NEVADA CLIMATE SUMMARY

Quarterly Summary
January * February * March
Volume 28, Number 2

January-March 2012 CONDITIONS

By Jeff Thompson

Western Nevada

January 2012 started the way that December ended, mild and very dry. After the Caughlin Fire struck the Reno area in November, another major wildfire charred Washoe and Pleasant Valleys and threatened south Reno. The Washoe Drive Fire erupted on the 19th from discarded fireplace coals during an extreme wind event and burned 3177 acres. Wind gusted to 74 mph on that day at Reno-Tahoe International Airport. Finally, a stormy pattern developed for the final two weeks of the month, including a couple intense areas of low pressure that brought widespread precipitation around the 20th, and then again on the 23rd. Reno saw a total of 1.54" of precipitation, which ended up above average for January. While the wet period ended the fire threat temporarily, drought impacts from the dry December persisted. Sierra locations finally started to build a seasonal snowpack that was mostly non-existent early in the month. Temperatures were above average, with Reno highs above average on all but three days.

February 2012 was under a lot of pressure to make a dent in precipitation and snowpack deficits that threatened a year of drought for western Nevada and the Sierra. While the two main storms to impact the region during the month did deliver much needed precipitation, amounts still came up short of average and lofty expectations. Temperatures ran just below average, and much of the precipitation that did fall, fell as snow down to valley floors. At Reno-Tahoe International Airport, 0.60" of precipitation was measured which was below average, but the 6.7" of monthly snow was above normal for February. This was a delight for children, but an inconvenience for drivers, as the first significant valley accumulation was observed for the winter on the 15th, and then again on the 27th. As for the precious snowpack, February did little to boost the numbers. The month ended with a Sierra snowpack that was only about a third of average for most areas.

March 2012 was not the "Miracle March" that was needed to save the snowpack, but it did deliver significant snowfall to the west slope and northern Sierra. For example, snow-water-equivalent for the Truckee River Basin jumped from 36% to 63%. While this was great news, the stormy pattern left much of western Nevada "shadowed out" of the moisture. Areas east of the Sierra Crest came up well short of averages for the month. Reno-Tahoe International Airport only saw 0.11" of precipitation for the month, which was 0.65" below average. This type of pattern did produce some windy days, averaging 10.7 mph. This value included a gust of 64 mph on the 31st. The month had its ups and downs temperature-wise, but ended up with a mean temperature equal to the average March temperature of 45.7°F at Reno-Tahoe International Airport. One of those "ups" was the first 70 of the year in Reno, which came on March 21st.

Eastern Nevada

January 2012 was warmer and drier than average across central and eastern Nevada, as high pressure dominated the region for most of the month. This left the major reporting stations above average temperature-wise. Ely saw its 10th warmest January on record, with a mean temperature of 31°F, and set 5 daily record highs. The exception to the warmth came with a week of unsettled conditions and much colder weather that started with a strong cold front on the 20th. Significant snow fell across the region during this period, and temperatures didn't make it out of the 30s for many spots. Northern Elko County was one of the wettest areas in the region, with 2.86" of precipitation measured at Wild Horse Reservoir, and 2.46" observed in the Jarbidge area. Most of the rain and snow fell along and north of Highway 50. Central Nevada was much drier, as Tonopah only saw 0.08".

February 2012 was a stormy month across central and eastern Nevada, yet some areas ended up with much more moisture than others. Elko and Winnemucca were below average precipitation-wise, yet there were some bright spots. A highlight came with a sharp cold front that sliced through on the 15th. Winnemucca saw record daily snowfall on that day with 2.8", boosting the overall monthly total of 5.1". While Elko only totaled 0.49" of water for the month, a record daily snowfall of 4.5" was also observed on the 15th. Ely was the big precipitation winner for February, as it was the 10th snowiest on record (18.7"). A healthy total of 1.22" of liquid precipitation fell for the month, which was 163% of average. Other areas in central and east-central Nevada also did well. Eureka saw a wet month, with 1.34" of precipitation, and Great Basin National Park measured 1.71". Temperatures ranged from well below average in Winnemucca to above average for most other areas.

