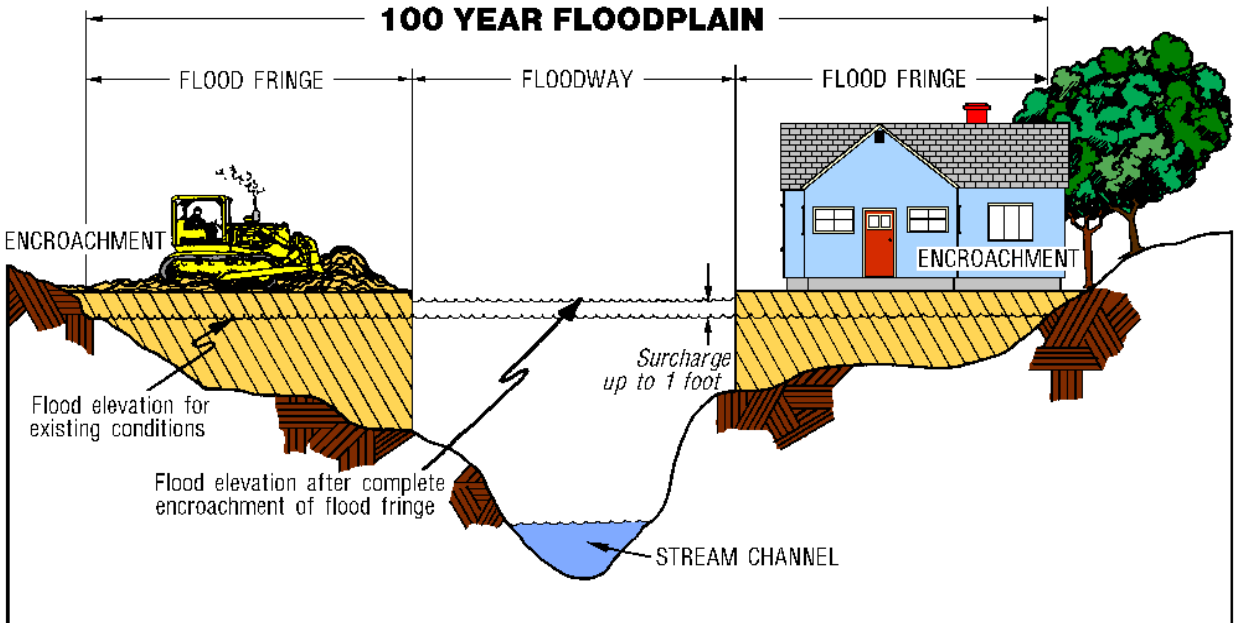

Illustration of a building in a Special Flood Hazard Area with Mapped Floodway

Data sources: **Data obtained and processed from these sources:**

- Nevada's Enhanced Hazard Mitigation Plan
  http://dem.nv.gov/DEM/Mitigation/
- Hazard Mitigation Plans, FEMA Approved, prepared by the following counties: Carson City, Churchill, Clark, Douglas, Elko, Esmeralda, Lincoln, Lyon, Mineral, Nye, Storey, and Washoe.
  http://www.nbmg.unr.edu/nhmpc/approved_local/index.html
- Flood Insurance Studies for the following counties:-
  Carson City, Churchill, Clark, Douglas, Elko, Ely/White Pine, Eureka, Humboldt, Lander, Lincoln, Lyon, Mineral, Nye, Pershing, Storey, and Washoe
  http://www.fema.gov/ (Map Service Center)
- DFRIM database, geospatial Flood Hazard Information by FEMA: http://www.fema.gov/ (Map Service Center)
  http://www.r9map.org/Pages/default.aspx (Preliminary information)
- Coordinated Needs Management Strategy (CNMS),
  Contact FEMA Region 9 Oakland, California
- USGS National Hydrography Dataset:
  http://nhd.usgs.gov/

- National Water Information System web interface: http://waterdata.usgs.gov/nv/nwis/sw

- National Weather Service River Forecast Center website. Access to real time rain gauge data: http://www.cnrfc.noaa.gov/

- NFIP Community Floodplain Managers List: http://water.nv.gov/programs/flood/managers.cfm

- Flood insurance statistic sources (NFIP BureauNET): http://bsa.nfipstat.fema.gov/
  - Communities participating in the National Flood Program
  - Total and average premiums, by NFIP town
  - CRS community data
  - Flood loss claims

- Other geospatial data:

Proposed mitigation projects	Digitized with local knowledge
Areas of mitigation success	Digitized from historic documentation
At Risk Essential Facilities	FEMA HAZUS 2.1 Inventory Data
Census 2010 places	DWR dataset of 2010 census
Dams	DWR Dams database
Levees	National Levee Database
LiDAR Coverage	DWR CTP project to document enhanced topography

Further Reading:

- FEMA Risk MAP (Mapping, Assessment, and Planning) http://www.fema.gov/rm-main

- FEMA Guidelines and Specfications for Flood Hazard Mapping Partners; Appendix I: DISCOVERY June 2, 2011

- National Flood Insurance Program: (cost of flooding simulator) www.floodsmart.gov

- Public Survey Findings on Flood Risk and Local Official Survey Findings on Flood Risk: Nationwide survey in July, 2010

Contact Information:

Nevada Floodplain Management Program

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Nevada Watershed Index In Descending Population

	Watershed (HUC-8)	Communities	Huc Population	Page #
1	Las Vegas Wash	Las Vegas, Henderson, Mount Charleston, N Las Vegas, Calico Basin, & Blue Diamond	1,897,874	1
2	Truckee	Reno, Sparks, New Washoe City, Sun Valley,	358,422	5
3	Upper Carson	Carson City, Minden, Gardnerville, & Genoa,	94,904	9
4	Ivanpah-Pahrump Valleys	Pahrump, Mountain Springs, Goodsprings, Boulder City, Sandy Valley, & Mountain Springs	50,873	13
5	Honey-Eagle Lakes	Golden Valley	43,773	17
6	Upper Humboldt	Wells, Lamoille, Elko, Deeth	27,929	21
7	Carson Desert	Fallon	24,649	25
8	Middle Carson	Silver Springs, Stagecoach, Dayton, Virginia City, Silver City, Mound House	24,476	29
9	Lower Humboldt	Winnemucca & Lovelock	20,321	33
10	Granite Springs Valley	Fernley	18,313	37
11	Lower Virgin	Mesquite, Bunkerville	16,620	41
12	Lake Tahoe	Zephyr Cove, Round Hill, Incline Village, Crystal Bay, Stateline, Glenbrook, Marla Bay	14,279	45
13	South Fork Humboldt	Spring Creek	12,661	49
14	Spring-Steptoe Valleys	Ely, White Pine	9,170	53
15	Havasu-Mohave Lakes	Laughlin	8,504	57
16	Walker	Yerington, Mason	8,423	61
17	Muddy	Logandale, Overton, Moapa Valley, Moapa	7,808	65
18	Reese	Austin, Battle Mountain	4,527	69
19	Meadow Valley Wash	Caliente, Ursine, Pioche	4,496	73
20	Southern Great Salt Lake Desert	West Wendover	4,429	77
21	Lake Mead		3,894	81
22	Gabbs Valley		3,893	85
23	West Walker	Wellington, Smith, Smith Valley	3,865	89
24	Walker Lake	Walker Lake, Hawthorne,	3,785	93
25	Pyramid-Winnemucca Lakes	Wadsworth,	3,324	97
26	Upper Amargosa	Amargosa Valley, Beatty	2,627	101
27	Southern Big Smoky Valley	Tonopah	2,454	105
28	White	Alamo, Hiko	1,832	109
29	Northern Big Smoky Valley	Kingston	1,661	113
30	Little Humboldt	Paradise Valley	1,398	117
31	Diamond-Monitor Valleys	Eureka,	1,353	121
32	Salmon Falls		1,284	125
33	Sand Spring-Tikaboo Valleys		1,221	129
34	Middle Humboldt		1,071	133
35	Upper Owyhee		984	137
36	Upper Quinn		959	141
37	Piute Wash	Searchlight	893	145
38	Fish Lake-Soda Spring Valleys		584	149
39	Ralston-Stone Cabin Valleys		505	153
40	Pilot-Thousand Springs	Montello	193	157
41	Alvord Lake	Denio	49	161

Population Data was taken from the US Census Bureau 2010 census data.

Nevada Community Index in Alphabetical Order

Community	Watershed	Watershed Pop.	PG.
Alamo	White	1,832	109
Amargosa Valley	Upper Amargosa	2,627	101
Austin	Reese	4,527	69
Battle Mountain	Reese	4,527	69
Beatty	Upper Amargosa	2,627	101
Blue Diamond	Las Vegas Wash	1,897,874	1
Boulder City	Ivanpah-Pahrump Valleys	50,873	13
Bunkerville	Lower Virgin	16,620	41
Calico Basin	Las Vegas Wash	1,897,874	1
Caliente	Meadow Valley Wash	4,496	73
Carson City	Upper Carson	94,904	9
Crystal Bay	Lake Tahoe	14,279	45
Dayton	Middle Carson	24,476	29
Deeth	Upper Humboldt	27,929	21
Denio	Alvord Lake	49	161
Elko	Upper Humboldt	27,929	21
Ely	Spring-Steptoe Valleys	9,170	53
Eureka	Diamond-Monitor Valleys	1,353	121
Fallon	Carson Desert	24,649	25
Fernley	Granite Springs Valley	18,313	37
Gardnerville	Upper Carson	94,904	9
Genoa	Upper Carson	94,904	9
Glenbrook	Lake Tahoe	14,279	45
Golden Valley	Honey-Eagle Lakes	43,773	17
Goodsprings	Ivanpah-Pahrump Valleys	50,873	13
Hawthorne	Walker Lake	3,785	93
Henderson	Las Vegas Wash	1,897,874	1
Hiko	White	1,832	109
Incline Village	Lake Tahoe	14,279	45
Kingston	Northern Big Smoky Valley	1,661	113
Lamoille	Upper Humboldt	27,929	21
Las Vegas	Las Vegas Wash	1,897,874	1
Laughlin	Havasu-Mohave Lakes	8,504	57
Lockwood	Truckee	358,422	5
Logandale	Muddy	7,808	65
Lovelock	Lower Humboldt	20,321	33
Mason	Walker	8,423	61
Mesquite	Lower Virgin	16,620	41
Minden	Upper Carson	94,904	9
Moapa Valley	Muddy	7,808	65
Montello	Pilot-Thousand Springs	193	157
Mound House	Middle Carson	24,476	29
Mound House	Middle Carson	24,476	29
Mount Charleston	Las Vegas Wash	1,897,874	1
Mountain Springs	Ivanpah-Pahrump Valleys	50,873	13
Mountain Springs	Ivanpah-Pahrump Valleys	50,873	13
N Las Vegas	Las Vegas Wash	1,897,874	1
New Washoe City	Truckee	358,422	5
Overton	Muddy	7,808	65
Pahrump	Ivanpah-Pahrump Valleys	50,873	13
Paradise Valley	Little Humboldt	1,398	117
Pioche	Meadow Valley Wash	4,496	73
Reno	Truckee	358,422	5
Round Hill	Lake Tahoe	14,279	45
Sandy Valley	Ivanpah-Pahrump Valleys	50,873	13
Searchlight	Piute Wash	893	145
Silver City	Middle Carson	24,476	29
Silver Springs	Middle Carson	24,476	29
Smith	West Walker	3,865	89
Sparks	Truckee	358,422	5
Spring Creek	South Fork Humboldt	12,661	49
Stagecoach	Middle Carson	24,476	29
Stateline	Lake Tahoe	14,279	45
Sun Valley	Truckee	358,422	5
Tonopah	Southern Big Smoky Valley	2,454	105
Ursine	Meadow Valley Wash	4,496	73
Verdi	Truckee	358,422	5
Virginia City	Middle Carson	24,476	29
Wadsworth	Pyramid-Winnemucca Lakes	3,324	97
Walker Lake	Walker Lake	3,785	93
Wellington	West Walker	3,865	89
Wells	Upper Humboldt	27,929	21
West Wendover	Southern Great Salt Lake Desert	4,429	77
Winnemucca	Lower Humboldt	20,321	33
Yerington	Walker	8,423	61
Zephyr Cove	Lake Tahoe	14,279	45
	Fish Lake-Soda Spring Valleys	584	149
	Gabbs Valley	3,893	85
	Lake Mead	3,894	81
	Middle Humboldt	1,071	133
	Ralston-Stone Cabin Valleys	505	153
	Salmon Falls	1,284	125
	Sand Spring-Tikaboo Valleys	1,221	129
	Upper Owyhee	984	137
	Upper Quinn	959	141

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HUC-8 Watershed Name	**Las Vegas Wash**	(Sq Mi.)	1,879
Population	**1,897,874**	(Acres)	1,202,261

History of Flooding		
July, 1975	Las Vegas area	A flash flood caused $4-5M in direct damage
July, 1999	Las Vegas area	Flash flooding. Two people killed.
January, 2005	Las Vegas area	$3.8 M in direct damage to public infrastructure
September, 2012	Las Vegas area	Most rainfall for any September day in history

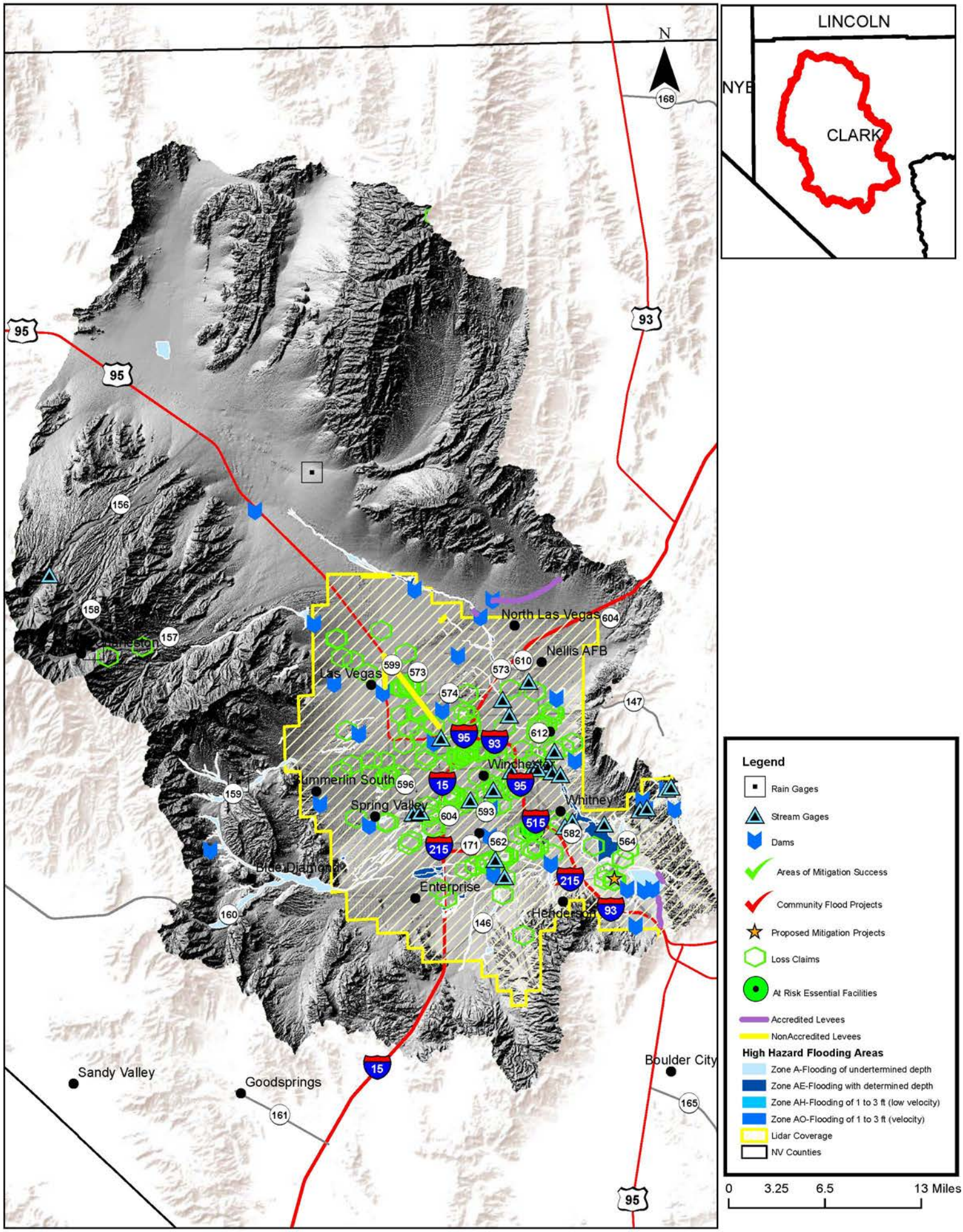
September, 2012 flooding in Las Vegas Photo: theweathernetwork.com

Notes:

This HUC-8 watershed contains the largest population in Nevada and has several washes that traverse the area, including Las Vegas, Flamingo, and Tropicana. Most rain runoff drains to the east side of the basin, eventually flowing into Lake Mead. The Clark County Regional Flood Control District manages the flood control structures and flood reduction projects in this County. This watershed contains the cities of Las Vegas, North Las Vegas, and Henderson. There are numerous resources for more detailed information regarding flooding issues in this watershed.

Community Contacts:	
Las Vegas	
Floodplain Administrator	Randy Fultz, Assistant City Engineer (702) 229-2176, rfultz@lasvegasnevada.gov
Emergency Manager	Carolyn Levering, Emergency Manager (702) 229-6501, clevering@LasVegasNevada.gov
North Las Vegas	
Floodplain Administrator	Jennifer Doody, Manager of Development and Flood Control (702) 633-1223, doodyj@cityofnorthlasvegas.com
Emergency Manager	Dan Lake, Emergency Management Coordinator (702) 633-1125, laked@cityofnorthlasvegas.com
Henderson	
Floodplain Administrator	Al Jankowiak, Engineering Services Manager (702) 267-3024, al.jankowiak@cityofhenderson.org
Emergency Manager	Ryan Turner, Emergency Management Coordinator (702) 267-2212,Ryan.Turner@cityofhenderson.com

Watershed Name: Las Vegas Wash 2



Las Vegas Wash

Watershed **HUC Code** 15010015

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
472	**Las Vegas**	2,765	$1,457,594	414	$5,475,379
Estimated Active Contracts	**North Las Vegas**	236	$114,144	6	$75,844
3,541	**Henderson**	527	$256,955	49	$133,400
Estimated Total Premiums	**Blue Diamond**	12	$11,154	3	$10,157
$1,840,094.00	**Mount Charleston**	1	$247	0	$0

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Clark County	6	20	10
City of Henderson	6	20	10
City of Las Vegas	6	20	10
City of North Las Vegas	6	20	10

Flood Insurance Rate Maps	**Clark**
Countywide Digital Flood Insurance Rate Map	11/16/2011
Initial FIRM Identified	9/29/1989

Recent Activities
Multi-Hazard Mitigation Plan

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
288	47.90	1	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
184,348	30,656	0	0

CNMS Line Stats- (Stream Miles)

A	151.4
AE	61.9
AO	0
AH	0

CNMS Verification- (Stream Miles)

Valid	77.1
Unverified	41.5
Unknown	94.8
Being Studied	0

NOTES:

The Clark County Regional Flood Control District

http://www.ccrfcd.org/

Numerous YouTube videos

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HUC-8 Watershed Name	**Truckee**	(Sq Mi.)	1,217
Population	**358,422**	(Acres)	779,051

History of Flooding		
12/23/1955	20,800 cfs	FEMA disaster DR-48
1/1-3/1997	18,500	FEMA disaster DR-1153
12/31/2005	14,000 cfs	disaster limits not reached

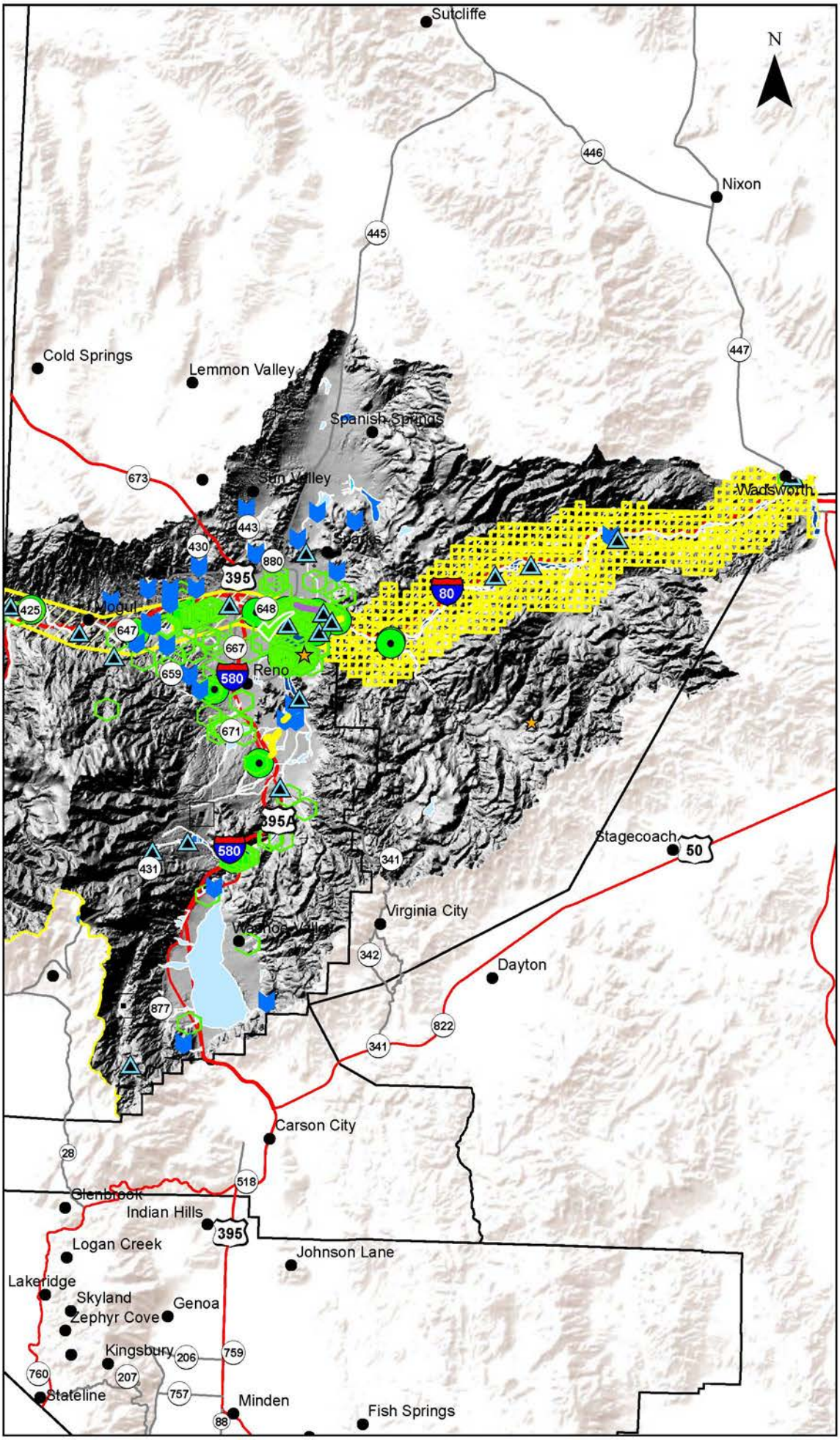
Downtown Reno during the January, 1997 flood. View down the Truckee River showing Sierra and Center Street Bridges Photo: NDWR database

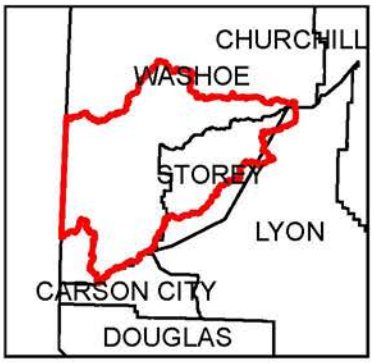
Notes:

A third of this HUC-8 watershed lies in California. The Truckee River is the major flooding source and its tributaries. The twin Cities of Sparks and Reno were developed from the subdivision of agricultural lands along the river to more urban uses. Many projects to limit the amount of damage due to flooding have been completed. Currently, studies are in the works to reduce the risk along the Truckee River even more. The Truckee River Flood Management Authority is the lead entity to reduce flood risk and works with the municipalities to advance flood control capabilities.

Community Contacts:	
Washoe County	
Floodplain Administrator	Kimble O. Corbridge, Engineering/Public Works (775) 328-2041, kcorbrid@washoecounty.us
Emergency Manager	Aaron Kenneston, CEM Emergency Manager (775) 337-5898 akenneston@WashoeCounty.us
Reno	
Floodplain Administrator	Kerri Williams-Lanza, Senior Civil Engineer (775) 334-2683, williams-lanza@ci.reno.nv.us
Emergency Manager	Sandy Munns, Emergency Manager (775) 334-2328, MunnsS@reno.gov
Sparks	
Floodplain Administrator	John Martini, Civil Engineer II (775) 353-4080, jmartini@cityofsparks.us
Emergency Manager	Steve Driscoll, Asst. City Manager (775) 353-1633, sdriscoll@cityofsparks.us

Watershed Name: Truckee





Legend

- Areas of Mitigation Success
- Community Flood Projects
- Proposed Mitigation Projects
- Stream Gages
- Accredited Levees
- NonAccredited Levees
- Rain Gages
- Dams
- Loss Claims
- At Risk Essential Facilities

High Hazard Flooding Areas

- Zone A-Flooding of undertermined depth
- Zone AE-Flooding with determined depth
- Zone AH-Flooding of 1 to 3 ft (low velocity)
- Zone AO-Flooding of 1 to 3 ft (velocity)
- Lidar Coverage
- NV Counties

0 2.75 5.5 11 Miles

Truckee

Watershed **HUC Code** 16050102

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
561	**Reno**	1,629	$1,405,990	338	$9,302,340
Estimated Active Contracts	**Sparks**	659	$1,199,262	213	$18,223,907
2,360	**Sun Valley**	52	$33,516	0	$0
Estimated Total Premiums	**Verdi**	20	$27,010	10	$81,834
$2,665,778.00	**New Washoe City**	16	$10,402	1	$0

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System			
Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Washoe County	7	15	5
Storey County	8	10	5

Flood Insurance Rate Maps	Washoe	Storey	
Countywide Digital Flood Insurance Rate Map	3/16/2009	1/16/2009	
Initial FIRM Identified	8/1/1984	2/19/1987	

Recent Activities	Washoe	Storey	
Multi-Hazard Mitigation Plan	10/1/2005	1/1/2010	

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)

A	AE	AO	AH
18.9	10.9	0.2	2.1

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
12,109	7,001	135	1,368

CNMS Line Stats- (Stream mi)

A	109.5
AE	77.7
AO	8.1
AH	1.03

CNMS Verification- (Stream mi)

Valid	150.2
Unverified	43
Unknown	3.3
Being Studied	0

NOTES:

1961 USACE straightening, widening, steepening gradient from downtown Reno to Vista.

www.truckeeflood.us Truckee River Flood Management Authority

Truckee River Chronology, USACE

YouTube: many flooding videos, Even archived 1927 River flooding

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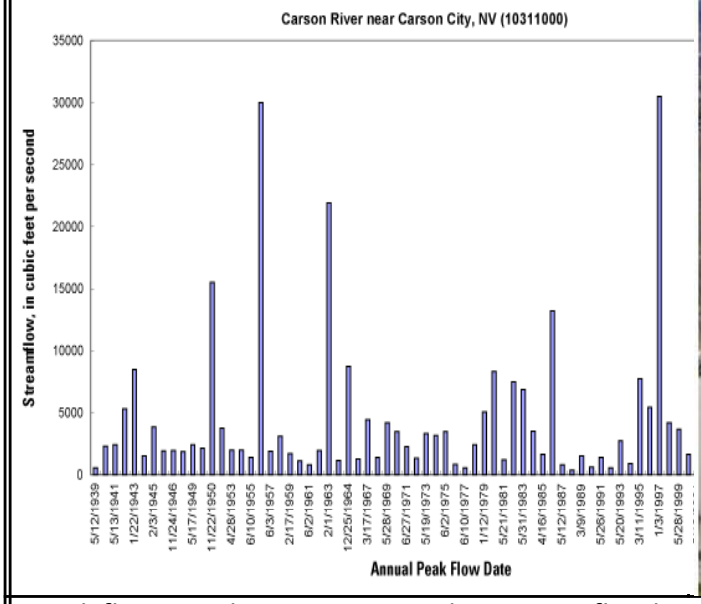
HUC-8 Watershed Name	**Upper Carson**	(Sq Mi.)	959
Population	**94,904**	(Acres)	613,469

History of Flooding

March, 1995	Carson Valley	Flash floods. Street flooding in Carson City
January, 1997	Carson Valley	Heavy rainfall and rapid snowmelt caused flash floods on the mtn streams. $ millions in damages. DR-1153
Dec, 2005	Carson Valley	Heavy rainfall caused widespread flooding



Peak flows on the Carson River during past flood events

Flooded Carson River view to the south with Carson City on the right

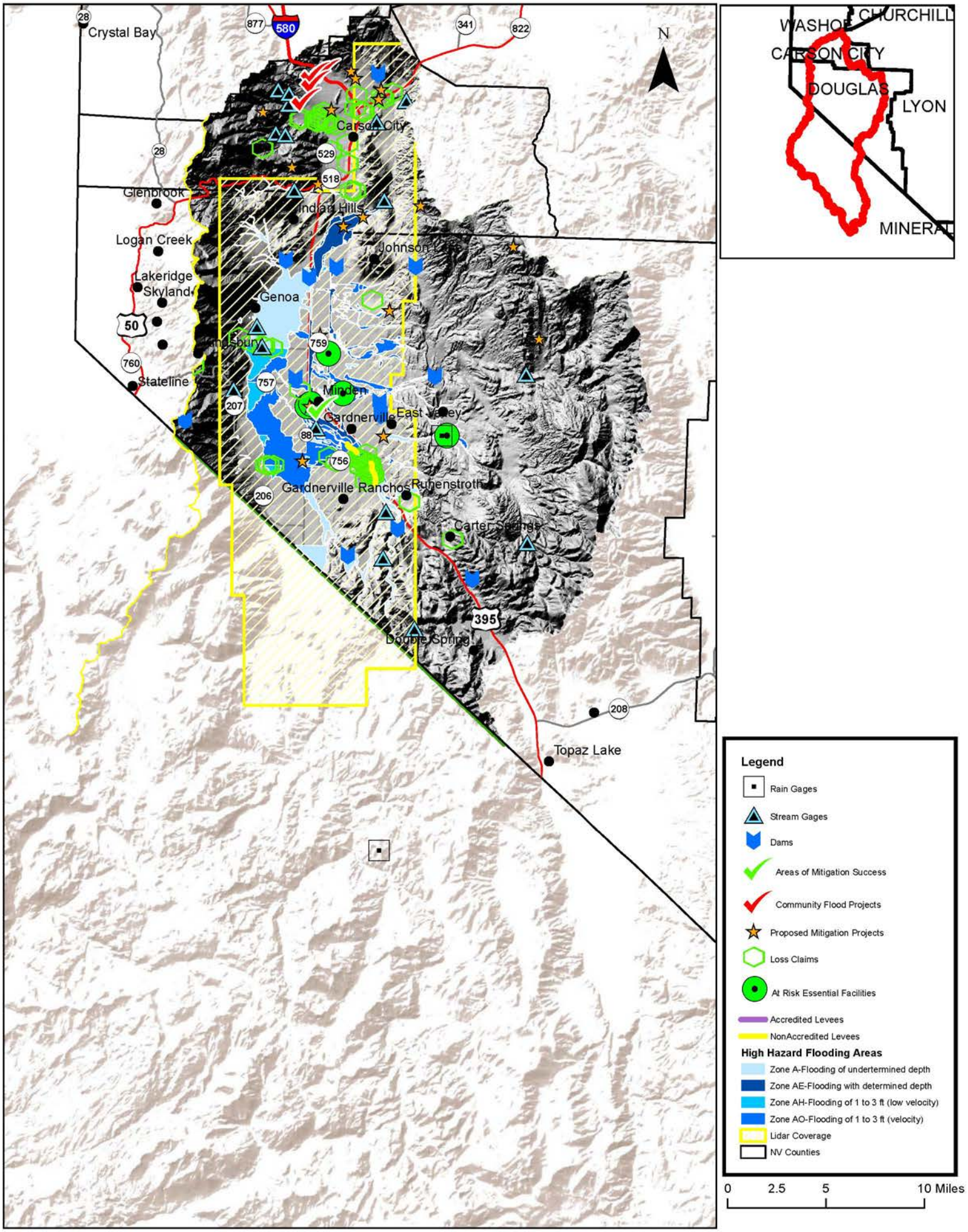
Notes:

Much of the water, in this watershed, originates in the Sierra Nevada Mountains and is within Alpine County, California. The Carson River is the major watercourse and its tributaries include the major creeks of: Kings Canyon, Clear, Pine Nut, Buckeye, and Ash Canyon. There are no flood control dams along the river in this basin. Upstream of Carson City, the USGS recorded a peak stream flow of 12,000 CFS during the 2005 flood. There are numerous resources for more information on this watershed.

