NWS FORM E-19 (COVER)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

REPORT ON RIVER GAGE STATION

REVISED, PRINTED DATES: 4/6/2012, 4/6/2012

LOCATION: Mason
STREAM: Walker River
BASIN: Walker River HSA: REV

REFERENCES:

1997 New Year's Flood in W NV; NV Bureau of Mines & Geology; 1998
CA DWR Walker River Atlas, 6/1992
Correspondence with Walker River Irrigation District
Correspondence with Walker River Water Master
Correspondence w/Lyon Co Dept. of Public Works
Correspondence w/Lyon Co Emergency Manager
Correspondence w/Lyon Co Sheriff Office
Correspondence w/USGS NV Water Science Center Personnel, Carson City
DeLorme TopoUSA
Google Earth
NV Division of Conservation & Natural Resources; The Flood of 1997; 5/1997
NV Division of Conservation & Natural Resources; Walker R Chronology, 6/1996
NV Division of Environmental Protection, Walker River Basin Reference Map
NWS, 10/1997: Disastrous Floods from the Severe 12/1996-1/1997 Storms
Reno Gazette-Journal, "The Great Flood of '97", 1997
USCE 1/97 Flood Assessment, E Sierra/W NV, Lyon Co. & Yerington; 9/1997
USDA SCS, NV DC&NR, CA RA; Chronology Of Flood Years, Central Lahontan Basin, 1861-1967; 6/1969
USDA SCS, NV DC&NR, CA RA; Central Lahontan Basin; Walker R Sub Basin NV/CA; 6/1969
USDA SCS, NV DC&NR, CA RA; Water & Related Land Resources, Central Lahontan Basin, 7/1975
USGS 7.5' Topographic Maps: Yerington, Mason Butte, Hinkson Slough
USGS 1:100,000 Scale Topographic Map: Smith Valley
USGS Flood Frequency Analyses, Walker R nr Mason & Walker R nr Wabuska, 9/14/2011
USGS Gaging Station Description; Walker R nr Mason; 3/23/2011
USGS Peak Flow Data; Walker R nr Mason (USGS #10300600) WY1974-WY1984, WY2011.
USGS Peak Flow Data; Walker R nr Wabuska (USGS #10301500); WY1903-1907; 1920-1935; 1940-2011
USGS Flow Measurement Data; Walker R at East Bridge Street nr Yerington (USGS #10301100); WY 1995-2012
Weather and Climate of the Reno-Carson City-Lake Tahoe Region; NV Bureau of Mines & Geology Pub#34; 2007

ABBREVIATIONS:

BM	- bench mark	EPA	- Environmental Protection Agency
DS	- downstream	IBWC	- International Boundary and Water Comm.
US	- upstream	MSRC	- Mississippi River Commission
HW	- high water	MORC	- Missouri River Commission
LW	- low water	NOAA	- National Oceanic and Atmospheric Admin.
RB	- right bank	NOS	- National Ocean Survey
LB	- left bank	NWS	- National Weather Service
MGL	- mean gulf level	TVA	- Tennessee Valley Authority
MLW	- mean low water	USACE	- U.S. Army Corps of Engineers
MSL	- mean sea level	USBR	- U.S. Bureau of Reclamation
MLT	- mean low tide	USGS	- U.S. Geological Survey
MT	- mean tide	USWB	- U.S. Weather Bureau
WQ	- water quality	NGVD	- National Geodetic Vertical Datum
RM	- reference mark	NAD	- North American Datum
RP	- reference point		

LOCATION IDENTIFICATION: MASN2
NWS INDEX NUMBER:
USGS NUMBER: 10300600

BENCHMARKS

ELEVATION OF GAGE ZERO: 4426.000 VERTICAL DATUM: NAVD88
LEVELING AGENCY AND DATE: USGS CHECKBAR:
RATING AGENCY: USGS

BENCHMARK	DESCRIPTION	GAGE ZERO	DATUM
CSGPIN	Crest stage gage pin elevation.	7.190	4433.190
RM1	Base. Bolt on right downstream side of bridge, est. 9/28/2010.	15.878	4441.878
RM2	Bolt on left downstream side of bridge, est. 9/28/2010.	16.483	4442.483
RM3	Chisel square on left upstream side of bridge, est. 9/28/2010.	17.038	4443.038
WWG	Wire weight gage check bar elevation.	15.837	4441.837

GAGES

DCP TELEM

NESS ID: 17135306 TYPE OF TELEMETRY:
OWNER: USGS OWNER:
REPORT TIME: 00:25:00 PHONE NUMBER:
INTERVAL: 60 INTERVAL:
PAYOR/COST OF LINE:

GAGE TYPE	OWNER	MAINTENANCE	BEGAN	ENDED	GAGE LOCATION/REMARKS
STAFF	USGS	USGS	04/30/1974	09/30/1984	On RB and 50' DS of old Snyder Lane BR, 2 mi S of Mason and 5 mi SSW of Yerington.
CREST STAGE	USGS	USGS	04/30/1974	09/30/1984	In gage house on RB and 50' DS of old Snyder Lane BR, 2 mi S of Mason and 5 mi SSW of Yerington.
RECORDER	USGS	USGS	04/30/1974	09/30/1984	In gage house on RB and 50' DS of old Snyder Lane BR, 2 mi S of Mason and 5 mi SSW of Yerington.
WIRE WT	USGS	USGS	09/28/2010		Base gage; on US side of new Snyder Ln BR (0.1 mi DS of old BR); 2 MI S of Mason and 5 SSW of Yerington. Check Bar elevation 15.837 feet on 9/28/2010.
BUBBLER	USGS	USGS	09/28/2010		Sutron Accubar bubbler to sense stage in channel via orifice, interfaced w/Sutron Satlink recorder & DCP. In gage house on US LB at new Snyder Ln BR.
CREST STAGE	USGS	USGS	09/28/2010		On shore, US LB of new Snyder Ln BR. Pin elevation 7.19 feet on 9/28/2010.
DCP	USGS	USGS	09/28/2010		Sutron Satlink datalogger & DCP interfaced with Sutron Accubar bubbler. In gage house on US LB at new Snyder Ln BR.
RECORDER	USGS	USGS	09/28/2010		Sutron Satlink datalogger & DCP in gage house interfaced with Sutron Accubar bubbler. In gage house on US LB at new Snyder Ln BR.

HISTORY

PUBLICATION/LOCATION OF RECORDS	STARTING DATE	ENDING DATE

TYPE OF GAGE	OWNER	STARTING DATE	ENDING DATE
CREST STAG	USGS	04/30/1974	09/30/1984
RECORDER	USGS	04/30/1974	09/30/1984
STAFF	USGS	04/30/1974	09/30/1984
BUBBLER	USGS	09/28/2010	
CREST STAG	USGS	09/28/2010	
DCP	USGS	09/28/2010	
RECORDER	USGS	09/28/2010	
WIRE WT	USGS	09/28/2010	