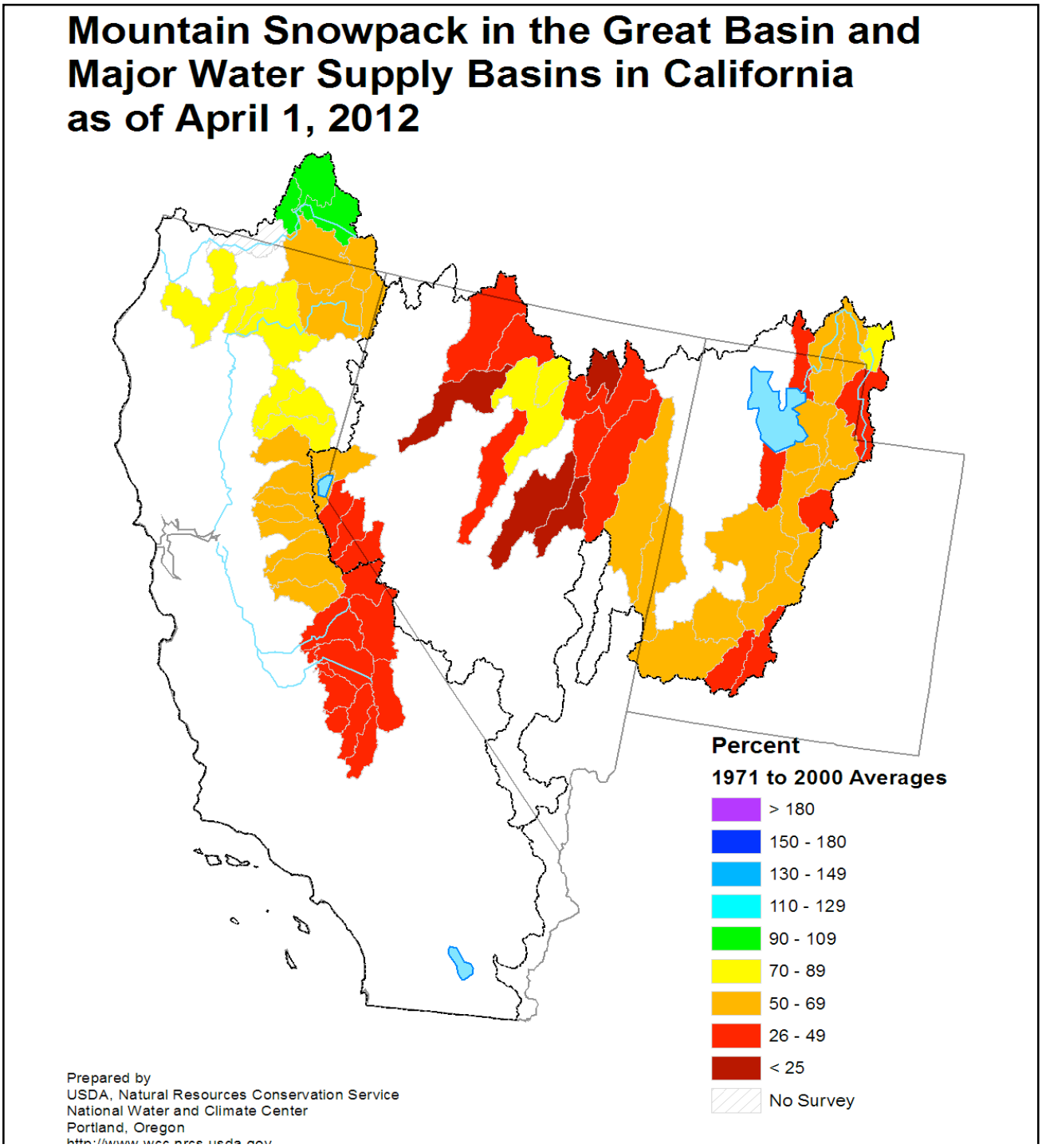
March 2012 was a roller coaster of a month early, with periods of cold, showery weather and dry, warmer weather. Overall, mean temperatures were above, to well above average. Ely saw its 7th warmest March on record with a mean temperature of 39.9 (3.6 degrees above average). Several storms pushed into the region starting in the middle of the month, delivering several rounds of precipitation and colder weather. A strong Pacific storm hit the region on the 17th and 18th. This change resulted in significant snowfall in many areas, and left chilly, showery weather through the end of the month. Areas north of Highway 50 were hit harder this time, as Winnemucca and Elko saw above average precipitation, while Ely's total of 0.84" was 0.09" below average. Eureka and Elko Counties saw significant numbers, including 1.99" of precipitation in Eureka, and 2.57" in Lamoille. It is important to note at the end of the quarter that even with healthy precipitation amounts in this part of the state in February and March, water year numbers (dating back to October 1st) were still well below average at the end of March in Winnemucca and Elko. Ely did play catch-up, reaching 96% of average.