Community Contacts:

Carson City	
Floodplain Administrator	Robert D. Fellows, Floodplain, CRS and NDPES Manager (775) 283-7370, rfellows@ci.carson-city.nv.us
Emergency Manager	Stacey Giomi, Fire Chief (775)283-7150, sgiomi@carson.org
Douglas	
Floodplain Administrator	Mimi Moss, Community Development Director (775) 782-6201, mmoss@co.douglas.nv.us
Emergency Manager	Tod Carlini, Fire Chief/ Emergency Manager (775) 782-9048, tcarlini@eastforkfire.org

Watershed Name: Upper Carson 10



Upper Carson

Watershed **HUC Code** 16050201

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
231	**Carson City**	673	$536,493	89	$514,651
Estimated Active Contracts	**Genoa**	51	$55,449	29	$768,762
1,664	**Minden**	426	$247,409	11	$77,603
Estimated Total Premiums	**Gardnerville**	514	$396,094	102	$2,158,813
$1,235,445.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Carson City	6	20	10
Douglas County	6	20	10

Flood Insurance Rate Maps	Carson City	Douglas	
Countywide Digital Flood Insurance Rate Map	1/16/2009	1/20/2010	
Initial FIRM Identified	3/4/1986	3/28/1980	

Recent Activities	Carson City	Douglas	
Multi-Hazard Mitigation Plan	12/1/2004	2/1/2006	

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
15.9	7.8	18.1	3.7

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
10,163	4,991	11,552	2,352

CNMS Line Stats- (Stream Miles)

A	79.0
AE	70.1
AO	7.9
AH	8.9

NMS Verification- (Stream Miles)

Valid	97.5
Unverified	7.8
Unknown	60.6
Being Studied	0

NOTES:

The Carson Water Subconservancy District is an organization that facilitates and coordinates management and improvements on the Carson River. (www.CWSD.org)

Carson Water Subconservancy District Discovery Report PDF posted online

Carson River Watershed Regional Floodplain Management Plan is posted as a PDF online

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HUC-8 Watershed Name	**Ivanpah-Pahrump Valleys**	(Sq Mi.)	2,863
Population	**50,873**	(Acres)	1,832,382

History of Flooding		
September, 1997	Pahrump	Series of thunderstorms produces flash flooding
June & September, 2003	Pahrump	Flash flooding with depths 3-4'
August, 2012	Boulder City	Many streets closed for flooding

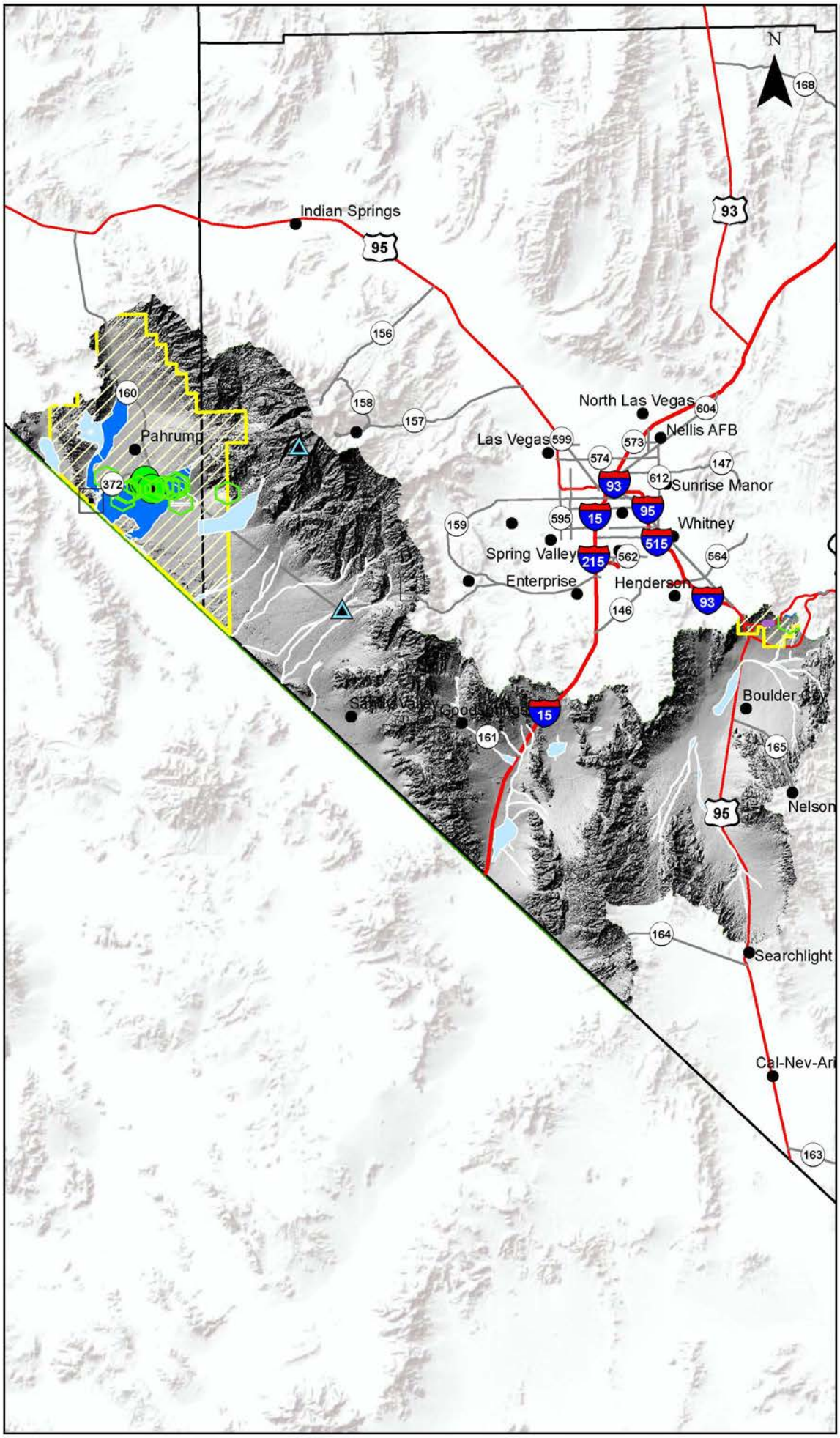
2005 flash flooding in Pahrump
Photo: Pahrump Valley Times

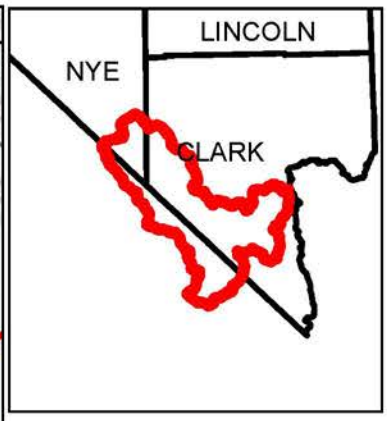
Notes:

The primary flooding sources are Wheeler Wash, Pahrump Valley Wash, and various other unnamed washes. This watershed includes the large towns of Pahrump and Boulder City. Interstate highway 15 bisects the Huc north-south and hwy 160 east-west. Flooding in Pahrump is aggravated by numerous alluvial fans and lack of defined stream channels to the east and west. Plans have been drafted for flood control measures, but are awaiting funding for implementation. The Hemenway dam is high hazard and is just above Boulder City

Community Contacts:	
Clark	
Floodplain Administrator	Denis Cedarburg, Public Works Director (702) 455-6020, dlc@co.clark.nv.us
Emergency Manager	Fernandez J. Leary, Fire Chief-Clark County Fire Department (702) 455-7311, F7118L@clarkcountynv.gov
Nye	
Floodplain Administrator	Cheryl Beeman, Floodplain Manager/Administrator (702) 580-0342, cheryl.beeman@co.nye.nv.us
Emergency Manager	Vance Payne, Emergency Manager (775) 751-4278, vpayne@co.nye.nv.us

Watershed Name: Ivanpah-Pahrump Valleys 14





Legend

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- Accredited Levees
- NonAccredited Levees
- Rain Gages
- Dams
- Loss Claims
- At Risk Essential Facilities

High Hazard Flooding Areas

- Zone A-Flooding of undertermined depth
- Zone AE-Flooding with determined depth
- Zone AH-Flooding of 1 to 3 ft (low velocity)
- Zone AO-Flooding of 1 to 3 ft (velocity)
- Lidar Coverage
- NV Counties

0 5 10 20 Miles

Ivanpah-Pahrump Valleys

Watershed **HUC Code** 16060015

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
53	**Pahrump**	3,280	$1,332,852	51	$249,343
Estimated Active Contracts	**Boulder City**	16	$6,862	2	$3,101
3,303	**Goodsprings**	3	$1,420	0	$0
Estimated Total Premiums	**Sandy Valley**	3	$752	0	$0
$1,342,133.00	**Mountain Springs**	1	$247	0	$0

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Clark County	6	20	10

Flood Insurance Rate Maps	Clark	Nye	
Countywide Digital Flood Insurance Rate Map	11/16/2011	2/17/2010	
Initial FIRM Identified	9/29/1989	4/12/1983	
Regional Flood Control Plan		Developed	
Recent Activities	**Clark**	**Nye**	
Multi-Hazard Mitigation Plan		9/25/2007	

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
59.0	0.07	49.4	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
37,767	44	31,633	0

CNMS Line Stats- (Stream Miles)

A	287.6
AE	2.5
AO	0.07
AH	0

CNMS Verification- (Stream Miles)

Valid	230.4
Unverified	17
Unknown	42.8
Being Studied	0

NOTES:

Pahrump Valley FEMA mapping update website

http://www.r9map.org/Pages/countyPage.aspx?choLoco=84&choProj=

Pahrump Regional Planning District Master Plan; Chapter 15, Flood Control and Drainage

updated 8/27/2010 Nyecounty.net

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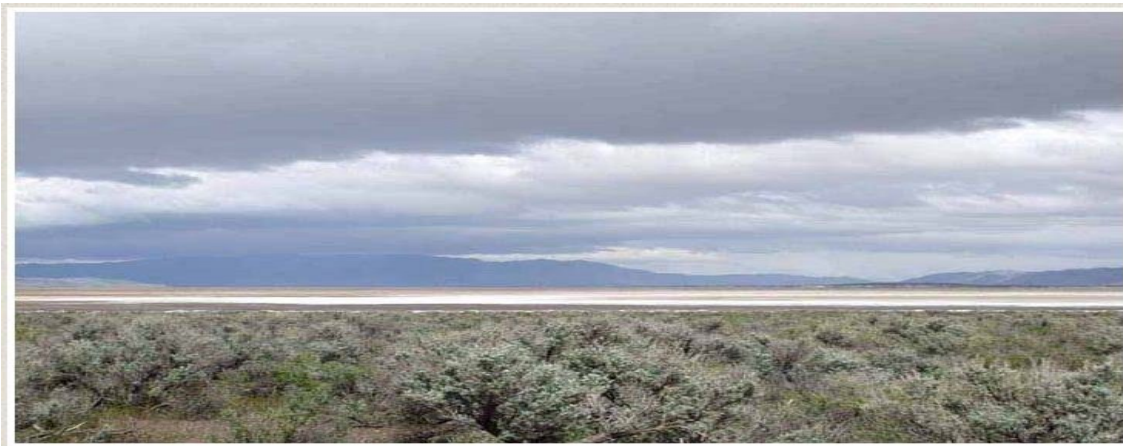
HUC-8 Watershed Name	**Honey-Eagle Lakes**	(Sq Mi.)	2,803
Population	**43,773**	(Acres)	1,794,194

History of Flooding

		There has been no recent, significant flooding



Honey Lake Valley Photo: fineartamerica .com

Notes:

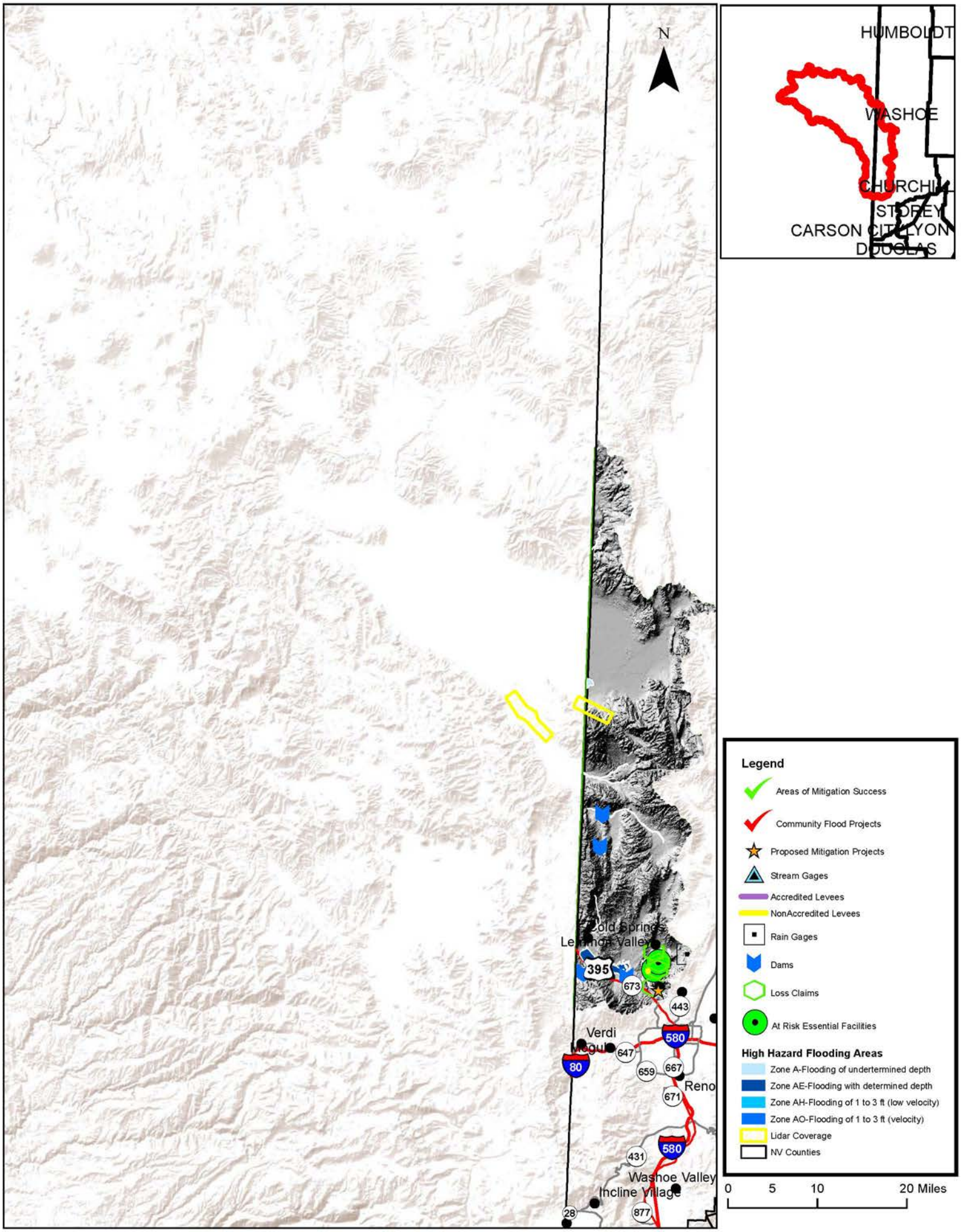
This watershed lies mainly in California, but the greater Reno suburbs of Cold Springs, Stead, Lemmon Valley and Golden Valley are in this basin. There are mapped high hazard flood areas, but most are near the intermittent lakes of the valley, White's Lake, Silver Lake, & Swan Lake. One exception is the drainage from Golden Valley through Lemmon Valley; recent efforts have been taken to mitigate the flood risk in this residential area. A flood mitigation grant application was selected by FEMA for further review and is in the Environmental Review phase.

Community Contacts:

Washoe County

Floodplain Administrator	Kimble O. Corbridge, Engineering/Public Works (775) 328-2041, kcorbrid@washoecounty.us
Emergency Manager	Aaron Kenneston, CEM Emergency Manager (775) 337-5898 akenneston@WashoeCounty.us

Watershed Name: Honey-Eagle Lakes 18



Honey-Eagle Lakes

Watershed **HUC Code** 18080003

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0	**Golden Valley**	1	378	-	-
Estimated Active Contracts					
1					
Estimated Total Premiums					
$378.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Washoe County	7	15	5

Flood Insurance Rate Maps	Washoe
Countywide Digital Flood Insurance Rate Map	3/16/2009
Initial FIRM Identified	8/1/1984

Recent Activities	Washoe
Multi-Hazard Mitigation Plan	10/1/2005

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
3.6	7.4	0.008	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
2,287	4,727	5	0

CNMS Line Stats- (Stream Miles)

A	33.6
AE	32.3
AO	0
AH	0

CNMS Verification- (Stream Miles)

Valid	45.6
Unverified	20.3
Unknown	0
Being Studied	0

NOTES:

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HUC-8 Watershed Name	**Upper Humboldt**	(Sq Mi.)	2,754
Population	**27,929**	(Acres)	1,762,571

History of Flooding		
Feb/March	1910	Waist deep flooding, ice jams, train bridges destroyed and in Palisades a portion of town was washed away
April	1942	North Fork Humboldt and Mary's Rivers
	1983 and 2006	Large amount of snowmelt

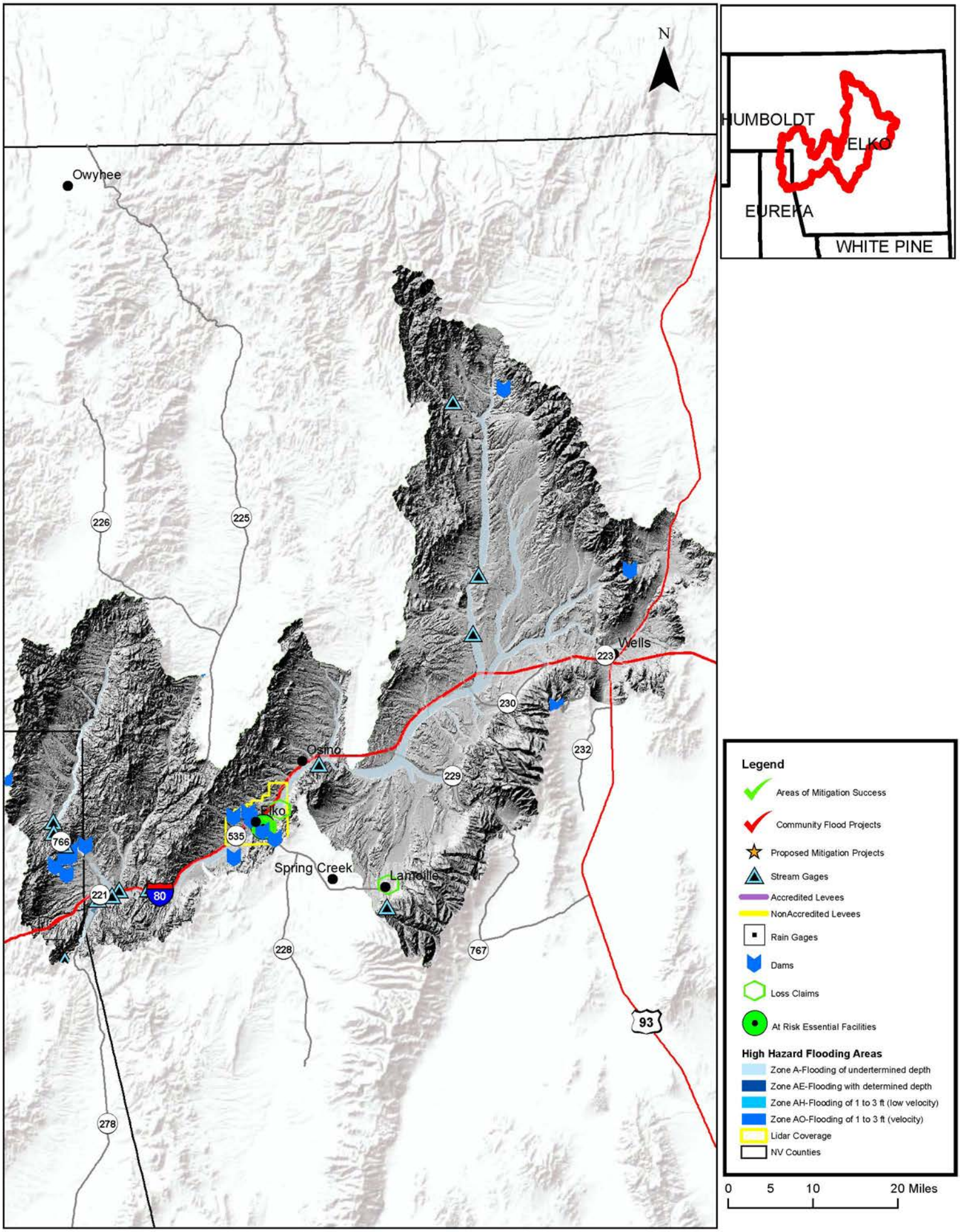
A view of the Humboldt River above flood stage June 1, 2005 near the Palisade Stream Gage, in Eureka County.
Photo: weather.gov

Notes:

The Humboldt River and its tributaries are the major sources of flooding in Elko County. Major tributaries include Maggie, Tabor, Bishop, and Susie Creeks and Marys River. Aside from flooding problems caused by the Humboldt River and its major tributaries, the cities of Wells, Elko and Carlin, within the watershed, have storm water flooding hazards primarily resulting from heavy summertime thunderstorms.

Community Contacts:	
Elko	
Floodplain Administrator	Jeremy Draper, City Engineer (775) 777-7214, jdraper@ci.elko.nv.us
Emergency Manager	Will Lehmann, Police Department (775) 777-7310, wlehmann@ci.elko.nv.us
Elko County	
Floodplain Administrator	Randy Brown, Planning and Zoning Director (775) 738-6816 ext. 3, rbrown@elkocountynv.net
Emergency Manager	Clair Morris, Emergency Manager Undersheriff (775) 777-2505, cmorris@elkocountynv.net

Watershed Name: Upper Humboldt 22



Upper Humboldt

Watershed **HUC Code** 16040101

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
12	**Wells**	1	$491	1	$0
Estimated Active Contracts	**Elko**	91	$101,501	9	$19,946
101	**Lamoille**	8	$8,616	2	$1,398
Estimated Total Premiums	**Deeth**	1	$1,717	0	$0
$112,325.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Elko	Eureka	
Countywide Digital Flood Insurance Rate Map	11/16/1995	5/16/2012	
Initial FIRM Identified	2/1/1984	4/1/1988	
Recent Activities	**Elko**	**Eureka**	
Multi-Hazard Mitigation Plan	10/1/2008	in progress	

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)

A	AE	AO	AH
125.5	4.6	0.1	0.1

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
79,700.0	2,929.0	30.0	37.0

CNMS Line Stats- (Stream mi)

A	563.5
AE	28.80
AO	0.11
AH	0.3

CNMS Verification- (Stream mi)

Valid	336.9
Unverified	2
Unknown	254.3
Being Studied	0

NOTES:

There are numerous water resource studies and flood information accounts. A good resource is The Humboldt River Basin Assessment, it is a multi-year program designed to evaluate the long-term effects of water uses in the basin on the timing and quantity of flow in the Humboldt River.

http://nevada.usgs.gov/humb/index.htm

Carlin	Floodplain Administrator	Glen Trust, City Manager
		(775) 754-6354, citymanager@explorecarlinnv.com
Wells	Floodplain Administrator	Jolene M. Supp, City Manager
		(775) 752-3355, wellscitymanager@frontier.com

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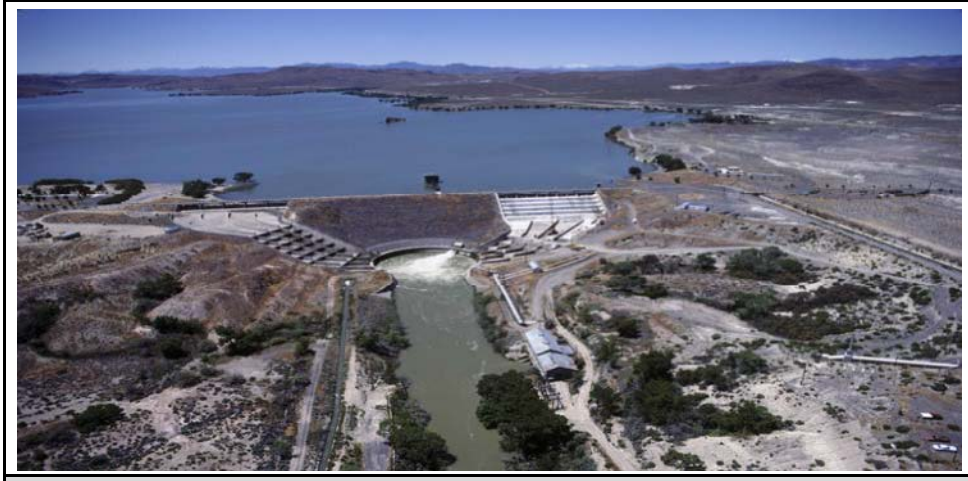
HUC-8 Watershed Name	**Carson Desert**	(Sq Mi.)	2,175
Population	**24,649**	(Acres)	1,391,956

History of Flooding

June, 1983	Fallon	Late spring runoff and floodwater releases from Lahontan reservoir caused flooding in town.
June, 1996	Fallon	Heavy rainfall caused flooding. 0.5" of rain fell in less than 30 minutes.



Lahontan Dam and Reservoir. The Truckee Canal flows into the reservoir at center, right. Photo: usbr.gov

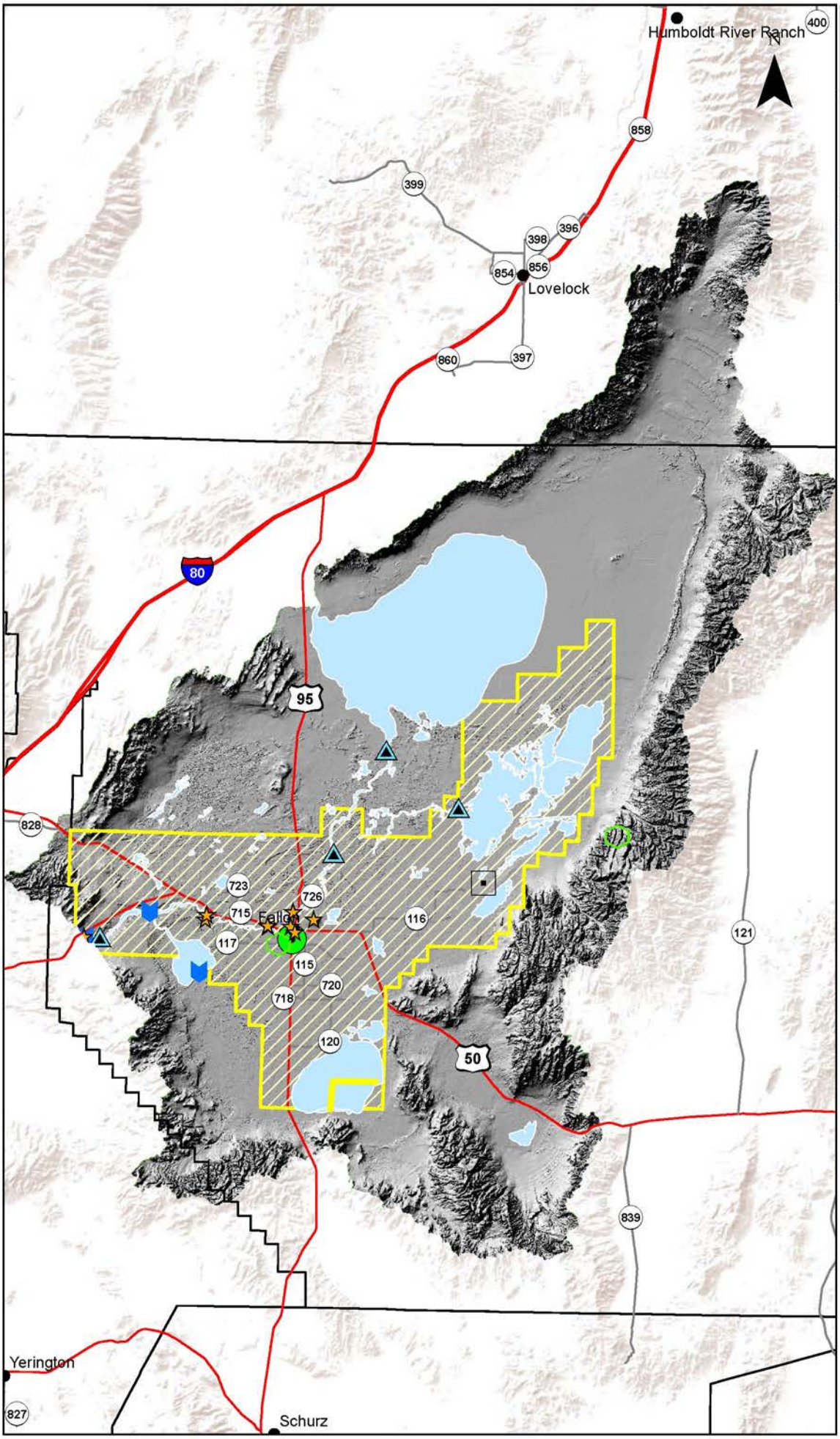
Notes:

The Carson River is the major flood source for this HUC-8 watershed, terminating in the Carson Sink downstream of Fallon. There are mapped high hazard flooding zones along much of the river. Fallon is the major population center and this area has the only FEMA-detailed studied Flood Zones. The upstream watershed boundary is at Lahontan Dam. Additions to the dam have increased some flood storage capacity, but are mainly used for irrigation storage. The Bureau of Reclamation and USACE is studying the V, L and S Canals in the Newlands Project and is underway in a Breach Inundation Analysis.

Community Contacts:

Churchill County	
Floodplain Administrator	Eleanor Lockwood, Planning Director (775) 423-7627, Planning-director@churchillcounty.org
Emergency Manager	Ron Juliff, Emergency Manager (702) 423-4188, ccem@phonewave.net
City of Fallon	
Floodplain Administrator	Jim Souba, City Engineer (775) 423-5107, jsouba@ci.fallon.nv.us
Emergency Manager	Steven Endacott, Emergency Management (775) 423-1345,sendacott@sci-nevada.com

Watershed Name: Carson Desert 26



Legend

- Areas of Mitigation Success
- Community Flood Projects
- Proposed Mitigation Projects
- Stream Gages
- Accredited Levees
- NonAccredited Levees
- Rain Gages
- Dams
- Loss Claims
- At Risk Essential Facilities

High Hazard Flooding Areas

- Zone A-Flooding of undertermined depth
- Zone AE-Flooding with determined depth
- Zone AH-Flooding of 1 to 3 ft (low velocity)
- Zone AO-Flooding of 1 to 3 ft (velocity)
- Lidar Coverage
- NV Counties

0 4.25 8.5 17 Miles

Carson Desert

Watershed **HUC Code** 16050203

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
3	**Fallon**	325	$227,861	3	$9,851
Estimated Active Contracts					
325					
Estimated Total Premiums					
$227,861.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	**Churchill**
Countywide Digital Flood Insurance Rate Map	9/26/2008
Initial FIRM Identified	11/15/1985
Recent Activities	
Multi-Hazard Mitigation Plan	2012

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
105.4	2.3	0	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
67,462	1,441	0	0

CNMS Line Stats- (Stream Miles)

A	194.6
AE	0
AO	0
AH	0

CNMS Verification- (Stream Miles)

Valid	99.2
Unverified	18.3
Unknown	77.1
Being Studied	0

NOTES:
Newlands project

http://www.usbr.gov/mp/lbao/docs/latest_faqs.pdf

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HUC-8 Watershed Name	**Middle Carson**	(Sq Mi.)	830
Population	**24,476**	(Acres)	531,013

History of Flooding

8/17/1965	Silver City from Gold Canyon Creek	Damaged several structures and inundated portions of State Highway 342 downstream of Virginia City.
3/10/1995	Six Mile Canyon	Between Virginia City and US Highway 50 was closed due to flash flooding.
Multiple	Carson River	See Carson River Flood Chronology website

Notes:

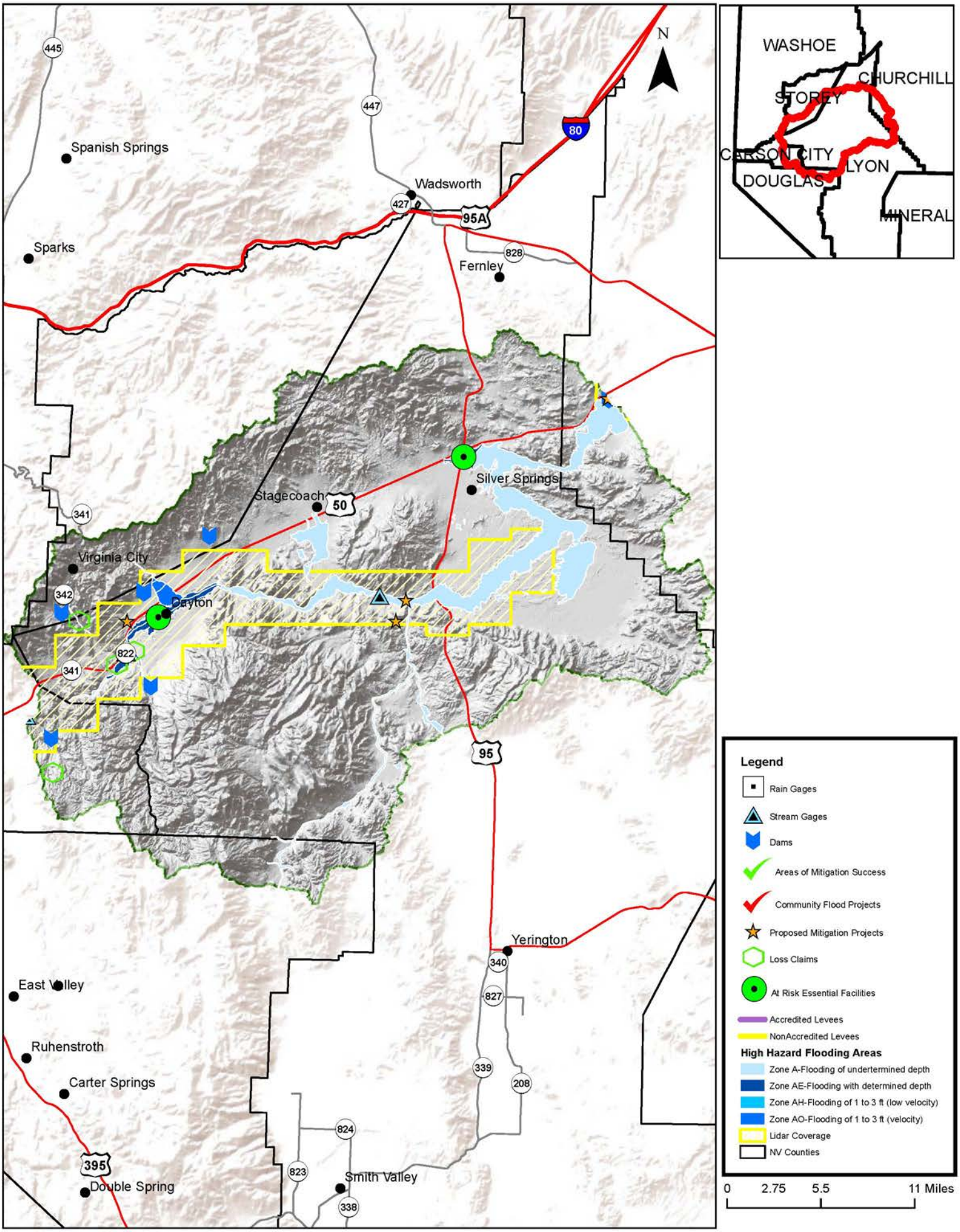
Carson River Flood.
Photo: nevada.usgs.gov

Flooding in the unincorporated Town of Dayton is mostly caused by the overflow of the Carson River. There have been several major floods on the Carson River in the last six decades. Peak discharges for some of these floods, measured at the gage near Carson City are: 15,500 cubic feet per second (cfs) in November 1950; 30,000 cfs in December 1955; and 21,900 cfs in February 1963. The estimated 1-percent annual chance of occurrence (100-year event) frequency discharge for the Carson River, at Dayton, is 36,300 cfs. Virginia City, Dayton, Stagecoach and Silver Springs are the communities within this watershed.