ZERO ELEVATION	STARTING DATE
4420.000	04/30/1974
4426.000	09/28/2010

CRESTS*

FLOOD STAGE: 9.80 ft ACTION STAGE:9.30 ft BANKFULL STAGE: 9.00 ft
FLOOD FLOW: 1840 cfs ACTION FLOW: 1570 cfs

DATE OF CREST	TIME LST	CREST* (ft)	FLOW (CFS)	FROM HIGH WATERMARKS	BASED ON OLD DATUM	CAUSED BY ICE JAM	REMARKS
06/08/1974	UNDEF	8.34	1110				Measured stage 7.64'. Crest stage given calculated using USGS Rtg 2, 3/29/2012.
06/09/1975	UNDEF	9.22	1550				Measured stage 8.10'. Crest stage given calculated using USGS Rtg 2, 3/29/2012.
07/24/1976	UNDEF	6.19	326				Measured stage 5.48'. Crest stage given calculated using USGS Rtg 2, 3/29/2012.
06/30/1977	UNDEF	6.25	340				Measured stage 5.48'. Crest stage given calculated using USGS Rtg 2, 3/29/2012.
04/16/1978	UNDEF	7.22	648				Measured stage 6.30'. Crest stage given calculated using USGS Rtg 2, 3/29/2012.
05/31/1979	UNDEF	8.97	1430				Measured stage 8.00'. Crest stage given calculated using USGS Rtg 2, 3/29/2012.
07/04/1980	UNDEF	10.47	2240				Measured stage 9.16'. Crest stage given calculated using USGS Rtg 2, 3/29/2012.
05/03/1981	UNDEF	6.46	400				Measured stage 5.80'. Crest stage given calculated using USGS Rtg 2, 3/29/2012.
06/30/1982	UNDEF	9.97	1950				Measured stage 8.84'. Crest stage given calculated using USGS Rtg 2, 3/29/2012.
06/19/1983	UNDEF	11.31	2790				Measured stage 9.30'. Crest stage given calculated using USGS Rtg 2, 3/29/2012.
06/01/1984	UNDEF	9.56	1730				Measured stage 8.22'. Crest stage given calculated using USGS Rtg 2, 3/29/2012.
07/11/1995	12:25	11.57	2980				USGS measurement near crest @ Walker R nr Yerington USGS Gage #10301100, 4.3 mi. N of MASN2. Stage @ time of measurement: 13.21'. Crest stage given calculated from measured Q using USGS MASN2 Rtg 2, 3/29/2012. According to ALERT telemetry, actual crest occurred from approx. 0000-0500, 7/12/1995, ALERT reported crest stage 9.13', flow @ crest unknown (Rating used by ALERT not same as USGS Rtg 1 in use at time).
05/18/1996	09:00	10.64	2338				Crest stage (7.91') from ALERT telemetry @ Walker R nr Yerington USGS Gage #10301100, 4.3 mi. N of MASN2. Peak flow (2338 cfs) from rating in use by ALERT telemetry at time (not same as USGS Rtg 1 in use at time). Crest stage given calculated from crest Q using USGS MASN2 Rtg 2, 3/29/2012.
01/04/1997	16:00	12.72	3900				Crest stage (14.47') from ALERT telemetry @ Walker R nr Yerington USGS Gage #10301100, 4.3 mi. N of MASN2. Peak flow (3900 cfs) estimated using USGS Rtg 1 for Yerington Gage (#10301100) in use at time w/ALERT telemetry. Crest stage given calculated from crest Q using USGS MASN2 Rtg 2, 3/29/2012.
06/17/1998	UNDEF	9.87	1894				Crest stage (11.42') from ALERT telemetry @ Walker R nr Yerington USGS Gage #10301100, 4.3 mi. N of MASN2. Peak flow (1894 cfs) from rating in use by ALERT telemetry at time (not same as USGS Rtg 1 in use at time). Crest stage given calculated from crest Q using USGS MASN2 Rtg 2, 3/29/2012.
06/16/1999	11:38	9.81	1866				Crest stage (11.81') from ALERT telemetry @ Walker R nr Yerington USGS Gage #10301100, 4.3 mi. N of MASN2. Peak flow (1866 cfs) from rating in use by ALERT telemetry at time (not same as USGS Rtg 1 in use at time). Crest stage given calculated from crest Q using USGS MASN2 Rtg 2, 3/29/2012.
05/29/2000	UNDEF	6.69	467				Crest stage (8.44') from ALERT telemetry @ Walker R nr Yerington USGS Gage #10301100, 4.3 mi. N of MASN2. Peak flow (467 cfs) from rating in use by ALERT telemetry at time (not same as USGS Rtg 2 in use at time). Crest stage given calculated from crest Q using USGS MASN2 Rtg 2, 3/29/2012.
05/13/2001	UNDEF	6.97	559				Crest stage (8.75') from ALERT telemetry @ Walker R nr Yerington USGS Gage #10301100, 4.3 mi. N of MASN2. Peak flow (559 cfs) from rating in use by ALERT telemetry at time (not same as USGS Rtg 2 in use at time). Crest stage given calculated from crest Q using USGS MASN2 Rtg 2, 3/29/2012.
06/19/2002	UNDEF	8.51	1195				Crest stage (10.40') from ALERT telemetry @ Walker R nr Yerington USGS Gage #10301100, 4.3 mi. N of MASN2. Peak flow (1195 cfs) from rating in use by ALERT telemetry at time. (not same as USGS Rtg 2 in use at time). Crest stage given calculated from crest Q using USGS MASN2 Rtg 2, 3/29/2012.
07/01/2011	11:00	10.77	2420				Measured crest at MASN2.

***NOTE: All crest stages were converted from crest flows using shift adjusted USGS Rating Number 2 (shifts in use 3/29/2012). Actual measured crest stages are noted in remarks.**

LOW WATER RECORDS*

DATE OF LOW WATER	STAGE* (ft)	FLOW (CFS)	REMARKS
01/31/1975	4.90	71	Q converted to stage w/USGS Rtg #2.0
09/27/1976	4.73	51	Q converted to stage w/USGS Rtg #2.0
03/08/1977	4.53	31	Q converted to stage w/USGS Rtg #2.0
10/13/1977	4.37	19	10/13-17/1977; Q->stage w/USGS Rtg #2.0
12/08/1978	4.85	65	Q converted to stage w/USGS Rtg #2.0
11/20/1979	4.70	48	Q converted to stage w/USGS Rtg #2.0
09/22/1981	4.85	65	Q converted to stage w/USGS Rtg #2.0
12/01/1981	4.58	36	12/1-4/1981; Q->stage w/USGS Rtg #2.0
03/26/1983	5.26	126	Q converted to stage w/USGS Rtg #2.0
03/12/1984	5.14	106	Q converted to stage w/USGS Rtg #2.0
01/06/2001	4.47	26	Q from Walker R nr Yerington; converted to stage w/USGS Rtg #2.0
11/26/2010	4.93	76	Q converted to stage w/USGS Rtg #2.0

***NOTE: All low water stages listed were converted from flows using shift-adjusted USGS Rating Number 2, (shifts in use 3/29/2012). All flows are water year minimum daily averages.**

CONDITIONS AFFECTING FLOW

MILES ABOVE MOUTH: DRAINAGE AREA: 2400.0 POOL STAGE:

STREAM BED: Sand & gravel, subject to significant scour & fill.

REACH: Confluence of West and East Walker Rivers (~2 mi US) to Miller Lane (~9 mi DS).

REGULATION: Flow regulated by Bridgeport Reservoir on E Walker R and Topaz Lk on W Walker; combined capacity 101,900 acre-feet.

DIVERSION: Many above station for irrigation.

WINTER: Site may be affected by ice.

TOPOGRAPHY: Beyond channel topography is flat. River gradient is low. Below gage, channel runs straight NW for ~500', then bends N (R). Above gage channel bends SE. Both banks lined w/willow; cottonwood trees in floodplain. At low flow, both banks rise ~6'-12' above channel.

REMARKS: Heavy channel vegetation may cause significant backwater spring & summer. At ~9' (1450 cfs) river nr bankfull, channel is control. Many agricultural diversions, as well as evapotranspiration in warm months may produce large flow differences between Mason & Wabuska gages. Many levees subject to failure during high flows.

DAMAGE

STAGE	AREAS AFFECTED
9.30	Monitor Stage...about 1600 cfs*...No flooding in the Mason Valley-Yerington area. Chance of exceeding this flow any year about 1 in 3 per USGS estimate.
9.80	Flood Stage...Minor lowland flooding begins throughout Mason Valley-Yerington area. About 1850 cfs*. Chance of exceeding this flow any year about 1 in 4 per USGS estimate.
10.00	Minor flooding of lowlands...pasture...cropland and some rural roads throughout the Mason Valley/Yerington area. No flooding of structures or roads. About 1950 cfs*. Chance of exceeding this flow any year about 1 in 5 per USGS estimate.
10.30	Minor flooding of lowlands...pasture and farmland in Mason Valley-Yerington area. Preventative sandbagging of lowest homes and businesses adjacent to river should begin if further rises are possible...but little flooding occurs. Some isolated flooding of rural roads. At about 2150 cfs*...chance of exceeding this flow about one in 6 any year per USGS estimate.
10.50	Minor flooding of lowlands...pasture...farmland and some rural roads in Mason Valley. Preventative sandbagging of lowest homes in Mason and Yerington should be done as river rises...but little flooding occurs. There may be some minor flooding of yards and basements in Mason. About 2250 cfs*...like flood of July 4 1980. Chance of exceeding this flow any year about 1 in 7 per USGS estimate.
10.80	Minor to moderate flooding of lowlands...pasture and farmland adjacent to the river throughout the Mason Valley-Yerington area. Some rural roads flood. Preventative sandbagging of low structures in Mason and Yerington is necessary as river rises...but little flooding occurs. Some minor flooding of basements and yards in Mason. Possible damage to irrigation structures. About 2450 cfs*...like floods of July 1 2011 and May 18 1996. Chance of exceeding this flow about a one in 8 any year per USGS estimate.
11.00	Moderate flooding of lowlands...pasture and farmland adjacent to river throughout the Mason Valley-Yerington area. Several rural and some secondary public roads flood. Yards and basements of lowest homes adjacent to the river in Mason and Yerington begin flooding...preventative sandbagging is necessary. Possible damage to irrigation structures and levees. About 2570 cfs*...higher than July 1 2011...but lower than June 19 1983 floods. Chance of exceeding this flow about a one in 9 any year per USGS estimate.
11.30	Moderate flooding of lowlands with damage to farm and pasture lands throughout the Mason Valley-Yerington area. Some low structures adjacent to river have flood damage. Levee and diversion structure failures are possible. Several secondary and some primary roads flood. About 2800 cfs*...Like flood June 19 1983. Chance of exceeding this flow about one in 10 any year per USGS estimate.
11.60	Major flooding of lowlands with significant damage to farm and pasture throughout the Mason Valley-Yerington area. Structures adjacent to river in floodplain have damage if not sandbagged. Many levees leaking...and failures are possible. Diversion dam north of Yerington in danger of failure. Flooding of many secondary and some primary roads occurs. About 3000 cfs*...like flood of July 11 1995. USGS estimates this flow has about a one in 15 chance of being exceeded any year.
12.00	Major flooding in the Mason Valley-Yerington area. Many homes...businesses...structures...roads... bridges and well over a thousand acres of farmland and pasture near the river flood. Some portions of Yerington flood. About 3300 cfs*...exceeds flood of July 11 1995...but not as severe as record flood of January 4 1997. USGS estimates that this much flow has about a one in 20 chance of being exceeded any year.
12.50	Near record flooding in the Mason Valley-Yerington area. Homes...businesses...farmland... pasture ...roads...bridges...and structures in the floodplain are flooded. At about 3700 cfs*...about like record flood of January 4 1997 (est. at 3900 cfs)...which flooded over 3000 acres in the Yerington area... with nearly 500 businesses and homes affected. Central Yerington and airport were not flooded in 1997. USGS estimates that this much flow has about a one in 25 chance of being exceeded any year.
13.00	Record flood disaster in the Mason Valley-Yerington area. Numerous homes...businesses...structures... roads...bridges and over 4000 acres of farmland and pasture are flooded with major damage. At about 4150 cfs*...worse than record flood of January 4 1997...which flooded over 3000 acres in the Yerington area...with nearly 500 businesses and homes affected. USGS estimates that this much flow has about a one in 35 chance of being exceeded any year.

