

Climatological Data for February, 1910.
DISTRICT No. 10, GREAT BASIN.

ALFRED H. THIESSEN, District Editor.

GENERAL CLIMATOLOGICAL CONDITIONS.

Unusually stormy conditions prevailed over the Great Basin for the larger part of February. The precipitation, though frequent, was below normal. The month as a whole was much colder than usual, and one of the coldest Februarys on record. In Utah and Nevada it was the coldest since 1903, and in Oregon, with two exceptions, the coldest since 1888.

TEMPERATURE.

The monthly mean temperature for the district, as a whole, was 28.0°, which is nearly 3° below the normal. Nearly every station reported monthly mean temperatures below normal, the greatest deficiencies were reported in northern Nevada and Utah, but exceptionally large minus departures were also reported at various other places in the district. The average departures from the normal ranged from -10° at Corrinne, in the northern part of Utah, to 0.4° at Fillmore, in the south-central portion of the same State. The highest local mean temperature was 44.4° at Jean, Nev., and the lowest, 12.4° at Border, Wyo.

The exceptionally cold weather of December and January continued through the first decade of this month, most stations reporting their lowest temperatures on the 2d, 3d, and 4th. Very nearly every station in this district reported minimum temperatures of zero and below, the lowest being -37° at Border, Wyo., on the 4th. Seasonable temperatures prevailed from the 10th to the 14th, many stations reporting their highest temperatures during this period. The temperature fell sharply on the 14th and the weather continued cold until the 16th, when it grew warmer, and as a rule, normal temperatures or above obtained for the remainder of the month. The highest temperature was 79° at Jean, Nev., on the 28th, and the next highest 70° at McAfee's Ranch, Nev., on the same date.

The monthly range of temperature in the district was 116°.

PRECIPITATION.

The precipitation averaged 1.11 inch, which is 0.23 inch below normal. It was poorly distributed. In the Oregon section and at stations on the western slope of the mountains in Utah, amounts above normal occurred, while in the remainder of the district the amounts were generally below normal. The greatest deficiencies occurred in western and southern Nevada and in southern Utah.

The greatest monthly amount was 5.45 inches at Richins Summit. A few stations in Nevada reported no precipitation. The greatest 24-hour precipitation was 1.22 inch at Marion, Utah, on the 19th.

The only well-defined dry period extended from the 3d to the 6th, except in the Wyoming, Idaho, and Oregon sections where dry weather prevailed from the 3d to the 9th.

In most of the mountain districts in the northern portion of Utah good amounts of snow fell. It is generally well packed, assuring a plentiful water supply for the ensuing season.

MISCELLANEOUS.

A correspondent in Harney County, Oreg., remarks as follows upon the conditions there:

The winter of 1909-10 has been the severest for 20 years. The feeding of stock began in November, whereas heretofore it usually began the last of

December or in January. Feed has become scarce and consequently high, and many farmers ran out early in the winter and loss of stock occurred. It is estimated that the cattle and sheep losses amount to 20 per cent and horses 10 per cent.

Another correspondent at Christmas Lake says:

The cold weather and snow killed many range cattle and thousands of sheep and some horses. Range stock is in very poor condition, and if we should get more snow and cold weather hundreds of head of stock will be lost as we have no more hay.

That the above noted conditions were not widespread may be gathered from the following by a correspondent at Paisley, Oreg., writing on March 6, 1910:

The stock losses have been light. The sheep losses have been no greater than in ordinary winters. Grass is now growing, but there will be considerable loss of both cattle and sheep before the new grass is high enough for feed.

On the morning of February 2 the weather map showed an area of low pressure over Arizona and a high over Montana and the Dakotas. These conditions gave rise to very severe winds. The anemometer at the local Weather Bureau office indicated a maximum velocity of 24 miles. Higher velocities than this, however, were experienced in other portions of Utah. Telephone wires north of Salt Lake City, as far as Pocatello, Idaho, were rendered useless. It was reported that the storm at the Lucin cut-off was the worst known since it was built. The damage amounted to about \$75,000, due to washing away of portions of the embankment and railings by the high water of the lake.

On February 14 another windstorm occurred, a maximum velocity of 52 miles at Salt Lake City being recorded. Considerable damage was done. Two hundred bathhouses at Saltair were demolished. The heavy waters of the Great Salt Lake washed out 4 miles of trackage belonging to the Western Pacific Railroad, doing about \$50,000 damage.

The high temperature on the last day of February and continued high temperature in the early part of March caused very rapid melting of the snow, which resulted in the Reese and Humboldt rivers rising in Nevada sufficiently to overflow their banks and do considerable damage, a detailed description of which will be given in next month's report.

**EVAPORATION AND PRECIPITATION MEASUREMENTS
AT PROVO, UTAH.**

By J. L. LYTEL, Project Engineer, United States Reclamation Service.

The following measurements of evaporation and precipitation were made at the office of the United States Reclamation Service, under the direction of Mr. Lytel, Project Engineer. The evaporating pan was placed in an open space and it, together with a standard rain gage, was surrounded by a screen fence to prevent interference.

The readings are recorded in inches and cover the period from February, 1908, to December 5, 1909, and will be continued and published regularly in the MONTHLY WEATHER REVIEW, perhaps every six months.

These evaporation measurements are very valuable from a practical standpoint and highly appreciated by those interested in water resources.—A. H. T.