Community Contacts:

Lyon County	
Floodplain Administrator	Rob Loveberg, Planning Director
	(775) 463-6592 ext.2035, *rloveberg@lyon-county.org*
Emergency Manager	Rob Loveberg, EM Coordinator (775) 463-6592, *rloveberg@lyon-county.org*
Storey County	
Floodplain Administrator	Dean Haymore, Building Official
	(775) 847-0966, dhaymore@storeycounty.org
Emergency Manager	Joe Curtis, EM Director (775) 847-0986, jcurtis@storeycounty.org

Watershed Name: Middle Carson 30



Middle Carson

Watershed **HUC Code** 16050202

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
9	**Virginia City**	1	$405		
Estimated Active Contracts	**Dayton**	118	$74,472	4	$75,368
165	**Silver Springs**	44	$25,214		
Estimated Total Premiums	**Stagecoach**	2	$587		
$101,573.00	**Silver City**	1	$378	1	$6,603
* data is best approximation, for up to date or specific information please contact the NFIP					

CRS Community Rating System			
Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Storey Co	8	10	5

Flood Insurance Rate Maps	Storey	Lyon
Countywide Digital Flood Insurance Rate Map	1/16/2009	1/16/2009
Initial FIRM Identified	2/19/1987	9/30/1982

Recent Activities	Lyon	Storey
Multi-Hazard Mitigation Plan	in progress	1/1/2010
Remapping of Carson River Floodplains in Dayton area	in progress	in progress

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)			
A	**AE**	**AO**	**AH**
4.2	5.4	1.6	0.0

Area of SFHA RISK Zones (Acres)			
A	**AE**	**AO**	**AH**
2,671	3,428	1,011	0

CNMS Line Stats- (Stream mi)	
A	100.1
AE	19.2
AO	3.6
AH	0.0

CNMS Verification- (Stream mi)	
Valid	47.2
Unverified	20.5
Unknown	55.1
Being Studied	0.0

NOTES:

The Carson Water Sub-Conservancy District is active along the Carson above Lahontan

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HUC-8 Watershed Name	**Lower Humboldt**	(Sq Mi.)	2,594
Population	**20,321**	(Acres)	1,660,068

History of Flooding		
1983 & 1984	Lower reaches of the Humboldt River	Damage to roads, including a bridge near Winnemucca, and significant loss of livestock.
July, 2006	Lovelock	The Rodgers Dam failed after three months of continual high flow rate.

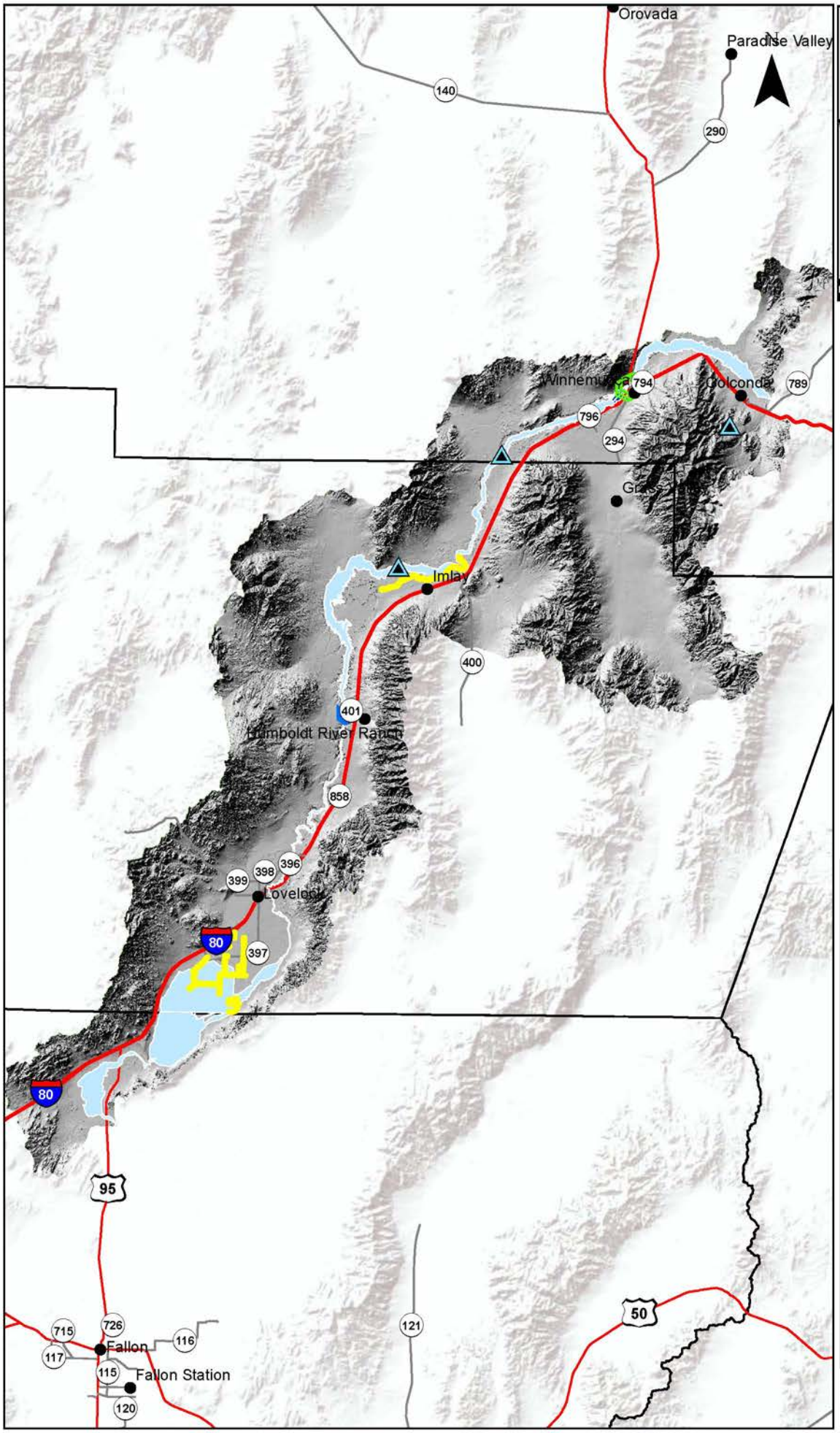
Flooded Humboldt River upstream of Lovelock Photo: Landingaday.wordpress.com

Notes:

The Humboldt River runs through this watershed and is the primary flood source. The communities of Winnemucca and Lovelock are in this basin. Completed in 1936, Rye Patch Dam impounds water for irrigation and recreation. FEMA has Special Flood Hazard Areas along much of the Humboldt River, and there are detailed studied zones near Winnemucca. Upstream of Lovelock, the Rodgers Dam was reconstructed in 2008, following the 2006 failure, to impound the river higher in its deeply incised upstream channel to facilitate irrigation draw from the river. There are two monitored stream gages on the Humboldt River. During the 1984 flood event the gage, downstream of Imlay, recorded a peak flow of 9,270 cfs.

Community Contacts:	
Humboldt	
Floodplain Administrator	Bobby Thomas, Building Official (775)623-6322, buildingofficial@hcnv.us
Emergency Manager	Edwin Kilgore, County Sheriff (775) 623-6419, h101@hcsonv.com
Pershing	
Floodplain Administrator	C J Stafford, Building Official (775) 273-2700, cjsafford@pershingcounty.net
Emergency Manager	Charles L. Sparke, Director (775) 273-4556 or 9012, clsnvdem@att.net
Winnemucca	
Floodplain Administrator	Sherrie Chaplin, Building Inspector (775) 623-6319, wmcasac@winnemuccacity.org

Watershed Name: Lower Humboldt 34



Legend

- Areas of Mitigation Success
- Community Flood Projects
- Proposed Mitigation Projects
- Stream Gages
- Accredited Levees
- NonAccredited Levees
- Rain Gages
- Dams
- Loss Claims
- At Risk Essential Facilities

High Hazard Flooding Areas

- Zone A-Flooding of undertermined depth
- Zone AE-Flooding with determined depth
- Zone AH-Flooding of 1 to 3 ft (low velocity)
- Zone AO-Flooding of 1 to 3 ft (velocity)
- Lidar Coverage
- NV Counties

0 5 10 20 Miles

Lower Humboldt

Watershed **HUC Code** 16040108

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
16	**Lovelock**	1	$304	4	$18,853
Estimated Active Contracts	**Winnemucca**	12	$5,431	12	$44,385
13					
Estimated Total Premiums					
$5,735.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Humboldt	Pershing	
Countywide Digital Flood Insurance Rate Map	3/17/2010	9/25/2009	
Initial FIRM Identified	5/4/1987	6/17/1991	
Recent Activities	**Humboldt**	**Pershing**	
Multi-Hazard Mitigation Plan	in progress	in progress	

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)			
A	**AE**	**AO**	**AH**
83.5	2.1	0	0

Area of SFHA RISK Zones (Acres)			
A	**AE**	**AO**	**AH**
53,417	1,337	0	0

CNMS Stats- (Stream mi)	
A	166.0
AE	0
AO	0
AH	0.0

CNMS Verification- (Stream mi)	
Valid	71.4
Unverified	0
Unknown	94.6
Being Studied	0

NOTES:

Description of the reconstructed Rogers Dam

http://www.dyerengineering.com/services/civil-design/rodgers-dam-lovelock-nevada

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HUC-8 Watershed Name	**Granite Springs Valley**	(Sq Mi.)	1,662
Population	**18,313**	(Acres)	1,063,633

History of Flooding		
1/1/1975	Canal Breach	Ice buildup and jam caused breach, road was closed and several homes damaged
1/6/2008	Canal Breach	FEMA Disaster DR-1738, 327 families or individuals affected

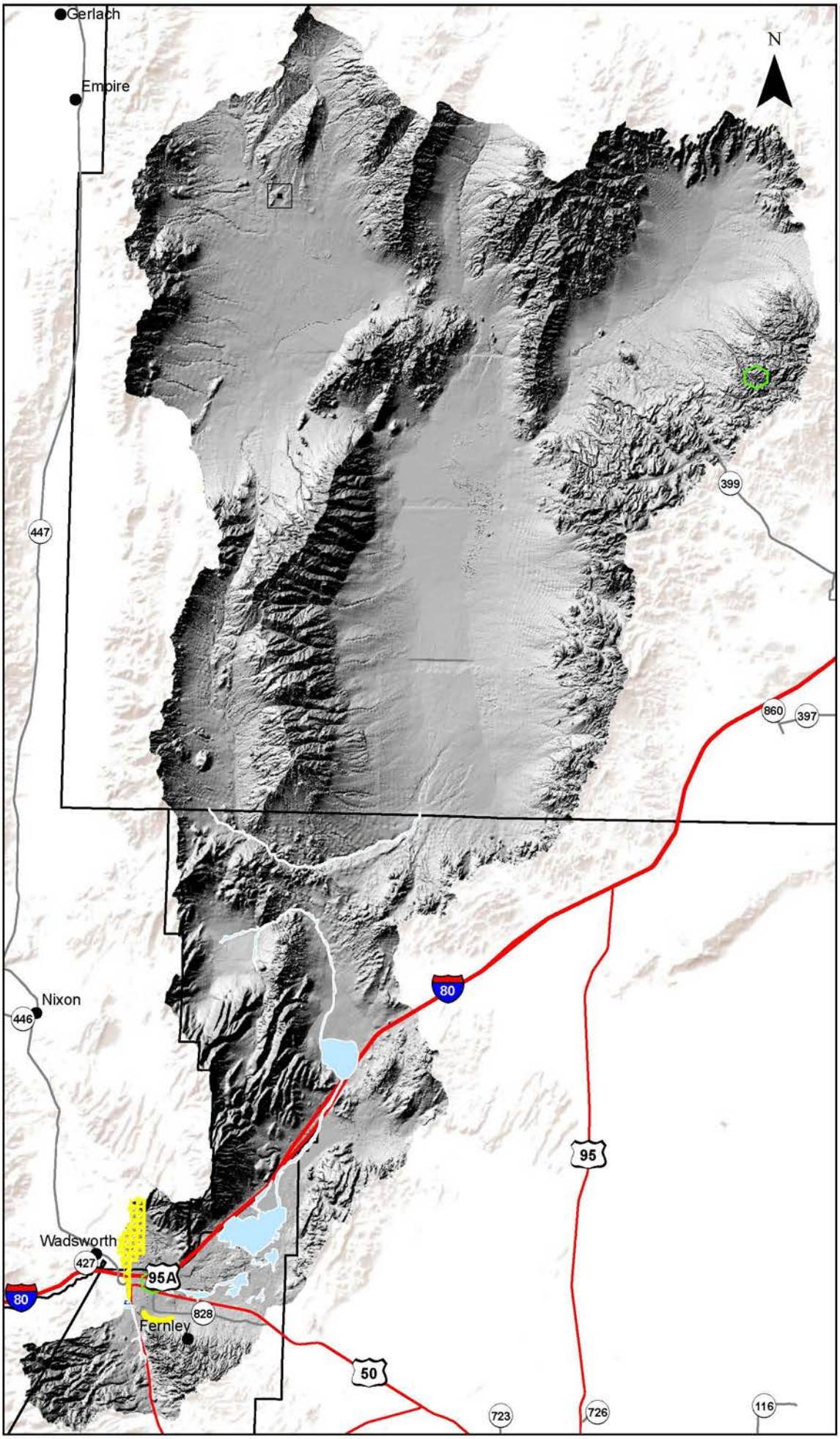
Images of nearly freezing flood water in Fernley after the Truckee canal breech on Jan.6, 2008. Photo (left): weatherchannel.com Photo (right): nbcnews.com

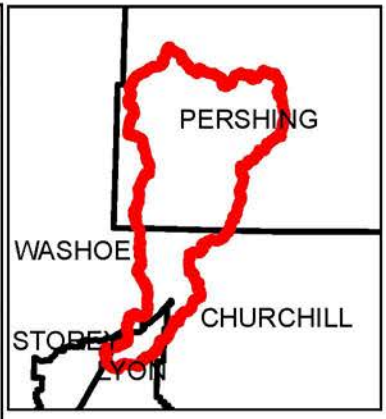
Notes:

Large portions of this watershed are not populated nor mapped with Special Flood Hazard Areas. Historical flooding in Fernley has been the result of either breaks in the Truckee Canal or flooding of lowlands south of the canal as a result of summer convection storm runoff. The Fernley SFHA is primarily located west of Hwy 95 and is due to alluvial fan runoff from the south of Fernley. Most of the homes damaged by the canal breach in 2008 were outside of the FEMA high hazard mapped areas and had no flood insurance.

Community Contacts:	
Fernley	
Floodplain Administrator	Shari Whalen, Community Development Director (775) 784-9910, swhalen@cityoffernley.org
Churchill	
Floodplain Administrator	Michael Johnson, Planning Director (775) 423-7627, Planning-director@churchillcounty.org
Emergency Manager	Ron Juliff, Emergency Manager (702) 423-4188, ccem@phonewave.net
Lyon	
Floodplain Administrator	Rob Loveberg, Planning Director (775) 463-6592 ext.2035, *rloveberg@lyon-county.org*
Emergency Manager	Rob Loveberg, EM Coordinator (775) 463-6592, *rloveberg@lyon-county.org*

Watershed Name: Granite Springs Valley 38





Legend

- Areas of Mitigation Success
- Community Flood Projects
- Proposed Mitigation Projects
- Stream Gages
- Accredited Levees
- NonAccredited Levees
- Rain Gages
- Dams
- Loss Claims
- At Risk Essential Facilities

High Hazard Flooding Areas

- Zone A-Flooding of undertermined depth
- Zone AE-Flooding with determined depth
- Zone AH-Flooding of 1 to 3 ft (low velocity)
- Zone AO-Flooding of 1 to 3 ft (velocity)
- Lidar Coverage
- NV Counties

0 3.25 6.5 13 Miles

Granite Springs Valley

Watershed **HUC Code** 16050104

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
2	**Fernley**	157	$88,423	2	$734
Estimated Active Contracts					
157					
Estimated Total Premiums					
$88,423.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Pershing	Churchill	Lyon
Countywide Digital Flood Insurance Rate Map	9/25/2009	9/26/2008	1/16/2009
Initial FIRM Identified	6/17/1991	11/15/1985	9/30/1982

Recent Activities	Pershing	Churchill	Lyon
Multi-Hazard Mitigation Plan	In Progress	2012	In Progress

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)

A	AE	AO	AH
16.6	0.39	0	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
10,650	247.6	0	0

CNMS Line Stats- (Stream mi)

A	64.4
AE	1.0
AO	0
AH	0

CNMS Verification- (Stream mi)

Valid	57
Unverified	0.0
Unknown	9
Being Studied	0

NOTES:

Newlands Project help doc

http://www.usbr.gov/mp/lbao/docs/latest_faqs.pdf

Truckee Canal

http://www.friendsofthetruckeecanal.org/TruckeCanal_wpFINALsm.pdf

Newlands Project Planning Study

http://www.usbr.gov/mp/lbao/newlands-rmp/docs/study/2%20NewlandsStudyFactSheet2011.08.pdf

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HUC-8 Watershed Name	**Lower Virgin**	(Sq Mi.)	2,061
Population	**16,620**	(Acres)	1,318,948

History of Flooding

1/1/2005	Mesquite, NV	The Virgin River experienced a major flood, damage of more than $ 1 million to public infrastructure, and 80 homes were damaged.
12/22/2010	Mesquite, NV	Nearly as large as the 2005 event, the 2010 flood caused the Virgin River to overtop its banks, resulting in a $422,000 estimated cost for response.

A golf course destroyed after channel migration during the Jan. 2005 flooding near Mesquite, NV.

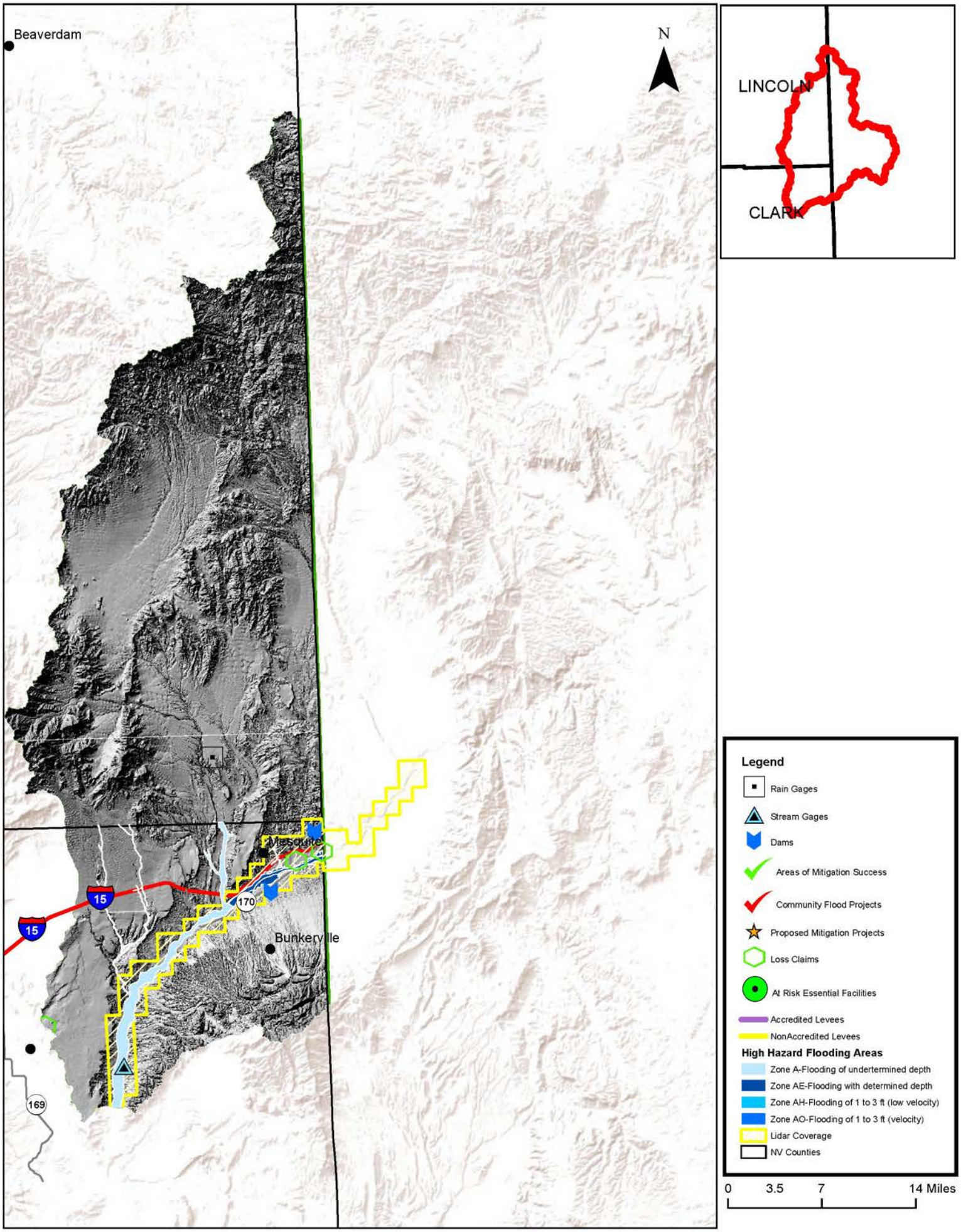
Notes:

Half of this HUC-8 Watershed is within Utah. The Virgin River is the primary watercourse. The river's headwaters are in Zion National park and range in flows from 100 cfs to 35,000 cfs in 2005. Major flooding events on the Virgin River have been experienced in recent years. Due to large amounts of sediment in the Virgin River, the deposition will continue to change the flood risks for the City of Mesquite over time. Interstate Highway 15 bisects the Huc east-west. Clark County Regional Flood Control District has involvement in a portion of this watershed.

Community Contacts:

Mesquite	
Floodplain Administrator	Bill Tanner, Public Works Director (702) 346-5237, btanner@mesquitenv.gov
Emergency Manager	John Higley, Emergency Manager (702) 346-2690, jhigley@mesquitenv.gov
Clark	
Floodplain Administrator	Denis Cedarburg, Public Works Director (702) 455-6020, dlc@co.clark.nv.us
Emergency Manager	Fernandez J. Leary, Fire Chief-Clark County Fire Department (702) 455-7311, F7118L@clarkcountynv.gov

Watershed Name: Lower Virgin 42



Lower Virgin

Watershed **HUC Code** 15010010

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
4	**Mesquite**	127	$60,392	3	$48,879
Estimated Active Contracts	**Bunkerville**	1	$365	1	$0
128					
Estimated Total Premiums					
$60,757.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
City of Mesquite	7	15	5

Flood Insurance Rate Maps	Lincoln	Clark	
Countywide Digital Flood Insurance Rate Map	8/5/2010	11/16/2011	
Initial FIRM Identified	3/1/1984	9/29/1989	

Recent Activities	Lincoln	Clark	
Multi-Hazard Mitigation Plan	4/1/2012		

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)

A	AE	AO	AH
0.95	4.2	0	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
611	2,664	0	0

CNMS Line Stats- (Stream mi)

A	51.7
AE	15.2
AO	0
AH	0

CNMS Verification- (Stream mi)

Valid	41.9
Unverified	0
Unknown	25.1
Being Studied	0

NOTES:

USGS 1989 Flood Report

http://pubs.usgs.gov/wri/1994/4159/report.pdf

Clark County LOMR for the Virgin River, May 4, 2006

Flooding in Mesquite You Tube video: Keywords KLAS Video Flooding in Mesquite

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HUC-8 Watershed Name	**Lake Tahoe**	(Sq Mi.)	507
Population	**14,279**	(Acres)	324,368

History of Flooding

		No significant, recent, floods

Incline Village area looking south, along the Nevada shoreline. Photo: Destination326.com

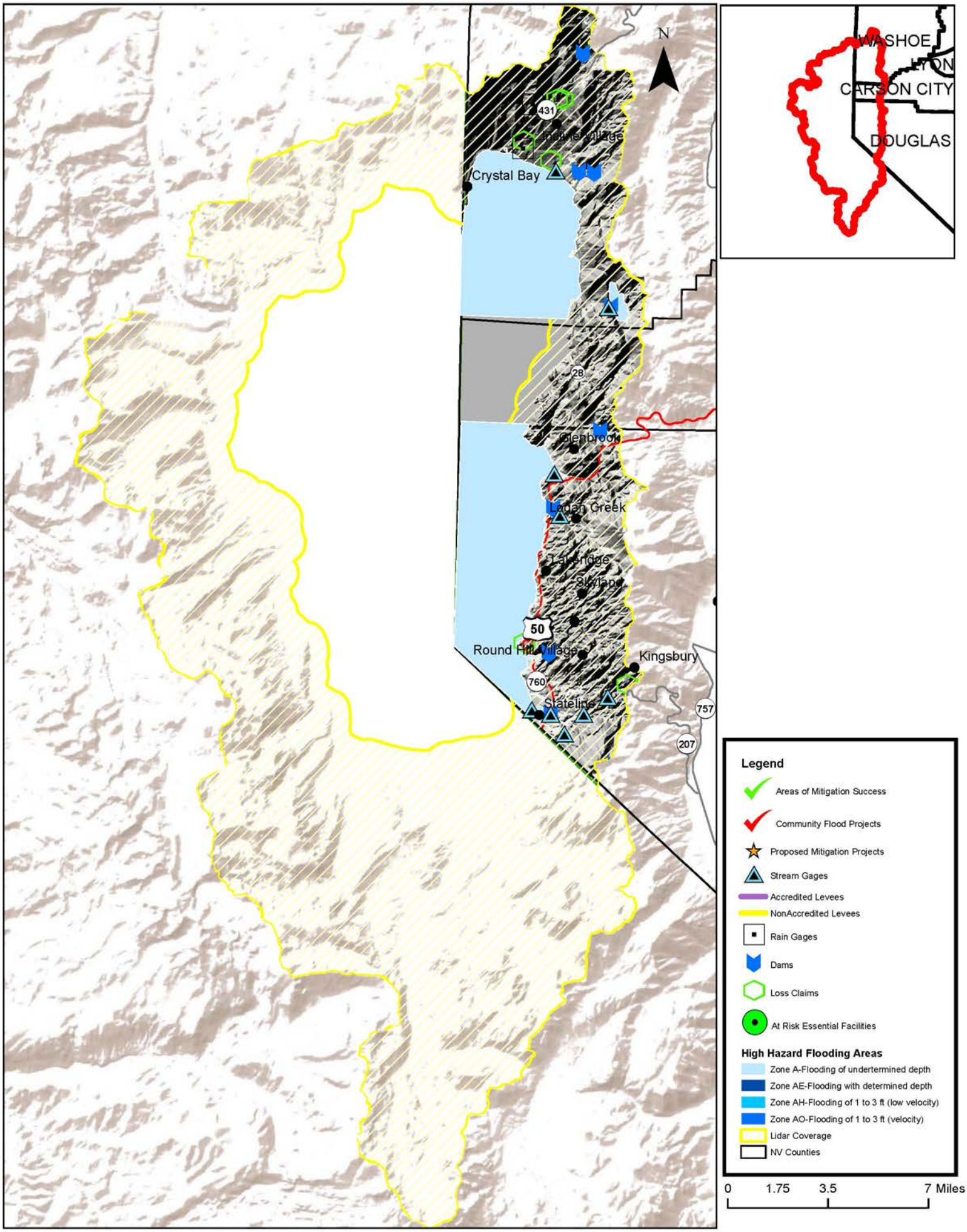
Notes:

The majority of this HUC-8 watershed is in California. Lake Tahoe is the major hydrologic feature. Resort towns along the Nevada (east) side of the lake, include Incline Village and Stateline. There are a number of mountain reservoir dams along the east (Nevada) side of the lake including Marlette Lake. Development in Lake Tahoe has caused an increase in turbidity throughout the lake. There are ongoing efforts to reduce the effects of development.

Community Contacts:

Washoe	
Floodplain Administrator	Kimble O. Corbridge, Engineering/Public Works (775) 328-2041, kcorbrid@washoecounty.us
Emergency Manager	Aaron Kenneston, CEM Emergency Manager (775) 337-5898 akenneston@WashoeCounty.us
Douglas	
Floodplain Administrator	Mimi Moss, Community Development Director (775) 782-6201, mmoss@co.douglas.nv.us
Emergency Manager	Tod Carlini, Fire Chief/ Emergency Manager (775) 782-9048, tcarlini@eastforkfire.org

Watershed Name: Lake Tahoe 46



Lake Tahoe

Watershed **HUC Code** 16050101

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
19	**Incline Village**	27	$13,773	13	$27,448
Estimated Active Contracts	**Zephyr Cove**	3	$27,801	4	$20,804
47	**Round Hill**	1	$405	0	$0
Estimated Total Premiums	**Stateline**	14	$17,180	2	$8,118
$60,116.00	**Marla Bay**	1	$365	0	$0
	Crystal Bay	1	$592	0	$0

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Washoe County	7	15	5
Douglas County	6	20	10

Flood Insurance Rate Maps	Washoe	Douglas
Countywide Digital Flood Insurance Rate Map	3/16/2009	1/20/2010
Initial FIRM Identified	8/1/1984	3/28/1980

Recent Activities	Washoe	Douglas
Multi-Hazard Mitigation Plan	10/1/2005	2/1/2006

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
47.2	0	0	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
30,162	0	0	0

CNMS Line Stats- (Stream Miles)

A	10.3
AE	0
AO	0
AH	0

CNMS Verification- (Stream Miles)

Valid	10.3
Unverified	0
Unknown	0
Being Studied	0

NOTES:

Tahoe Regional Planning Agency

http://www.trpa.org

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HUC-8 Watershed Name	**South Fork Humboldt**	(Sq Mi.)	1,306
Population	**12,661**	(Acres)	835,892

History of Flooding		
		No significant, recent, flooding

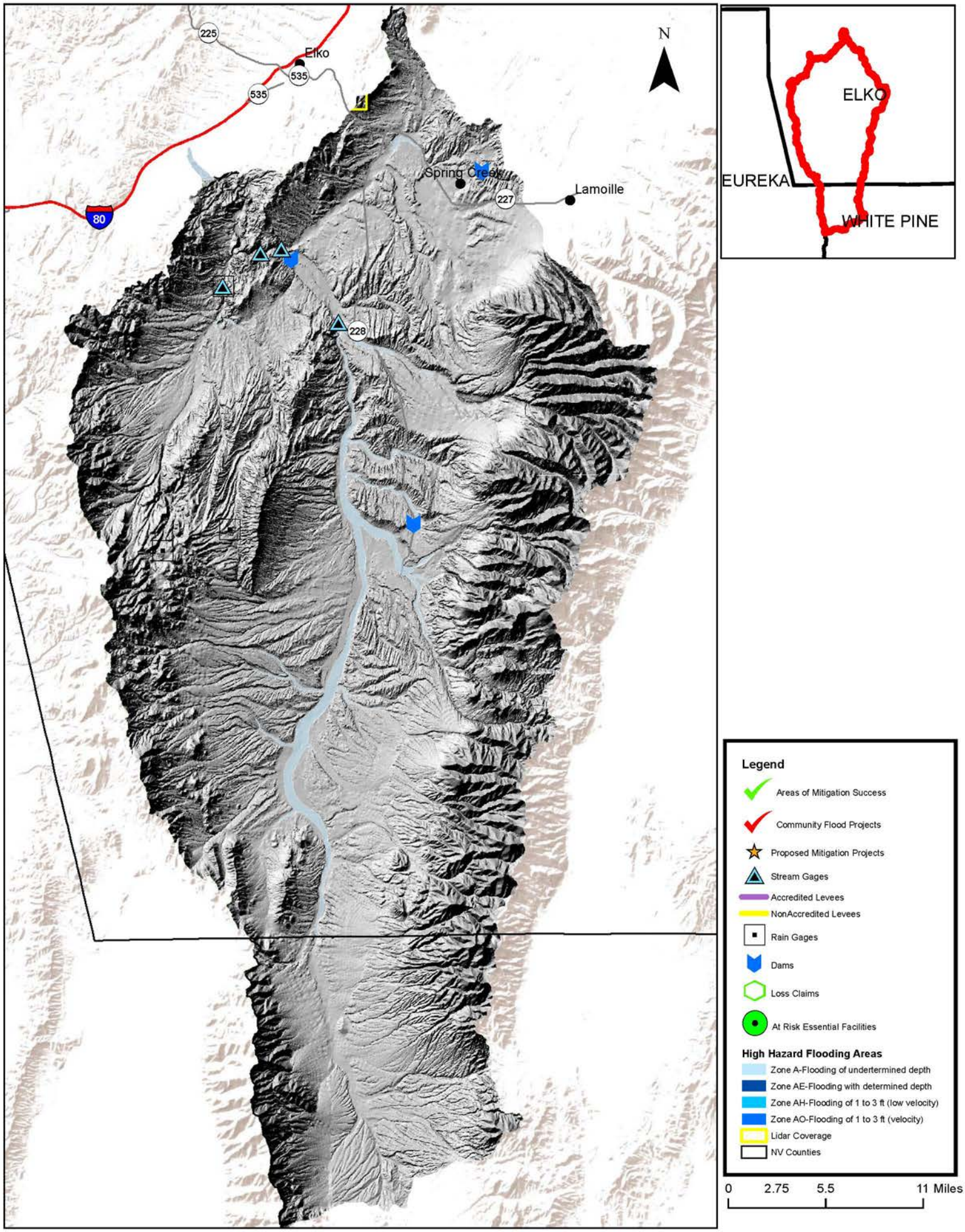
Mound Valley
Photo:
elkoroseschopine.com

Notes:

Spring Creek is the only significant population center in this watershed. The major watercourses are South Fork of the Humboldt River and Huntington Creek. There are flood hazard zones along both of these watercourses. There are three reservoirs, impounded by dams, Zunino, Spring Creek, and South Fork. The South Fork dam, constructed in 1988, is used for recreation on the South Fork of the Humboldt River.