*** Flows given obtained from USGS shift-adjusted USGS Rating Number 2 (shifts in use 3/29/2012).**

	16-		
	15-		
	14-		
	13-		
13.00 - Record flood disaster in the Mason Valley-Yerington area. Numerous homes...businesses...structures... roads...bridges and thousand acres of farmland and pasture are flooded with major damage. At about 4150 cfs*...worse than record flood of January 4 1997...which flooded over 3000 acres in the Yerington area...with nearly 500 businesses and homes affected. USGS estimates that this much flow has about a one in 35 chance of being exceeded any year.		12.72	01/04/1997
	12-		
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	11-		
12.00 - Major flooding in the Mason Valley-Yerington area. Many homes...businesses...structures...roads...bridges and well over a thousand acres of farmland and pasture near the river flood. Some portions of Yerington flood. About 3300 cfs*...exceeds flood of July 11 1995...but not as severe as record flood of January 4 1997. USGS estimates that this much flow has about a one in 20 chance of being exceeded any year.	10-	9.97 9.87 9.81 9.56 9.22	06/30/1982 06/17/1998 06/17/1999 06/01/1984 06/09/1975
11.60 - Major flooding of lowlands with significant damage to farm and pasture throughout the Mason Valley-Yerington area. Structures adjacent to river in floodplain have damage if not sandbagged. Many levees leaking...and failures are possible. Diversion dam north of Yerington in danger of failure. Flooding of many secondary and some primary roads occurs. About 3000 cfs*...like flood of July 11 1995. USGS estimates this flow has about a one in 15 chance of being exceeded any year.	9-	8.97 8.51 8.34	05/31/1979 06/19/2002 06/08/1974
	8-		
11.30 - Moderate flooding of lowlands with damage to farm and pasture lands throughout the Mason Valley-Yerington area. Some low structures adjacent to river have flood damage. Levee and diversion structure failures are possible. Several secondary and some primary roads flood. About 2800 cfs*...Like flood of June 19 1983. Chance of exceeding this flow about one in 10 any year per USGS estimate.			
	7-		

11.00 - Moderate flooding of lowlands...pasture and farmland adjacent to river throughout the Mason Valley-Yerington area. Several rural and some secondary public roads flood. Yards and basements of lowest homes adjacent to the river in Mason and Yerington begin flooding...preventative sandbagging is necessary. Possible damage to irrigation structures and levees. About 2570 cfs*...higher than July 1 2011...but lower than June 19 1983 floods. Chance of exceeding this flow about a one in 9 any year per USGS estimate.

10.80 - Minor to moderate flooding of lowlands...pasture and farmland adjacent to the river throughout the Mason Valley-Yerington area. Some rural roads flood. Preventative sandbagging of low structures in Mason and Yerington is necessary as river rises...but little flooding occurs. Some minor flooding of basements and yards in Mason. Possible damage to irrigation structures. About 2450 cfs*...like floods of July 1 2011 and May 18 1996. Chance of exceeding this flow about a one in 8 any year per USGS estimate.

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10.00 - Minor flooding of lowlands...pasture...cropland and some rural roads throughout the Mason Valley/Yerington area. No flooding of structures or roads. About 1950 cfs*. Chance of exceeding this flow any year about 1 in 5 per USGS estimate.

9.80 - Flood Stage...Minor lowland flooding begins throughout Mason Valley-Yerington area. About 1850 cfs*. Chance of exceeding this flow any year about 1 in 4 per USGS estimate.

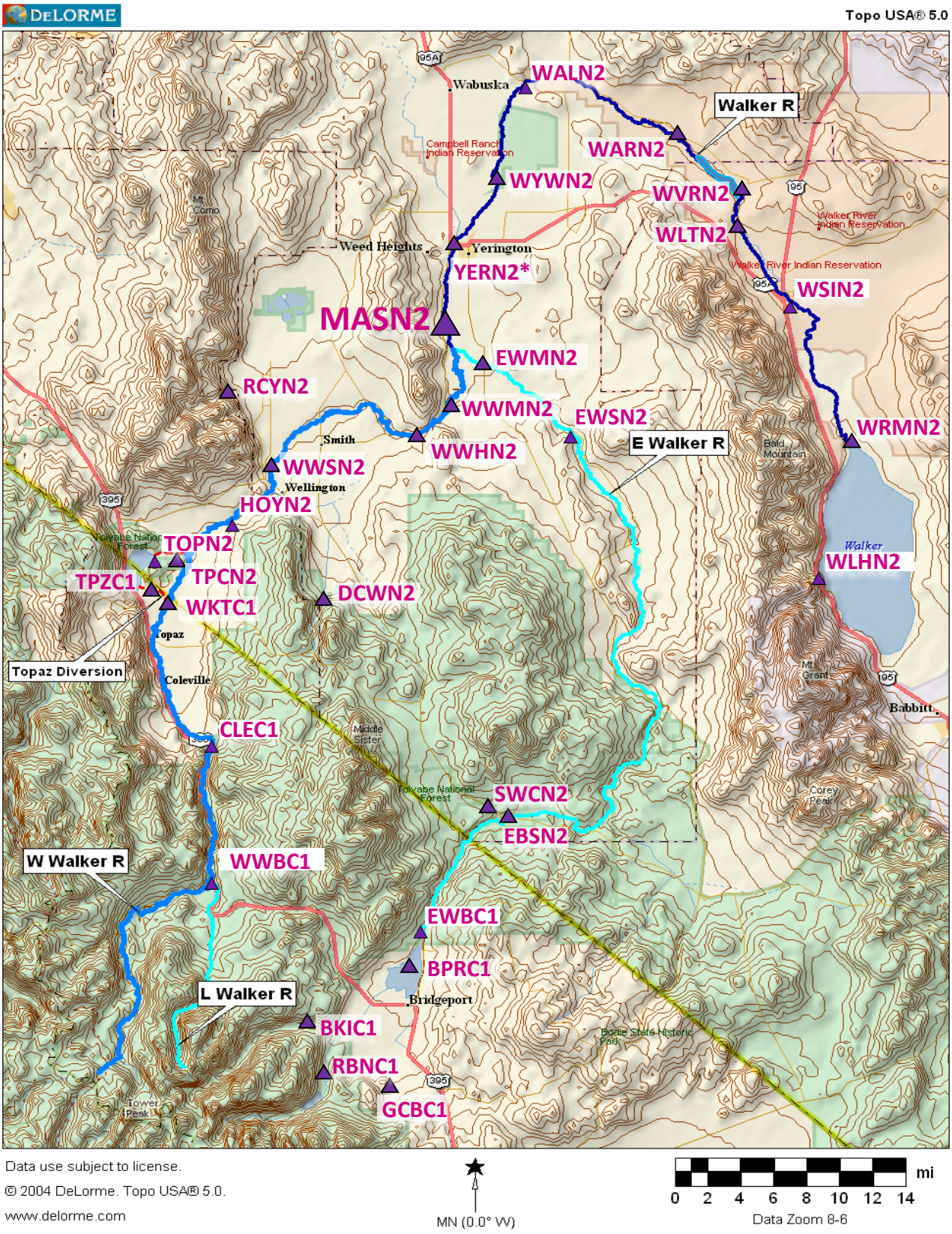
9.30 - Monitor Stage...about 1600 cfs*...No flooding in the Mason Valley-Yerington area. Chance of exceeding this flow any year about 1 in 3 per USGS estimate.

REACH: Confluence of West and East Walker Rivers (~2 mi US) to Miller Lane (~9 mi DS).
ELEVATION ZERO: 4426.00

*** Flows given obtained from USGS shift-adjusted USGS Rating Number 2 (shifts in use 3/29/2012).**

CONTACTS

SQ	CONTACT/REMARKS	PHONE
1	USGS Carson City	775-887-7693
	snberris@usgs.gov, mgipson@usgs.gov USGS responsible for gage maintenance. Stephen Berris is USGS NV Data Chief. Marsha Gipson is field office chief (775-887-7626). Jim Swartwood (887-7682) & Jim Crompton (887-7681) can also assist.	
2	Walker River Water Master	775-463-3540
	walkerwatermaster@msn.com Jim Shaw is water master. Advises NWS, Lyon, Mono Counties on Walker R flood conditions, planned Topaz and Bridgeport Reservoir releases. Works w/WRID in reservoir mgt.	
3	Walker R Irrigation District	775-463-3523
	kcspooner@aol.com or kcspooner@wrid.us Ken Spooner is Chief. Responsible for operations of Topaz and Bridgeport Reservoirs. Works closely with Watermaster.	
4	Lyon Co. SO/OEM	775-463-6620
	aveil@lyon-county.org (Sheriff); jpage@lyon-county.org (EM) Lyon Co. Sheriff is Allen Veil; Captain Jeff Page is EM, Office:775-463-6551 X10 OR 6620 X10. Closely watches Walker Forecasts as has major impact on Lyon Co flooding. Very knowledgable about flood impacts in Lyon Co area.	
5	Yerington City Manager	775-463-3511
	manager@yerington.net Dan Newell is City Manager.	
6	Mayor of Yerington	775-463-3511
	georgedini38@yahoo.com George Dini is Mayor.	



