

2014 Climate Summary

Persistent high pressure over the West resulted in a warm dry year for the NNSS. This was a continuation of the pattern that has left the area with drought conditions since 2011. The January through June period was very dry with a limited number of "cold season" weather systems affecting the region. An active monsoon season did provide some areas with significant precipitation from July through September. However, dry conditions returned for October and November before a shift in the weather pattern finally allowed several significant systems to affect southern Nevada in December.

Precipitation was below average for the NNSS and most locations received less than five inches for the year. The highest annual total was 8.69" in Mid Valley and the lowest 3.19" in Jackass Flats. The greatest 24 hour total was 3.16" at Meda 28 in Area 6.

Temperatures were above average. Only a few outbreaks of cold air affected the region with the most significant being observed at the end of December. The coldest temperature of the year, 4°F, was observed on the morning of December 31st on Rainier Mesa. On the flip side, summer highs were typical with no prolonged periods of excessive heat. The hottest readings were in mid-July peaking on the 13th when a few stations at the lower elevations reached 110°. Desert Rock airport recorded the highest temperature of the year, 111°.

The following are the significant weather events experienced during 2014.

February 27th and 28th saw the first significant weather systems to impact the area since November 2013. The first on the 27th had limited moisture so only some light showers were observed. It did bring windy conditions with some sites experiencing gusts above 40 mph. The second and stronger Pacific system approached the coast on the morning of the 28th. Widespread precipitation was recorded with several sites measuring over an inch. Mid Valley received the most rain, 1.76". Due to the warm nature of these systems, snow was observed only at the highest elevations.

On May 10th, a powerful cold front brought strong winds to the NNSS. Gusty southwest winds were seen for most of the 9th ahead of the cold front and very strong northwest winds were observed immediately behind the cold front. All stations recorded gusts above 50 mph with Yucca Mountain measuring the highest gust of 81 mph. Other notable gusts were 74 mph at Jasper, 63 mph at Schooner Crater, 60 mph on Rainier Mesa, and 60 mph at Climax Mine.

Very heavy rains fell on parts of the NNSS in early August. High pressure was located near the Four Corners on the 3rd and the resulting clockwise flow brought southerly winds to the area. This helped to steer an area of low pressure northward from Baja California across southern California and Nevada. The low had abundant moisture and precipitation was reported at all locations beginning on the 3rd. As the center of the low approached the area on the morning of the 4th, thunderstorms with very heavy rain developed across the NNSS. Meda 28 in Area 6 measured the highest 24 hour precipitation total of 3.16". As a result some roadways in the area were covered with flood debris and a Flash Flood Warning was issued. Other significant precipitation amounts that day included 2.63" at Yucca Lake and 1.77" at Climax Mine.

The first significant precipitation since September fell on the NNSS from December 2nd through the 4th. All stations received measureable precipitation that averaged a quarter to a third of an inch. Due to the subtropical nature of this weather system, the snow level remained above the highest terrain. The warm and humid air mass lead to the formation of areas of low clouds and fog that persisted into the 6th.

On December 29th, a cold air mass settled in over the Great Basin as a strong area of low pressure developed over southern California. This brought the coldest temperatures of the month to the NNSS with highs only in the 40's at the warmest locations and widespread freezing temperatures at night.

<u>Station</u>	<u>Highest (°F)</u>	<u>Date</u>	<u>Lowest (°F)</u>	<u>Date</u>	<u>Precipitation (in.)</u>
Meda 23 (Mercury)	106	7/13	23	12/31	4.33
Desert Rock Airport	111	7/13	21	12/29	3.82
Meda 05 (W5B)	109	7/13	11	12/29	3.80
Meda 40 (Rainier Mesa)	90	7/13	4	12/31	7.12
Meda 43 (Yucca Dry Lake)	106	7/13	11	12/29	5.67

James Wood