Community Contacts:	
Elko County	
Floodplain Administrator	Randy Brown, Planning and Zoning Director (775) 738-6816 ext. 3, rbrown@elkocountynv.net
Emergency Manager	Clair Morris, Emergency Manager Undersheriff (775) 777-2505, cmorris@elkocountynv.net

Watershed Name: South Fork Humboldt 50



South Fork Humboldt

Watershed **HUC Code** 16040103

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0	**Spring Creek**	1	$280	0	$0
Estimated Active Contracts					
1					
Estimated Total					
Premiums $280.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Elko		
Countywide Digital Flood Insurance Rate Map	11/16/1995		
Initial FIRM Identified	2/1/1984		
Recent Activities	**Elko**		
Multi-Hazard Mitigation Plan	10/1/2008		

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
28	0	0	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
17,920	0	0	0

CNMS Line Stats- (Stream Miles)

A	115.5
AE	0
AO	0
AH	0

CNMS Verification- (Stream Miles)

Valid	77.0
Unverified	0
Unknown	39
Being Studied	0

NOTES:

A PDF report on the water resources of Huntington Valley is available online

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HUC-8 Watershed Name	**Spring-Steptoe Valleys**	(Sq Mi.)	5,316
Population	**9,170**	(Acres)	3,402,396

History of Flooding

multiple	in Ely	High flood flows occur in significantly warm spring snow melts.
4/2/1969	Ely	Gleason Creek, 405 cfs, extensive road destruction.
2/1/1980	Ely	Flooding down Main St., up to 3ft was reported.

Gleason Creek, as it goes underground through the community of Ely. Photo: panoramio.com

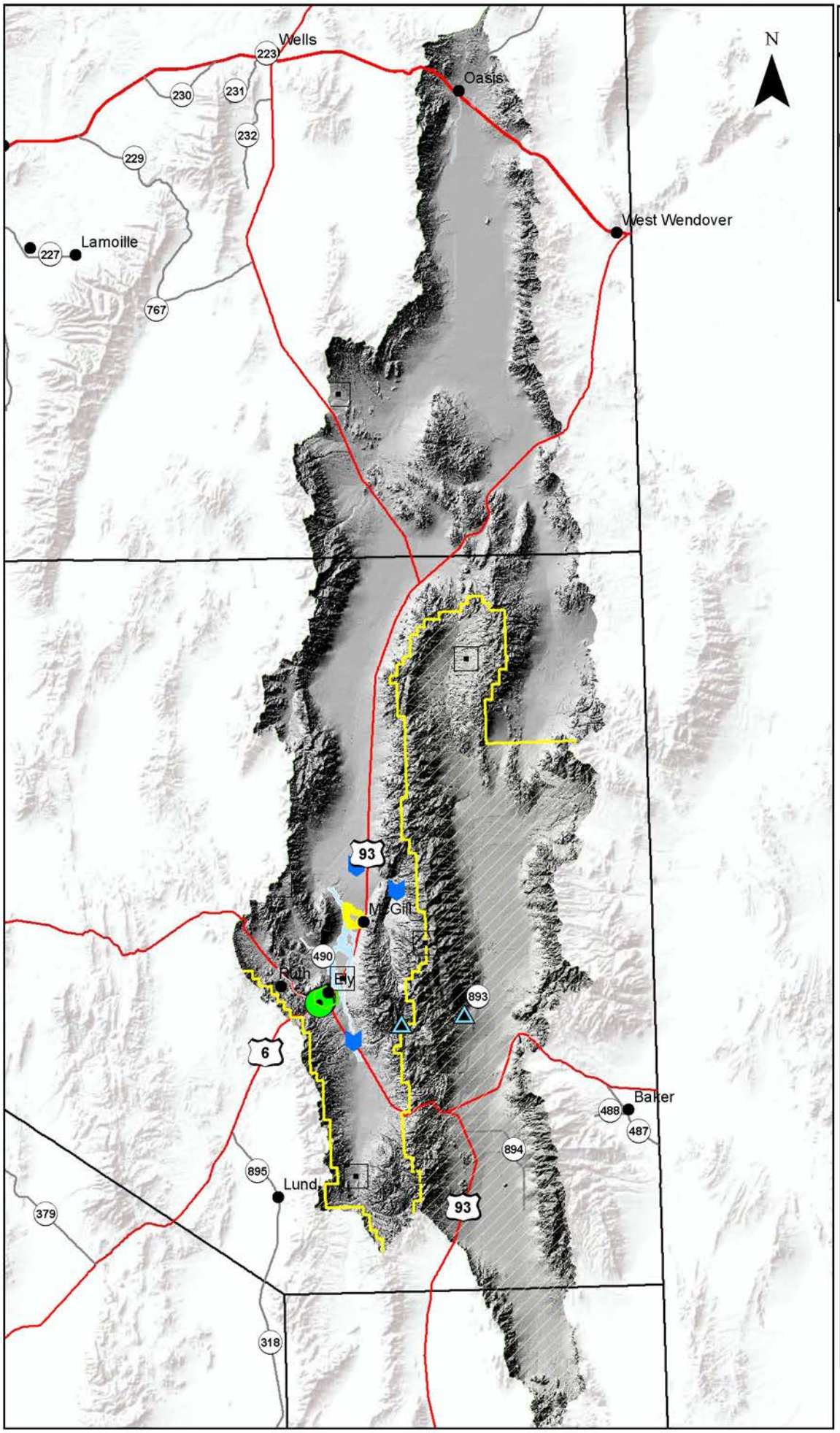
Notes:

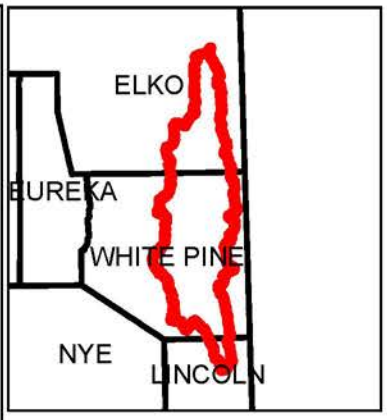
The primary sources of flooding in Ely are Gleason and Murry Creeks. The watershed of Gleason and Murry Creeks is approximately 88 square miles in size, located in the Egan mountain Range. The confluence with Steptoe Creek is approximately 1 mile downstream of Ely. Gleason Creek flows through an underground storm drainage system through town, and has been recently upgraded, but does not have 100-year storm flow capacity. Flooding has long been an issue for Ely, thus there have been several investigations and reports about flood mitigation possibilities. Other downstream flood zones encompass a larger area of Steptoe Valley to the north of Ely.

Community Contacts:

City of Ely	
Floodplain Administrator	Brad Christiansen, Building inspector (775) 289-6500-x215, bchristiansen@elycity.com
White Pine County	
Floodplain Administrator	Chris Flannery, Building official (775) 293-6547 wpbldg@mwpower.net
Emergency Manager	Russel W. Peacock, Director of Emerg. Management (775) 293-6500, wpcoem@mwpower.net

Watershed Name: Spring-Steptoe Valleys 54





Legend

- Areas of Mitigation Success
- Community Flood Projects
- Proposed Mitigation Projects
- Stream Gages
- Accredited Levees
- NonAccredited Levees
- Rain Gages
- Dams
- Loss Claims
- At Risk Essential Facilities

High Hazard Flooding Areas

- Zone A-Flooding of undertermined depth
- Zone AE-Flooding with determined depth
- Zone AH-Flooding of 1 to 3 ft (low velocity)
- Zone AO-Flooding of 1 to 3 ft (velocity)
- Lidar Coverage
- NV Counties

0 5 10 20 Miles

Spring-Steptoe Valleys

Watershed **HUC Code** 16060008

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
6	Ely	129	115,229	6	390
Estimated Active Contracts					
129					
Estimated Total Premiums					
$115,229.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Lincoln	White Pine	
Countywide Digital Flood Insurance Rate Map	8/5/2010	11/16/2011	
Initial FIRM Identified	3/1/1984	9/18/1987	

Recent Activities	Lincoln	White Pine	
Multi-Hazard Mitigation Plan	1/1/2010	in progress	

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)

A	AE	AO	AH
21.4	0.0	0.21	0.002

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
13,665	0	136	1

CNMS Line Stats- (Stream mi)

A	81.2
AE	0.0
AO	0.0
AH	0.0

CNMS Verification- (Stream mi)

Valid	81.2
Unverified	0.0
Unknown	0.0
Being Studied	0.0

NOTES:

Robinson Mine's dewatering plan/activities during storm events were addressed this summer of 2012

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HUC-8 Watershed Name	**Havasu Mohave Lakes**	(Sq Mi.)	2,783
Population	**8,504**	(Acres)	1,781,159

History of Flooding		
		No recent, significant flooding.

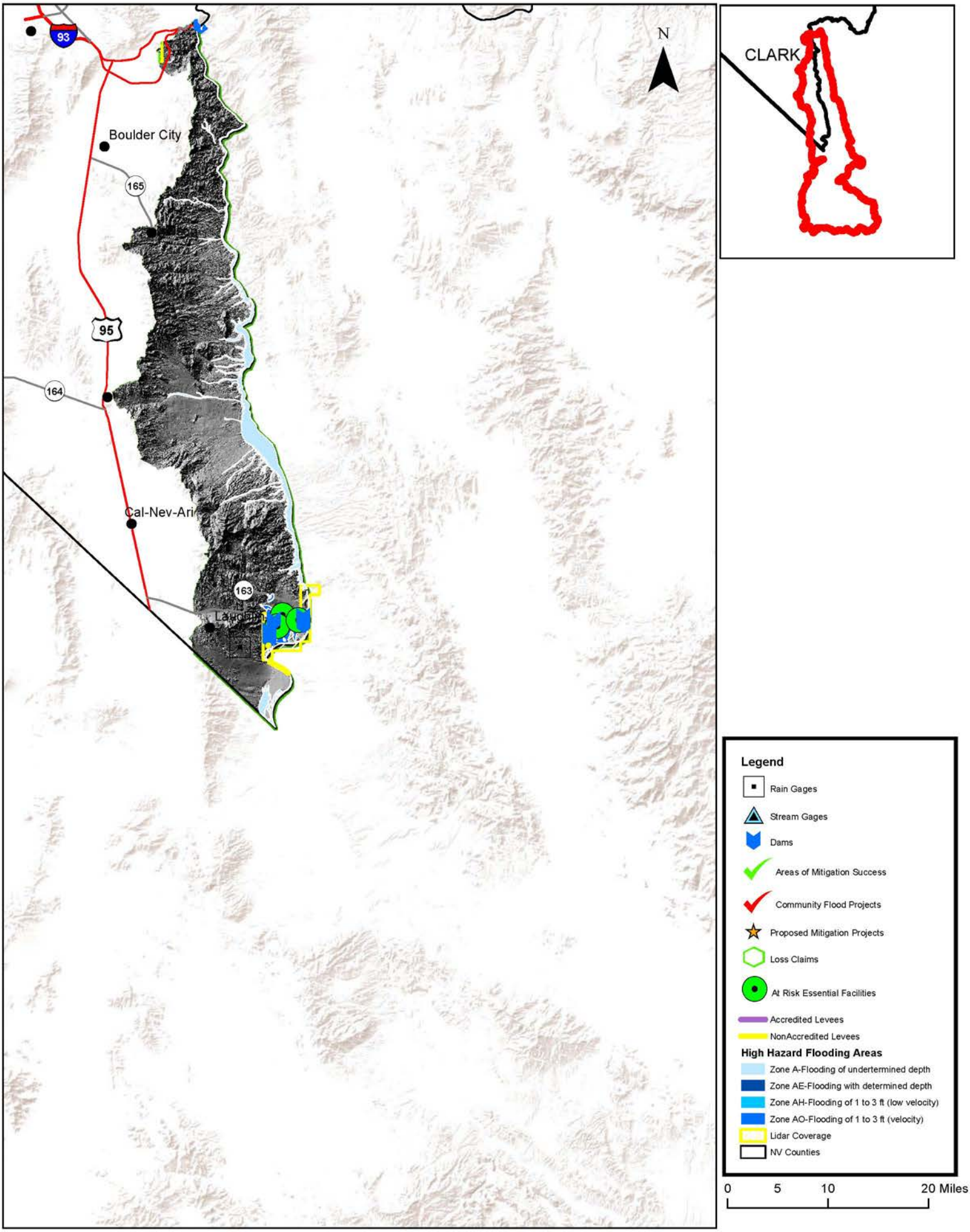
Laughlin, looking southwest with the Colorado River in the foreground. Photo: 160knots.com

Notes:

The Colorado River and Lake Mojave are the significant hydrologic features in this HUC-8 watershed. Laughlin and Nelson are the significant populated places. In the Laughlin area, flows in the Colorado River are regulated by the Hoover and Davis Dams. These structures offer flood protection from events larger than the 100-year flood on the Colorado River. Additionally, The USBR has constructed some embankments for flood protection along the Colorado River through the area. There are FEMA mapped high hazard flood zones covering much of the north side Laughlin area, with flood hazard zones mapped for much of the length of the Colorado River. Clark County Regional Flood Control District has involvement in this watershed.

Community Contacts:	
Clark	
Floodplain Administrator	Denis Cedarburg, Public Works Director (702) 455-6020, dlc@co.clark.nv.us
Emergency Manager	Fernandez J. Leary, Fire Chief-Clark County Fire Department (702) 455-7311, F7118L@clarkcountynv.gov

Watershed Name: Havasu-Mohave Lakes 58



Havasu Mohave Lakes

Watershed **HUC Code** 16040101

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
1	**Laughlin**	59	$73,234	1	$0
Estimated Active Contracts					
59					
Estimated Total Premiums					
$73,234.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Clark County	6	20	10

Flood Insurance Rate Maps	Clark		
Countywide Digital Flood Insurance Rate Map	11/16/2011		
Initial FIRM Identified	9/29/1989		
Recent Activities	**Clark**		
Multi-Hazard Mitigation Plan			

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)			
A	**AE**	**AO**	**AH**
33.10	2	25	0

Area of SFHA RISK Zones (Acres)			
A	**AE**	**AO**	**AH**
21,161	1,286.0	16,003	0

CNMS Line Stats- (Stream mi)	
A	149.6
AE	21.9
AO	16.1
AH	0

CNMS Verification- (Stream mi)	
Valid	123.1
Unverified	37.9
Unknown	26.6
Being Studied	0

NOTES:

Laughlin Rainstorm you tube video Keyword search: Laughlin, NV after major storm

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HUC-8 Watershed Name	**Walker**	(Sq Mi.)	894
Population	**8,423**	(Acres)	572,241

History of Flooding

1/1/1997	Walker Riveralker River	New Years Flood, FEMA-1153.
12/31/2005	Walker River	New Years Flood, FEMA-1629.

View of the Walker River in Mason Valley. Photo: Kenneth D. Adams, DRI

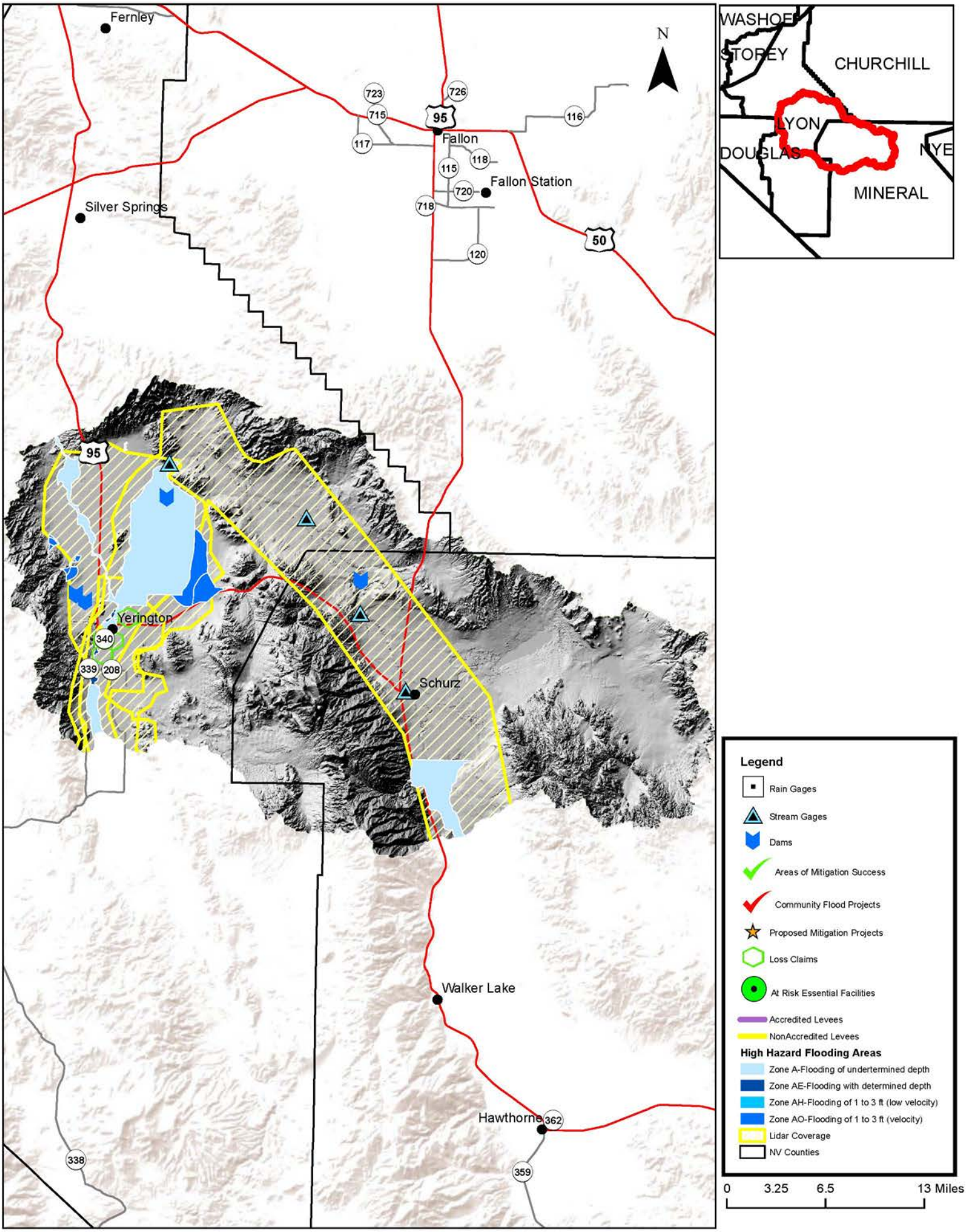
Notes:

The Walker River is the main waterway and source of flooding in this watershed. There many flood hazard zones along the Walker River and sedimentation continues to change the risk. The confluence of the East and West Fork of the Walker River is near the southern end of Mason Valley, then flows northward through Yerington. Historical flooding on the Walker River, in the Yerington area, indicates that flood flows generally occur during winter or late spring and early summer. Due to the flat topography, a large portion of the city can be flooded with shallow, but flowing water. The Walker River Indian Reservation falls within the eastern half of this basin and includes the community of Schurz. Down stream the community of Schurz, the Weber reservoir impounds the Walker River and is used for irrigation and recreation. There is a large mapped flood zone on the east side of Mason Valley covering a large alluvial fan.

Community Contacts:

Lyon County	
Floodplain Administrator	Rob Loveberg, Planning Director (775) 463-6592 ext.2035, rloveberg@lyon-county.org
Emergency Manager	Rob Loveberg, EM Coordinator (775) 463-6592 ext.2035, rloveberg@lyon-county.org
City of Yerington	
Floodplain Administrator	Dan Newell, City Manager (775) 463-3511, manager@yerington.net

Watershed Name: Walker 62



Walker

Watershed **HUC Code** 16050303

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
5	**Yerington**	224	$121,726	5	$127,510
Estimated Active Contracts	**Mason**	1	$343	0	$0
225					
Estimated Total Premiums					
$122,069.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Lyon	Mineral	
Countywide Digital Flood Insurance Rate Map	1/16/2009	11/16/2012	
Initial FIRM Identified	9/30/1982	5/1/1984	

Recent Activities	Lyon	Mineral	
Multi-Hazard Mitigation Plan	In progress	completed	
FEMA FIRM Study along the Walker near Yerington	In progress		
Mineral County DFIRMS		11/16/2012	

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)

A	AE	AO	AH
0.05	0.75	7.7	0.0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
34	483	4,923	0

CNMS Line Stats- (Stream mi)

A	107.0
AE	7.0
AO	7.0
AH	0.0

CNMS Verification- (Stream mi)

Valid	24.5
Unverified	19.3
Unknown	77.2
Being Studied	0.0

NOTES:

Walker River Chronology

http://water.nv.gov/mapping/chronologies/walker/part1.cfm

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HUC-8 Watershed Name	**Muddy**	(Sq Mi.)	1,812
Population	**7,808**	(Acres)	1,159,379

History of Flooding

August, 1981	Moapa Valley area	Three separate floods hit Moapa Valley, with the most water coming out of the California Wash drainage.
September, 1998	Moapa Valley area	Flows in the Muddy River overtopped the SR-168 Bridge and many homes in the area suffered major damage.
January, 2005	Moapa Valley area	This event caused significant damage to farms & ranches.

Cleanup and stabilization of an overtopped road from flash flooding from California Wash
Photo: Joe Davis, mvprogress.com

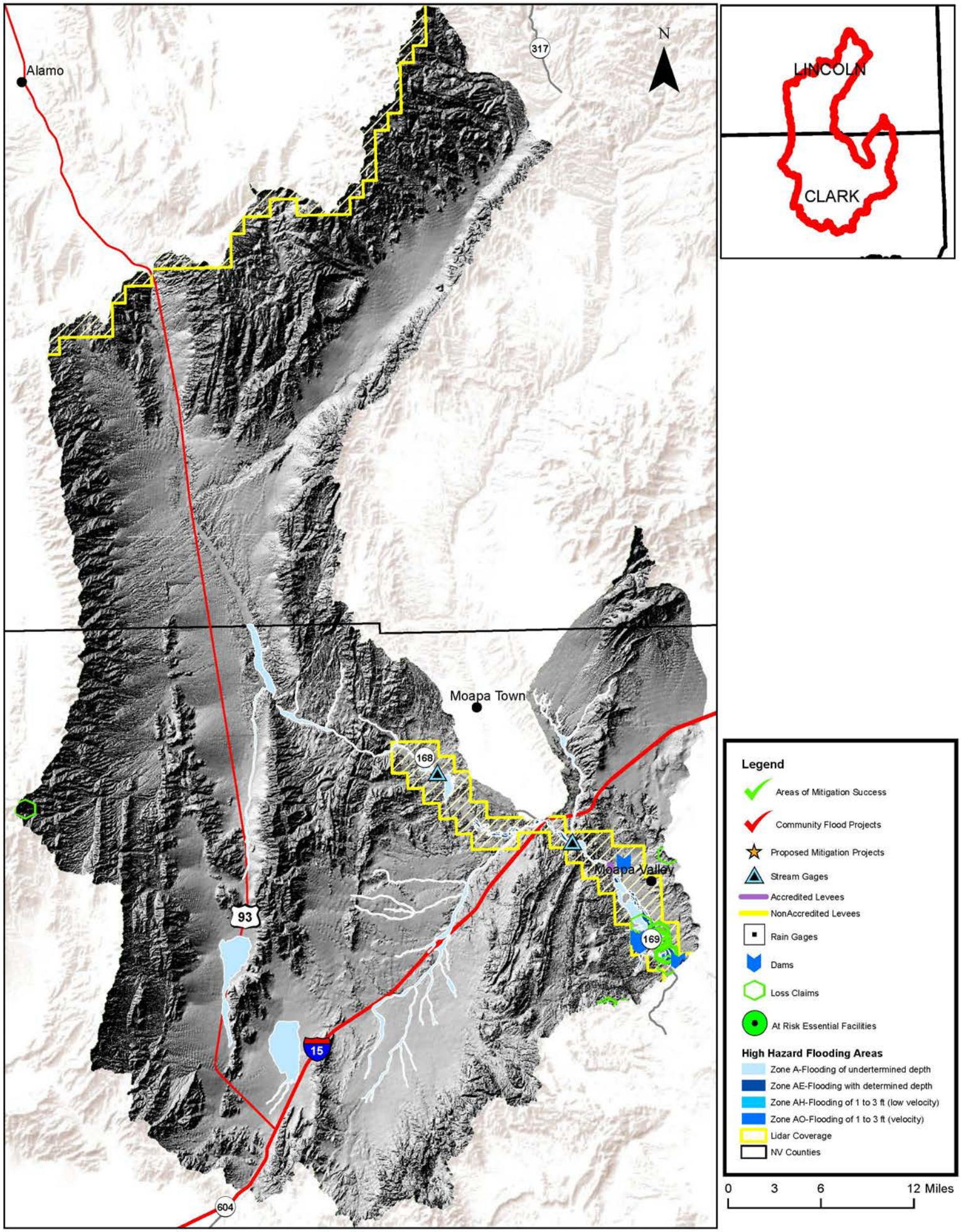
Notes:

Three watercourses, Meadow Valley Wash, California Wash, and the Muddy River, all draining fairly sizable areas, confluence in the Moapa-Glendale area, creating great potential for flash flooding. The Bowman Reservoir and Wells Siding Diversion Dam are located near the upper end of Lower Moapa Valley. The Wells Diversion diverts the Muddy River flows into the Bowman Reservoir, which is used for irrigation. Interstate Highway 15 bisects the Huc east-west.

Community Contacts:

Clark	
Floodplain Administrator	Denis Cedarburg, Public Works Director (702) 455-6020, dlc@co.clark.nv.us
Emergency Manager	Fernandez J. Leary, Fire Chief-Clark County Fire Department (702) 455-7311, F7118L@clarkcountynv.gov
Lincoln	
Floodplain Administrator	Cory Lytle, Building and Safety Dept. Administrator (775) 962-5165, *clytle@lincolnnv.com*
Emergency Manager	Rick Stever, Emergency Manager (775) 962-2376, *lcemergencymanagement@yahoo.com*

Watershed Name: Muddy 66



Muddy

Watershed **HUC Code** 15010012

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
48	**Moapa**	23	$18,645	2	$722
Estimated Active Contracts	**Overton**	126	$86,731	42	$855,436
249	**Logandale**	95	$40,479	4	$702
Estimated Total Premiums	**Moapa Valley**	5	$2,205	0	$0
$148,060.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Clark County	6	20	10

Flood Insurance Rate Maps	Clark	Lincoln	
Countywide Digital Flood Insurance Rate Map	11/16/2011	8/5/2010	
Initial FIRM Identified	9/29/1989	3/1/1984	
Recent Activities	**Clark**	**Lincoln**	
Multi-Hazard Mitigation Plan		4/1/2012	

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
175.5	48.5	1.1	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
112,319	31,018	678	0

CNMS Line Stats- (Stream Miles)

A	169.8
AE	23.4
AO	0.44
AH	0

CNMS Verification- (Stream Miles)

Valid	138.3
Unverified	41.5
Unknown	55.3
Being Studied	0

NOTES:

Clark County Regional Flood Districts

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HUC-8 Watershed Name	**Reese**	(Sq Mi.)	2,378
Population	**4,527**	(Acres)	1,522,225

History of Flooding		
February, 1962	Battle Mountain	Three feet of flood depth in the town.
May, 1984	Battle Mountain	Possible 100-year flood event on the Humboldt River.

A portion of the highway was removed in Battle Mountain during the 1962 flood. Photo:wikipedia.org

Notes:

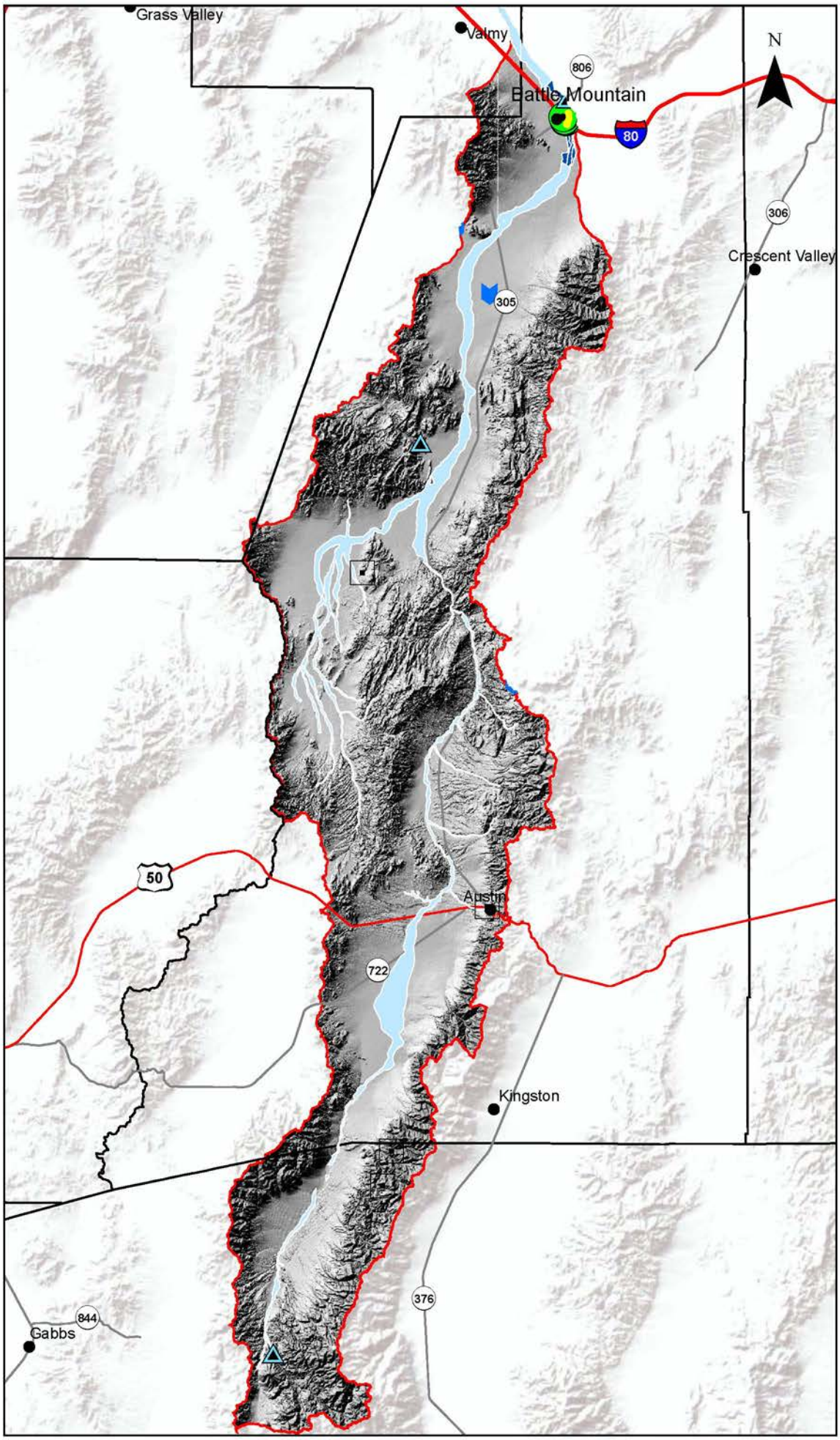
The Reese River is the major watercourse in this watershed and drains some 2,330 square miles in a long, narrow, north-oriented drainage basin to the Humboldt River. Significant towns are Battle Mountain and Austin. Flood hazard zones are mapped along much of the Reese River and the town of Battle Mountain has FEMA detailed studies of high flood hazard zones. A levee on the Reese River, at Battle Mountain, was built in responce to the 1962 event, and is currently in the planning phase of an enhancement.

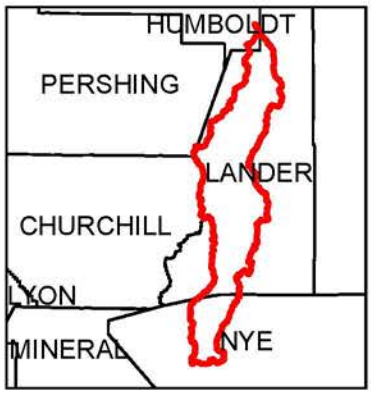
Community Contacts:

Lander	
Floodplain Administrator	Joe Lindsey, Building Official (775) 635-2860, jlindsey@landercountynv.org
Emergency Manager	Ron Unger, Sheriff/Fire Chief (775) 635-1100, sheriffrunger@landerso.org

Watershed Name: Reese

70





Legend

- Areas of Mitigation Success
- Community Flood Projects
- Proposed Mitigation Projects
- Stream Gages
- Accredited Levees
- NonAccredited Levees
- Rain Gages
- Dams
- Loss Claims
- At Risk Essential Facilities

High Hazard Flooding Areas

- Zone A-Flooding of undertermined depth
- Zone AE-Flooding with determined depth
- Zone AH-Flooding of 1 to 3 ft (low velocity)
- Zone AO-Flooding of 1 to 3 ft (velocity)
- Lidar Coverage
- NV Counties
- Reese1

0 5 10 20 Miles

Reese

Watershed **HUC Code** 16040107

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0	**Austin**	4	$5,280	0	$0
Estimated Active Contracts	**Battle Mountain**	163	$170,947	0	$0
167					
Estimated Total Premiums					
$176,227.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Lander County	8	10	5

Flood Insurance Rate Maps	Lander		
Countywide Digital Flood Insurance Rate Map	9/28/1990		
Initial FIRM Identified	4/5/1983		

Recent Activities	Lander		
Multi-Hazard Mitigation Plan	in progress		
DFIRM	in progress		

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
116.4	3.2	0	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
74,492	2,051	0	0

CNMS Line Stats- (Stream Miles)

A	370.3
AE	0
AO	0
AH	0

CNMS Verification- (Stream Miles)

Valid	345.3
Unverified	0
Unknown	25.1
Being Studied	0

NOTES:

USACE May 1997 Battle Mountain, NV Detailed 205 Project Report For Flood Control and E.A.