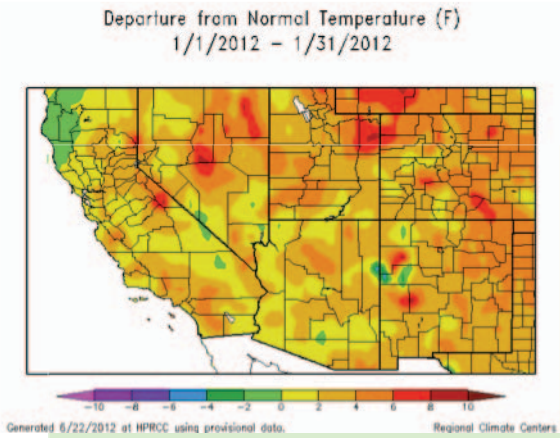
Southern Nevada

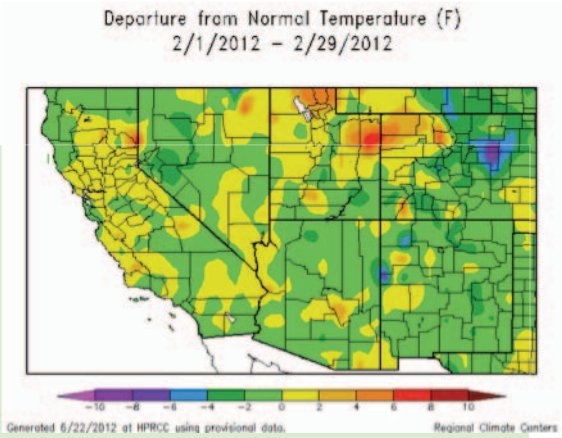
January 2012 was a warm and dry month in southern Nevada, as a persistent ridge of high pressure along the coast kept the storm track off to the north and west. At the official climate station at McCarran International Airport, mean temperature was almost 2 degrees above average, thanks in part to two mild periods to start and close the month. A total of 21 days hit or exceeded 60°F, the most since 2003. Cold weather did come in the middle of the month with a sharp cold front. While there were no temperatures at or below freezing at the airport, spots around the Las Vegas Valley did dip into the 20s during the cold period. Precipitation was limited overall. While only a trace fell at the airport, other spots around Clark County saw up to 0.20" of liquid.

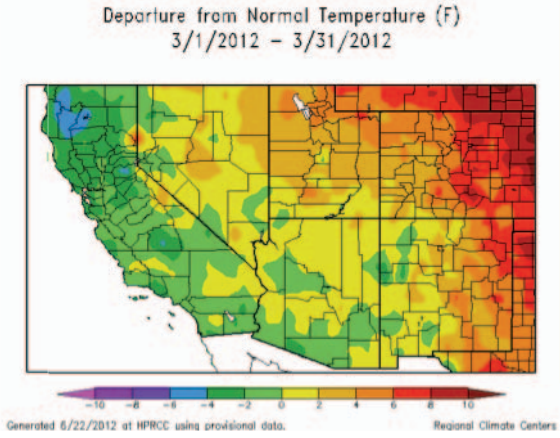
February 2012 was stormier than January in Clark County, but not a whole lot wetter. The month started mild and dry and then took a turn for the wetter, as a series of three low-pressure areas dipped into the region. While each one of these produced scattered showers, widespread, wetting precipitation was lacking. At the airport in Las Vegas, 0.06" was measured. This was better than January, but it was still 0.70" shy of the February average. Esmeralda County did better during the final system, with 8" of snow reported in Goldfield to close the month. Temperatures were mild overall, running around a degree above average.

March 2012 was a mixed bag in southern Nevada. Four storm systems affected the area, with the strongest one pushing through from the 16th through the 19th. This storm delivered the wettest St. Patrick's Day on the books for Las Vegas, totaling 0.18". Each system also delivered significant wind events, including blowing sand and dust, power outages, and structural damage reported around the region on the 6th. While these storms still did not produce average to above average precipitation in Clark County, it was a different story elsewhere. Rain and snow was heavy in parts of Lincoln and Esmeralda Counties. Pioche recorded its snowiest March since 1958, with a total of 16.5". Dyer, in Esmeralda County, saw an impressive precipitation total of 1.4" with 13" of measured snowfall (the snowiest March on record there). Temperatures ran above average in Clark County, and below average in Lincoln and S. Nye Counties. Highs in Las Vegas hit or exceeded 70°F on 21 March days, the highest number since 2007.









TEMPERATURES across the Silver State were above average for **January** statewide**,** with areas well above average in parts of Elko, S. Lander, N. Nye, and Washoe Counties.

February was a different story. Cooler-than-average temperatures were prevalent in W. Nevada, with much below average temperatures in Lyon, Pershing, Churchill, and Mineral Counties. Temperatures were close to, or above average in eastern and most of southern Nevada.

