

**Climatological Data for April, 1910.**  
**DISTRICT No. 10, GREAT BASIN.**

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GENERAL CLIMATOLOGICAL CONDITIONS.

The warm, dry weather of March continued through April in the Great Basin. Temperatures were uniformly high, and at many places maximum temperature records for this month were broken. April is usually a comparatively wet month, but during this month, while the showers were quite frequent, the precipitation averaged much below normal.

Storms were frequent, but none were attended by heavy rains; there were, however, some very high winds. On April 1 a storm was central over Nevada, while another was approaching this country from Canada in the Northwest. These 2 storms coalesced, resulting in high winds on the evening of the 2d. The following high wind velocities were recorded: Salt Lake City, Utah, 60 miles from the north, this rate was equaled only once before during April; Winnemucca, Nev., 36 miles from the southwest; and Tonopah, Nev., 56 miles from the northwest. On the 13th very nearly the same barometric conditions were again observed, and 32 miles of wind from the north was registered at Salt Lake City, Utah, and again on the 14th. Other moderately high winds were recorded at Reno, Nev., on the 19th, at Salt Lake City, Utah, on the 20th, and at Modena, Utah, on the 28th.

TEMPERATURE.

The average temperature for the district was about 51°, which is nearly 4° above the normal, and ranged from 42.8° at Glen Alpine Springs, Cal., to 65.4° at Jean, Nev. Nearly all stations having normals showed plus departures, varying from 2° to 7°. The greatest plus departures occurred in north-central Nevada, and the least in Idaho and in the extreme eastern portion of Nevada.

The month opened warm in all parts of the district. On the 3d there was a decided fall in temperature, which continued until the 5th. A few stations in Utah and most of the stations in Nevada reported their lowest temperatures for the month during this period. Freezing temperatures were recorded at most stations. The lowest was 8° at Tecoma, Nev., on the 5th. After this date the weather grew warmer, and moderate temperatures prevailed until the 13th which marked the beginning of another cool spell. This period of cold weather, however, lasted but a few days, the temperatures fell quite low, except in western Nevada. Considerable damage was sustained, especially where the vegetation was not protected artificially. At Christmas Lake, Oreg., the temperature fell to 11°, which was the lowest temperature recorded at this time. High temperatures prevailed in all localities for the remainder of the month, and the maximum was reached on the 23d or 24th in the western part of the district, and on the 26th and 27th in the eastern portion. At Border, Wyo., 78° was recorded on the 25th and 26th, which was 4° higher than any previous April temperature on record. At many other stations the maximum temperature records were broken. The highest for the month was 95° at Jean, Nev., on the 24th; the next highest was 93° at Provo, Utah, on the 26th.

PRECIPITATION.

The average precipitation for the district was 0.37 inch, which is about 0.80 inch below the normal. The distribution, as usual, was very uneven, the largest amounts having occurred in the northeastern portion of the district, and the least in Nevada and southern Utah, and ranged from 1.80 inch at Glen Alpine Springs, Cal., to zero at 3 stations in Utah and 5 in Nevada. Every station reported minus departures.

The first day of the month was fair, except at North Fork, Nev., where 1.00 inch precipitation was recorded. This was the

next largest 24-hour amount, the largest being 1.05 inch at Glen Alpine Springs, Cal., on the 28th. On the 2d rain fell at many stations in Idaho, Utah, Oregon, and continued more generally on the 3d. After this date light local showers occurred at many stations on various dates until the 21st, from which date the weather remained fair until the 28th. Rain fell at many stations on the last 3 days of the month.

NOTES.

Application was made at the Utah state engineers' office for the appropriation of sufficient water from the La Sal Creek, in Grand County, to irrigate 20,000 acres of land in the neighborhood of Rattlesnake Flat, The Nipples, Flat Iron, and the Looking Glass country, according to the Grand Valley Times. The preliminary survey shows that a dam 75 feet high will be required for producing a reservoir at Rattlesnake Flat. With the completion of this, and other reclamation projects under way, there will be no waste land between Moab and La Sal.

The Sevier River Land and Water Company has completed the survey for their 70-mile high-line canal, which leaves the Sevier River about 7 miles below the Sevier Bridge Dam, goes through Leamington Canyon, and ends in Chalk Creek, at a point about 3 miles west of Fillmore, according to the Fillmore Progress-Review. Considerable work has already been done on this line, 5 miles of one lateral having been completed. The canal will reclaim about 100,000 acres.

A company of Salt Lake capitalists propose to reclaim 50,000 acres of land in the vicinity of Milford, Utah.

Announcement has been made by the Western Pacific Company that freight traffic will be resumed on their line, after the washouts along the southern end of Great Salt Lake, about May 20. The San Pedro, Los Angeles and Salt Lake Railroad also announces that through passenger traffic will be resumed on that line June 15, 1910, after 5½ months without a through train passing over the line. The Western Pacific Line has an excellent stone roadbed across the shallow southern end of the lake, but the rails are very near the water and the heavy waves carry the unanchored rails and cross-ties off into the water. It is reported that a new grade around the lake to the south is being constructed.