2010, FEMA restudy, new Hydrology analysis by BakerAECOM. See Technical Support Data Notebook (TSDN)

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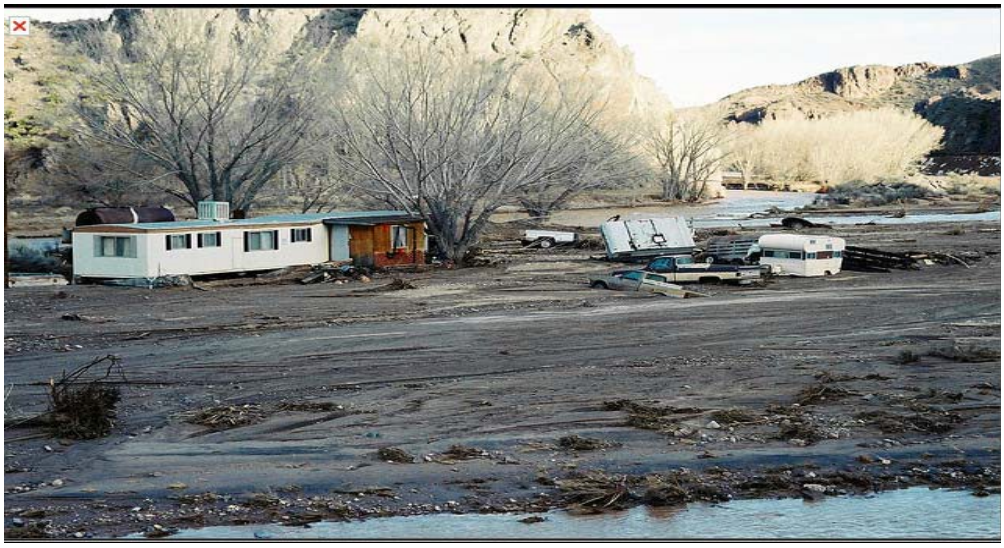
HUC-8 Watershed Name	**Meadow Valley Wash**	(Sq Mi.)	2,537
Population	**4,496**	(Acres)	1,623,482

History of Flooding

1/10-12/2005	City of Caliente	Meadow Valley Wash and Clover Creek flooding inundating approximately one-third of the City causing over $2 million in damages.
12/1/2010	City of Caliente	In Clover Creek, obstruction of culverts diverted flows and cut off access to the Caliente Youth Center.



Flooding near Caliente, NV after a large storm in 2005.
Photo: Flickr.com

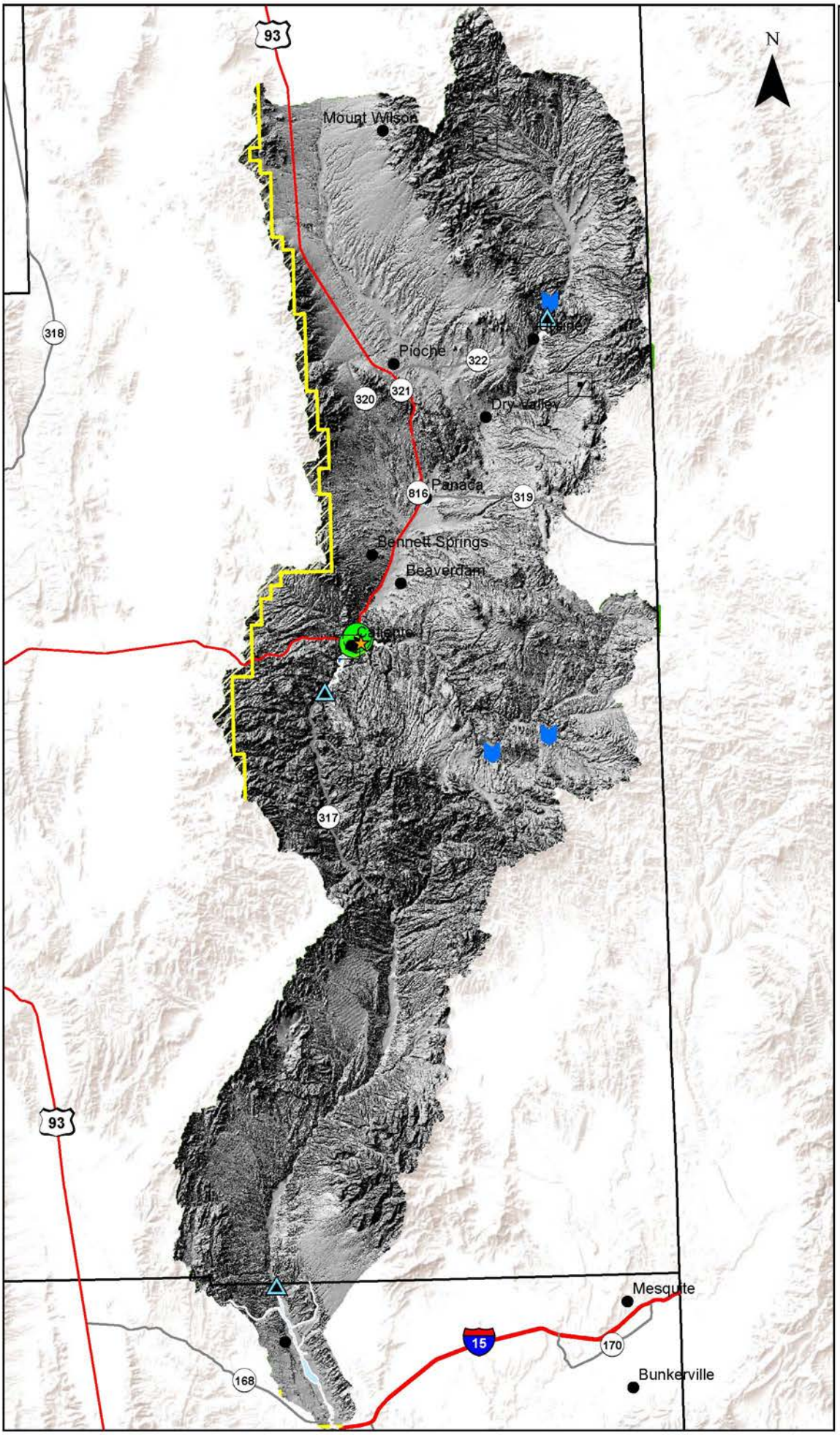
Notes:

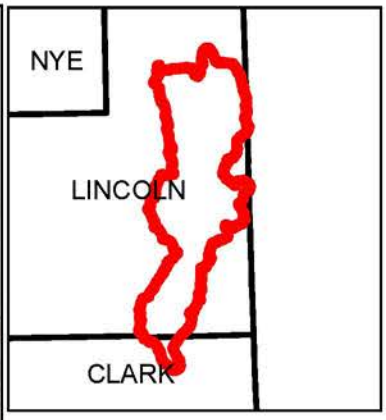
Several major flooding events on Meadow Valley Wash have been recorded since 1910.The largest historical event, approximately 15,000 cfs (approximately a 170-year flood event), occurred on Meadow Valley Wash at Caliente in 1938. In the 2005 flood event, nearly 8,000 cfs was seen through town. There are several small dams in the upper Meadow Valley Wash watershed; these include Eagle Valley Dam, Echo Canyon Dam, and Hollinger Debris Basin. These small dams have little effect on peak discharges in downstream areas of the basin.

Community Contacts:

Lincoln	
Floodplain Administrator	Cory Lytle, Building and Safety Dept. Administrator (775) 962-5165, *clytle@lincolnnv.com*
Emergency Manager	Rick Stever, Emergency Manager (775) 962-2376, *lcemergencymanagement@yahoo.com*
Clark	
Floodplain Administrator	Denis Cedarburg, Public Works Director (702) 455-6020, dlc@co.clark.nv.us
Emergency Manager	Fernandez J. Leary, Fire Chief-Clark County Fire Department (702) 455-7311, F7118L@clarkcountynv.gov

Watershed Name: Meadow Valley Wash 74





Legend

- Rain Gages
- Stream Gages
- Dams
- Areas of Mitigation Success
- Community Flood Projects
- Proposed Mitigation Projects
- Loss Claims
- At Risk Essential Facilities
- Accredited Levees
- NonAccredited Levees

High Hazard Flooding Areas

- Zone A-Flooding of undertermined depth
- Zone AE-Flooding with determined depth
- Zone AH-Flooding of 1 to 3 ft (low velocity)
- Zone AO-Flooding of 1 to 3 ft (velocity)
- Lidar Coverage
- NV Counties

0 4.75 9.5 19 Miles

Meadow Valley Wash

Watershed **HUC Code** 15010013

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
3	**Caliente**	1	$365	3	$0
Estimated Active Contracts	**Ursine**	1	$365	0	$0
9	**Pioche**	7	$4,367	0	$0
Estimated Total Premiums					
$5,097.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Clark	6	20	10

Flood Insurance Rate Maps	Lincoln	Clark	
Countywide Digital Flood Insurance Rate Map	8/5/2010	11/16/2011	
Initial FIRM Identified	3/1/1984	9/29/1989	

Recent Activities	Lincoln	Clark	
Multi-Hazard Mitigation Plan	4/1/2012		

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)

A	AE	AO	AH
3	3.2	0.27	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
1,949	2,051	171	0

CNMS Line Stats- (Stream mi)

A	23.7
AE	23.2
AO	0.88
AH	0

CNMS Verification- (Stream mi)

Valid	37.1
Unverified	0
Unknown	0
Being Studied	0

NOTES:

Lincoln County and the City of Caliente Multi-Jurisdictional Hazard Mitigation Plan, April 2012.

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HUC-8 Watershed Name	**S. Great Salt Lake Desert**	(Sq Mi.)	5,474
Population	**4,429**	(Acres)	3,503,133

History of Flooding

		No significant, recent, flooding

A view of West Wendover with the Salt Flats of Utah in the background. Photo: menupix.com

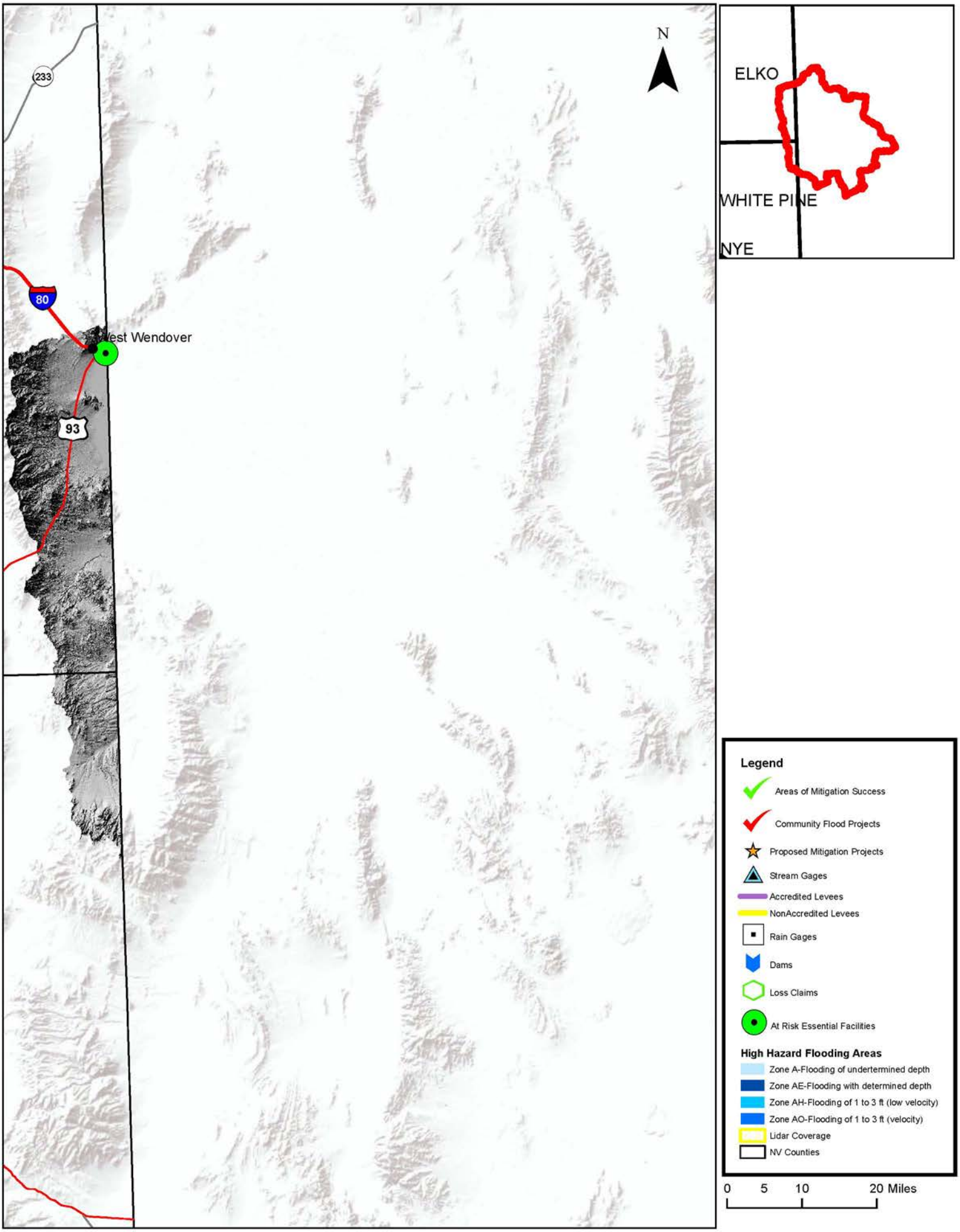
Notes:

The City of West Wendover is situated along the southern base of the Silver Island Mountains and is subject to cloudburst flooding. Contributing to the risk of the flooding is the steepness of the drainage areas and potential for a substantial amount of debris. As a result of construction, potential flood flows are more concentrated at underpasses, culverts and along the north side of Interstate 80.

Community Contacts:

West Wendover		
Floodplain Administrator	Chris J. Melville, City Manager (775) 664-3081, cmelville@westwendovercity.com	
Emergency Manager	Jeff Knudtson, Fire Chief (775) 664-2274, ljknudtson@westwendovercity.com	
Elko County		
Floodplain Administrator	Randy Brown, Planning and Zoning Director (775) 738-6816 ext. 3, rbrown@elkocountynv.net	
Emergency Manager	Clair Morris, Emergency Manager Undersheriff (775) 777-2505, cmorris@elkocountynv.net	

Watershed Name: Southern Great Salt Lake Desert 78



S. Great Salt Lake Desert

Watershed **HUC Code** 16020306

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0	**West Wendover**	3	$1,806	0	$0
Estimated Active Contracts					
3					
Estimated Total Premiums					
$1,806.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	**Elko**		
Flood Insurance Rate Map	11/16/1995		
Initial FIRM Identified	2/1/1984		
Recent Activities	**Elko**		
Multi-Hazard Mitigation Plan	10/1/2008		
Countywide Digital Flood Insurance Rate Map	in progress		

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)

A	AE	AO	AH
0.0	0.5	1.5	0.0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
0.0	288.4	927.5	2.4

CNMS Line Stats- (Stream mi)

A	0.0
AE	12.9
AO	7.7
AH	0.0

CNMS Verification- (Stream mi)

Valid	0.0
Unverified	20.6
Unknown	0.0
Being Studied	0.0

NOTES:

West Wendover is a Cooperative Technical Partner with FEMA.

West Wendover Appealed HDR's draft DFIRMS and worked with FEMA on a mapping resolution 10/2012.

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HUC-8 Watershed Name	**Lake Mead**	(Sq Mi.)	2,895
Population	**3,894**	(Acres)	1,852,764

History of Flooding

1/1/2005	Overton, NV	The Muddy River experienced a major flood, damage to about 100 homes.

Muddy River Flood.
mvprogress.com

Notes:

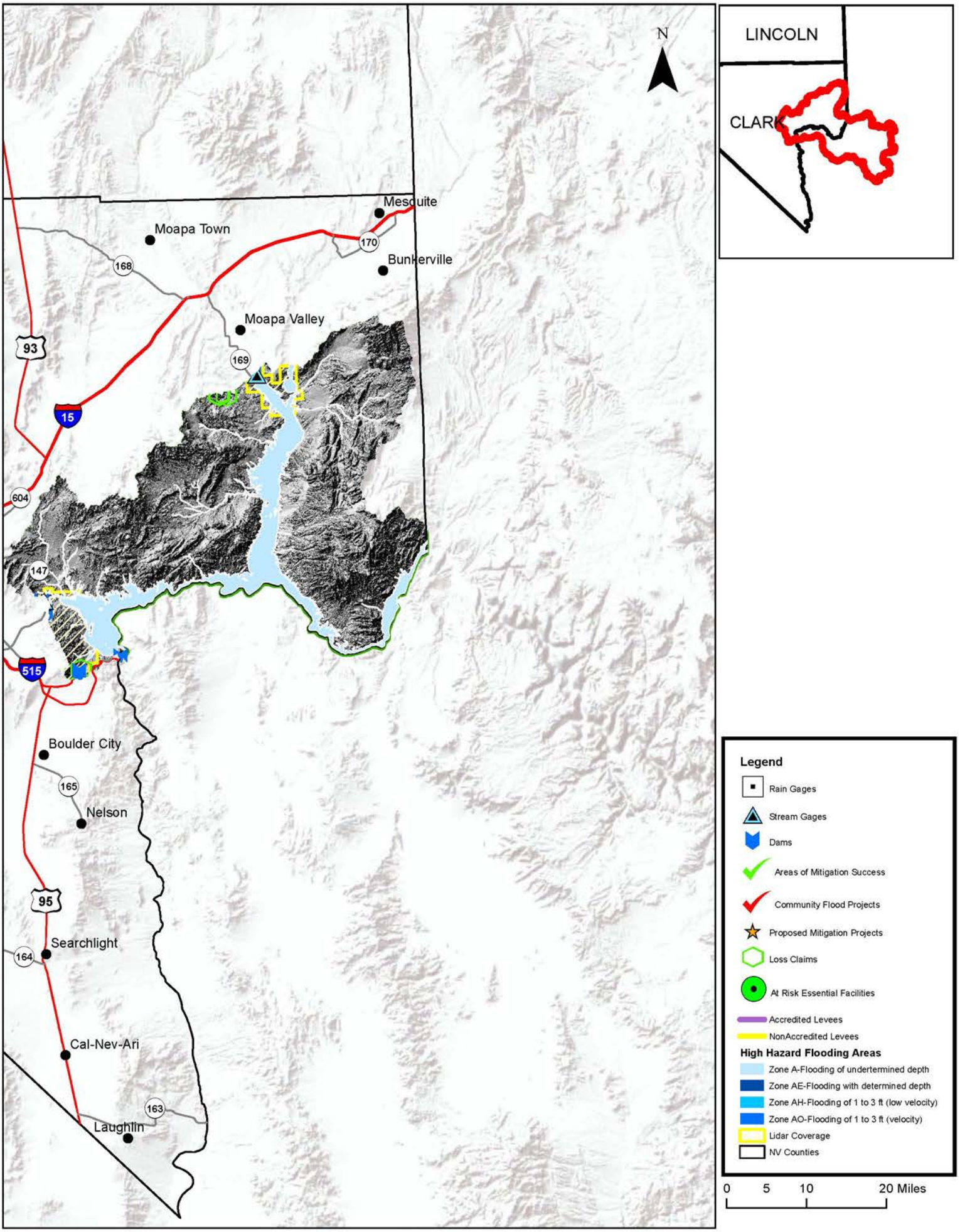
The major feature of this watershed is Lake Mead. Hoover Dam impounds waters from the Colorado and Virgin Rivers to create Lake Mead. The Hoover dam is a source of power generation, flood control, irrigation, and recreation. Half of this watershed lies in Arizona. Although there are no incorporated towns within this HUC-8 watershed, there are outlying parts of Boulder City and Overton on the boundary of this watershed. Clark County Regional Flood Control District has involvement in this watershed.

Community Contacts:

Clark

Floodplain Administrator	Denis Cedarburg, Public Works Director (702) 455-6020, dlc@co.clark.nv.us
Emergency Manager	Fernandez J. Leary, Fire Chief-Clark County Fire Department (702) 455-7311, F7118L@clarkcountynv.gov

Watershed Name: Lake Mead 82



Lake Mead

Watershed **HUC Code** 15010005

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0					
Estimated Active Contracts					
0					
Estimated Total Premiums					
$0.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Clark	6	20	10

Flood Insurance Rate Maps	Clark		
Countywide Digital Flood Insurance Rate Map	11/16/2011		
Initial FIRM Identified	9/29/1989		

Recent Activities	Clark		
Multi-Hazard Mitigation Plan			

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)

A	AE	AO	AH
0.05	0.05	0	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
30	31.4	0	0

CNMS Line Stats- (Stream mi)

A	171.9
AE	2.1
AO	0
AH	0

CNMS Verification- (Stream mi)

Valid	140.5
Unverified	1.6
Unknown	31.9
Being Studied	0

NOTES:

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HUC-8 Watershed Name	**Gabbs Valley**	(Sq Mi.)	2,081
Population	**3,893**	(Acres)	1,332,051

History of Flooding

		No significant, recent, floods.

Flash flood near Gabbs, Nevada, July 2004.
Photo: Kyle House, NV Bureau of Mines and Geology

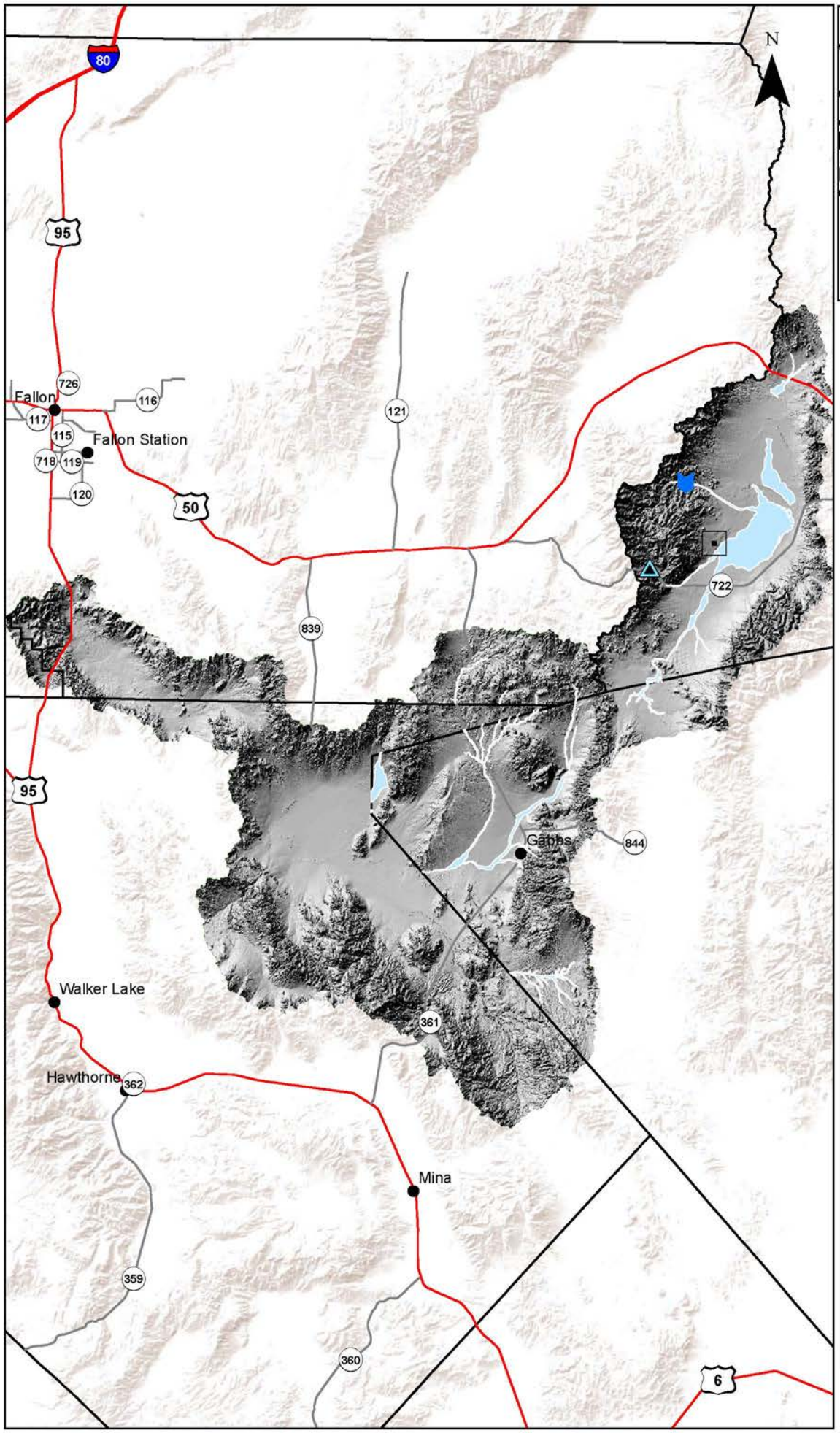
Notes:

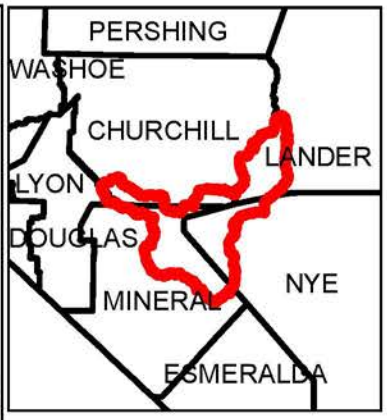
This watershed remains largely undeveloped. The small town of Gabbs is the population center. Just two highways bisect this basin, Hwy 361, north-south, and Hwy 722, east-west. The potential source of flooding in the valley areas are from flash floods from the numerous un-named washes flowing out of the hills. The Smith Creek Dam is a dam that impounds a small reservoir in the north area of the HUC.

Community Contacts:

Lander	
Floodplain Administrator	Joe Lindsey, Building Official (775) 635-2860, jlindsey@landercountynv.org
Emergency Manager	Ron Unger, Sheriff/Fire Chief (775) 635-1100, sheriffrunger@landerso.org
Mineral	
Floodplain Administrator	Mike Fontaine, Building Official (775) 945-3671, mfontaine@mineralcountynv.org
Emergency Manager	T.C. Knight, Fire Chief (775) 945-2497, firechief@mineralcountynv.org
Nye	
Floodplain Administrator	Cheryl Beeman, Floodplain Manager/Administrator (702) 580-0342, cbeeman@co.nye.nv.us
Emergency Manager	Vance Payne, Emergency Manager (775) 751-4278, vpayne@co.nye.nv.us

Watershed Name: Gabbs Valley 86





Legend

- Areas of Mitigation Success
- Community Flood Projects
- Proposed Mitigation Projects
- Stream Gages
- Accredited Levees
- NonAccredited Levees
- Rain Gages
- Dams
- Loss Claims
- At Risk Essential Facilities

High Hazard Flooding Areas

- Zone A-Flooding of undertermined depth
- Zone AE-Flooding with determined depth
- Zone AH-Flooding of 1 to 3 ft (low velocity)
- Zone AO-Flooding of 1 to 3 ft (velocity)
- Lidar Coverage
- NV Counties

0 5 10 20 Miles

Gabbs Valley

Watershed **HUC Code** 16060002

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0					
Estimated Active Contracts					
0					
Estimated Total Premiums					
$0.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Lander County	8	10	5

Flood Insurance Rate Maps	Lander	NYE	Mineral
Countywide Digital Flood Insurance Rate Map	9/28/1990	2/17/2010	11/16/2012
Initial FIRM Identified		4/5/1983	5/1/1984

Recent Activities	Lander	NYE	Mineral
Multi-Hazard Mitigation Plan	in progress	10/25/2007	2005

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
60.2	0	0	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
38,552	0	0	0

CNMS Line Stats- (Stream Miles)

A	202
AE	0
AO	0
AH	0

CNMS Verification- (Stream Miles)

Valid	176.7
Unverified	0
Unknown	25.3
Being Studied	0

NOTES:

Ground water resource report for Gabbs Valley

http://images.water.nv.gov/images/publications/recon%20reports/rpt9-Gabbs_valley.pdf

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HUC-8 Watershed Name	**West Walker**	(Sq Mi.)	1,042
Population	**3,865**	(Acres)	666,705

History of Flooding

Dec 1996 - Jan 1999	West Walker River	Major damage to adjacent roads, especially Hwy 395.

Walker River.
Photo: water.weather.gov

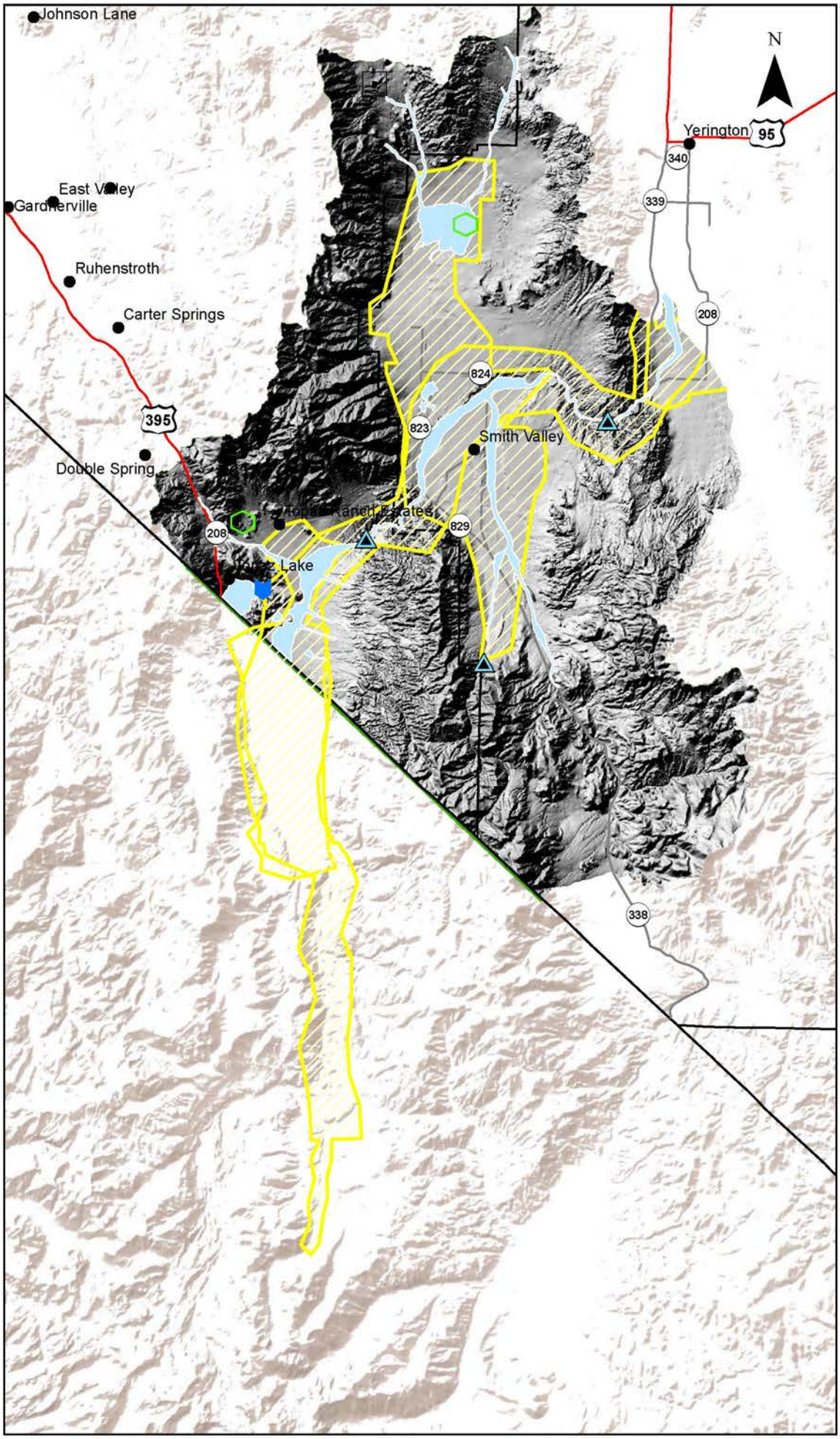
Notes:

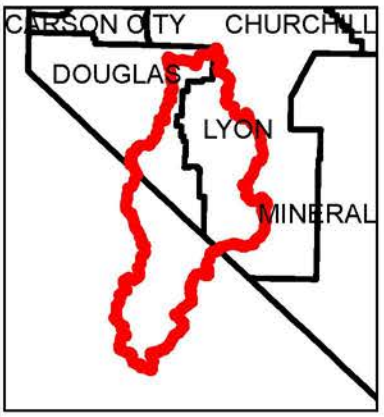
Half of this watershed is in the Sierra Nevada mountains in California, which include the headwaters of the West Walker River, the major watercourse in this HUC-8 basin. The significant towns are Smith and Wellington. Stream gages on the West Walker River have recorded peak flows as high as 11,500 cfs. The Walker River Irrigation District manages the Topaz Lake reservoir and dam.

Community Contacts:

Lyon	
Floodplain Administrator	Rob Loveberg, Planning Director (775) 463-6592 ext.2035, *rloveberg@lyon-county.org*
Emergency Manager	Rob Loveberg, EM Coordinator (775) 463-6592, *rloveberg@lyon-county.org*
Douglas	
Floodplain Administrator	Mimi Moss, Community Development Director (775) 782-6201, mmoss@co.douglas.nv.us
Emergency Manager	Tod Carlini, Fire Chief/ Emergency Manager (775) 782-9048, tcarlini@eastforkfire.org

Watershed Name: West Walker 90





Legend

- Rain Gages
- Stream Gages
- Dams
- Areas of Mitigation Success
- Community Flood Projects
- Proposed Mitigation Projects
- Loss Claims
- At Risk Essential Facilities
- Accredited Levees
- NonAccredited Levees

High Hazard Flooding Areas

- Zone A-Flooding of undertermined depth
- Zone AE-Flooding with determined depth
- Zone AH-Flooding of 1 to 3 ft (low velocity)
- Zone AO-Flooding of 1 to 3 ft (velocity)
- Lidar Coverage
- NV Counties

0 2.5 5 10 Miles

West Walker

Watershed **HUC Code** 16050302

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
2	**Smith**	4	$1,851	1	$43,441
Estimated Active Contracts	**Wellington**	12	$5,857	1	$3,753
16					
Estimated Total Premiums					
$7,708.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Douglas County	6	20	10

Flood Insurance Rate Maps	Lyon	Douglas	
Countywide Digital Flood Insurance Rate Map	1/16/2009	1/20/2010	
Initial FIRM Identified	9/30/1982	3/28/1980	

Recent Activities	Lyon	Douglas	
Multi-Hazard Mitigation Plan	in progress	2/1/2006	

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)			
A	**AE**	**AO**	**AH**
15.3	0	0	0

Area of SFHA RISK Zones (Acres)			
A	**AE**	**AO**	**AH**
9,794	0	0	0

CNMS I ine Stats- (Stream Miles)	
A	114.8
AE	0
AO	0
AH	0

CNMS Verification- (Stream Miles)	
Valid	41.3
Unverified	0
Unknown	73.5
Being Studied	0

NOTES:

Walker River Chronology

http://water.nv.gov/mapping/chronologies/walker/part1.cfm

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HUC-8 Watershed Name	**Walker Lake**	(Sq Mi.)	808
Population	**3,785**	(Acres)	517,305

History of Flooding		
1984	Hawthorne	Main street was flooded and at least one home flood loss claim occurred.