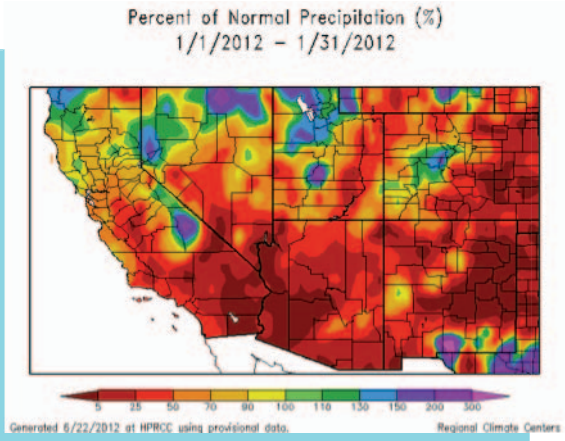
March was well above average in parts of N. Nye, Lander, E. Elko, and E. White Pine Counties. The rest of the state was either just above or just below average.

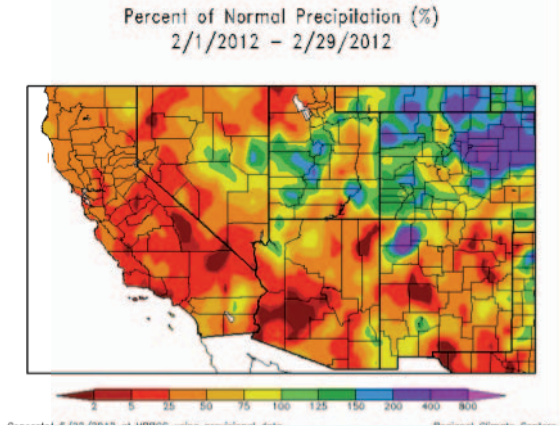
PRECIPITATION was spotty across the state through the quarter, and did not amount to enough to make up for the extremely dry December.

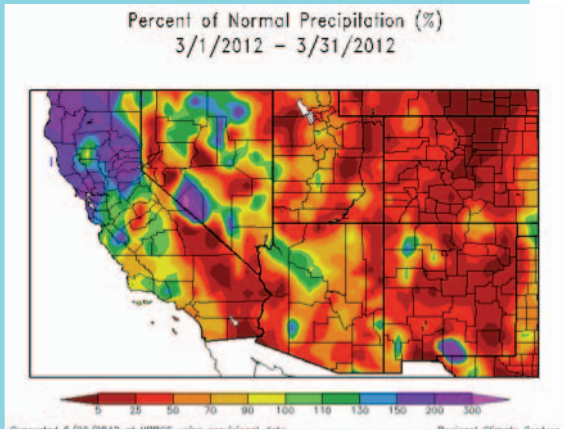
January was very wet in Washoe and N. Elko Counties, but below average elsewhere, especially in S. Nevada.

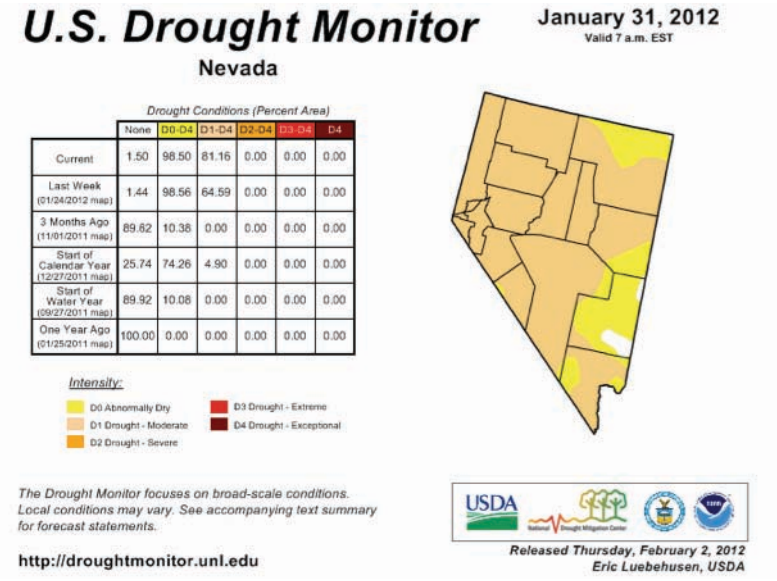
February was dry to extremely dry in western and southern Nevada. A few areas received above average precipitation in central Nevada and White Pine County.

