# Quarterly Hopi Drought Status Report
## January-March 2014

## CURRENT RANGE CONDITIONS – HOPI RESERVATION

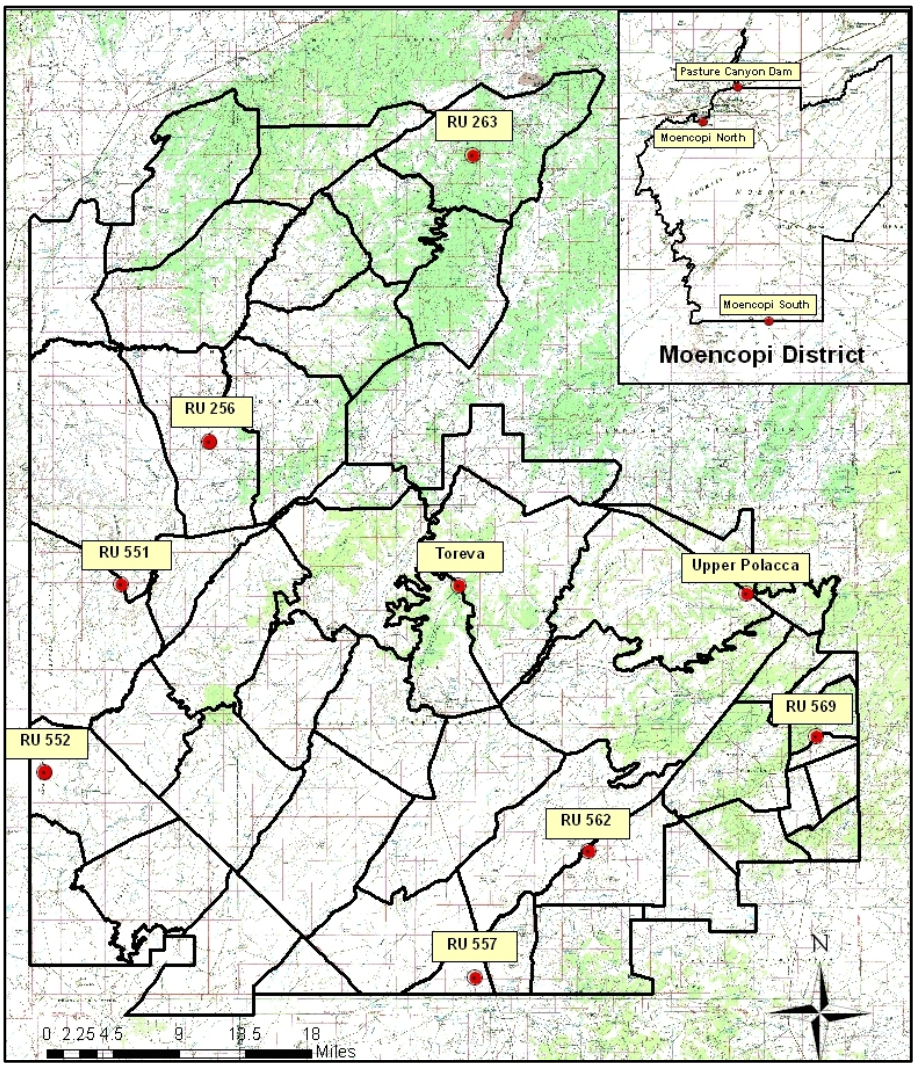



**Figure 1.** 2014 Rain Gauge Locations

### *Range Condition Notes:*

The current condition of the rangeland is generally fair for this time of year. Soil moisture depth ranged from 4-21 inches throughout the winter months in the northern ranges. Although precipitation was sparse this quarter, the following vegetation has been observed to be in bloom:

**Grasses** – Cheatgrass, Squirrel tail, Needle and thread.

**Forbes** - Tansy mustard, Little twist flower, Princess plume.

The winter annual vegetation seems to have begun germination earlier than usual, which may be a result of the high winter temperatures.