The irrigation system of the Provo Reservoir Company has been opened. This will cost, when entirely completed, about \$500,000 and will reclaim about 10,000 acres of land in northern Utah County and southern Salt Lake County. A reservoir has been constructed in the mouth of the Provo Canyon and the water is carried from there to the irrigation fields through open ditches, rock and cement tunnels, and metal and wood flumes over ridges and under roads by means of siphons and inverted siphons. The entire length of the main canal is about 1½ miles.

The Strawberry Tunnel, at Provo, Utah, was driven 389 feet during April, 1910, making the bore a total of 7,000 feet up to that time, leaving 12,900 feet yet to be driven. Mr. J. L. Lytel is the project engineer in charge.

High winds over the Great Salt Lake wrought several thousand dollars' worth of damage to railroads and to Saltair Beach Pavilion on April 3. The wind was not unusual at Salt Lake City, but over the lake it blew a gale for several hours during the middle portion of the day, and the waves remained high until evening. About 300 bath houses were thrown into the lake from their supporting piles, and about 300 feet of the track approach to the pavilion was considerably damaged, in addition to demolishing a number of the amusement sections of the pavilions. However, the bath houses destroyed were abandoned because of the deep water, another pier having been built toward the shore for this season's use. The embankment

approaches to the trestle section of the Lucin Cut-off were also severely battered, but traffic was only slightly hampered. At the extreme south end of the lake the Western Pacific tracks were thrown from their stone bedding in many places and all train service was suspended for some time.

Gage readings at Saltair, showing the lake heights, were as follows: April 1, +6.7 feet; April 15, +6.9 feet; and May 1, +7.0 feet. These readings are approximately 2.2 feet higher than the readings made a year ago, and about 8.0 feet higher than during the winter of 1905-6.

The night of April 14 was an exceptionally cold one, and frost occurred in practically all parts of the State, doing great damage to all unprotected vegetation, especially to fruit. Conservative estimates of expert fruit men made after carefully

examining the various districts of the State indicate that the percentage of loss will, however, be almost inappreciable at ripening time, except in a few localities. In general, the warnings of the Bureau were promptly heeded and fruit was artificially protected, and passed through the night in safety. Where protection was not made, a considerable loss has been noted, but expert fruit men are of the opinion that the loss was over estimated by those who felt that the crop was three-fourths destroyed. The newspapers and telephone companies of the State were very energetic in their distribution of the Weather Bureau's forecast of frost, and the warning reached every district in the State long before evening of the 14th, giving ample time for preparation to all who were provided with means to protect their fruit.

TABLE 1.—Climatological data for April, 1910. District No. 10, Great Basin.

Table with columns: Stations, Counties, Elevation, Length of record, Temperature (Mean, Departure from normal, Highest, Date, Lowest, Date, Greatest daily range), Precipitation (Total, Departure from normal, Greatest in 24 hours, Total snowfall unmelting), Number of rainy days, Number of clear days, Number of partly cloudy days, Number of cloudy days, Prevailing wind direction, Observers.