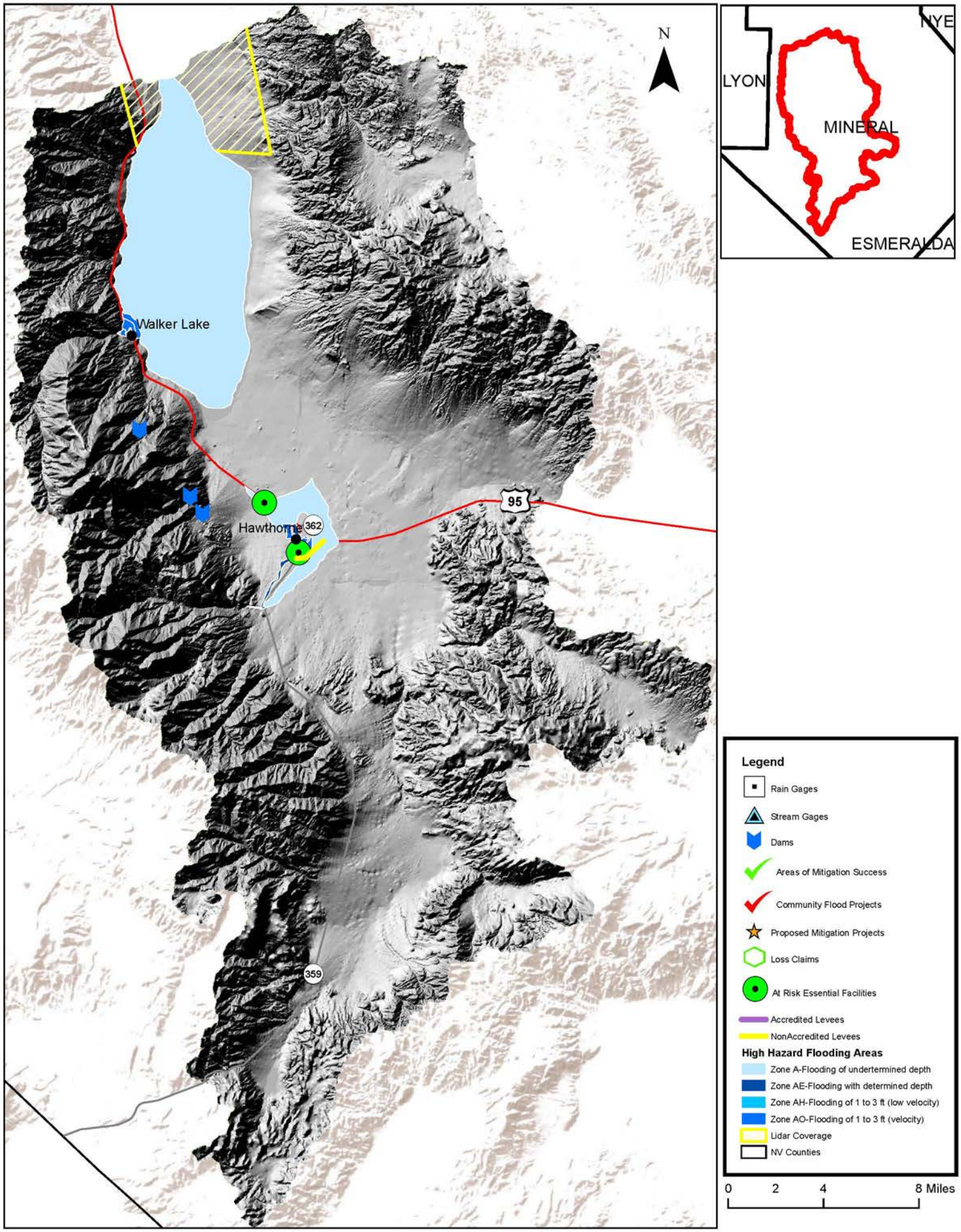
Walker Lake. Looking northeast from the Wassuk Range.
Photo: Walkerlakenv.org

Notes:

Walker Lake is the major hydrologic feature of this watershed, the terminus of the Walker River. There are FEMA-mapped Flood Hazard Zones near the main town of Hawthorne and the area known as Walker. Beyond these town areas, much of the HUC in un-inhabited. An earthen embankment was built to protect town of Hawthorne from nuisance flooding, but does not meet FEMA requirement to protect the town from the 1% annual chance flood. The two mountain reservoirs, impounded by dams, are Rose and Cat Creek. Hwy 95 bisects the watershed north-south.

Community Contacts:	
Mineral	
Floodplain Administrator	Mike Fontaine, Building Official (775) 945-3671, mfontaine@mineralcountynv.org
Emergency Manager	T.C. Knight, Fire Chief (775) 945-2497, firechief@mineralcountynv.org

Watershed Name: Walker Lake 94



Walker Lake

Watershed **HUC Code** 16050304

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
2	**Hawthorne**	237	$105,480	1	$0
Estimated Active Contracts	**Walker Lake**	27	$9,814	1	$2,663
264					
Estimated Total Premiums					
$115,294.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Mineral		
Countywide Digital Flood Insurance Rate Map	11/16/2012		
Initial FIRM Identified	5/1/1984		

Recent Activities	Mineral		
Multi-Hazard Mitigation Plan	2005		

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
6.2	0.58	1	0.004

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
3,965	369	667	3

CNMS Line Stats- (Stream Miles)

A	2.9
AE	5.3
AO	1.1
AH	0

CNMS Verification- (Stream Miles)

Valid	9.4
Unverified	0
Unknown	0.0
Being Studied	0

NOTES:

Some LiDAR is Available, contact the USGS

Hydrology may need an update in the FEMA FIS

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HUC-8 Watershed Name	**Pyramid-Winnemucca Lakes**	(Sq Mi.)	1,385
Population	**3,324**	(Acres)	886,555

History of Flooding		
		No significant, recent, flooding.

Pyramid Lake.
Photo: ewec.edu

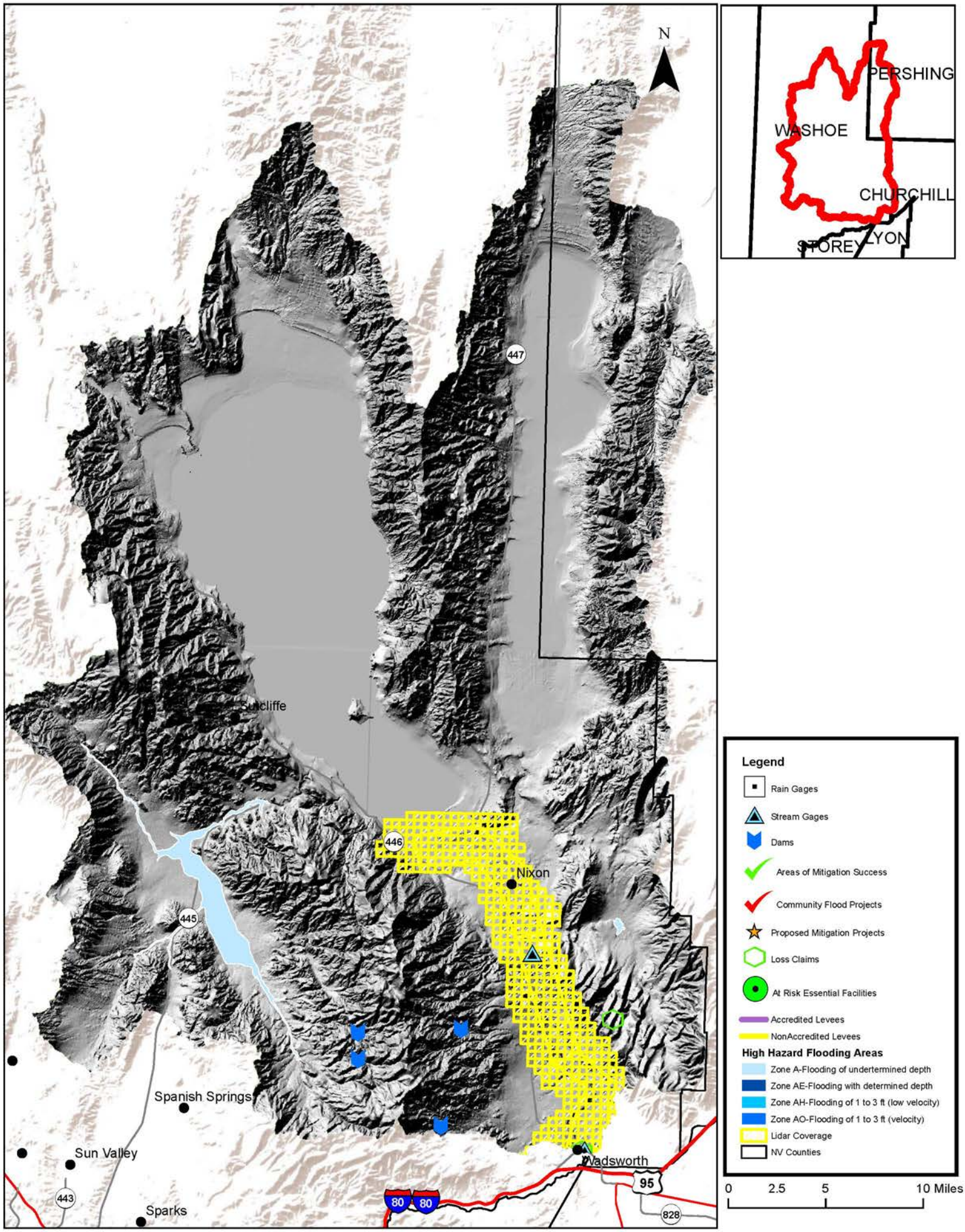
Notes:

Pyramid Lake is the terminus of the 110 mile Truckee River. It is mildly alkaline, but has native fish. Winnemucca Lake dried up in the 1930's due to blockage of its slough and upstream diversions. Wadsworth is the main population center of this area. Flood hazard zones are designated for the Warm Springs Valley floor. Flood control structures in the Reno area and the Truckee Canal have decreased the quality of lower Truckee River. There have been recent efforts to mitigate this problem.

Community Contacts:

Washoe	
Floodplain Administrator	Kimble O. Corbridge, Engineering/Public Works (775) 328-2041, kcorbrid@washoecounty.us
Emergency Manager	Aaron Kenneston, CEM Emergency Manager (775) 337-5898 akenneston@WashoeCounty.us

Watershed Name: Pyramid-Winnemucca Lakes 98



Pyramid-Winnemucca	Watershed	HUC Code	16050103

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
3	Wadsworth	5	$2,612	3	$13,532
Estimated Active Contracts					
5					
Estimated Total Premiums					
$2,612.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Washoe County	7	15	5

Flood Insurance Rate Maps	Washoe		
Countywide Digital Flood Insurance Rate Map	3/16/2009		
Initial FIRM Identified	8/1/1984		

Recent Activities	Washoe		
Multi-Hazard Mitigation Plan	10/1/2005		

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
12	0	0	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
7,568	0	0	0

CNMS Line Stats- (Stream Miles)

A	50.4
AE	0
AO	0
AH	0

CNMS Verification- (Stream Miles)

Valid	50.4
Unverified	0
Unknown	0
Being Studied	0

NOTES:

Lower Truckee River restoration efforts

http://rlch.org/stories/lower-truckee-river-restoration

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HUC-8 Watershed Name	**Upper Amargosa**	(Sq Mi.)	3,408
Population	**2,627**	(Acres)	2,180,923

History of Flooding

March, 1995	Fortymile Wash	Flash flood near the DoE Yucca Mountain complex
February, 1998	Amargosa River, south of Beatty	Flooding due to several days of rain.

Amargosa River. Photo: Judy Mosby, Flickr.com

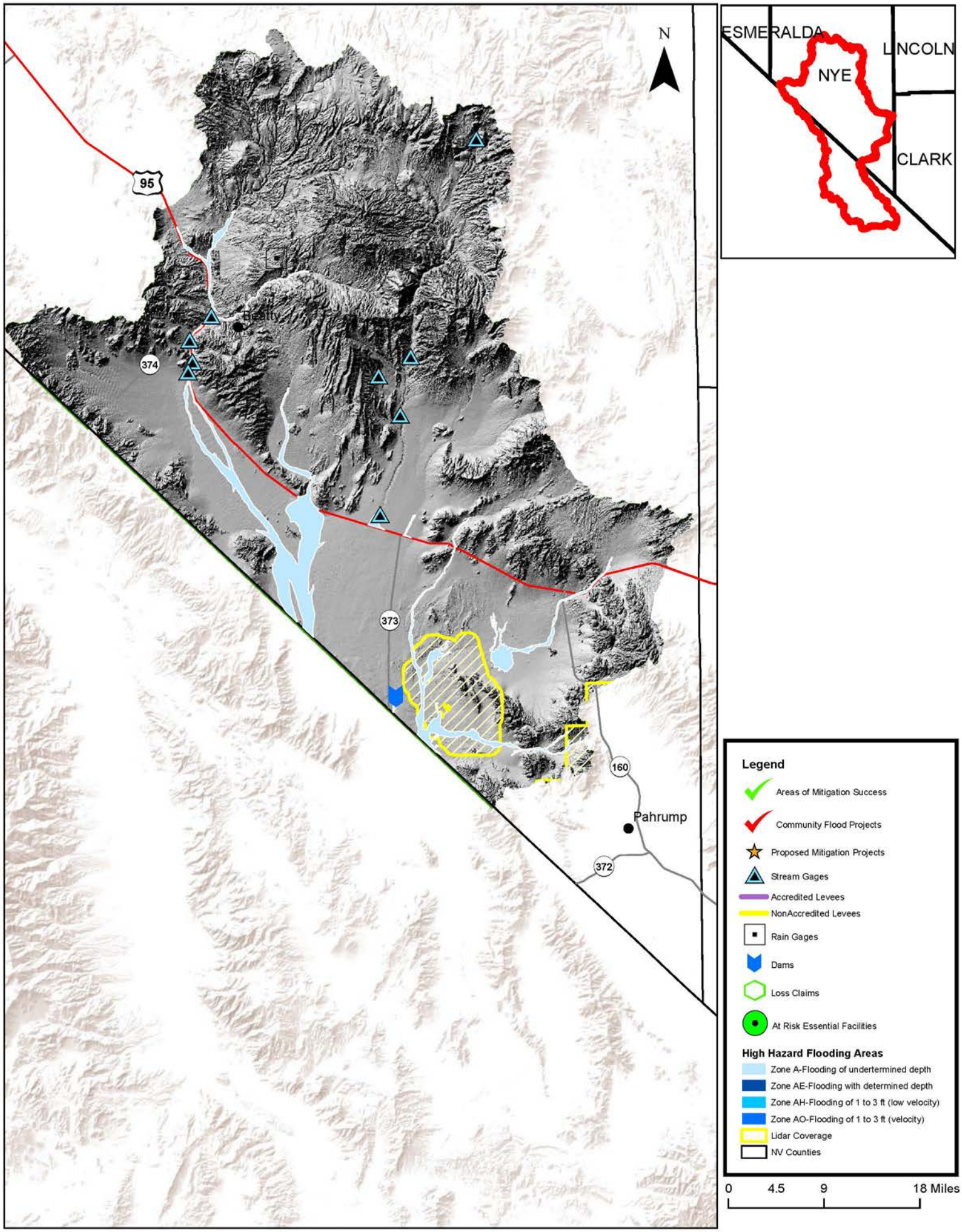
Notes:

The Amargosa River has a drainage area of 459 square miles and a 100-year peak discharge of 18,400 cfs, and is the major flooding source for this HUC-8 watershed. There are numerous mapped drainages that cross highway 95 and have the potential to cause road closures. There are some Special Flood Hazard Zones and are mapped in the town of Beatty.

Community Contacts:

Nye	
Floodplain Administrator	Cheryl Beeman, Floodplain Manager/Administrator (702) 580-0342, cbeeman@co.nye.nv.us
Emergency Manager	Vance Payne, Emergency Manager (775) 751-4278, vpayne@co.nye.nv.us

Watershed Name: Upper Amargosa 102



Upper Amargosa

Watershed **HUC Code** 18090202

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0	**Amargosa Valley**	7	$7,334	0	$0
Estimated Active Contracts	**Beatty**	8	$13,764	0	$0
15					
Estimated Total Premiums					
$21,098.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Nye
Countywide Digital Flood Insurance Rate Map	2/17/2010
Initial FIRM Identified	4/12/1983

Recent Activities	Nye
Multi-Hazard Mitigation Plan	9/25/2007

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
73.8	0.14	0	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
47,263	92	0	0

CNMS Line Stats- (Stream Miles)

A	207.7
AE	0
AO	0
AH	0

CNMS Verification- (Stream Miles)

Valid	82.0
Unverified	0
Unknown	125.8
Being Studied	0

NOTES:

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HUC-8 Watershed Name	**Southern Big Smokey Valley**	(Sq Mi.)	2,050
Population	**2,454**	(Acres)	1,312,002

History of Flooding		
		No significant, recent, floods.
August 6, 2011	Flash flood	YouTube_ Nevada Storm & Flashflood 2011.mov

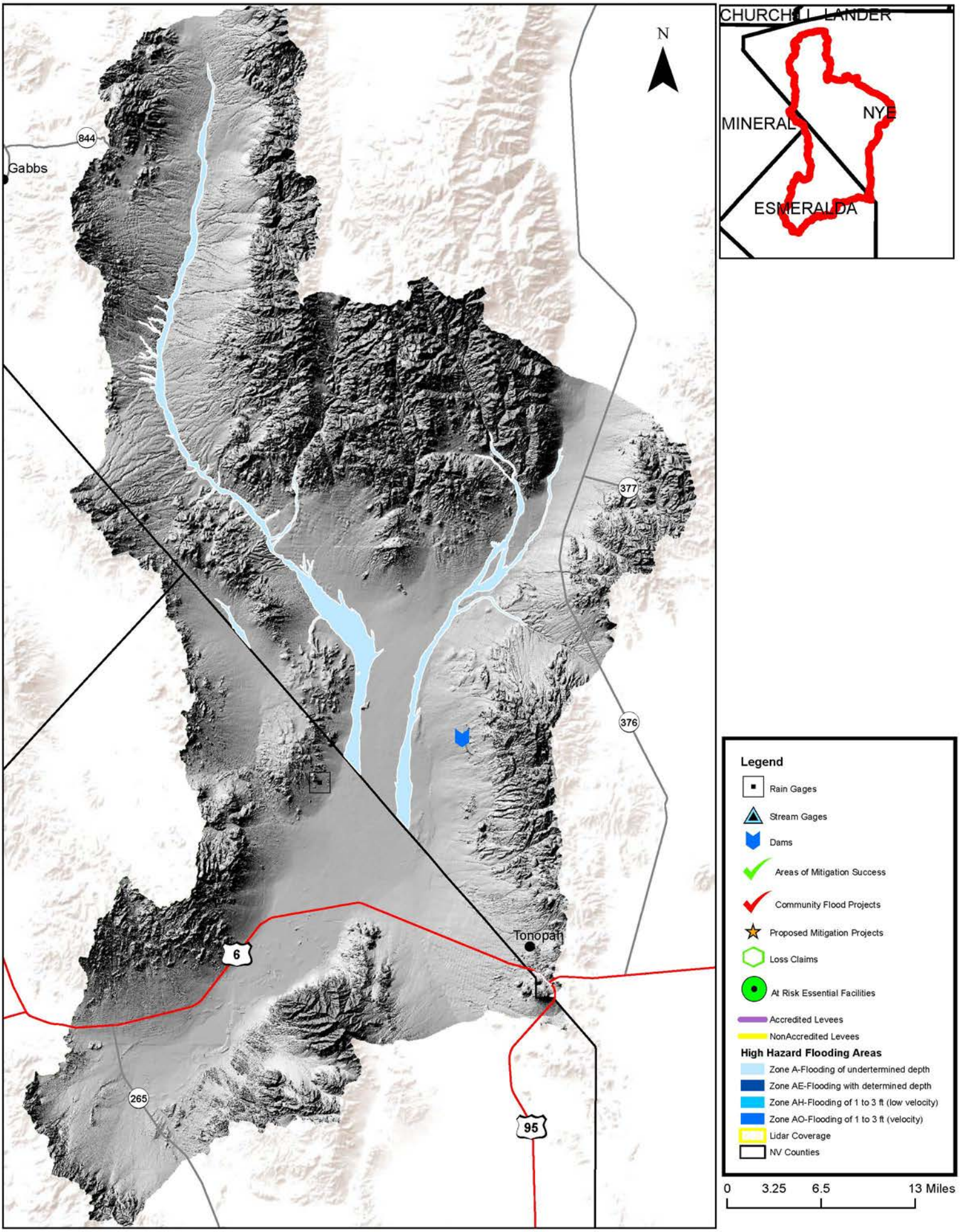
Big Smokey Valley Wash and the Toiyabe Mountains.
Photo: exploringnevada.com

Notes:

A sparsely populated HUC-8 watershed; Tonopah is the only significant populated place. Tonopah has mapped high hazard zones along main street (Highway 95). This watershed is mainly in Nye and Esmeralda counties. There are no significant watercourses. FEMA Special Flood Hazard Areas cover some of the Big Smokey Valley floor. These flood zones are caused by flash floods originating in the surrounding hills. Flood Zones are also depicted along Hwy 95 in central Tonopah and include some street front properties.

Community Contacts:	
Nye	
Floodplain Administrator	Cheryl Beeman, Floodplain Manager/Administrator (702) 580-0342, cbeeman@co.nye.nv.us
Emergency Manager	Vance Payne, Emergency Manager (775) 751-4278, vpayne@co.nye.nv.us

Watershed Name: Southern Big Smoky Valley 106



Southern Big Smokey Valley **Watershed** **HUC Code** 16060003

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0	**Tonopah**	2	$7,655	0	$0
Estimated Active Contracts					
2					
Estimated Total Premiums					
$7,655.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Nye
Countywide Digital Flood Insurance Rate Map	2/17/2010
Initial FIRM Identified	4/12/1983

Recent Activities	Nye
Multi-Hazard Mitigation Plan	9/25/2007

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
53.2	0	0	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
34,028	39	0	0

CNMS Line Stats- (Stream Miles)

A	172.7
AE	0
AO	0
AH	0

CNMS Verification- (Stream Miles)

Valid	149.3
Unverified	0
Unknown	23.5
Being Studied	0

NOTES:

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HUC-8 Watershed Name	**White**	(Sq Mi.)	2,875
Population	**1,832**	(Acres)	1,840,229

History of Flooding		
7/6/2005	White River	A flash flood at Hiko lasting about 45 minutes covered SR 318 with debris.

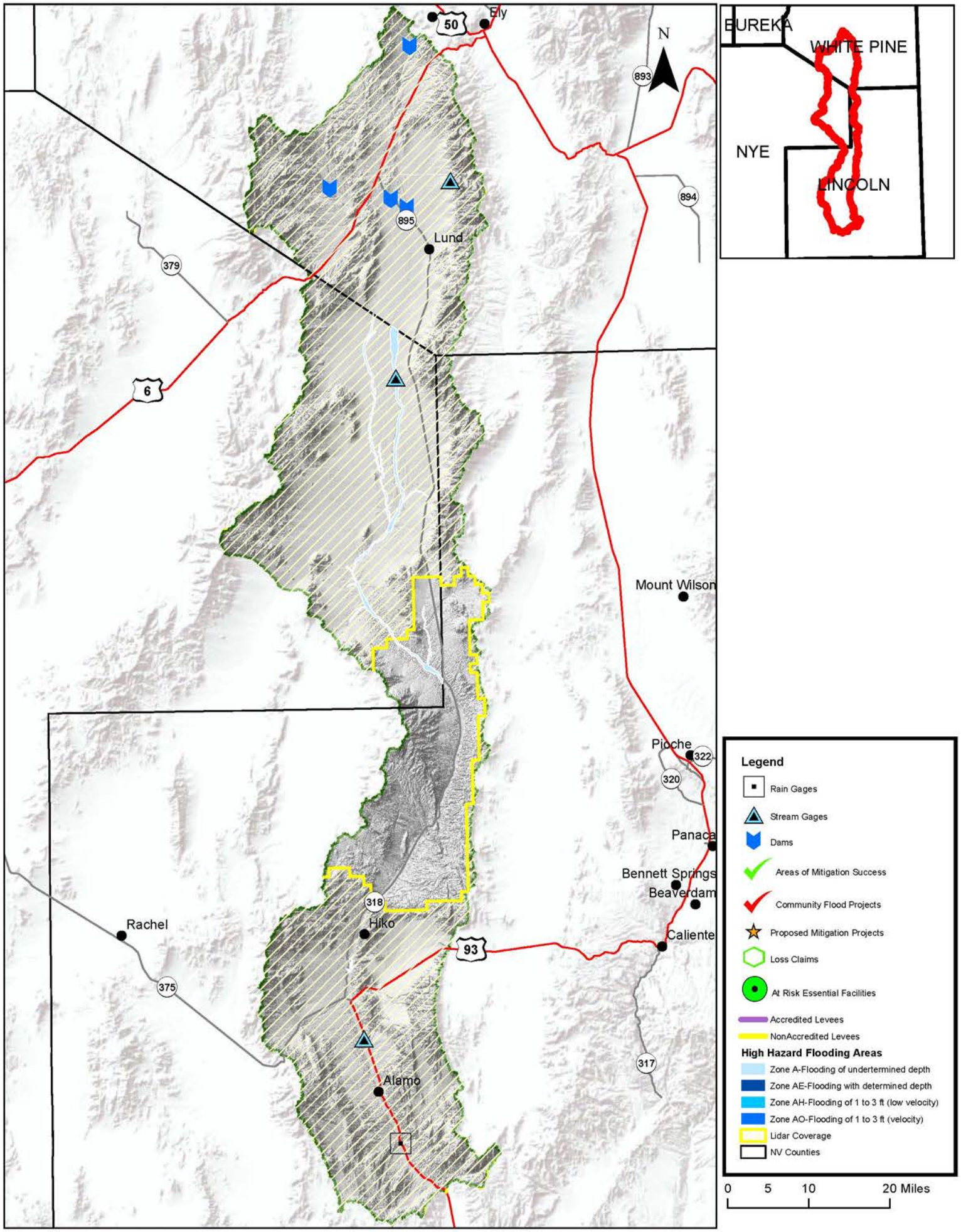
White River, Nevada
Photo: wikimedia.org

Notes:

The White River flows southward through the towns of Hiko, Ash Springs, and Alamo. The USGS 2012 average flow was about 18 cfs for the White River and FEMA's 100-year flood event, at Alamo, has an estimated peak discharge of 10,080 cfs. Flash flooding in the Alamo area is a concern, because of the mountains to the west and the large amount of drainage area that collects runoff and directs it towards Alamo. The existing dikes and diversions, that were constructed some years back, are in need of maintenance and in some cases, reconstruction. The Alamo area has the potential for major property damage in a severe storm event and may lose sections of major roadways.

Community Contacts:		
Lincoln County		
Floodplain Administrator	Cory Lytle, Building and Safety Dept. Administrator (775) 962-5165, clytle@lincolnnv.com	
Emergency Manager	Rick Stever, Emergency Manager (775) 962-2376, *lcemergencymanagement@yahoo.com*	
White Pine County		
Floodplain Administrator	Chris Flannery, Building official (775) 293-6547, wpbldg@mwpower.net	
Emergency Manager	Russel W. Peacock, Director of Emerg. Management (775) 293-6500, wpcoem@mwpower.net	

Watershed Name: White 110



White

Watershed **HUC Code** 15010011

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0	**Alamo**	3	$2,088	0	$0
Estimated Active Contracts	**Hiko**	1	$365	0	$0
4					
Estimated Total Premiums					
$2,453.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Lincoln	White Pine	
Countywide Digital Flood Insurance Rate Map	8/5/2010	11/16/2011	
Initial FIRM Identified	3/1/1984	9/18/1987	

Recent Activities	Lincoln	White Pine	
Multi-Hazard Mitigation Plan	1/1/2010	in progress	

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)

A	AE	AO	AH
24.6	0.9	0.02	0.0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
15,745	551	17	0

CNMS Line Stats- (Stream mi)

A	110.0
AE	5.2
AO	0.1
AH	0.0

CNMS Verification- (Stream mi)

Valid	100.1
Unverified	2.0
Unknown	13.3
Being Studied	0.0

NOTES:

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HUC-8 Watershed Name	**Northern Big Smokey Valley**	(Sq Mi.)	1,908
Population	**1,661**	(Acres)	1,221,351

History of Flooding

May, 1983	Kingston	Roads were washed out.
July, 2012	Kingston	Minor event, washed some debris into yards and driveways.

The Toiyabe Range, south of Kingston.
Photo: Butterflies of America

Notes:

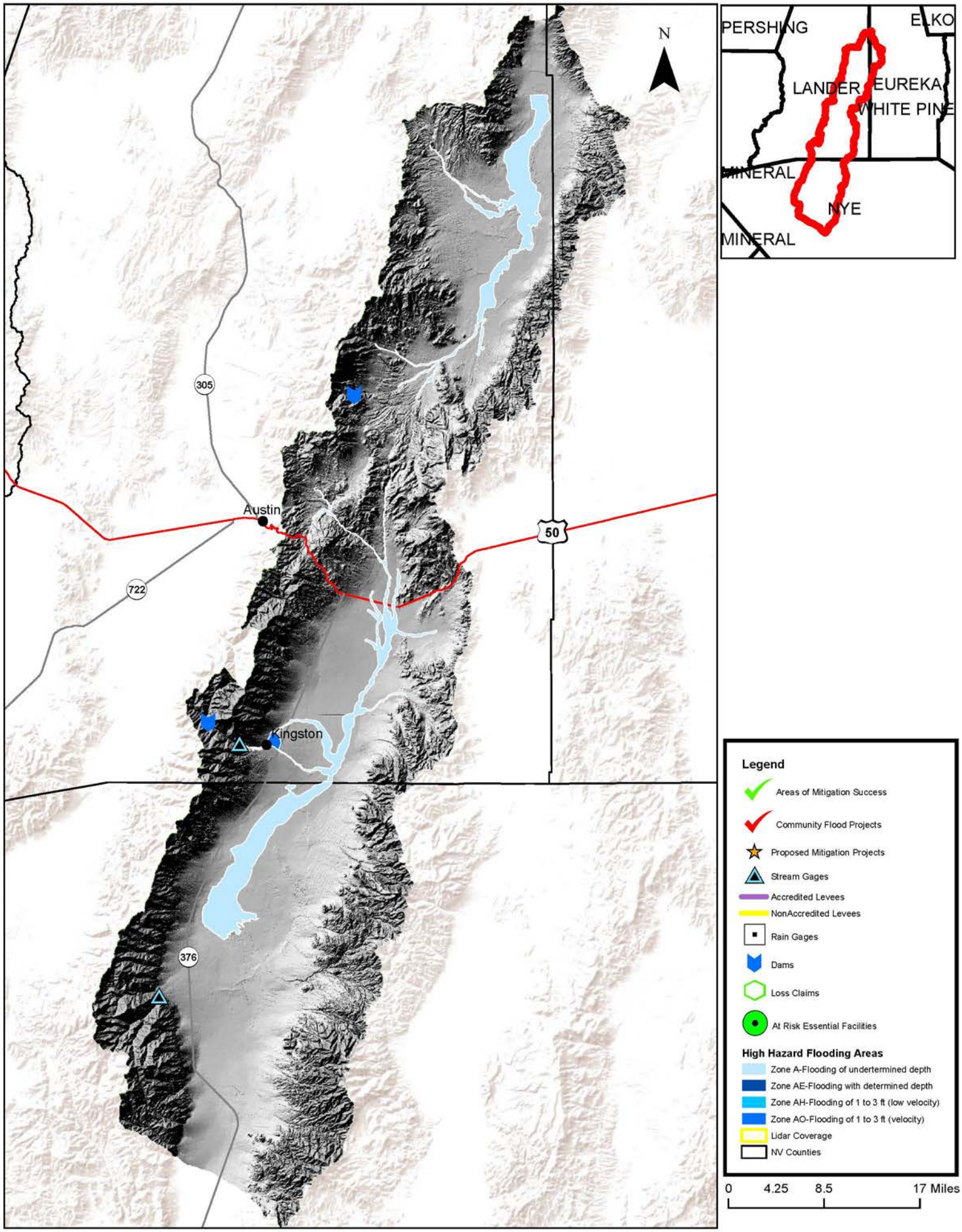
There are many named, intermediate-sized, streams throughout the Huc, but no major watercourses. A sparsely populated area; Kingston is the significant populated place. Flash floods, coming out of the surrounding mountains, are a potential hazard. Flood hazard zones are mapped along the Big Smokey and Grass Valley floors. The alluvial fan east of Kingston has the only mapped studied zone. Groves Lake is an impounded reservoir upstream of Kingston, for recreational purposes. US Hwy 50 bisects this Huc east-west.

Community Contacts:

Lander

Floodplain Administrator	Joe Lindsey, Building Official (775) 635-2860, jlindsey@landercountynv.org
Emergency Manager	Ron Unger, Sheriff/Fire Chief (775) 635-1100, sheriffrunger@landerso.org

Watershed Name: Northern Big Smoky Valley 114



Northern Big Smokey Valley

Watershed **HUC Code** 16060004

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
1	**Kingston**	6	$4,097	1	$1,058
Estimated Active Contracts					
6					
Estimated Total Premiums					
$4,097.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Lander County	8	10	5

Flood Insurance Rate Maps	Lander
Countywide Digital Flood Insurance Rate Map	9/28/1990
Initial FIRM Identified	4/5/1983

Recent Activities	Lander
Multi-Hazard Mitigation Plan	in progress

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
91	0.14	1.4	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
58,225	92	865	0

CNMS Line Stats- (Stream Miles)

A	195.2
AE	0
AO	0
AH	0

CNMS Verification- (Stream Miles)

Valid	160.2
Unverified	0
Unknown	35
Being Studied	0

NOTES:

Kingston Flash flood pictures: July 2012

https://picasaweb.google.com/104771129163625265728/KinstonFlashFlood#

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HUC-8 Watershed Name	**Little Humboldt**	(Sq Mi.)	1,781
Population	**1,398**	(Acres)	1,139,857

History of Flooding		
		No significant, recent, flooding.