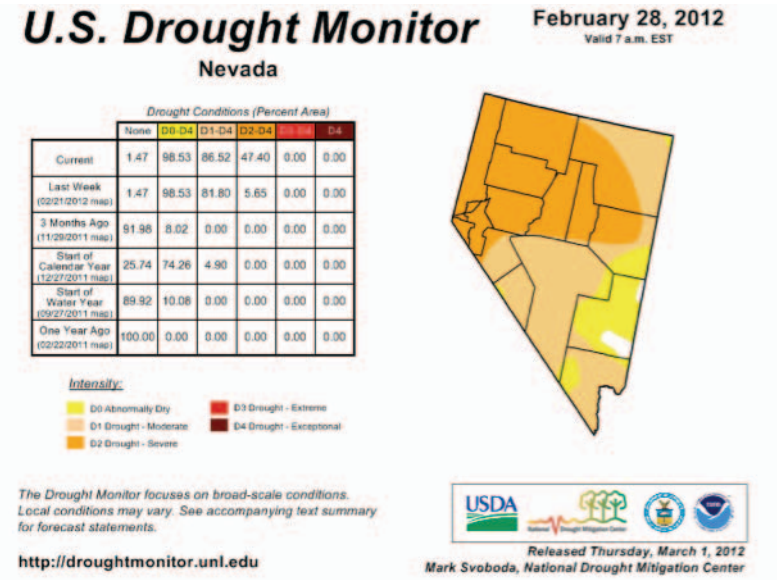
March was wet in Esmeralda and parts of Humboldt and Elko Counties, but dry elsewhere. The N. Sierra did receive above average precipitation to help snowpack.

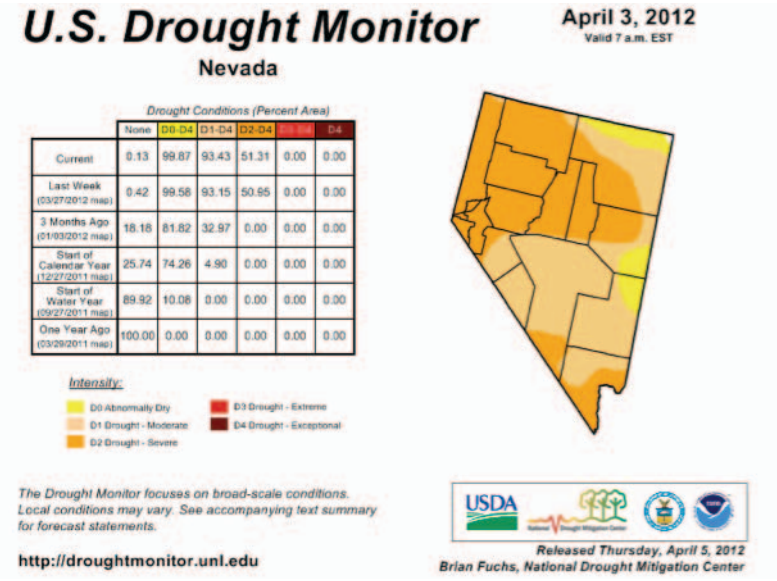












The first quarter of 2012 did deliver more precipitation to the state than late 2011, but the amounts were regional and not enough to reverse the impact of the extremely dry December. Drought conditions persisted and intensified across most of the state, setting the stage for a year of drought.

JANUARY

While some areas did get shots of precipitation, most of the state fell into D1, or moderate drought conditions. N. Elko and Lincoln Counties were in better shape, DO or without classification.

FEBRUARY

February did little to reverse the overall dry winter for most areas. Most of N. Nevada deteriorated into D2, or severe drought classification.

MARCH

Some relief came to N. Elko County, but parts of Lincoln, S. Nye, and Clark Counties declined a category. A March bright spot was the N. Sierra, where late season storms gave a boost to poor snowpack. Consideration was underway at the end of the quarter to improve conditions in parts of W. Nevada due to these improvements.

January-March 2012 Climate Notes

Did you know…?

1. **The mercury fell to a bitter -7°F in Lovelock on the morning of January 17th.**
2. **The Washoe Drive Fire was sparked in Washoe Valley from discarded fireplace coals on January 19th and spread quickly in wind gusting to 80+ mph. The fire burned 3177 acres and destroyed 29 homes in Washoe and Pleasant Valleys.**
3. **The temperature never fell to freezing during the quarter at McCarran International Airport in Las Vegas.**
4. **Between January 20th and 23rd, 1.51" of precipitation fell at the Reno-Tahoe International Airport.**
5. **Spring Valley State Park measured 14" of snowfall in February.**
6. **In Elko and Ely, all February nights fell to or below freezing.**
7. **A windstorm struck Clark County on March 6th. A gust of 63 mph was observed at McCarran International Airport where flights were delayed. Power was lost for 14,000 customers in the Las Vegas Area, houses and trees were damaged, and blowing dust and poor visibility were reported.**
8. **March 2012 was the seventh warmest on record in Ely (3.6° above average).**

References:

Climate Prediction Center:
www.cpc.ncep.noaa.gov

US Drought Monitor:
www.drought.unl.edu/dm/monitor.html

National Weather Service:
http://www.wrh.noaa.gov

Your NEVADA CLIMATE OFFICE WEBSITE can be found at www.climate.unr.edu

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Nevada State Drought Response Plan Revised

Fresh approach gives agencies and public easier process to follow

RENO, Nev. – The Nevada State Climate Office, Division of Emergency Management, and Division of Water Resources, have updated the plan responsible for state agency communication and coordination on drought monitoring, response, and mitigation.