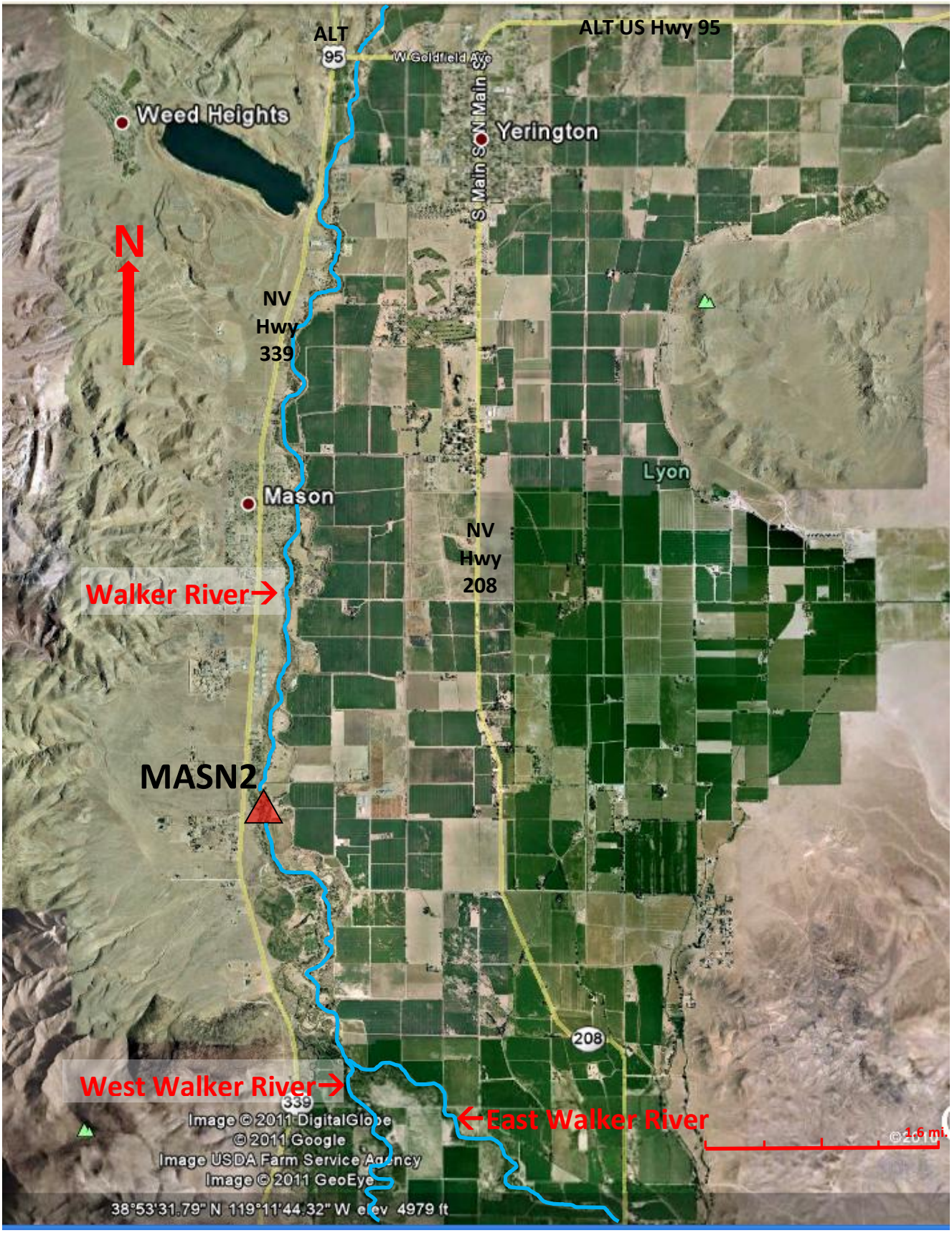
USGS river gage locations on the Walker River Basin as of March 2012 with corresponding NWS Locations IDs. *Note that only USGS field measurements are available at YERN2, Walker R nr Yerington. No telemetry or record is available. Basemap from DeLorme TopoUSA.

Lyon County, Nevada
Hydrologic Unit Code 16050303
Latitude 38°55'10.01", Longitude 119°11'24.62" NAD83
Drainage area 2,400 square miles
Gage datum 4,426 feet above NAVD88

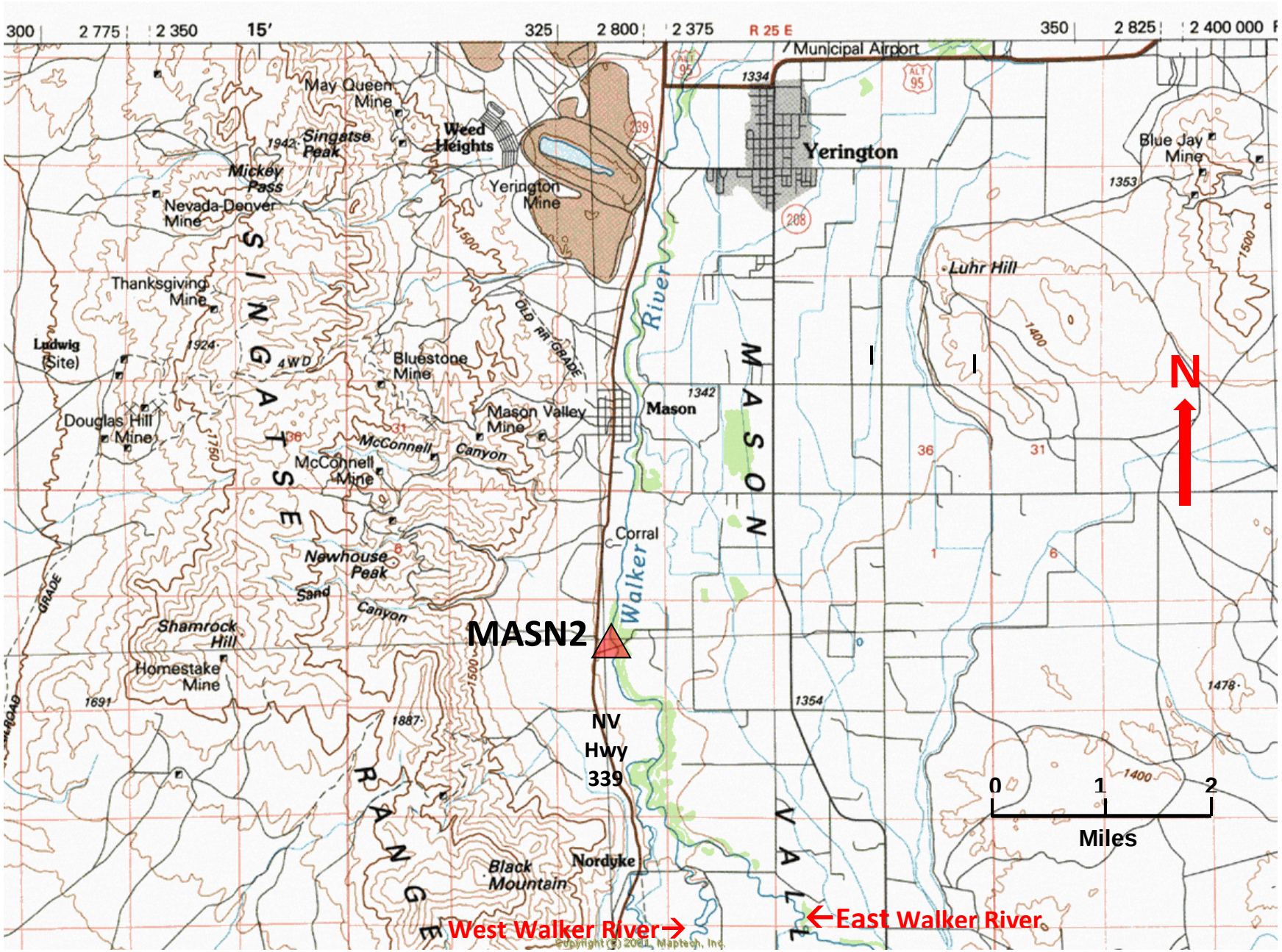
Location of the site in Nevada.