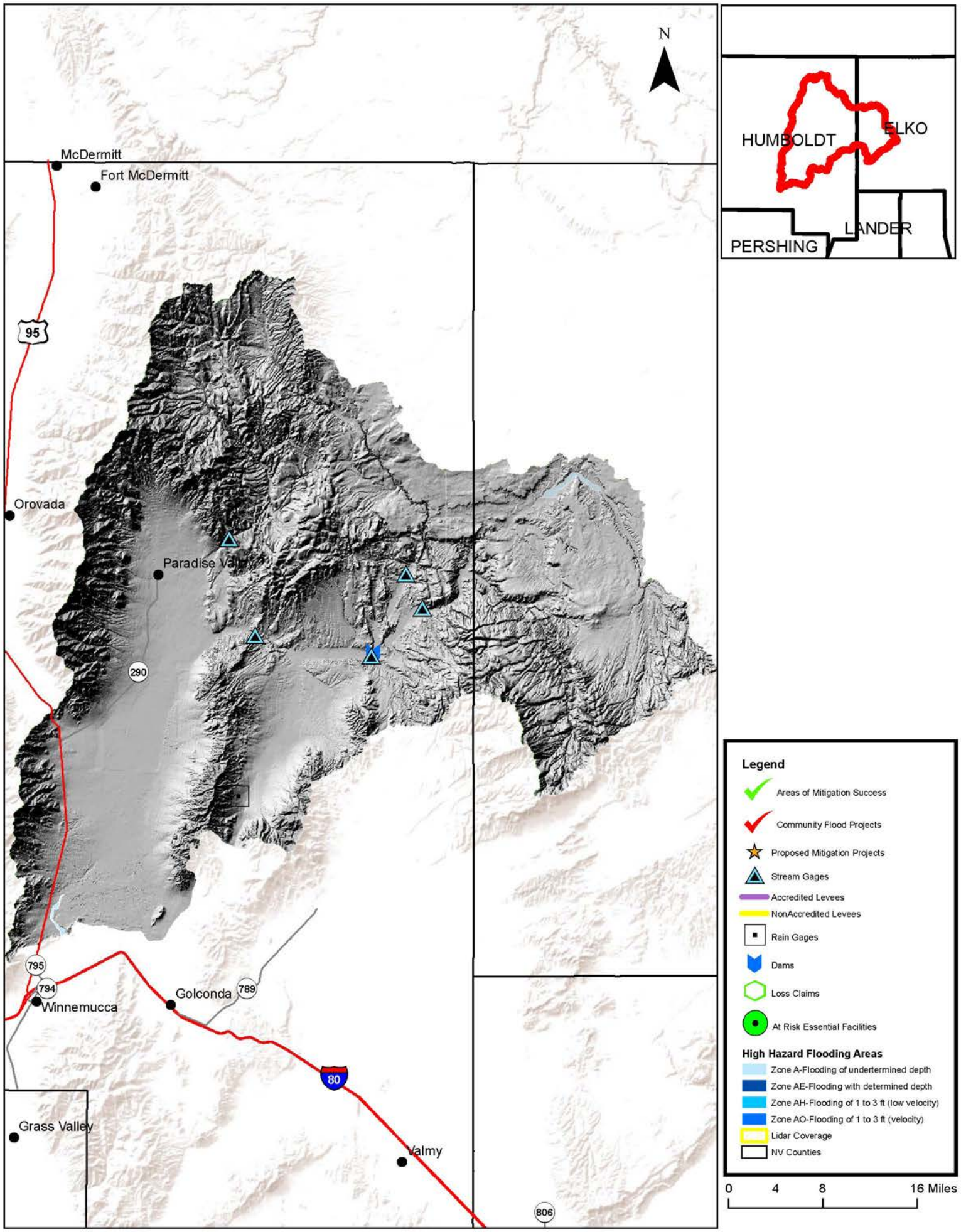
A view of North Fork of the Little Humboldt River to the east of Paradise Valley. Photo: Wikipedia.org

Notes:

This sparsely populated HUC-8 watershed includes Paradise Valley and the counties of Humboldt and Elko. The Little Humboldt River flows into the Humboldt River near Winnemucca and is the major watercourse for this Huc. The river has a total drainage of 1,750 square miles and discharges into the Humboldt River only during flood events or high water periods. The only semi-populated area with FEMA mapped flood hazard zones is on the Little Humboldt near the confluence with the Humboldt River. Chimney Dam, built in 1974, impounds water on the Little Humboldt River for both irrigation and recreational uses.

Community Contacts:	
Elko County	
Floodplain Administrator	Randy Brown, Planning and Zoning Director (775) 738-6816 ext. 3, rbrown@elkocountynv.net
Emergency Manager	Clair Morris, Emergency Manager Undersheriff (775) 777-2505, cmorris@elkocountynv.net
Humboldt County	
Floodplain Administrator	Bobby Thomas, Building Official (775)623-6322, buildingofficial@hcnv.us
Emergency Manager	Edwin Kilgore, County Sheriff (775) 623-6419, h101@hcsonv.com

Watershed Name: Little Humboldt 118



Little Humboldt

Watershed **HUC Code** 16040109

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0	**Paradise Valley**	1	$313	0	$0
Estimated Active Contracts					
1					
Estimated Total Premiums					
$313.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Elko	Humboldt
Flood Insurance Rate Map	11/16/1995	--
Initial FIRM Identified	2/1/1984	5/4/1987
Countywide Digital Flood Insurance Rate Map	in progress	3/17/2010
Recent Activities	**Elko**	**Humboldt**
Multi-Hazard Mitigation Plan	10/1/2008	in progress

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

A	AE	AO	AH
3.4	0.0	0.0	0.0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
2,147.0	0.0	0.0	0.0

A	13.6
AE	0
AO	0
AH	0

CNMS Verification- (Stream mi)

Valid	13.6
Unverified	0
Unknown	0
Being Studied	0

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HUC-8 Watershed Name	**Diamond-Monitor Valleys**	(Sq Mi.)	3,123
Population	**1,353**	(Acres)	1,998,935

History of Flooding

May, 1874	Eureka	A major flood with many lives lost.

Looking NW along Hwy 50, towards Diamond Valley from the downstream end of Eureka Canyon, Eureka. Photo: Scott Traine.com

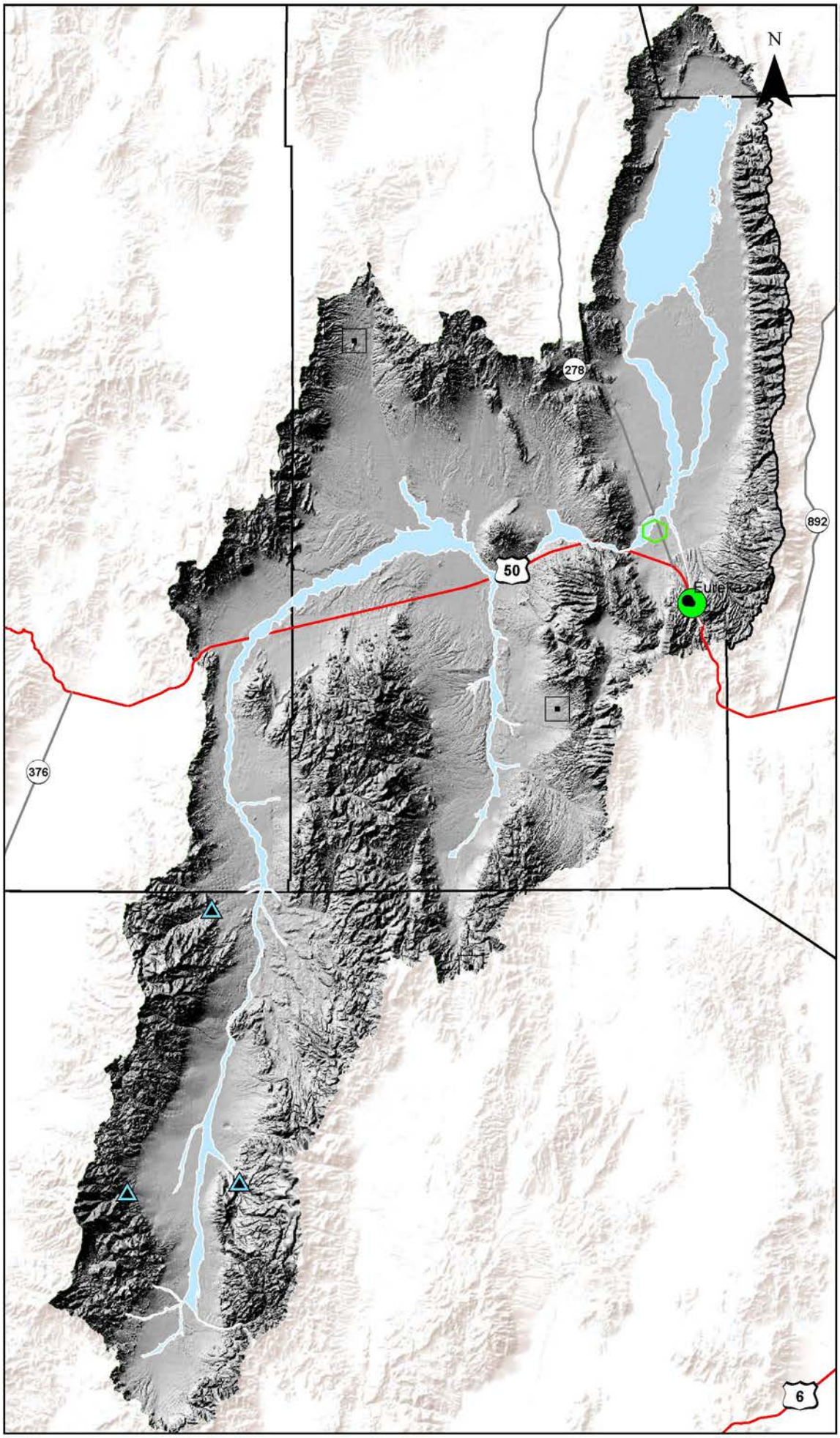
Notes:

This watershed lies in Eureka and Nye counties, and includes Eureka and Diamond Valley areas. Flood hazard zones are mapped along many of the valley floors, but the only detailed studied areas are along the Eureka Canyon watercourse, through the town of Eureka. The primary flooding source for Eureka is Eureka Canyon. The watercourse has a predicted 100-year event flow of 2,300 cfs just upstream of the town. Hwy 50 bisects the basin, east-west.

Community Contacts:

Eureka	
Floodplain Administrator	Ron Damele, Public Works Director (775) 237-5372,rdamele@eurekanv.org
Emergency Manager	Michael Sullivan, EMTI/EMS Coordinator (775) 237-7036, kjones.ecso@eurekanv.org

Watershed Name: Diamond-Monitor Valleys 122



Legend

- Areas of Mitigation Success
- Community Flood Projects
- Proposed Mitigation Projects
- Stream Gages
- Accredited Levees
- NonAccredited Levees
- Rain Gages
- Dams
- Loss Claims
- At Risk Essential Facilities

High Hazard Flooding Areas

- Zone A-Flooding of undertermined depth
- Zone AE-Flooding with determined depth
- Zone AH-Flooding of 1 to 3 ft (low velocity)
- Zone AO-Flooding of 1 to 3 ft (velocity)
- Lidar Coverage
- NV Counties

0 4.75 9.5 19 Miles

Diamond-Monitor Valleys **Watershed** **HUC Code** 16060005

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
1	Eureka	12	$12,108	1	$588

Estimated Active Contracts
12

Estimated Total Premiums
$12,108.00

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Eureka		
Countywide Digital Flood Insurance Rate Map	5/16/2012		
Initial FIRM Identified	4/1/1988		

Recent Activities	Eureka		
Multi-Hazard Mitigation Plan	in progress		

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
210.2	0.07	0	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
134,525	43.6	0	0

CNMS Line Stats- (Stream Miles)

A	250.9
AE	1.5
AO	0
AH	0

CNMS Verification- (Stream Miles)

Valid	212.9
Unverified	0
Unknown	39.5
Being Studied	0

NOTES
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HUC-8 Watershed Name	**Salmon Falls**	(Sq Mi.)	2,193
Population	**1,284**	(Acres)	1,403,732

History of Flooding		
		No significant, recent, flooding

A view of Jackpot, NV. Photo: Triptutor.com

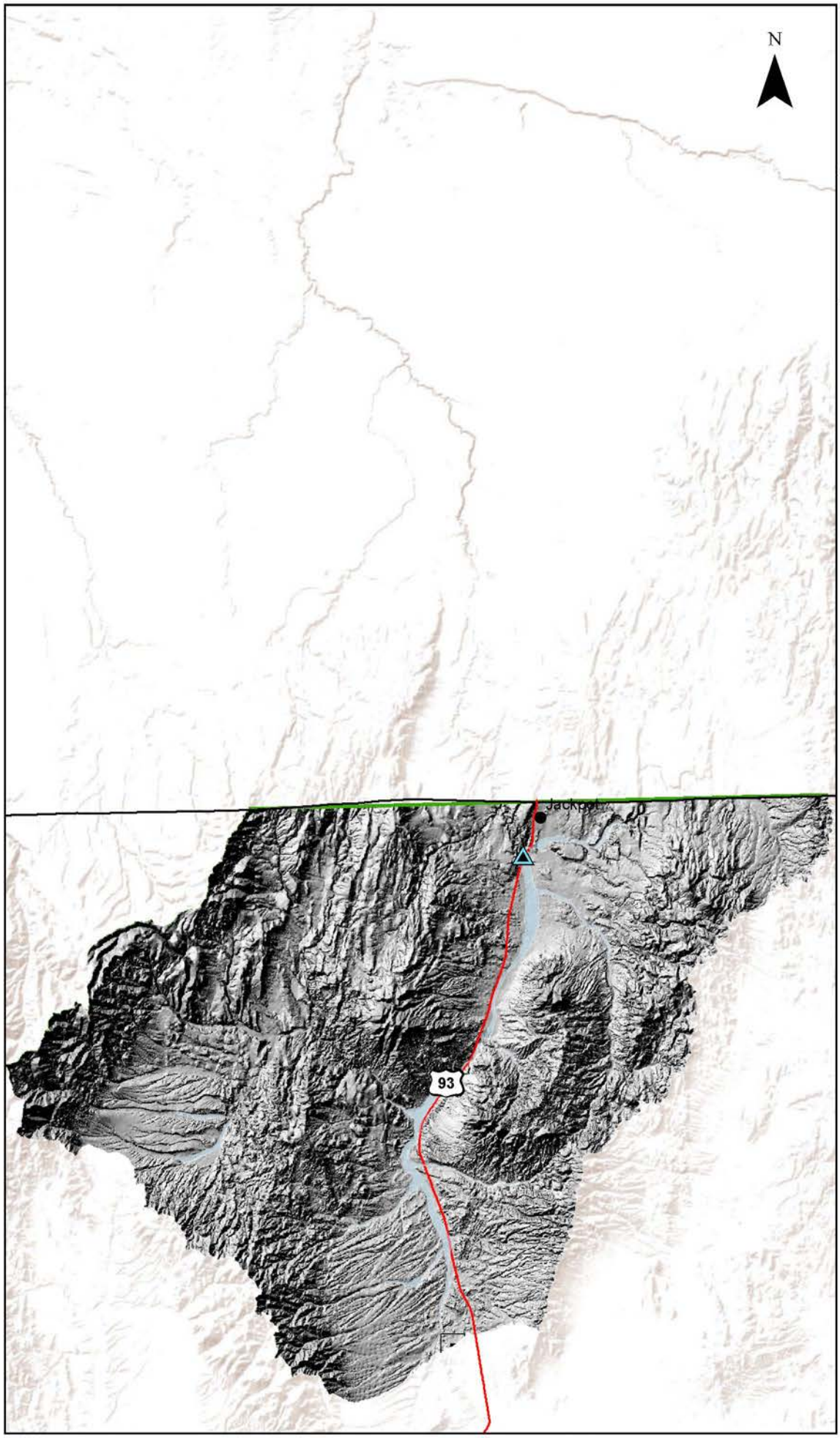
Notes:

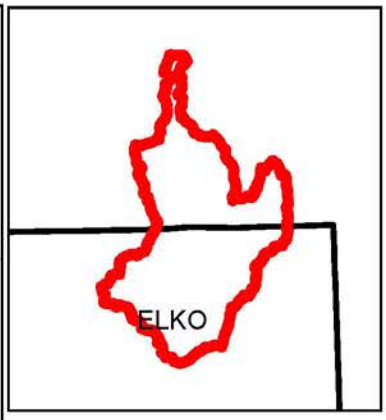
Salmon Falls Creek flows to the north into Idaho and crosses Highway 93 in several locations. A majority of this watershed lies within Idaho. Jackpot has no mapped High Hazard Flood Zones in the developed part of town. There are areas mapped as High Hazard Zones along Salmon Falls Creek and its tributaries just outside of town.

Community Contacts:

Elko County		
Floodplain Administrator	Randy Brown, Planning and Zoning Director (775) 738-6816 ext. 3, rbrown@elkocountynv.net	
Emergency Manager	Clair Morris, Emergency Manager Undersheriff (775) 777-2505, cmoris@wlkocountynv.net	

Watershed Name: Salmon Falls 126





Legend

- Areas of Mitigation Success
- Community Flood Projects
- Proposed Mitigation Projects
- Stream Gages
- Accredited Levees
- NonAccredited Levees
- Rain Gages
- Dams
- Loss Claims
- At Risk Essential Facilities

High Hazard Flooding Areas

- Zone A-Flooding of undertermined depth
- Zone AE-Flooding with determined depth
- Zone AH-Flooding of 1 to 3 ft (low velocity)
- Zone AO-Flooding of 1 to 3 ft (velocity)
- Lidar Coverage
- NV Counties

0 3.75 7.5 15 Miles

Salmon Falls

Watershed **HUC Code** 17040213

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0					
Estimated Active Contracts					
0					
Estimated Total Premiums					
$0.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System			
Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Elko		
Flood Insurance Rate Map	11/16/1995		
Initial FIRM Identified	2/1/1984		

Recent Activities	Elko		
Multi-Hazard Mitigation Plan	10/1/2008		
Countywide Digital Flood Insurance Rate Map	in progress		

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)

A	AE	AO	AH
22.3	0.0	0.0	0.0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
14,288.0	0.0	0.0	0.0

CNMS Line Stats- (Stream mi)

A	120.0
AE	0
AO	0
AH	0

CNMS Verification- (Stream mi)

Valid	78.8
Unverified	0
Unknown	41.2
Being Studied	0

NOTES:

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HUC-8 Watershed Name	**Sand Spring-Tikaboo Valleys**	(Sq Mi.)	5,131
Population	**1,221**	(Acres)	3,284,064

History of Flooding		
		No significant, recent, flooding.

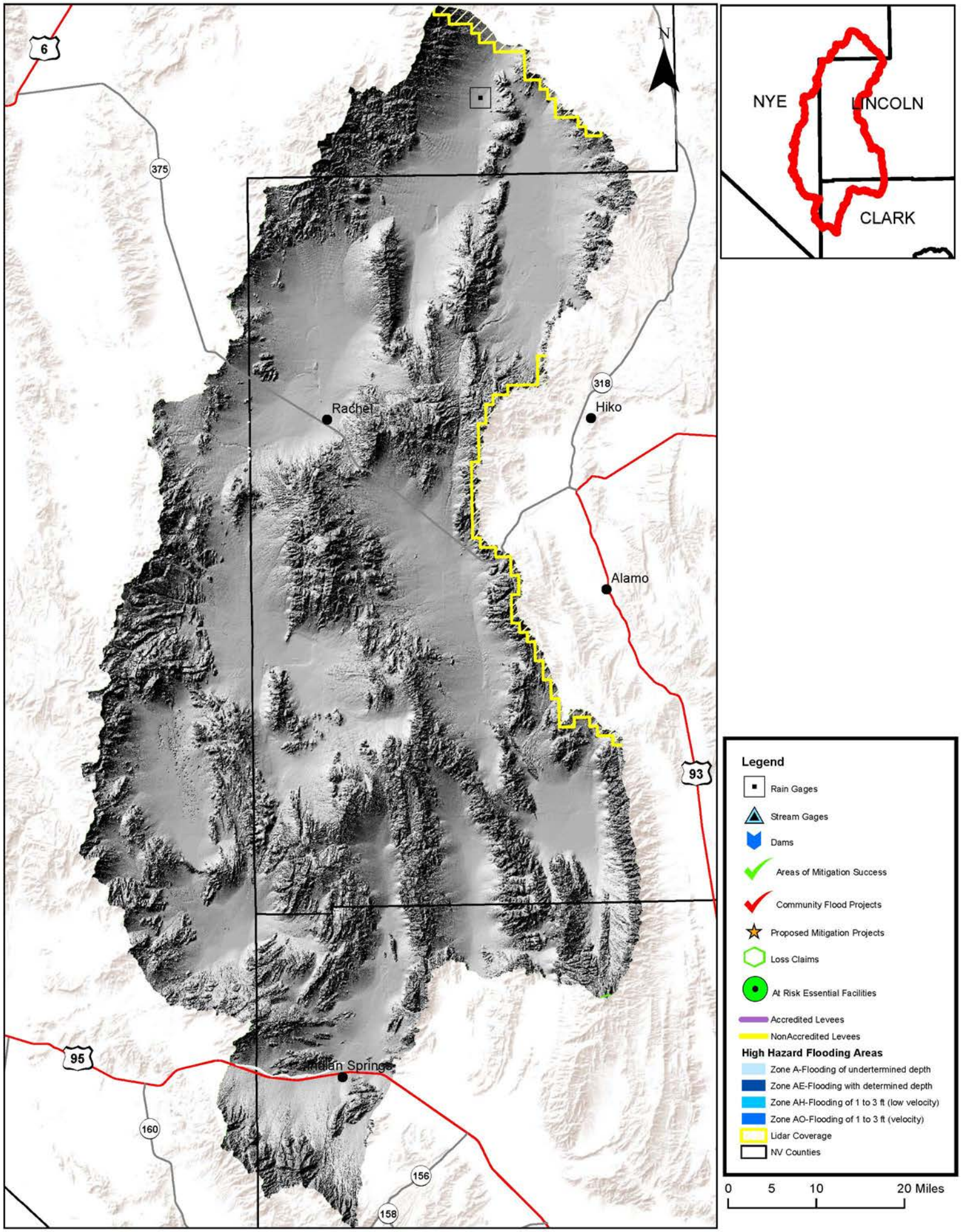
Image of Indian Springs; which is the largest community in this watershed. Photo: wikkipedia.org

Notes:

Rachel, Indian Springs, and the Nevada Test Site are within this watershed. There are mapped SFHAs, but they are limited to mostly unpopulated areas and some alluvial fans. Heavy rains could force the closure of some minor roadways, due to flash flooding, and pose a slight risk to drivers.

Community Contacts:	
Lincoln	
Floodplain Administrator	Cory Lytle, Building and Safety Dept. Administrator (775) 962-5165, *clytle@lincolnnv.com*
Emergency Manager	Rick Stever, Emergency Manager (775) 962-2376, *lcemergencymanagement@yahoo.com*
Nye	
Floodplain Administrator	George Bernath, Floodplain Manager/Administrator (775) 253-0157, gbernath@co.nye.nv.us
Emergency Manager	Vance Payne, Emergency Manager (775) 751-4278, vpayne@co.nye.nv.us
Clark	
Floodplain Administrator	Denis Cedarburg, Public Works Director (702) 455-6020, dlc@co.clark.nv.us
Emergency Manager	Fernandez J. Leary, Fire Chief-Clark County Fire Department (702) 455-7311, F7118L@clarkcountynv.gov

Watershed Name: Sand Spring-Tikaboo Valleys 130



Sand Spring-Tikaboo Valleys

Watershed **HUC Code** 16060014

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0					
Estimated Active Contracts					
0					
Estimated Total Premiums					
$0.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Clark County	6	20	10

Flood Insurance Rate Maps	Lincoln	Nye	Clark
Countywide Digital Flood Insurance Rate Map	8/5/2010	2/17/2010	11/16/2011
Initial FIRM Identified	3/1/1984	4/12/1983	9/29/1989

Recent Activities	Lincoln	Nye	Clark
Multi-Hazard Mitigation Plan	4/1/2012	12/12/2005	

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)

A	AE	AO	AH
1.9	0	0	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
1,220	0	0	0

CNMS Line Stats- (Stream mi)

A	12.9
AE	0
AO	0
AH	0

CNMS Verification- (Stream mi)

Valid	12.9
Unverified	0
Unknown	0
Being Studied	0

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HUC-8 Watershed Name	**Middle Humboldt**	(Sq Mi.)	3,199
Population	**1,071**	(Acres)	2,047,471

History of Flooding

February, 1962	Upper Humboldt River	Significant damage to roads
June, 1983	Upper Humboldt River	

Humboldt River at Beowawe looking south. Photo: Wordpress.com

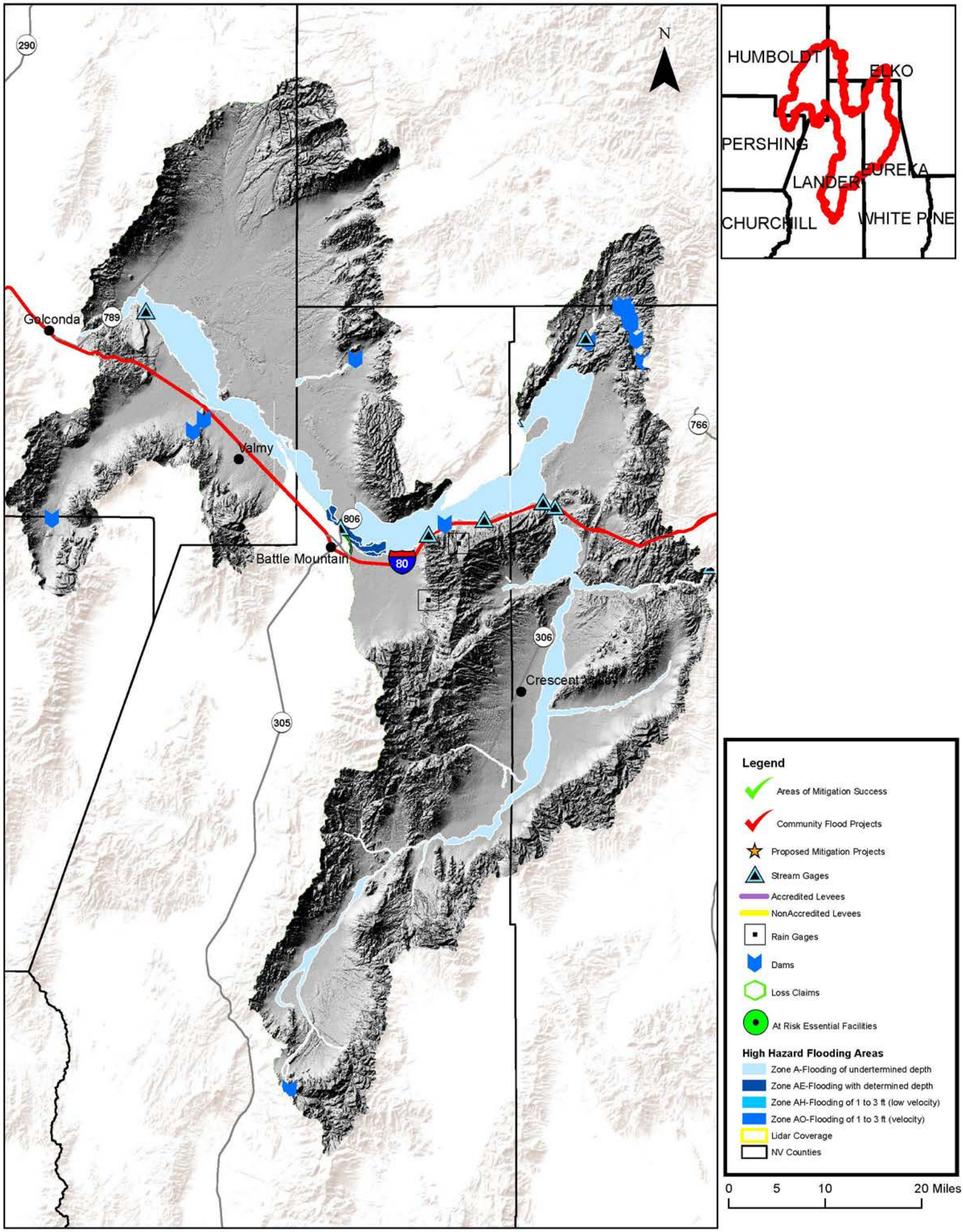
Notes:

The Humboldt River is the major watercourse in this Huc-8 watershed, flowing generally east to west. This HUC is sparsely populated, with some very small towns, Valmy, Beowave, and Crescent Valley. Interstate highway 80 bisects the HUC. A recent, peak, stream flow, of 3,940 cfs, on the Humboldt River, near the center of the HUC, occurred in 1983.

Community Contacts:

Lander	
Floodplain Administrator	Joe Lindsey, Building Official (775) 635-2860, jlindsey@landercountynv.org
Emergency Manager	Ron Unger, Sheriff/Fire Chief (775) 635-1100, sheriffrunger@landerso.org
Eureka	
Floodplain Administrator	Ron Damele, Public Works Director (775) 237-5372,rdamele@eurekanv.org
Emergency Manager	Michael Sullivan, EMTI/EMS Coordinator (775) 237-7036, kjones.ecso@eurekanv.org
Humboldt	
Floodplain Administrator	Bobby Thomas, Building Official (775)623-6322, buildingofficial@hcnv.us
Emergency Manager	Edwin Kilgore, County Sheriff (775) 623-6419, h101@hcsonv.com

Watershed Name: Middle Humboldt 134



Middle Humboldt

Watershed **HUC Code** 16040105

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0					
Estimated Active Contracts					
0					
Estimated Total Premiums					
$0.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Lander County	8	10	5

Flood Insurance Rate Maps	Lander	Eureka	Humboldt
Countywide Digital Flood Insurance Rate Map	9/28/1990	5/16/2012	3/17/2010
Initial FIRM Identified	4/5/1983	4/1/1988	5/4/1987

Recent Activities	Lander	Eureka	Humboldt
Multi-Hazard Mitigation Plan	in progress	in progress	in progress

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
22.9	3.8	0	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
14,671	2,443	0	0

CNMS Line Stats- (Stream Miles)

A	332.6
AE	0
AO	0
AH	0

CNMS Verification- (Stream Miles)

Valid	309.8
Unverified	0
Unknown	22.8
Being Studied	0

NOTES:

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HUC-8 Watershed Name	**Upper Owyhee**	(Sq Mi.)	2,143
Population	**984**	(Acres)	1,371,816

History of Flooding

		Limited flooding information, one loss claim.

A view of the Owyhee River near Mountain City, NV. Photo: Panoramio.com

Notes:

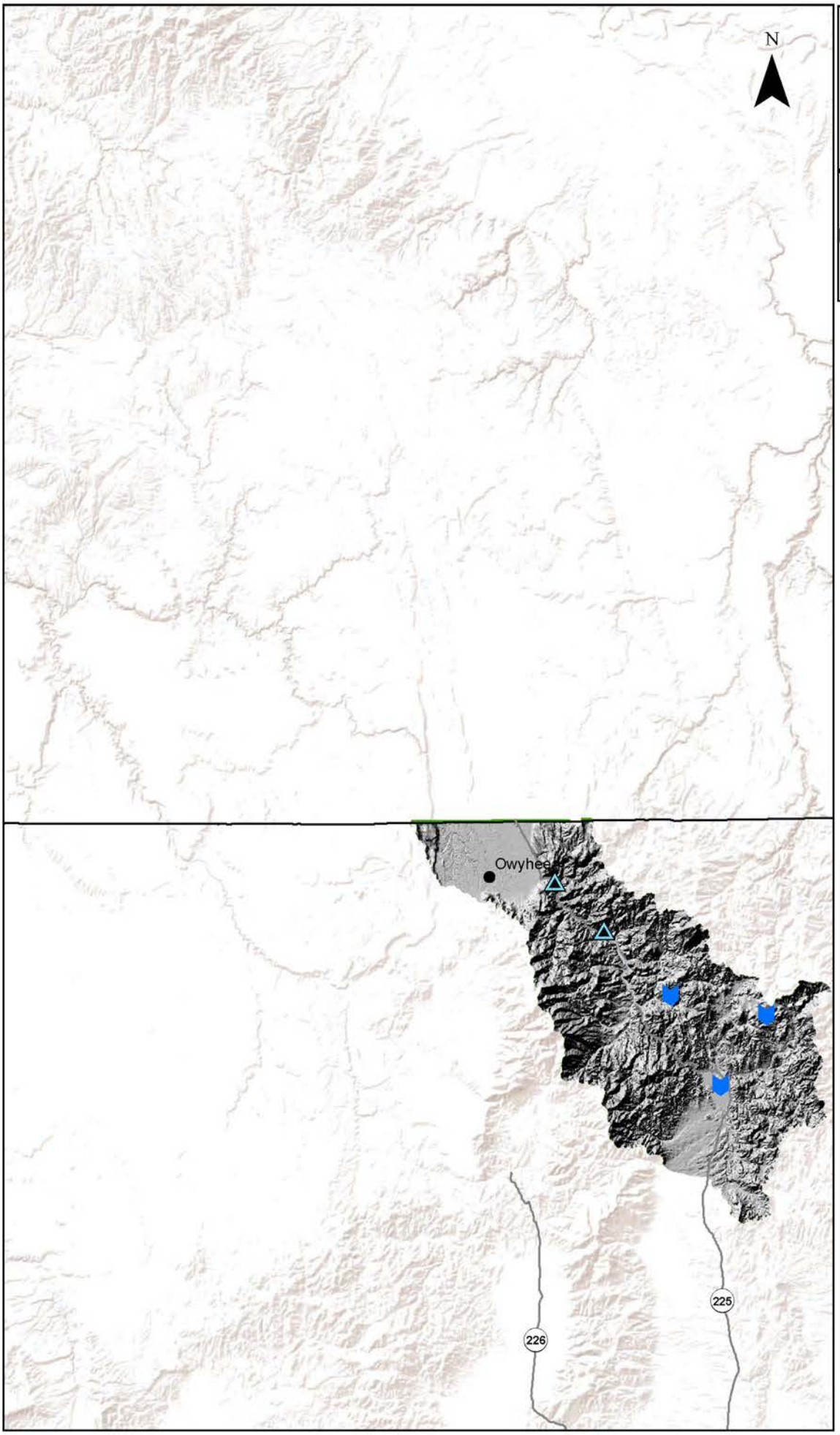
Much of this HUC-8 watershed lies in Idaho. The Owyhee River is the major watercourse running north into Idaho. Mountain City has mapped High Hazard Flood Zones determined by approximate methods by FEMA. This Zone A indicates a High Risk, but fails to provide Base Flood Elevations. There has been a flood insurance loss claim in the vicinity of Mountain City. Downstream, in Owyhee, Nevada, there are no mapped Special Flood Hazard Areas. The Wild Horse Dam was constructed in 1969 and impounds the large Wild Horse Reservoir for flood control, irrigation, storage, and recreation. A smaller reservoir, Sunflower, impounds water upstream of the Wild Horse Reservoir. A stream gage on the Owyhee River, just upstream of Duck Valley, recorded a peak flow in May, 1975 of 2,790 cfs.