"The plan clarifies and updates the approach to interagency coordination in responding to drought in the state," acting Nevada State Climatologist Dr. Kate Berry of the University of Nevada, Reno, said. Berry spearheaded the initiative to update the Nevada State Drought Response Plan, which had not been revised since 2003, during the Guinn Administration.

"The new plan standardizes the process statewide and sets guidelines for types of drought considerations and for actions on a county level," Berry said. "It's an important step designed to facilitate working with various interests in the state respond to drought conditions."

Major actions in the revised Nevada State Drought Response Plan:

- Identifies a system used in monitoring the magnitude, severity, and extent of drought within the state on a county-by-county basis.
- Establishes a framework of actions based on three stages of drought response: Drought Watch (Stage 1), Drought Alert (Stage 2), and Drought Emergency (Stage 3).
- Establishes a Drought Response Committee to implement the plan, report to the Governor, and assemble task forces (as needed) to serve as experts in drought-affected regions, liaisons to local or federal government, and sources of data and information.
- Outlines the significance of drought and types of drought encountered in Nevada.

Under the new response plan, the Drought Response Committee makes a recommendation for official drought declaration to the Governor when affected areas enter the Drought Emergency Stage (Stage 3). The Governor may then activate the State Emergency Operations Center, overseen by the Chief of the Division of Emergency Management in cooperation with the University of Nevada, Reno Nevada State Climate Office and state engineer of the Division of Water Resources, to coordinate state resources and response efforts, request support and resources from federal agencies, and to carry out the Governor's policies.

Following the dry winter, much of Nevada is currently facing drought conditions. The revised Nevada State Drought Plan gives a fresh approach to analyzing and responding to the dry conditions across the state.

STATISTICS FOR THE MONTH OF JANUARY 2012									
	Extreme High	**Day**	**Extreme Low**	**Day**	**Average High**	**Average Low**	**Average Monthly Temp**	**Precip**	**Snowfall**
Climate Division 1 (NW)									
Reno ASOS	69	2nd	8	17th	52.9	25.0	38.9	1.54	0.6
Climate Division 2 (NE)									
Elko ASOS	60	5th	-10	17th	44.3	13.8	29.1	0.96	5.9
Ely ASOS	63	2nd	-5	17th	47.5	14.5	31.0	0.67	8.9
Climate Division 3 (Central)									
Eureka AWOS	63	5th	-8	17th	48.2	14.0	31.1	0.21	*
Tonopah ASOS	63	5th	4	17th	51.2	20.9	36.0	0.18	*
Winnemucca ASOS	63	5th	-5	17th	47.6	14.8	31.2	0.75	5.2
Climate Division 4 (S)									
Las Vegas ASOS	68	4th	34	14th	61.2	40.1	50.6	T	0

STATISTICS FOR THE MONTH OF FEBRUARY 2012									
	Extreme High	**Day**	**Extreme Low**	**Day**	**Average High**	**Average Low**	**Average Monthly Temp**	**Precip**	**Snowfall**
Climate Division 1 (NW)									
Reno ASOS	66	22nd	19	16th	51.1	27.5	39.3	0.60	6.7
Climate Division 2 (NE)									
Elko ASOS	57	10th	8	16th	43.4	18.0	30.7	0.49	6.5
Ely ASOS	57	20th	6	17th	42.6	16.9	29.8	1.22	18.7
Climate Division 3 (Central)									
Eureka AWOS	61	10th	-2	16th	43.5	15.4	29.5	0.99	*
Tonopah ASOS	62	10th	16	4th	49.3	23.2	36.3	0.09	*
Winnemucca ASOS	62	10th	5	26th	47.5	18.6	33.1	0.54	5.1
Climate Division 4 (S)									
Las Vegas ASOS	74	22nd	38	4th	63.4	44.1	53.8	0.06	0