** References to non-U.S. Department of the Interior (DOI) products do not constitute an endorsement by the DOI. By viewing the Google Maps API on this web site the user agrees to these TERMS of Service set forth by Google.*

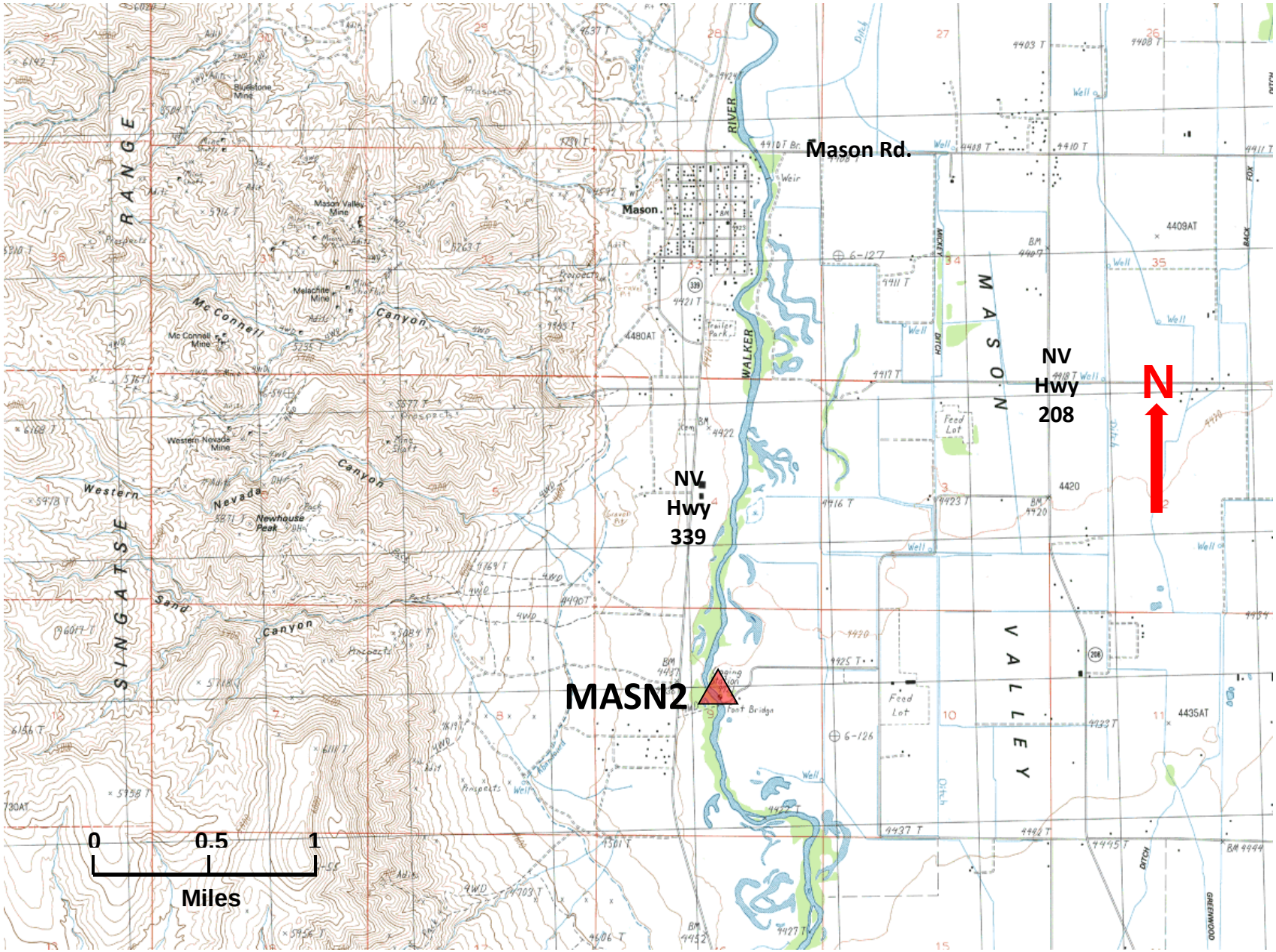
Aerial view of location of USGS Gage #10300600; Walker River near Mason, NV.
(Base aerial photomap from USGS/Google: http://waterdata.usgs.gov/nv/nwis/nwismap/?site_no=10300600&agency_cd=USGS)



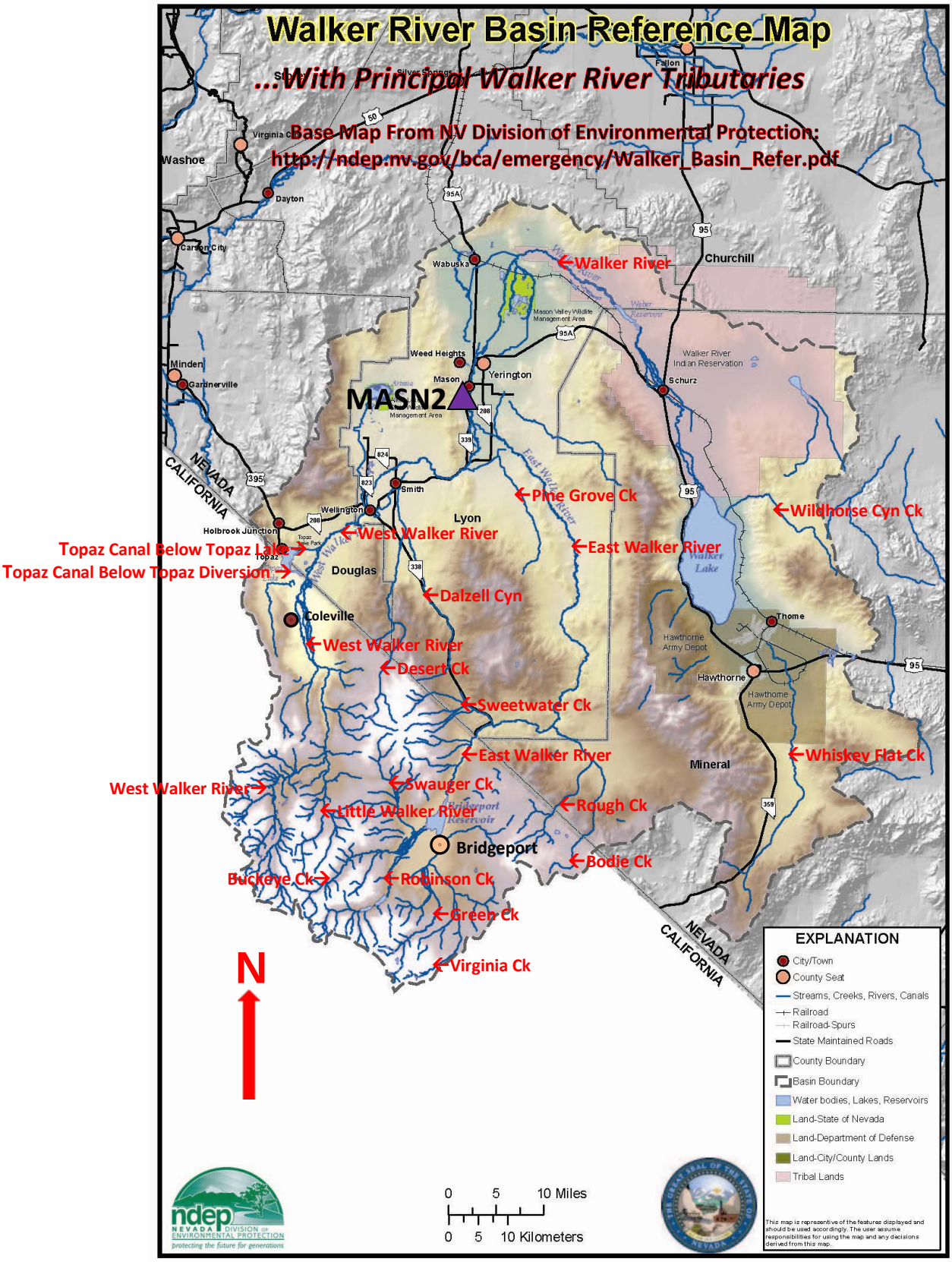
Aerial view of Mason Valley from confluence of East and West Walker Rivers to Yerington.
(Base map from: Google Earth)



Topographic map of Mason Valley from near East and West Walker River confluence to Yerington.
Base map from: 1:100,000 scale USGS map; Smith Valley



Topographic map of southern Mason Valley from south of gage to north of Mason.
Base map from: 1:24000 Scale USGS map; Yerington.


Walker River Basin Reference Map
...With Principal Walker River Tributaries
Base Map From NV Division of Environmental Protection:
http://ndep.nv.gov/bca/emergency/Walker_Basin_Refer.pdf
MASN2
Walker River
Pine Grove Ck
Wildhorse Cyn Ck
West Walker River
East Walker River
Topaz Canal Below Topaz Lake
Topaz Canal Below Topaz Diversion
Dalzell Cyn
West Walker River
Desert Ck
Sweetwater Ck
East Walker River
Whiskey Flat Ck
West Walker River
Swauger Ck
Little Walker River
Rough Ck
Bridgeport
Bodie Ck
Buckeye Ck
Robinson Ck
Green Ck
Virginia Ck
N
NEVADA
CALIFORNIA
Churchill
Lyon
Douglas
Mineral
Washoe
Carson City
Minden
Gardnerville
Dayton
Fallon
Yerington
Schurz
Thorne
Hawthorne
Coleville
Bridgeport
Smith
Wellington
Holbrook Junction
Weed Heights
Wabuska
Walker River Indian Reservation
Hawthorne Army Depot
EXPLANATION
City/Town
County Seat
Streams, Creeks, Rivers, Canals
Railroad
Railroad-Spurs
State Maintained Roads
County Boundary
Basin Boundary
Water bodies, Lakes, Reservoirs
Land-State of Nevada
Land-Department of Defense
Land-City/County Lands
Tribal Lands
0 5 10 Miles
0 5 10 Kilometers
ndep
NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
protecting the future for generations

Looking downstream (NW) from Snyder Lane Bridge, 10/15/2010, ~13:45 PDT Stage: 5.80 feet, 141 cfs. Photo by NWS Reno Staff.