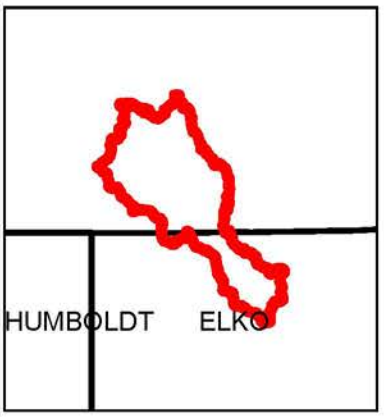
Community Contacts:

Elko County

Floodplain Administrator	Randy Brown, Planning and Zoning Director (775) 738-6816 ext. 3, rbrown@elkocountynv.net	
Emergency Manager	Clair Morris, Emergency Manager Undersheriff (775) 777-2505, cmorris@elkocountynv.net	

Watershed Name: Upper Owyhee 138





Legend

- Areas of Mitigation Success
- Community Flood Projects
- Proposed Mitigation Projects
- Stream Gages
- Accredited Levees
- NonAccredited Levees
- Rain Gages
- Dams
- Loss Claims
- At Risk Essential Facilities

High Hazard Flooding Areas

- Zone A-Flooding of undertermined depth
- Zone AE-Flooding with determined depth
- Zone AH-Flooding of 1 to 3 ft (low velocity)
- Zone AO-Flooding of 1 to 3 ft (velocity)
- Lidar Coverage
- NV Counties

0 5 10 20 Miles

Upper Owyhee

Watershed **HUC Code** 17050104

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
Estimated Active Contracts					
Estimated Total Premiums					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Elko		
Flood Insurance Rate Map	11/16/1995		
Initial FIRM Identified	2/1/1984		

Recent Activities	Elko		
Multi-Hazard Mitigation Plan	10/1/2008		
Countywide Digital Flood Insurance Rate Map	in progress		

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)

A	AE	AO	AH
2.1	0.0	0.0	0.0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
1,346.0	0.0	0.0	0.0

CNMS Line Stats- (Stream mi)

A	25.5
AE	0
AO	0
AH	0

CNMS Verification- (Stream mi)

Valid	0
Unverified	0
Unknown	16.6
Being Studied	0

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HUC-8 Watershed Name	**Upper Quinn**	(Sq Mi.)	3,524
Population	**959**	(Acres)	2,255,562

History of Flooding		
		No significant, recent, flooding.

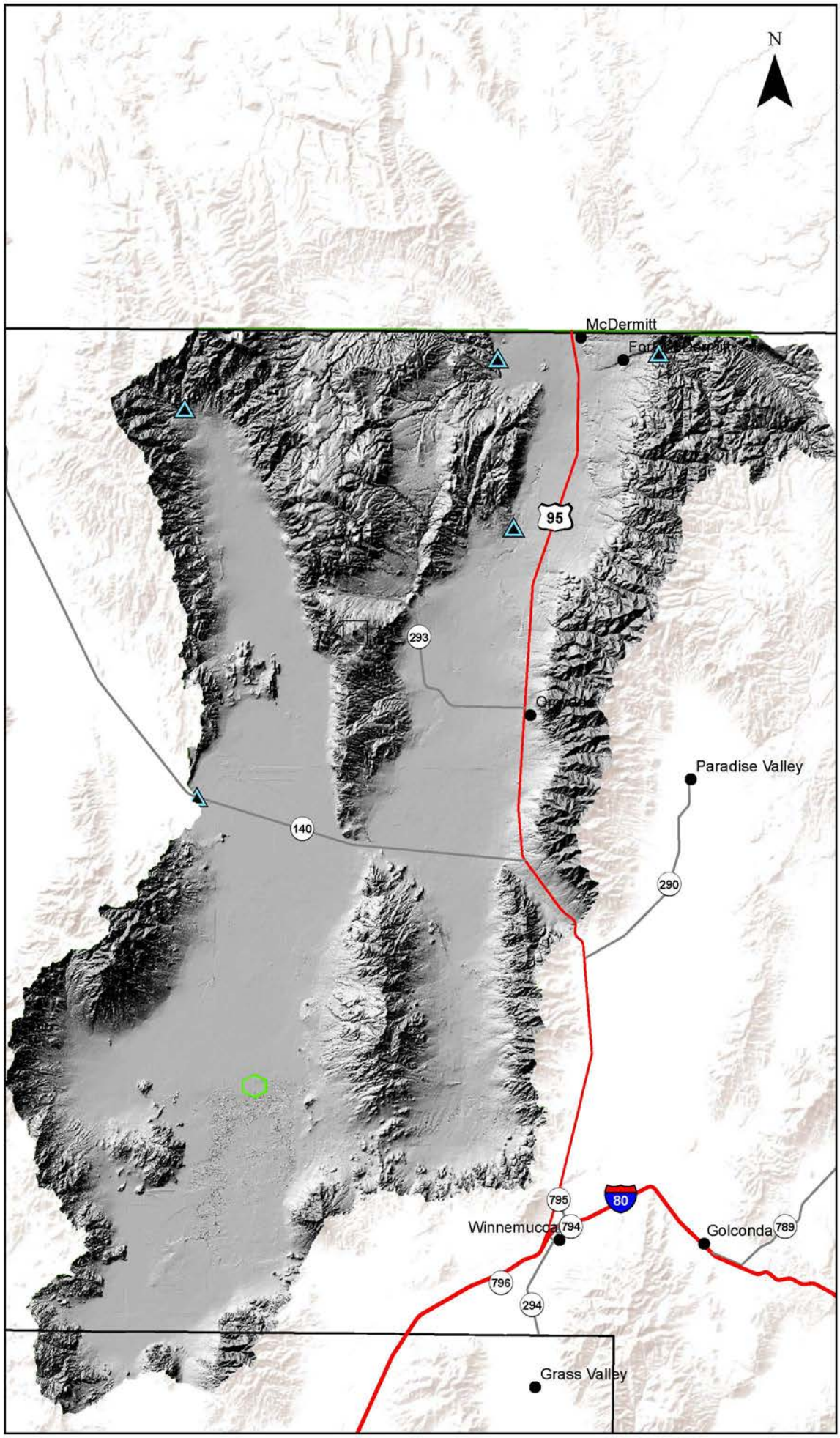
A view of the Quinn river crossing along the Applegate Immigrant Trail.
Photo: wanderingthewest.com

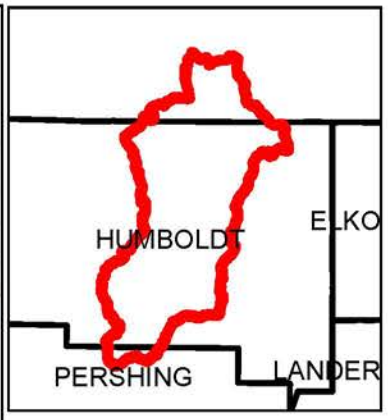
Notes:

Orovada, Kings River Valley and McDermitt have no FEMA mapped High Hazard Flood Zones. Orovada is below some drainages coming from the surrounding hills that pose a risk. The Quinn river has been said to be nearly a mile wide during flash flood events. A portion of this watershed lies within Idaho.

Community Contacts:	
Humboldt County	
Floodplain Administrator	Bobby Thomas, Building Official (775)623-6322, buildingofficial@hcnv.us
Emergency Manager	Edwin Kilgore, County Sheriff (775) 623-6419, h101@hcsonv.com

Watershed Name: Upper Quinn 142





Upper Quinn

Watershed **HUC Code** 16040201

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0					
Estimated Active Contracts					
0					
Estimated Total Premiums					
$0.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Humboldt		
Countywide Digital Flood Insurance Rate Map	3/17/2010		
Initial FIRM Identified	5/4/1987		

Recent Activities	Humboldt		
Regional Multi-Hazard Mitigation Plan	in progress		

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)

A	AE	AO	AH
0.0	0.0	0.0	0.0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
0.0	0.0	0.0	0.0

CNMS Line Stats- (Stream mi)

A	0.0
AE	0.0
AO	0.0
AH	0.0

CNMS Verification- (Stream mi)

Valid	0.0
Unverified	0.0
Unknown	0.0
Being Studied	0.0

NOTES:

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HUC-8 Watershed Name	**Piute Wash**	(Sq Mi.)	1,027
Population	**893**	(Acres)	657,495

History of Flooding		
		No significant, recent, flooding.

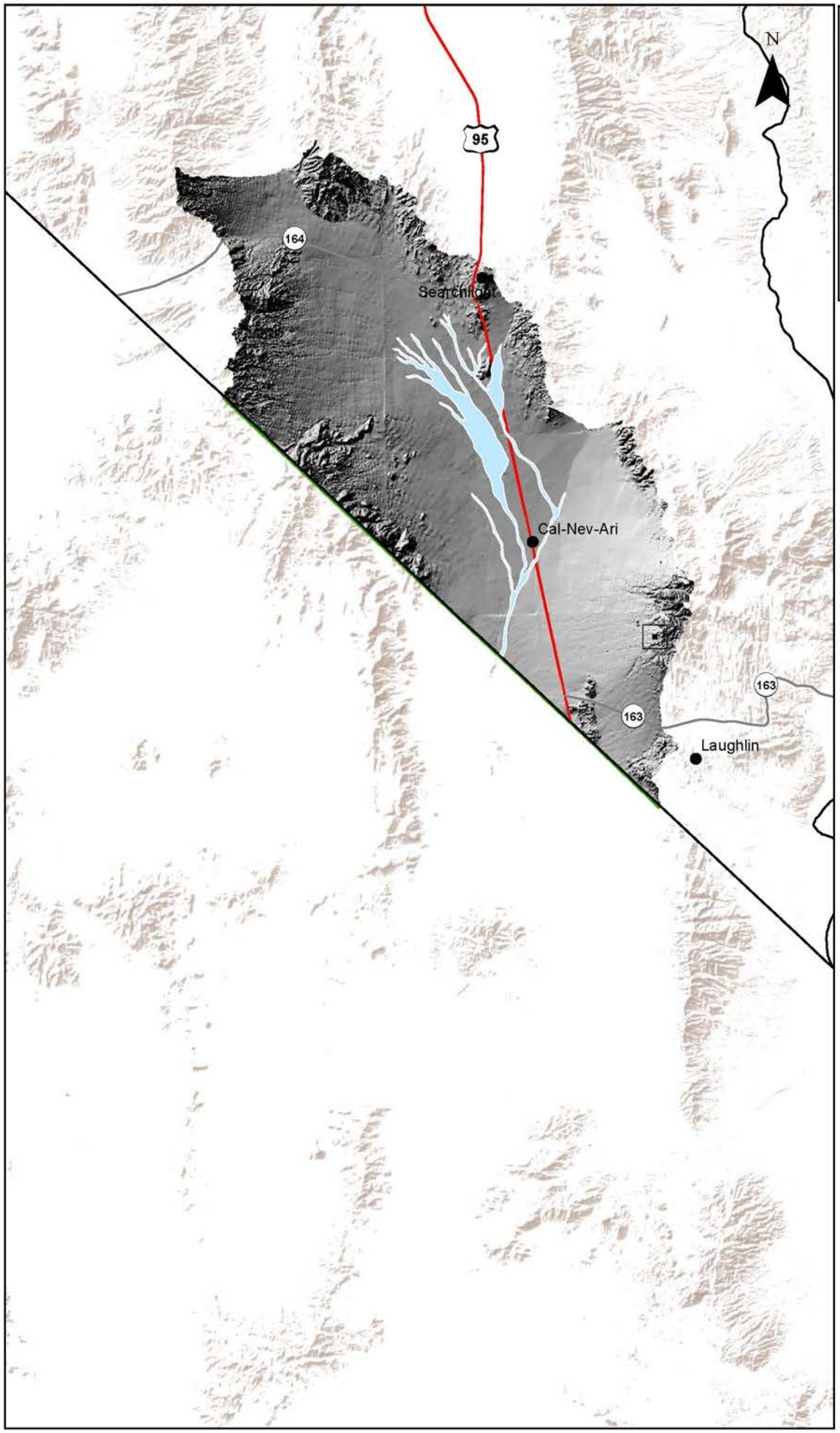
Piute Valley with a view of the Piute Range. Photo: Wikkipedia.org

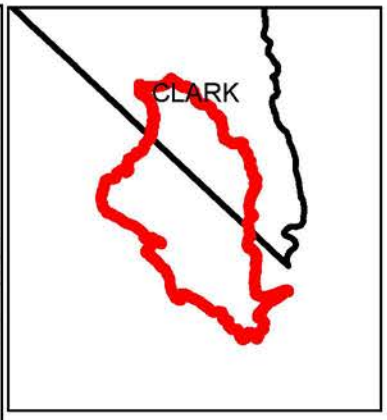
Notes:

Most of this HUC-8 watershed lies within California. The population is very sparse and there are only a few small communities, including Searchlight and Cal-Nev Ari in this watershed. The only mapped high risk flood zones are south of Searchlight and these drain into Piute Wash, the major watercourse for the watershed. The Special Flood Hazard Areas are Zone A and there are no detailed study areas in this area in Nevada. US Hwy 95 is the major route through the watershed and it runs north-south. Clark County Regional Flood Control District has involvement in this watershed.

Community Contacts:	
Clark	
Floodplain Administrator	Denis Cedarburg, Public Works Director (702) 455-6020, dlc@co.clark.nv.us
Emergency Manager	Fernandez J. Leary, Fire Chief-Clark County Fire Department (702) 455-7311, F7118L@clarkcountynv.gov

Watershed Name: Piute Wash 146





Legend

- Areas of Mitigation Success
- Community Flood Projects
- Proposed Mitigation Projects
- Stream Gages
- Accredited Levees
- NonAccredited Levees
- Rain Gages
- Dams
- Loss Claims
- At Risk Essential Facilities

High Hazard Flooding Areas

- Zone A-Flooding of undertermined depth
- Zone AE-Flooding with determined depth
- Zone AH-Flooding of 1 to 3 ft (low velocity)
- Zone AO-Flooding of 1 to 3 ft (velocity)
- Lidar Coverage
- NV Counties

0 2.75 5.5 11 Miles

Piute Wash

Watershed **HUC Code** 15030102

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0	**Searchlight**	1	$274	0	$0
Estimated Active Contracts					
1					
Estimated Total Premiums					
$274.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA
Clark County	6	20	10

Flood Insurance Rate Maps	Clark
Countywide Digital Flood Insurance Rate Map	11/16/2011
Initial FIRM Identified	9/29/1989

Recent Activities	Clark
Multi-Hazard Mitigation Plan	

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
12.2	0	0	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
7,844	0	0	0

CNMS Line Stats- (Stream Miles)

A	74.6
AE	0
AO	0
AH	0

CNMS Verification- (Stream Miles)

Valid	49.4
Unverified	0
Unknown	25.2
Being Studied	0

NOTES:

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HUC-8 Watershed Name	**Fish Lake-Soda Springs Valleys**	(Sq Mi.)	2,760
Population	**584**	(Acres)	1,766,104

History of Flooding

July & October, 2010	Luning & Mina	Flash floods. Hwy 95 was overtopped

Flash flooding overtops road near Luning, Summer 2012.
Photo: www.geolocation.ws

Notes:

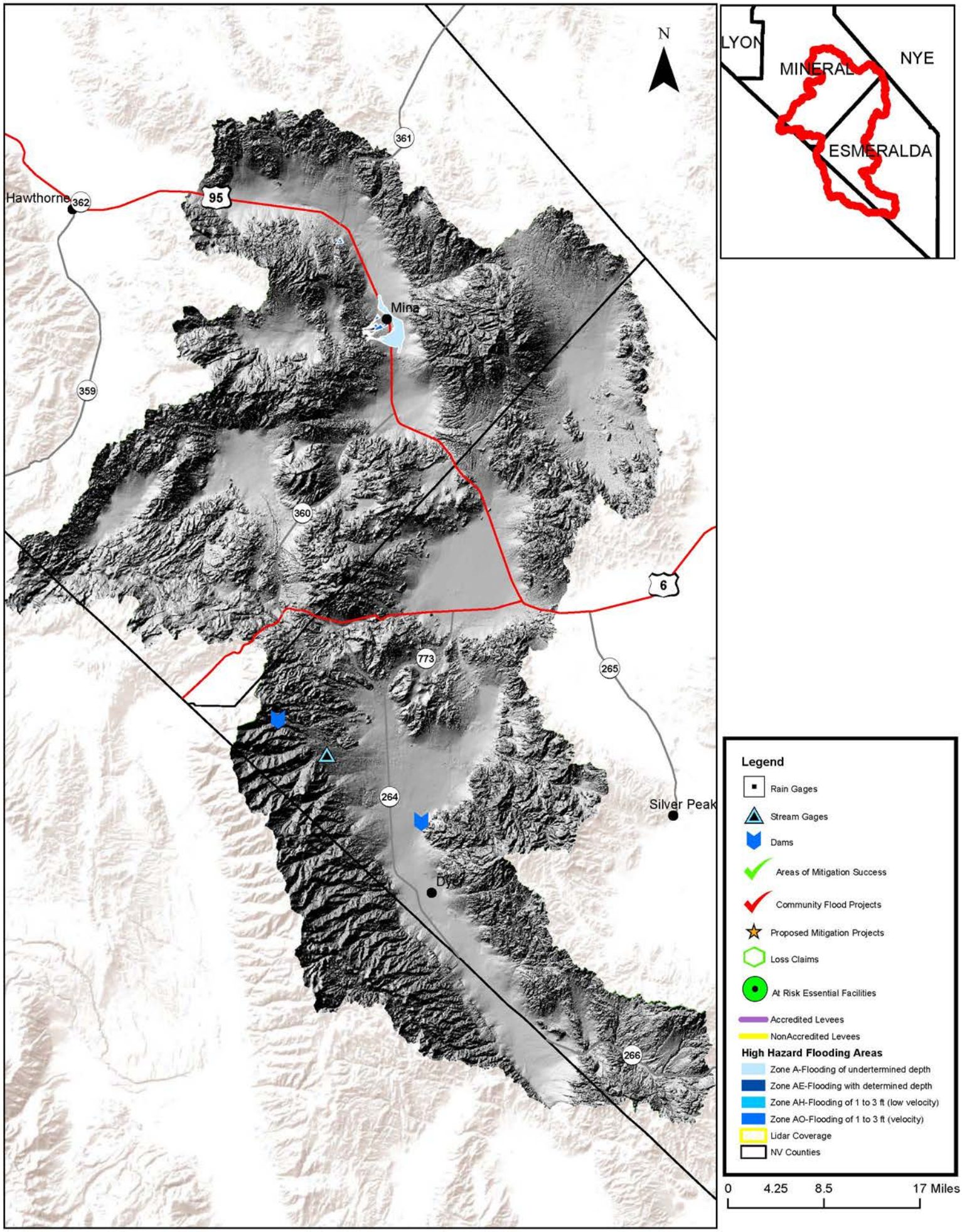
The watershed consists of a number of dry lake or alkaline valleys in Mineral and Esmeralda counties. A very sparsely populated basin; the only significant towns include Mina, Luning and Dyer. Special flood hazard areas are mapped around Mina and above Luning on an alluvial fan. There are no FEMA mapped flood zones in Esmeralda County, due to the county not participating in the NFIP. Hwy 6 bisects the Huc east-west and Hwy 95 bisects north-south and could be overtopped near Mina in storm events.

Community Contacts:

Mineral

Floodplain Administrator	Mike Fontaine, Building Official (775) 945-3671, mfontaine@mineralcountynv.org
Emergency Manager	T.C. Knight, Fire Chief (775) 945-2497, firechief@mineralcountynv.org

Watershed Name: Fish Lake-Soda Spring Valleys 150



Fish Lake-Soda Springs Valleys **Watershed** **HUC Code** 16060010

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0					
Estimated Active Contracts					
0					
Estimated Total Premiums					
$0.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Mineral		
Countywide Digital Flood Insurance Rate Map	11/16/2012		
Initial FIRM Identified	5/1/1984		
Recent Activities	**Mineral**		
Multi-Hazard Mitigation Plan	2005		

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
4.6	0	0.8	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
2,954	0	524	0

CNMS Line Stats- (Stream Miles)

A	0
AE	0
AO	8.1
AH	0

CNMS Verification- (Stream Miles)

Valid	8.1
Unverified	0
Unknown	0
Being Studied	0

NOTES:
YouTube Flooding in Luning

http://www.youtube.com/watch?v=0RHgOlfZ_ag

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HUC-8 Watershed Name	**Ralston-Stone Cabin**	(Sq Mi.)	3,241
Population	**505**	(Acres)	2,074,434

History of Flooding		
1906 & 1913	Goldfield	Flash floods destroyed portions of the town, 2 deaths and
		an estimated $100,00 loss in merchandise.

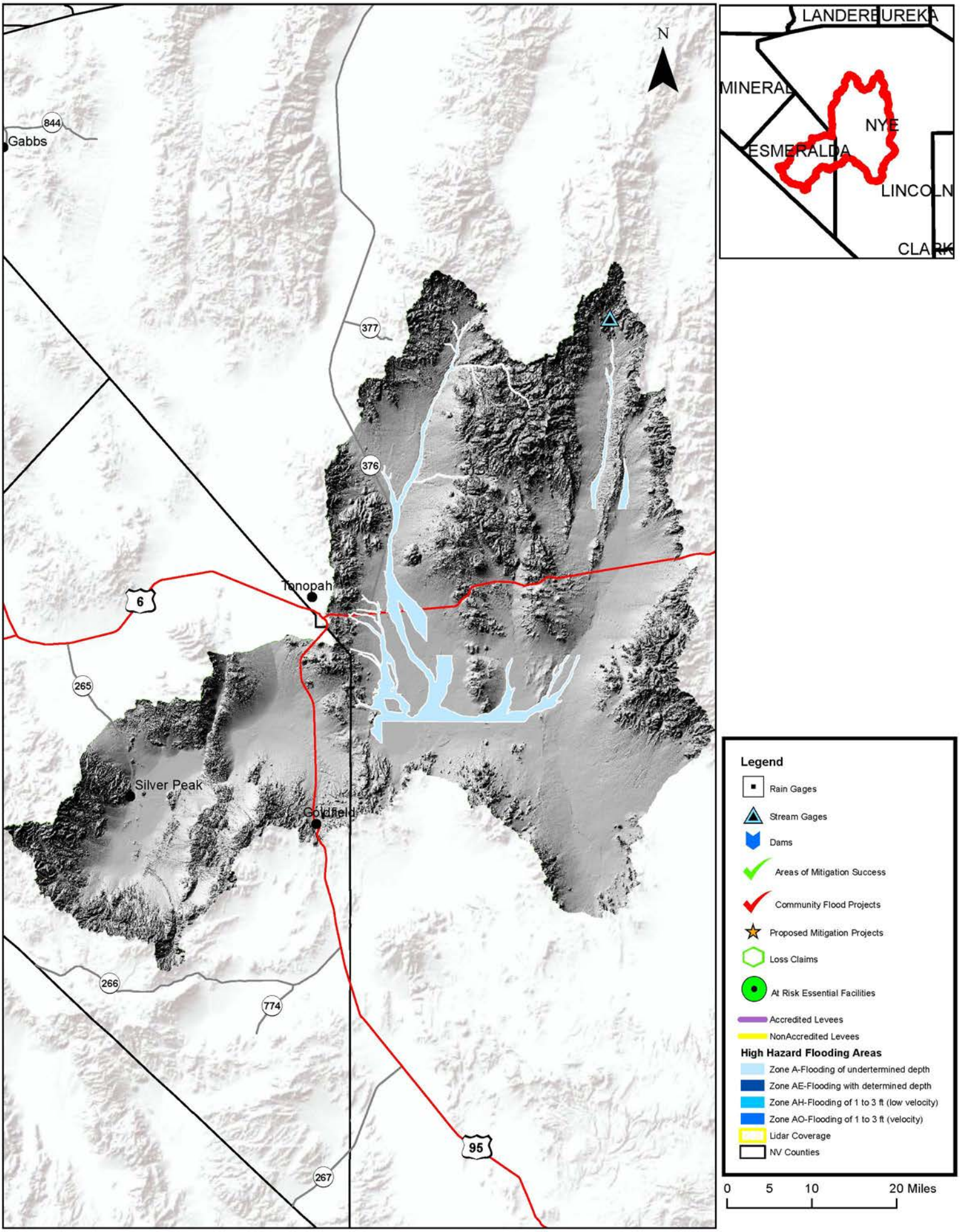
1913 flood damage.
Photo: Mindat.org

Notes:

A very sparsely populated watershed; it includes the communities of Goldfield and Silver Peak. Flood hazard zones are mapped along some of the valley floors and major washes. Goldfield and Esmeralda county are not participating in the National Flood Insurance Program, and thus have no FEMA mapped high hazard flood zones. Hwy 6 bisects this watershed, and along the highway, there are flood zones that suggest possible road closures in flood events.

Community Contacts:	
Nye	
Floodplain Administrator	Cheryl Beeman, Floodplain Manager/Administrator (702) 580-0342 cbeeman@co.nye.nv.us
Emergency Manager	Vance Payne, Emergency Manager (775) 751-4278, vpayne@co.nye.nv.us
Esmeralda County	
	Mike Anderson, Public Works (775-485-3483), escopw@gamil.com
	Emergency Management Contact (775) 485-3757, esco@frontiernet.net

Watershed Name: Ralston-Stone Cabin Valleys 154



Ralston-Stone Cabin

Watershed **HUC Code** 16060011

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
Estimated Active Contracts					
Estimated Total Premiums					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Nye		
Countywide Digital Flood Insurance Rate Map	2/17/2010		
Initial FIRM Identified	4/12/1983		
Recent Activities	**Nye**		
Multi-Hazard Mitigation Plan	9/25/2007		

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Miles)

A	AE	AO	AH
111.4	0	0	0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
71,321	0	0	0

CNMS Line Stats- (Stream Miles)

A	240.6
AE	0
AO	0
AH	0

CNMS Verification- (Stream Miles)

Valid	205.3
Unverified	0
Unknown	35.3
Being Studied	0

NOTES:

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HUC-8 Watershed Name	**Pilot-Thousands Springs**	(Sq Mi.)	1,533
Population	**193**	(Acres)	981,313

History of Flooding

7/16/2012	Montello	Summer thunderstorms resulted in river like flows along roadway in town. The damage is unknown.

A view of the Union Pacific Railroad taking a corner with Montello, NV in the background. Photo: mcfarlanusa.com

Notes:

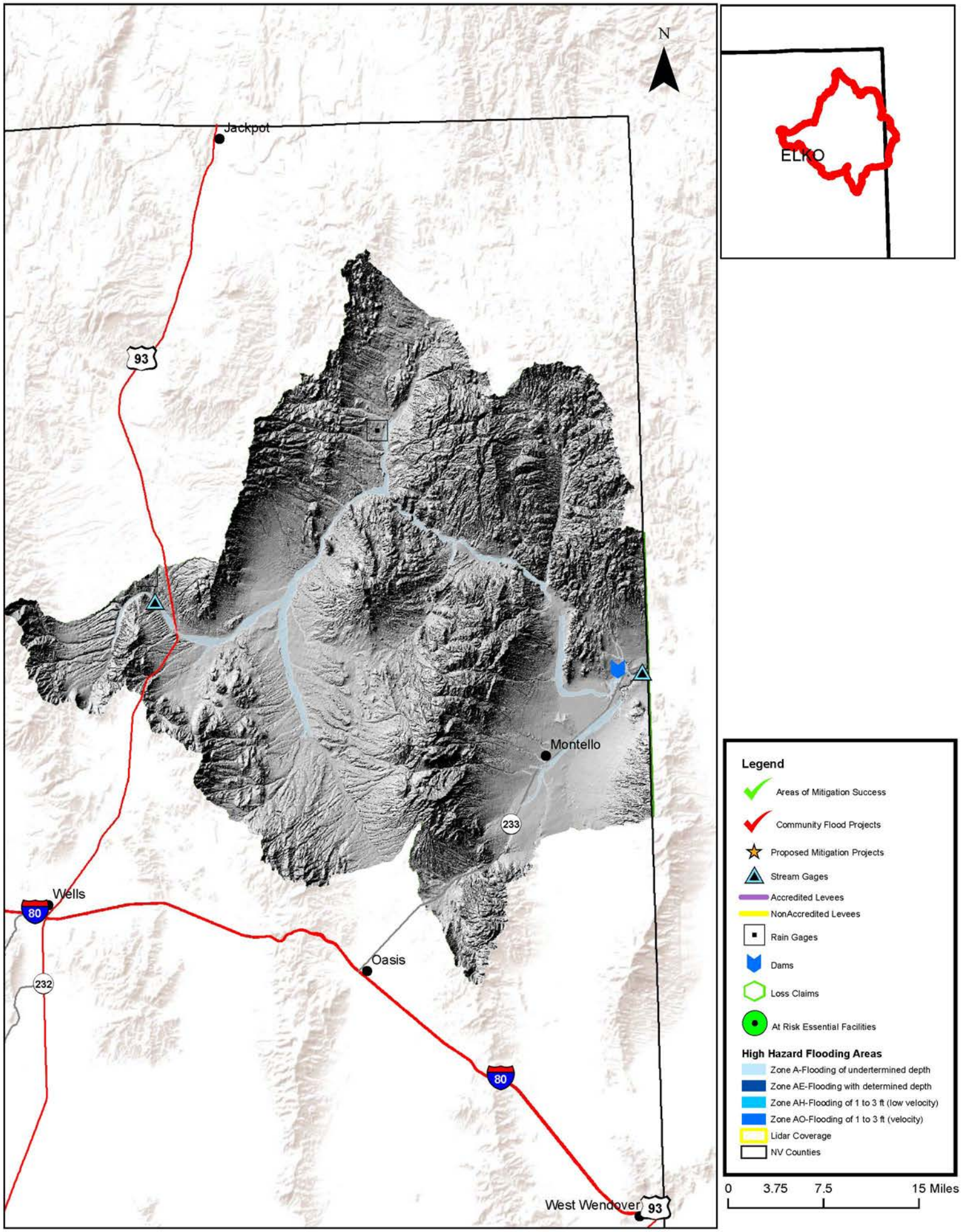
Montello has FEMA Zone A High Hazard Flood Zones that run along Highway 233 and at the base of drainage courses from the surrounding mountains. Videos of the July 16, 2012 flood event have been posted to the internet. To view these search: Montello, NV, Flooding.

Community Contacts:

City of Elko

Floodplain Administrator	Jeremy Draper, City Engineer (775) 777-7214, jdraper@ci.elko.nv.us	
Emergency Manager	Will Lehmann, Police Department (775) 777-7310, wlehmann@ci.elko.nv.us	

Watershed Name: Pilot-Thousand Springs 158



Pilot-Thousands Springs

Watershed **HUC Code** 16020307

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0	**Montello**	1	$294	0	$0
Estimated Active Contracts					
1					
Estimated Total Premiums					
$294.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System

Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Elko		
l Flood Insurance Rate Map	11/16/1995		
Initial FIRM Identified	2/1/1984		

Recent Activities	Elko		
Multi-Hazard Mitigation Plan	10/1/2008		
Countywide Digital Flood Insurance Rate Map	in progress		

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)

A	AE	AO	AH
0.0	0.0	0.0	0.0

Area of SFHA RISK Zones (Acres)

A	AE	AO	AH
0.0	0.0	0.0	0.0

CNMS Line Stats- (Stream mi)

A	200.7
AE	0
AO	0
AH	0

CNMS Verification- (Stream mi)

Valid	99.3
Unverified	0
Unknown	101.4
Being Studied	0

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HUC-8 Watershed Name	**Alvord Lake**	(Sq Mi.)	2,146
Population	**49**	(Acres)	1,373,457

History of Flooding

		No significant, recent, flooding.

A view of Denio, NV with NV and OR mountians in the background. Photo: nichelob.com

Notes:

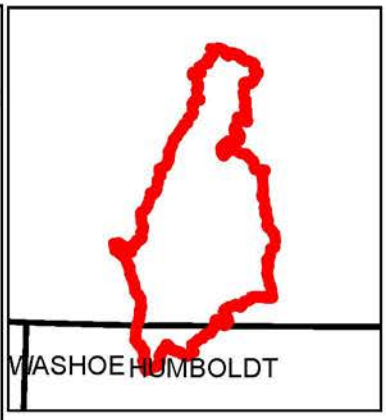
This is a sparsely populated watershed, with just one significant town, Denio. There are no mapped FEMA hazard flood zones in this HUC, but there are some drainages coming from the surrounding hills that pose a slight risk. A majority of watershed lies within the state of Idaho.

Community Contacts:

Humboldt County

Floodplain Administrator	Bobby Thomas, Building Official (775)623-6322, buildingofficial@hcnv.us	
Emergency Manager	Edwin Kilgore, County Sheriff (775) 623-6419, h101@hcsonv.com	

Watershed Name: Alvord Lake 162



Legend

- Areas of Mitigation Success
- Community Flood Projects
- Proposed Mitigation Projects
- Stream Gages
- Accredited Levees
- NonAccredited Levees
- Rain Gages
- Dams
- Loss Claims
- At Risk Essential Facilities

High Hazard Flooding Areas

- Zone A-Flooding of undertermined depth
- Zone AE-Flooding with determined depth
- Zone AH-Flooding of 1 to 3 ft (low velocity)
- Zone AO-Flooding of 1 to 3 ft (velocity)
- Lidar Coverage
- NV Counties

0 3.5 7 14 Miles

Alvord Lake

Watershed **HUC Code** 17120009

Flood Insurance Loss Claims	Community National Flood Insurance Program data*				
	City Name	Active Policies	Total Premium	No. of Losses	Total Claim paid by NFIP
0					
Estimated Active Contracts					
0					
Estimated Total Premiums					
$0.00					

* data is best approximation, for up to date or specific information please contact the NFIP

CRS Community Rating System			
Community	Current Class	% Discount in SFHA	% Discount for Non-SFHA

Flood Insurance Rate Maps	Humboldt
Countywide Digital Flood Insurance Rate Map	3/17/2010
Initial FIRM Identified	5/4/1987

Recent Activities	Humboldt
Regional Multi-Hazard Mitigation Plan	in progress

Mapped Special Flood Hazard Areas and Flood Study Verification (CNMS)

Area of SFHA RISK Zones (Sq Mi)			
A	**AE**	**AO**	**AH**
0.0	0.0	0.0	0.0

Area of SFHA RISK Zones (Acres)			
A	**AE**	**AO**	**AH**
0.0	0.0	0.0	0.0

CNMS Line Stats- (Stream mi)	
A	0.0
AE	0.0
AO	0.0
AH	0.0

CNMS Verification- (Stream mi)	
Valid	0.0
Unverified	0.0
Unknown	0.0
Being Studied	0.0

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