**Table 1. January – March 2014 Precipitation (inches)**

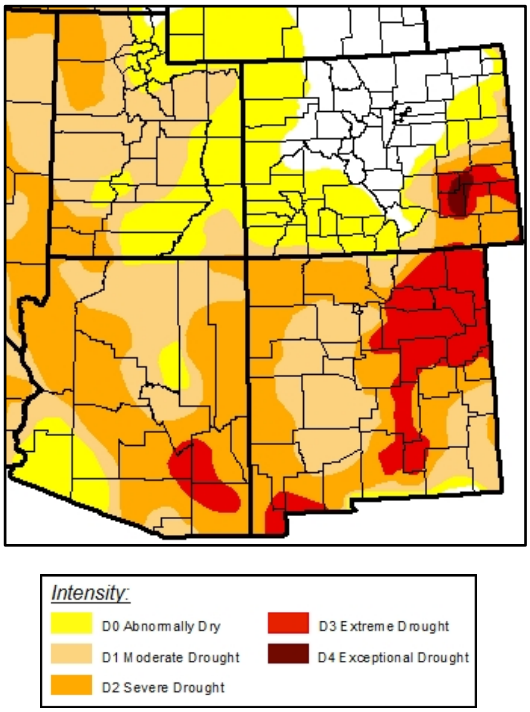
| Rain Gauge Location | January | February | March | TOTAL |
|---|---|---|---|---|
| Range Unit 263 | .54 | .30 | .24 | 1.08 |
| Range Unit 256 | 0 | .03 | .15 | .18 |
| Range Unit 551 | No data | | | - |
| Range Unit 552 | No data | | | - |
| Range Unit 557 | No data | | | - |
| Range Unit 562 | No data | | | - |
| Range Unit 569 | No data | | | - |
| Upper Polacca | 0 | .17 | .72 | .89 |
| Toreva | 0 | 0 | 1.5 | 1.5 |
| Pasture Canyon Dam | .73 | .06 | .05 | .84 |
| Moencopi North | .70 | No data | 0 | .70 |
| Moencopi South | .60 | No data | .20 | .80 |

## CURRENT DROUGHT CONDITIONS – SOUTHWEST REGION

*(Derived from March 25, 2014 U.S. Drought Monitor)*

Temperatures across the Southwest were above normal and in the Sierra Nevada warm conditions enhanced melting of the already shallow snowpack. In Utah and southwestern Colorado, dry soils and below normal streamflows led to expansion of Moderate Drought (D1). In New Mexico, short-term precipitation deficits and dry soil conditions led to expansion of Extreme Drought (D3) in south-central New Mexico and expansion of Moderate Drought (D1) in southeastern New Mexico.

**Figure 2.** U.S. Drought Monitor Data 02/25/14.




## SOUTHWEST OUTLOOK/CONCLUSIONS

(*Data source: Westwide Drought Tracker*)

A stubborn ridge of high pressure dominated the weather over much of the western U.S. for the past several months leading to unusually warm and dry conditions for the winter season. Most winter storms took a far northerly track over the Pacific Northwest this season with limited storm activity over the southwest U.S. Very little precipitation fell in the December through February season with much of northeastern Arizona observing less than 25% of average precipitation for this period (figure 3.). Temperatures were also several degrees above average during this period (figure 4.). The combination of warm and dry conditions has led to an expansion and intensification of drought conditions across the region with no immediate relief in sight. Warm and dry conditions are expected to continue through the spring season with the potential for further expansion and intensification of drought impacts across the region.

**Figure 3.** Dec-Feb % of normal precipitation.

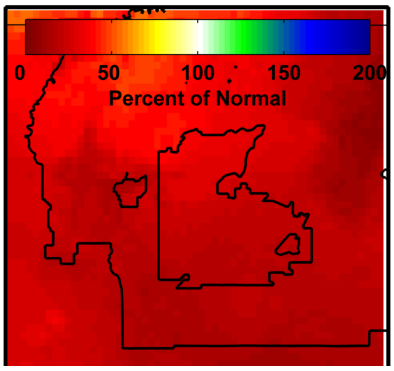
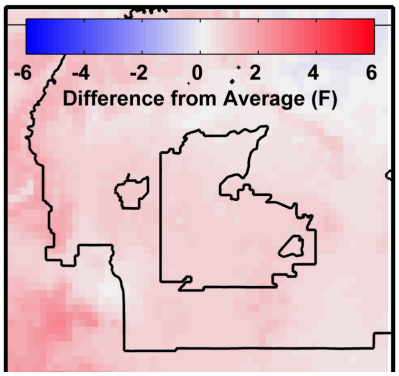



**Figure 4.** Dec-Feb 2014 temperature anomaly.

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