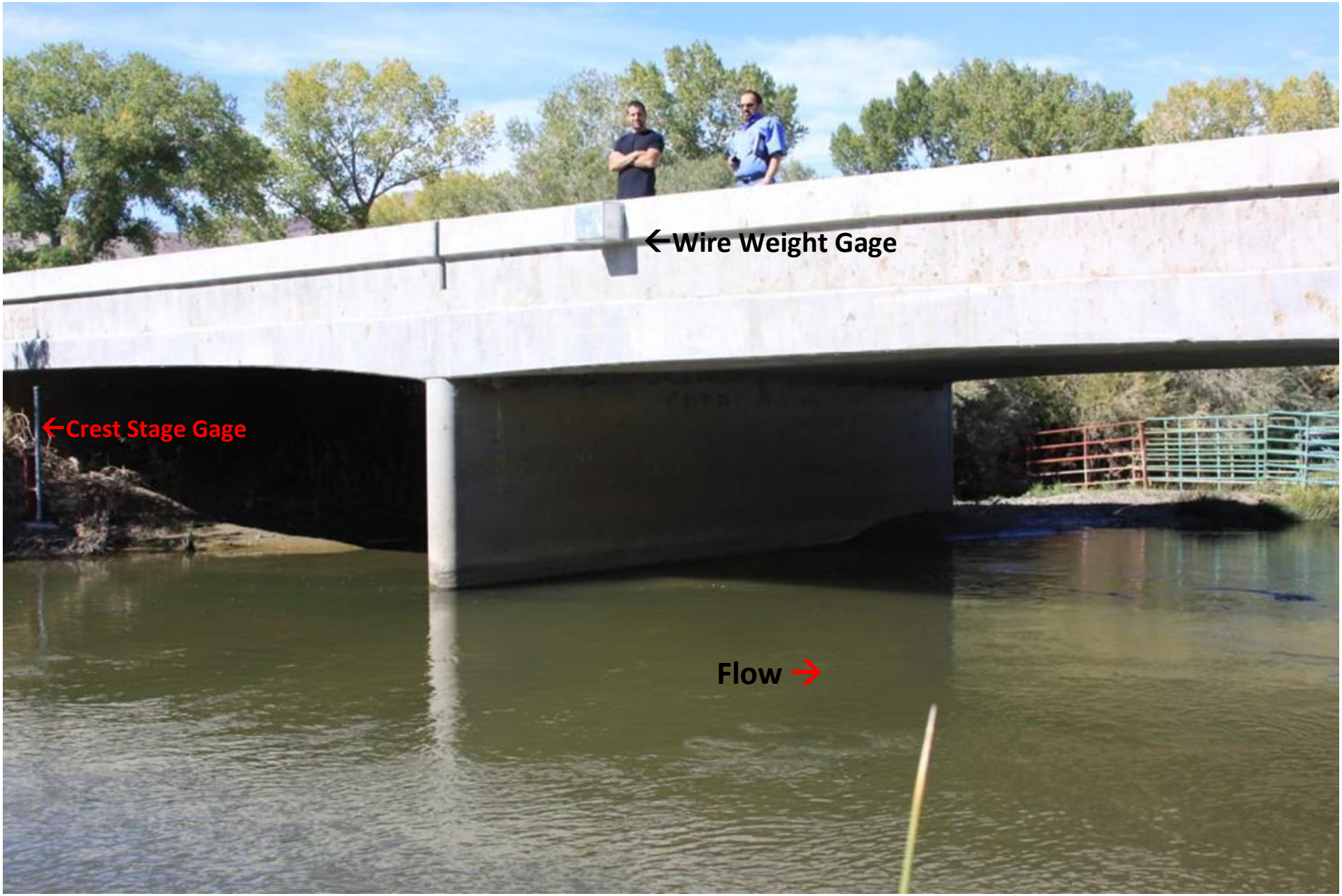
Looking downstream (NNW) from Snyder Lane Bridge, 3/22/2011, ~16:00 PDT. Stage: 8.89 feet, 1240 cfs. Photo by NWS Reno Staff.

Looking downstream (NW) from Snyder Lane Bridge, 6/23/2011, ~9:15 PDT. Stage: 10.14 feet, 2000 cfs. Photo by NWS Reno Staff.

Looking upstream (S) from Snyder Lane Bridge, 10/15/2010, ~13:45 PDT. Stage: 5.80 feet, 141 cfs. Photo by NWS Reno Staff.

Looking upstream (S) from Snyder Lane Bridge, 3/22/2011, ~16:00 PDT. Stage: 8.89 feet, 1240 cfs. Photo by NWS Reno Staff.

Looking upstream (S) from Snyder Lane Bridge, 6/23/2011, ~09:15 PDT. Stage: 10.14 feet, 2000 cfs. Photo by NWS Reno Staff.



Walker River at Snyder Lane Bridge, from upstream of bridge, 10/15/2010, ~13:45 PDT. Stage 5.80 ft, 141 cfs. Wire weight gage (WWG) in center of bridge; crest stage gage (CSG) visible on left bank. Photo by NWS Reno Staff.

Upstream side of Snyder Lane Bridge and wire weight gage, looking ENE. 10/15/2010, ~13:30 PDT. Stage: 5.80 feet, 141 cfs. Photo by NWS Reno Staff.

Upstream side of Snyder Lane Bridge, with wire weight gage in center and crest gage on left bank, looking NE. 3/22/2011, ~16:00 PDT. Stage: 8.89 feet, 1240 cfs. Photo by NWS Reno Staff.

Upstream side of Snyder Lane Bridge, with wire weight gage in center (view of crest gage is blocked by brush in foreground); looking NE. 6/23/2011, ~9:15 PDT. Stage: 10.14 feet, 2000 cfs. Photo by NWS Reno Staff.

Upstream view (to SSW) from right bank below bridge. 10/15/2010, ~13:45 PDT. Stage 5.80 ft, 141 cfs. Photo by NWS Reno Staff.

Downstream side of Snyder Lane Bridge, looking W, gage house visible upper left. 6/23/2011, ~9:15 PDT. Stage: 10.14 feet, 2000 cfs. Photo by NWS Reno Staff.

Gage house, Walker River near Mason, 3/22/2011. Photo by NWS Reno Staff.

Sutron Accubar bubbler to sense stage in channel via orifice, interfaced w/Sutron Satlink recorder & DCP, 10/15/2010. Photo by NWS Reno Staff.

Crest stage gage on left bank, just upstream of Snyder Lane Bridge. View is upstream (SE), Stage 5.80 ft, 141 cfs. 10/15/2010, ~1345 PDT.
Photo by NWS Reno Staff.

Minor lowland flooding in the vicinity of Walker R nr Mason gage, 3/22/2011, ~1600 PDT. Stage 8.89 feet, 1240 cfs. Photo by NWS Reno Staff.

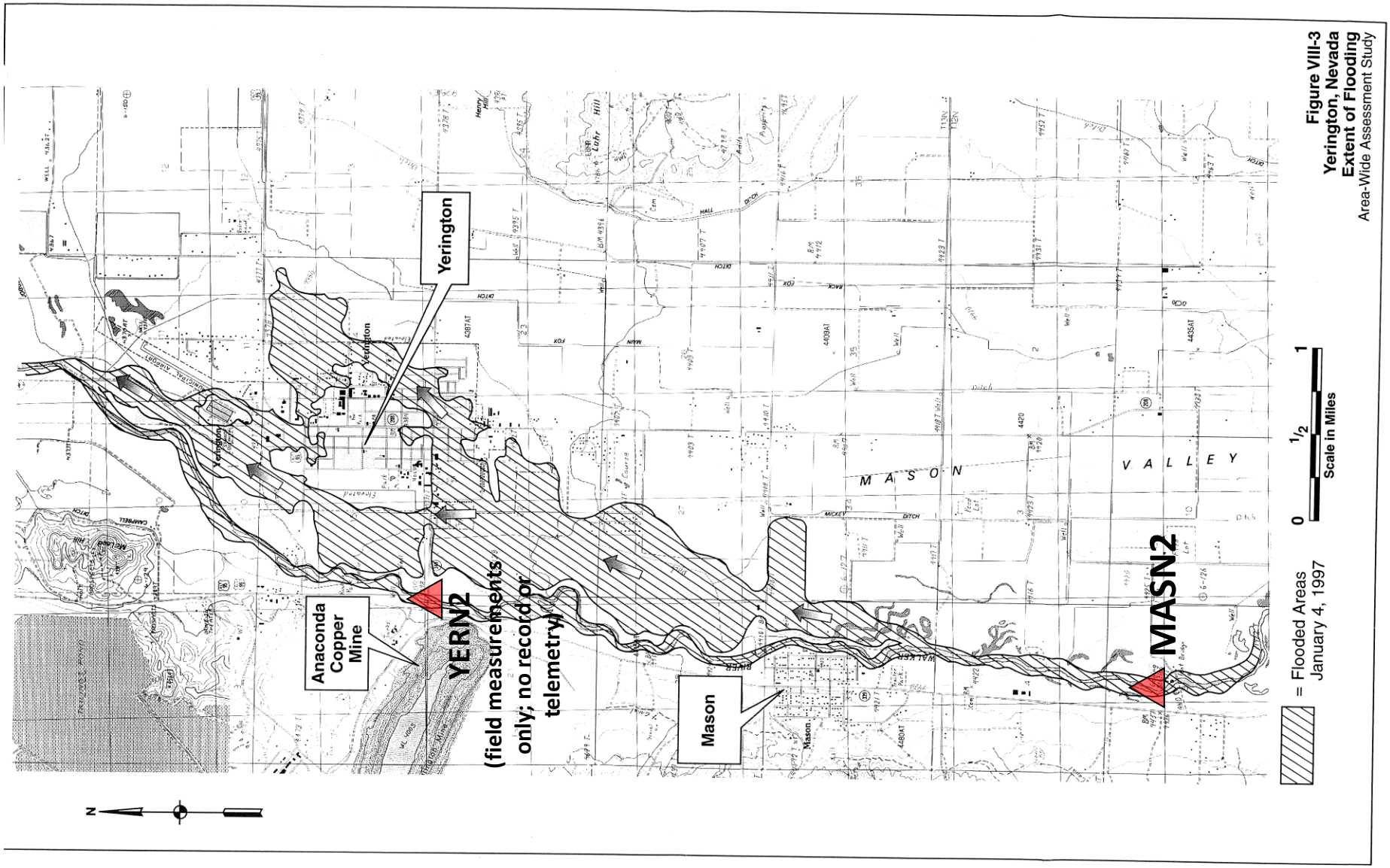
July 1995 Flooding

Looking WNW from just E of town of Mason, July 6, 1995. Walker River runs by town of Mason (left to right). Bridge over river (center right) is Mason Road (NV Hwy 827). Flow (estimate) ~2400 cfs, Stage (MASN2 Rtg 2, estimate) ~10.7 feet. Photo by NWS Reno Staff.