TABLE 1.—Climatological data for April, 1910. District No. 10—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.			Number of cloudy days.
<i>Nevada—Cont'd.</i>																				
Fallon.....	Churchill.....	3,965	5	55.0		89	24†	22	4	49	0.28	- 0.06	0.28	0.0	2	24	3	3	n.	U. S. Reclamation Service.
Fernley.....	Lyon.....	4,200	2	55.9	+ 5.5	87	25	21	5	48	0.15	- 0.17	0.15	0.0	1	21	5	4	w.	Mrs. A. J. Rankin.
Gardnerville.....	Douglas.....	4,830	10	53.1		83	24	26	4	50	0.01	- 0.66	0.01	0.0	1	13	11	6	c.	Wm. Dangberg.
Geyser.....	Lincoln.....		5	44.4		80	24	10	4	63	0.06		0.06	0.0	1	19	10	1	s.	Mrs. J. F. Wambolt.
Glenbrook.....	Douglas.....			43.6		69	27	24	1	40	0.25		0.25	0.0	3	26	4	0	w.	C. C. Henningsen.
Golconda.....	Humboldt.....	4,697	31	52.1	+ 4.2	86	24†	22	4	51	0.95	+ 0.50	0.50	0.0	3	21	6	3	sw.	Southern Pacific Co
Halleck.....	Elko.....	5,631	17								0.34	- 0.64	0.12	0.5	4	30	6	4	nw.	Do.
Jean.....	Clark.....	2,074	2			95	24	33	9†	51	0.00		0.00	0.0	0	0			sw.	Salt Lake Route.
Leetville.....	Churchill.....	4,020	3	55.8		90	25	24	4	53	0.15		0.15	0.0	1	23	2	5	w.	U. S. Reclamation Service.
Lewers Ranch.....	Washoe.....	5,500	23	52.2	+ 6.2	83	24	24	4	49	0.50	- 1.10	0.50	0.0	1	13	15	2		Ross Lewers.
Lovelock.....	Humboldt.....	3,977	7	54.8	+ 4.0	88	25	25	4	59	0.00	- 0.18	0.00	0.0	0					J. S. Case.
McAfee's Ranch.....	Esmeralda.....	4,835	6																	C. H. Rodenkirch.
Millett.....	Nye.....		2	50.6		84	24†	11	4	59	0.80		0.80	0.0	1	22	5	3	s.	Fred J. Jones.
Mina.....	Esmeralda.....	4,600	3	56.0		90	23†	19	3	53	0.00		0.00	0.0	0	19	3	8	w.	Southern Pacific Co.
Mount Rose Ranch.....	Washoe.....			48.4		77	24	22	4	36	0.20		0.20	0.0	1	18	8	4	sw.	Fred Elkins.
Palmetto.....	Esmeralda.....	6,780	20																	Isaac McConnell.
Potts.....	Nye.....	6,990	17	46.2	+ 1.7	78	24†	13	4	49	T.	- 0.88	T.	0.0	0	12	7	11	n.	Miss Mamie Potts.
Quinn River Ranch.....	Humboldt.....	4,850	8			87 <sup>a</sup>	25	20 <sup>a</sup>	4	54 <sup>a</sup>	0.62		0.41	0.0	2				sw.	F. M. Payne.
Reno.....	Washoe.....	4,532	39	53.4	+ 6.0	85	24	24	4	45	0.14	- 0.33	0.14	0.0	1	18	8	4	sw.	U. S. Weather Bureau.
Soda Lake.....	Churchill.....	4,534	3	55.4		88	25	23	4	44	0.48		0.35	0.0	3	15	12	3	w.	U. S. Reclamation Service.
Tecoma.....	Elko.....	4,812	32	47.2	+ 0.1	90	26	8	5	60	T.	- 0.77	T.	0.0	0	10	15	5	s.	Southern Pacific Co.
Tonopah.....	Nye.....	6,090	3	53.0		77	25	27	4	31	0.01		0.01	T.	1	15	14	1	sw.	U. S. Weather Bureau.
Wabuska.....	Lyon.....	4,347	7					14			6.00		0.00	0.0	0	15	0	15	se.	J. G. Young.
Wells.....	Elko.....	5,631	38	47.6	+ 2.6	72	11	22	15	36	0.09	- 0.36	0.04	2.0	3	13	13	4	s.	Southern Pacific Co.
Winnemucca.....	Humboldt.....	4,432	31	52.4	+ 5.3	87	24	23	4	48	0.63	- 0.25	0.37	0.0	6	13	7	10	sw.	U. S. Weather Bureau.

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.  
 \* Precipitation included in that of the next measurement.  
 \*\* Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.  
 † Also on other dates.  
 ‡ Separate dates of falls not recorded.  
 § Data are from standard instruments not supplied by the U. S. Weather Bureau.  
 ¶ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.  
 †† Estimated by observer.  
 ††† Precipitation for the 24 hours ending on the morning when it is measured.  
 T. Precipitation is less than 0.01 inch rain or melted snow.



TABLE 2.—Daily precipitation for April, 1910. District No. 10—Continued.

Stations.	River basins.	Day of month.																															Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
<i>Nevada.</i>																																			
Aurora	East Walker											T.																	T.						
Austin	Reese																																		
Battle Mountain	Humboldt						.65																							.17		.08			
Beowawe	do																																		
Buckskin	Walker																																		
Carlin	Humboldt																												.02		.03				
Carson Dam	Carson											T.																.23		T.					
Cherry Creek	Humboldt			.03			.01				.01										T.								T.						
Clover Valley	do			.37							.12	T.										.03						T.		.16		.15			
Cobre	do																																		
Columbia	Desert																																		
Dutton	Humboldt												.08																						
Elko	do						T.				.06			.05																					
Ely	do																																		
Eureka	do			.10																															
Fallon	Carson																																		
Fernley	Truckee																																		
Gardnerville	Carson																																		
Geyser	Humboldt																																		
Glenbrook	Truckee																																		
Golonada	Humboldt												.25																						
Halleck	do																																		
Jean	Desert																																		
Leetville	Carson																																		
Lewers Ranch	Truckee																																		
Lovelock	Humboldt																																		
McAfees Ranch	Desert																																		
Millett	Reese																																		
Mina	Desert																																		
Mount Rose Ranch	Truckee																																		
North Fork	Humboldt	1.00	T.	.13																															
Palmetto	Desert																																		
Paradise Valley	Little Humboldt																																		
Potts	Reese																																		
Quinn River Ranch	Humboldt																																		
Reno	Truckee						T.																												
Rose Creek	Humboldt						.12						.25																						
Smith	West Walker													.04																					
Spooners Ranch	Truckee																																		
Soda Lake	Carson						T.					.01																							
Sweetwater	East Walker												.03																						
Tecoma	Humboldt																.25	T.																	
Tonopah	Desert												.01																						
Wabuska	Walker																																		
Wells	Humboldt			.04																															
Willow Point	Little Humboldt												.14																						
Winnemucca	Humboldt			T.			.02					T.	.15																						