STATISTICS FOR THE MONTH OF MARCH 2012									
	Extreme High	**Day**	**Extreme Low**	**Day**	**Average High**	**Average Low**	**Average Monthly Temp**	**Precip**	**Snowfall**
Climate Division 1 (NW)									
Reno ASOS	70	21st	17	7th	58.0	33.5	45.7	0.11	0.7
Climate Division 2 (NE)									
Elko ASOS	76	31st	8	2nd	55.0	25.7	40.4	1.36	13.4
Ely ASOS	70	31st	6	2nd	54.2	25.7	39.9	0.84	7.6
Climate Division 3 (Central)									
Eureka AWOS	72	31st	2	2nd	55.0	24.8	39.9	1.23	*
Tonopah ASOS	72	30th	15	2nd	58.5	28.5	43.5	0.74	*
Winnemucca ASOS	71	24th	6	2nd	57.1	26.8	42.0	1.00	6.6
Climate Division 4 (S)									
Las Vegas ASOS	86	31st	37	7th	72.0	49.3	60.6	0.18	0

STATISTICS FOR THE MONTH OF JANUARY 2012									
	Extreme High	**Day**	**Extreme Low**	**Day**	**Average High**	**Average Low**	**Average Monthly Temp**	**Precip**	**Snowfall**
Climate Division 1 (NW)									
Carson City	67	*	0	*	52.5	21.2	36.8	2.25	0.5
Cold Springs	66	2nd	-3	16th	50.4	19.3	34.9	2.03	6.4
Davis Creek	69	6th	1	18th	54.4	19.9	37.2	5.31	6.25
Gardnerville	70	5th	0	17th	55.1	20.4	37.7	2.07	0
Hay Creek*	63	3rd	4	16th	47.3	20.7	34.0	1.76	4.0
Jacks Valley	62	5th	10	16th	49.5	27.7	38.6	3.47	*
Lahontan Nat'l Fish Hatchery	69	2nd	1	17th	57.4	24.9	41.2	1.80	*
Minden	70	*	-1	*	55.5	19.2	36.6	1.96	0
Mogul	67	5th	4	17th	50.1	25.3	37.7	2.53	*
NSCO (UNR Campus)	66	5th	10	17th	50.6	25.8	38.2	1.55	T
Reno, N. Virginia	66	5th	6	17th	50.6	24.7	36.9	1.54	0.25
Reno, W (Sky Mountain)	*	*	*	*	*	*	*	1.86	0.25
Sheridan Acres	65	2nd	5	17th	51.4	25.0	38.2	3.39	1.0
Stillwater (Precip. only)								m	m
Truckee-Tahoe	m	m	m	m	m	m	m	m	m
Wellington	67	5th	-2	17th	53.6	20.8	37.2	1.53	*
Verdi	m	m	m	m	m	m	m	m	m
Climate Division 2 (NE)									
Jarbidge	61	5th	5	16th	44.1	21.2	32.6	3.01	11.0
Reese River	m	m	m	m	m	m	m	m	m
Climate Division 3 (Central)									
Gabbs	m	m	m	m	m	m	m	m	m
Pioche - Lister Ranch	64	16th	-6	17th	44.8	9.6	27.2	0.40	3.5
Tonopah	61	4th	9	17th	49.3	24.3	36.8	0.11	1.5
Climate Division 4 (S)									
Amargosa Farms	71	*	22	*	62.3	29.5	45.9	0.00	0
N. Las Vegas	72	*	25	*	60.8	38.3	49.5	0.04	0
Overton	72	3rd	20	14th	64.2	30.0	47.1	0.03	0
Sandy Valley (precip. only)								*	*
California (Sierra)									
Central Sierra Snow Lab	63	1st	6	16th	45.4	23.8	32.3	7.76	39.2
Tuolumne Meadows	*	*	*	*	*	*	*	*	*