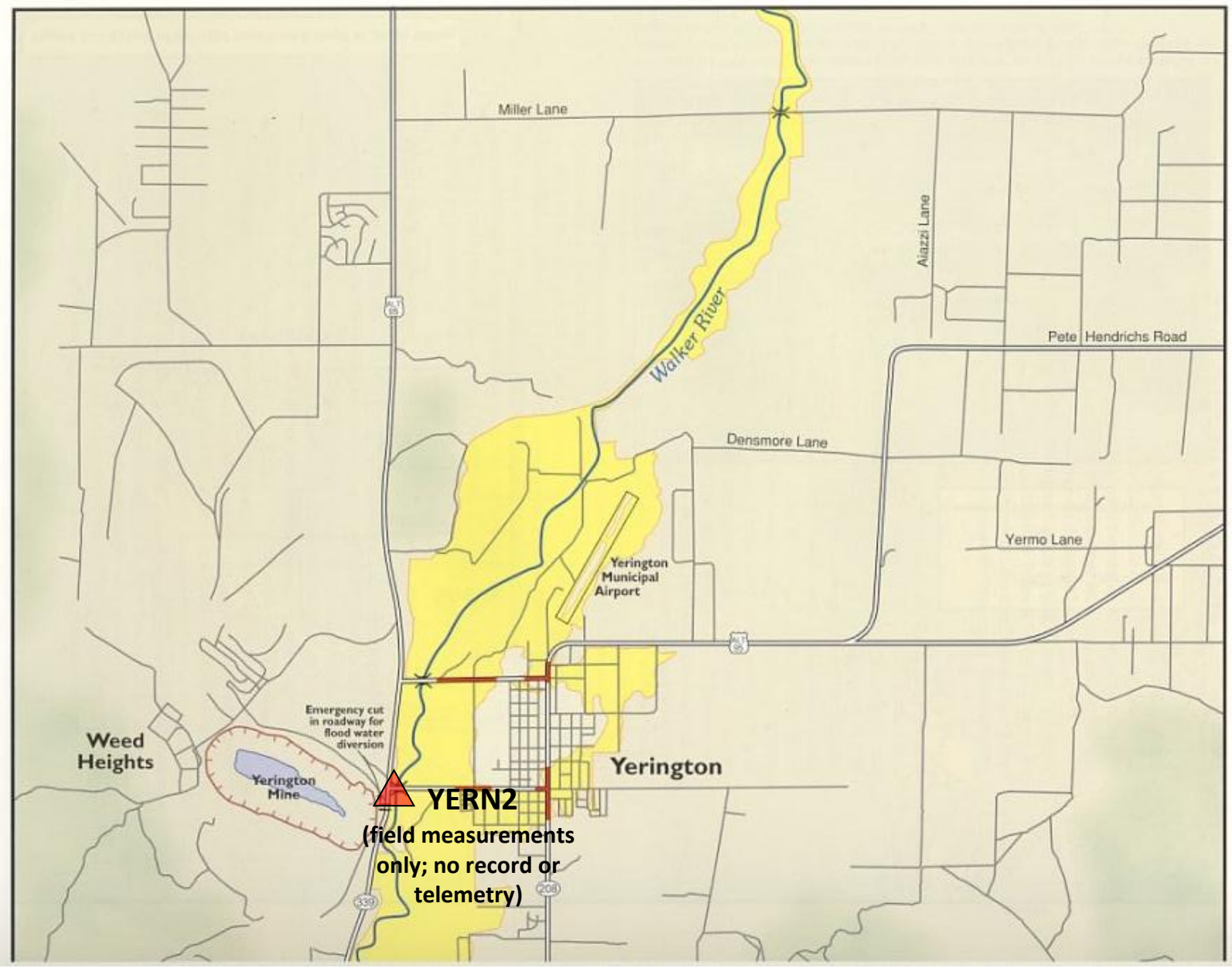
View upstream (S) from E side of Mason Rd. Bridge in Mason, July 6, 1995. Flow (estimate) ~2400 cfs, Stage (MASN2 Rtg 2, estimate) ~10.7 feet. Homes are on left bank of Walker River, on River Ave., between Glasner Ln and Happiness Way. Photo by NWS Reno Staff.

View upstream (S) from E side of Mason Rd. Bridge in Mason, near peak on July 11 or 12, 1995. Flow (estimate) ~2950 cfs, Stage (MASN2 Rtg 2, estimate) ~11.5 feet. Homes are on left bank of Walker River, on River Ave., between Glasner Ln and Happiness Way. Photo by NWS Reno Staff.

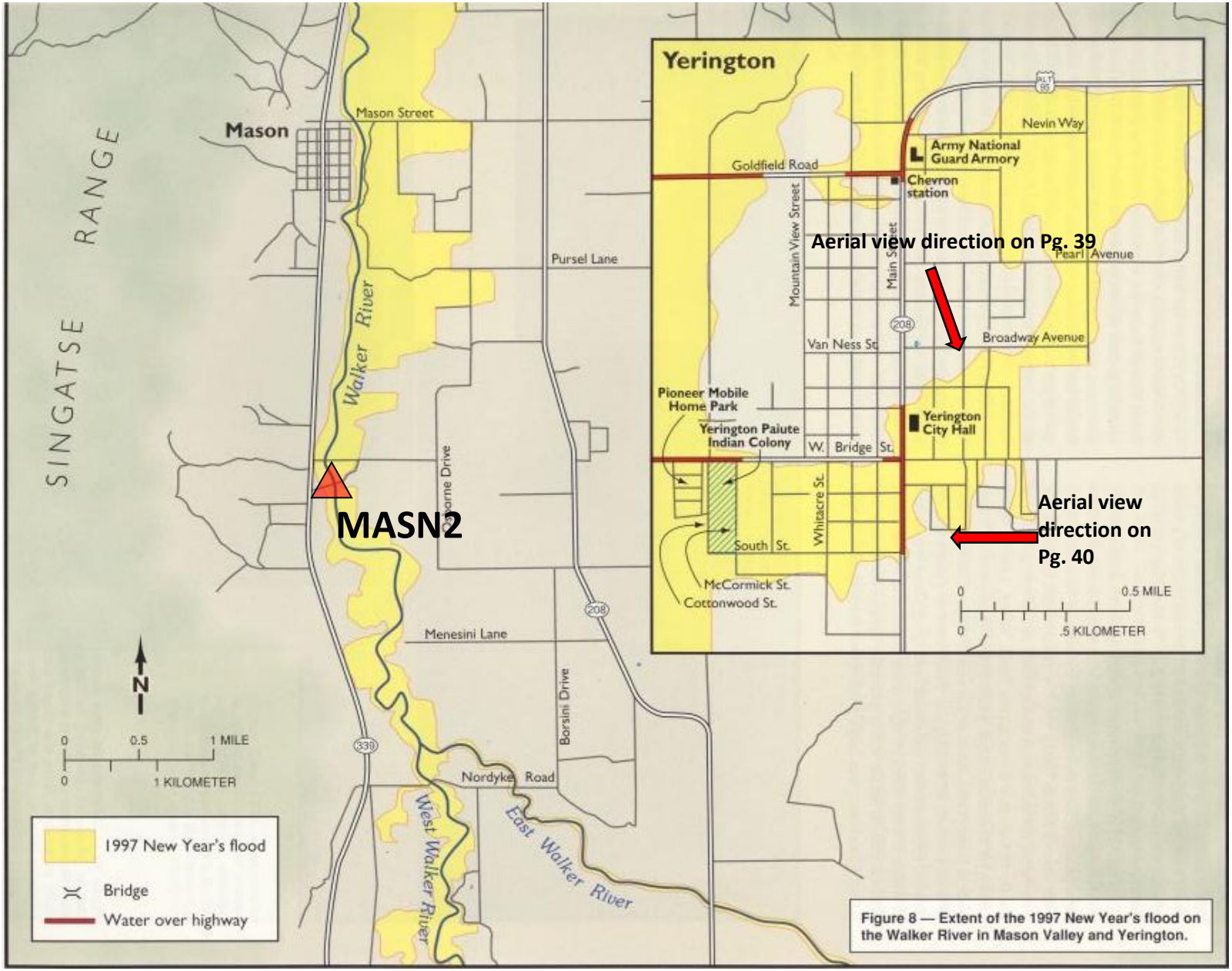
January 1997 Flooding



Hatched area denotes extent of flooding in the Mason Valley-Yerington area on January 4th, 1997. MASN2 gage was not in operation at the time, but Walker R nr Yerington gage (YERN2) crested near 3900 cfs on January 4th , 1997 around 1600 PST. (The crest at Yerington was difficult to estimate as the river had left its channel in 2 places, about a mile S of Mason and west of Yerington.) From: USCE 1/97 Flood Assessment, E Sierra/W NV, Lyon Co. & Yerington; Sept. 1997; Fig. VIII-3.