* - Incomplete data m - Missing data
nr - Not Recorded

STATISTICS FOR THE MONTH OF FEBRUARY 2012									
	Extreme High	**Day**	**Extreme Low**	**Day**	**Average High**	**Average Low**	**Average Monthly Temp**	**Precip**	**Snowfall**
Climate Division 1 (NW)									
Carson City	66	*	11	*	49.6	23.0	36.1	0.43	4.0
Cold Springs	63	24th	10	16th	47.0	21.7	34.4	0.64	7.8
Davis Creek	64	25th	10	28th	51.4	20.1	35.8	1.14	11.8
Gardnerville	68	22nd	8	28th	52.3	20.5	36.4	0.41	4.5
Hay Creek*	59	10th	12	28th	45.2	23.0	34.1	0.95	12.5
Jacks Valley	63	9th	21	2nd	49.4	29.3	39.3	0.54	*
Lahontan Nat'l Fish Hatchery	68	22nd	13	26th	55.6	25.1	40.3	0.10	*
Minden	68	*	10	*	52.1	20.3	36.2	0.35	0
Mogul	65	22nd	11	16th	52.9	23.6	38.2	0.56	*
NSCO (UNR Campus)	63	22nd	19	26th	44.6	28.3	36.5	0.73	8.0
Reno, N. Virginia	65	22nd	8	15th	48.3	26.1	37.4	0.31	5.0
Reno, W (Sky Mountain)	*	*	*	*	*	*	*	0.54	7.3
Sheridan Acres	65	22nd	7	28th	49.9	25.5	37.7	0.46	6.3
Stillwater (Precip. only)								m	m
Truckee-Tahoe	m	m	m	m	m	m	m	m	m
Wellington	68	10th	12	26th	53.1	21.9	37.5	0.17	*
Verdi	m	m	m	m	m	m	m	m	m
Climate Division 2 (NE)									
Jarbidge	55	10th	6	15th	39.4	19.3	29.4	1.75	24
Reese River	m	m	m	m	m	m	m	m	m
Climate Division 3 (Central)									
Gabbs	m	m	m	m	m	m	m	m	m
Pioche - Lister Ranch	61	11th	7	20th	47.4	17.3	32.4	0.78	11.0
Tonopah	60	10th	14	3rd	49.2	22.9	36.0	0.27	2.25
Climate Division 4 (S)									
Amargosa Farms	78	*	27	*	64.6	34.3	49.5	0.23	0
N. Las Vegas	70	*	24	*	63.1	42.7	52.9	0.12	0
Overton	75	11th	30	18th	66.9	36.0	51.5	0.22	0
Sandy Valley (precip. only)								*	*
California (Sierra)									
Central Sierra Snow Lab	58	22nd	7	28th	41.5	20.2	29.7	4.37	48.4
Tuolumne Meadows	*	*	*	*	*	*	*	*	*

* - Incomplete data m - Missing data
nr – Not Recorded

STATISTICS FOR THE MONTH OF MARCH 2012									
	Extreme High	**Day**	**Extreme Low**	**Day**	**Average High**	**Average Low**	**Average Monthly Temp**	**Precip**	**Snowfall**
Climate Division 1 (NW)									
Carson City	66	*	10	*	55.4	29.4	42.4	0.61	2.5
Cold Springs	69	9th	9	7th	54.9	26.9	40.7	1.05	1.4
Davis Creek	*	*	*	*	*	*	*	*	*
Gardnerville	71	4th	10	7th	58.3	29.4	43.8	0.52	2.0
Hay Creek*	66	10th	10	7th	52.7	27.9	40.3	0.17	0.25
Jacks Valley	70	30th	15	6th	55.8	35.0	45.4	1.72	*
Lahontan Nat'l Fish Hatchery	70	31st	10	7th	59.9	30.1	45.0	0.71	*
Minden	72	*	9	*	59.3	29.2	42.8	0.59	1.0
Mogul	72	30th	11	7th	56.6	30.9	43.8	1.10	*
NSCO (UNR Campus)	67	5th	18	7th	55.1	33.8	44.5	0.34	1.0
Reno, N. Virginia	68	9th	14	7th	59.5	31.9	43.3	0.51	1.0
Reno, W (Sky Mountain)	*	*	*	*	*	*	*	0.51	T
Sheridan Acres	68	30th	12	7th	57.7	31.6	44.6	2.31	3.9
Stillwater (Precip. only)								m	m
Truckee-Tahoe	m	m	m	m	m	m	m	m	m
Wellington	71	21st	7	7th	60.9	27.8	44.4	0.17	*
Verdi	m	m	m	m	m	m	m	m	m
Climate Division 2 (NE)									
Jarbidge	67	22nd	3	6th	50.8	27.3	39.1	2.08	21.0
Reese River	m	m	m	m	m	m	m	m	m
Climate Division 3 (Central)									
Gabbs	m	m	m	m	m	m	m	m	m
Pioche - Lister Ranch	70	31st	-5	2nd	55.5	21.1	38.3	0.87	6.0
Tonopah	73	30th	12	7th	59.0	29.3	44.2	0.66	7.5
Climate Division 4 (S)									
Amargosa Farms	84	*	26	*	70.1	37.5	53.8	0.02	0
N. Las Vegas	87	*	38	*	71.5	47.2	59.4	0.13	0
Overton	86	31st	32	3rd	74.1	41.4	57.7	0.28	0
Sandy Valley (precip. only)								*	*
California (Sierra)									
Central Sierra Snow Lab	61	3rd	10	7th	41.2	22.9	30.8	15.12	146
Tuolumne Meadows	*	*	*	*	*	*	*	*	*

* - Incomplete data m - Missing data
nr - Not Recorded

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