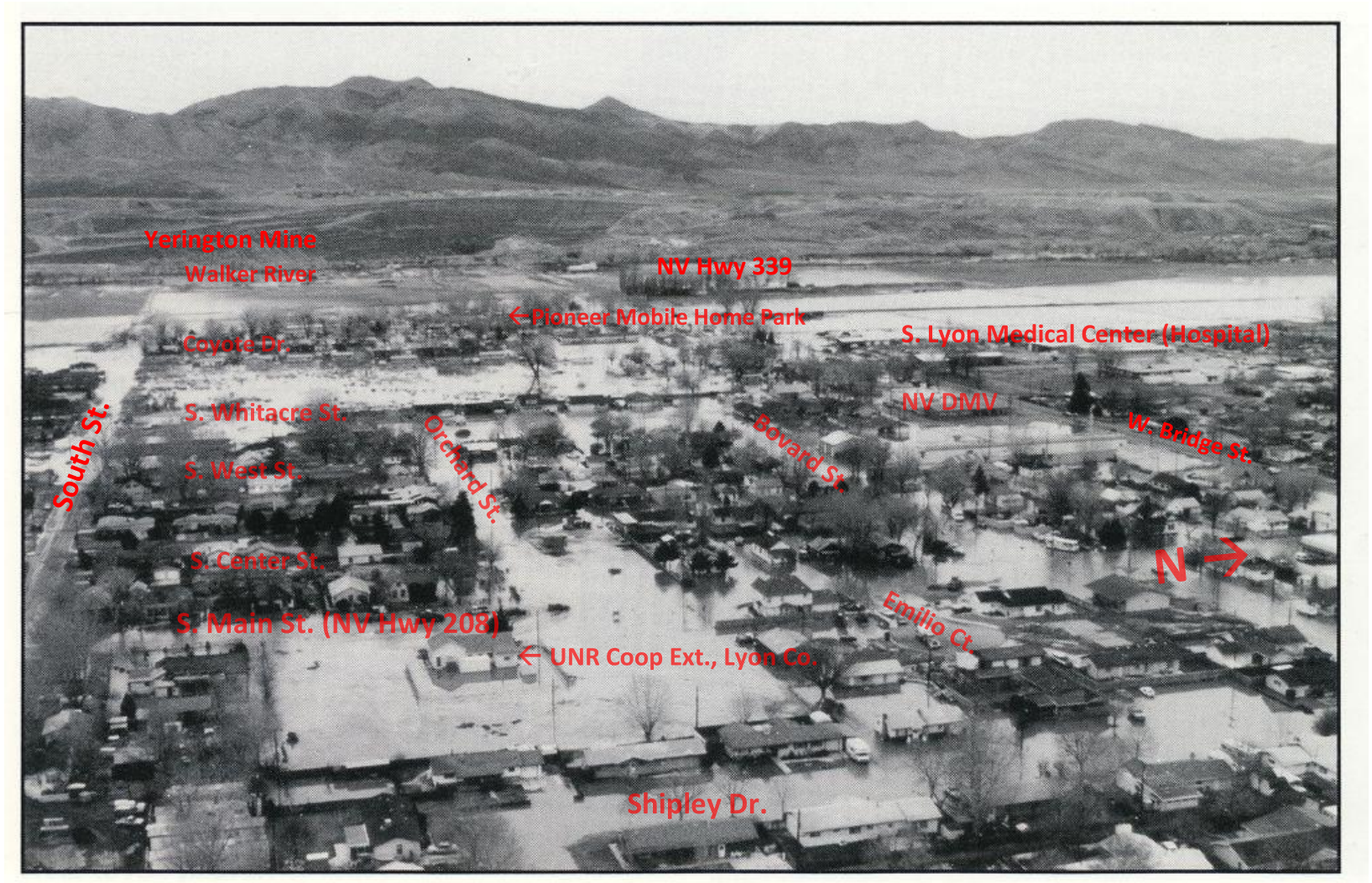


View of the extent of flooding in the Mason Valley-Yerington area on January 4th, 1997, from south of Yerington to Miller Lane; approx. 3900 cfs. From "1997 New Year's Flood in Western NV"; NV Bureau of Mines & Geology; 1998, Figure 8, pg. 58.

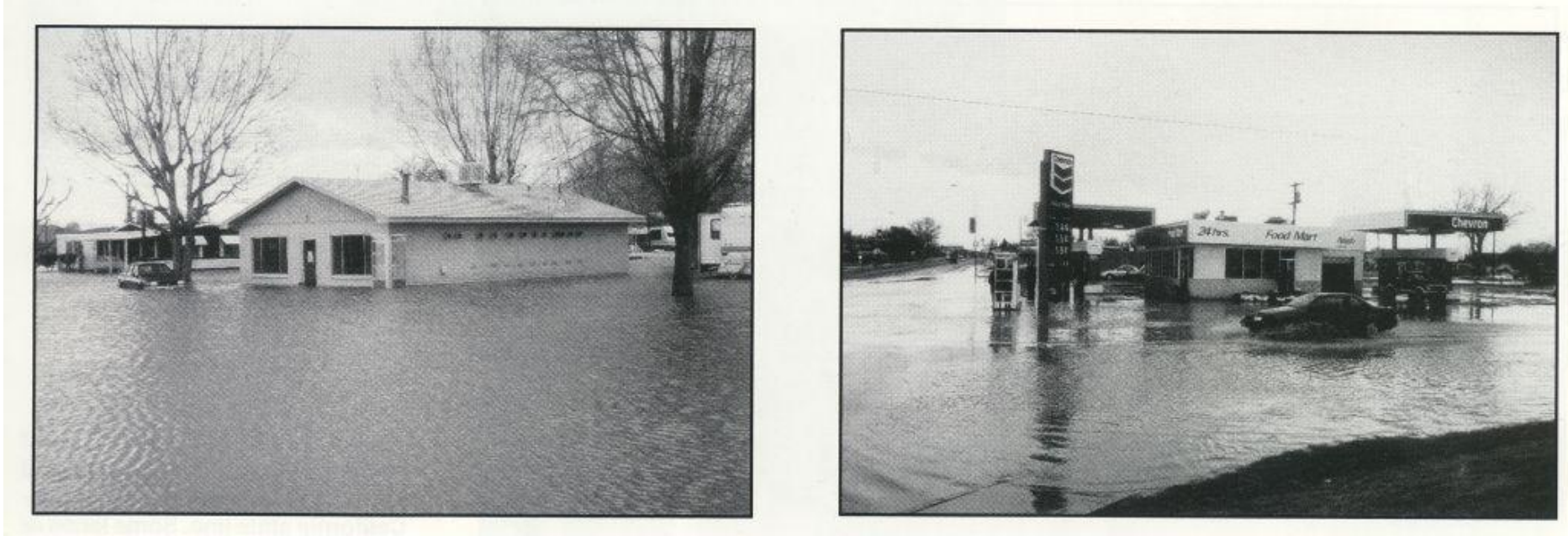


View of the extent of flooding in the Mason Valley-Yerington area on January 4th, 1997, from Mason south to below confluence of East and West Walker Rivers; including inset of City of Yerington; aerial view directions on pages 39 & 40 are shown.
Approx. 3900 cfs. From "1997 New Year's Flood in Western NV"; NV Bureau of Mines & Geology; 1998, Figure 8, pg. 59.

Yerington, January 5, 1997 after flood crest. View is to SSE, from over Broadway Ave.; California St. is to right of water tower; Oregon St. is to its' left. Parts of Yerington were under up to 3 feet of water at the crest the previous day, with nearly 500 homes and businesses flooded and half were extensively damaged (est. 1/4/1997 crest: ~3900 cfs, 12.7 ft w/USGS Rtg 2 for MASN2). Damage to farmland in Mason Valley totaled over $37 million; repairs to Walker R irrigation structures in Mason Valley were about $6.4 million; 1997 dollars. Total Damages from January 1997 flooding in Lyon County (from both the Carson and Walker Rivers) totaled about $49 million, 1997 dollars. Photo from "The Great Flood of '97"; Reno Gazette-Journal, Pgs 70-71 by Mark W. Studyvin.



Aerial view looking west towards Anaconda Open Pit Mine showing extent of flooding in southern portion of Yerington, near crest on January 4, 1997 (est. crest: ~3900 cfs, 12.7 feet w/USGS Rtg 2 for MASN2). View is from South St. on L to Bridge St. on R. Shipley Dr. is in foreground. Photo by NV Department of Transportation. From: "1997 New Year's Flood in Western NV"; NV Bureau of Mines & Geology; 1998, page 62.



Left: South view of flooded laundromat building and trailers of Pioneer Mobile Home Park in Yerington on West Bridge Street. Floodwaters here reached depths of up to 31 inches as indicated by high water marks left by floodwater. Photo taken 3:00 pm, 1/5/1997. Right: South view along Main Street of flooded gas station at intersection of Goldfield Road and Main Street in Yerington. Photo taken 2:30 pm, 1/5/1997. From: "1997 New Year's Flood in Western NV"; NV Bureau of Mines & Geology; 1998, page 63.