Storm Data and Unusual Weather Phenomena - April 2022

Location Date/Time Deaths & Property & Event Type and Details
Injuries Crop Dmg

CALIFORNIA, South Central

(CA-Z300) WEST SIDE MOUNTAINS NORTH OF HIGHWAY 198, (CA-Z301) LOS BANOS-DOS PALOS, (CA-Z302) MERCED-MADERA-MENDOTA, (CA-Z303) PLANADA-LEGRAND-SNELLING, (CA-Z304) COALINGA - AVENAL, (CA-Z305) WEST SIDE OF FRESNO AND KINGS COUNTIES, (CA-Z306) CARUTHERS - SAN JOAQUIN - SELMA, (CA-Z307) FRESNO - CLOVIS, (CA-Z308) WEST SIDE MOUNTAINS SOUTH OF HIGHWAY 198, (CA-Z309) BUTTONWILLOW- LOST HILLS - I5, (CA-Z310) DELANO - WASCO - SHAFTER, (CA-Z311) HANFORD - CORCORAN - LEMOORE, (CA-Z312) VISALIA - PORTERVILLE - REEDLEY, (CA-Z313) BUENA VISTA, (CA-Z314) BAKERSFIELD, (CA-Z315) SOUTHEAST SAN JOAQUIN VALLEY, (CA-Z316) SOUTH END SAN JOAQUIN VALLEY, (CA-Z317) MARIPOSA - MADERA FOOTHILLS, (CA-Z318) MARIPOSA - MADERA LOWER SIERRA, (CA-Z319) FRESNO - TULARE FOOTHILLS, (CA-Z320) FRESNO - TULARE LOWER SIERRA, (CA-Z321) SOUTH END SIERRA FOOTHILLS, (CA-Z322) SOUTH END OF THE LOWER SIERRA, (CA-Z323) YOSEMITE NP OUTSIDE OF THE VALLEY, (CA-Z324) YOSEMITE VALLEY, (CA-Z325) SAN JOAQUIN RIVER CANYON, (CA-Z326) UPPER SAN JOAQUIN RIVER, (CA-Z327) KAISER TO RODGERS RIDGE, (CA-Z328) KINGS CANYON NP, (CA-Z329) GRANT GROVE AREA, (CA-Z330) SEQUOIA NP, (CA-Z331) SOUTH END OF THE UPPER SIERRA, (CA-Z332) KERN RIVER VALLEY, (CA-Z333) PIUTE - WALKER PASS (BASIN?), (CA-Z334) TEHACHAPI, (CA-Z335) GRAPEVINE, (CA-Z336) FRAZIER MOUNTAIN COMMUNITIES, (CA-Z337) INDIAN WELLS VALLEY, (CA-Z338) MOJAVE DESERT SLOPE(S), (CA-Z339) MOJAVE DESERT

04/01/22 00:00 PST 0 Drought

04/30/22 23:59 PST 0

Rainfall was slightly below normal across much of the area in April. This did not improve the long term precipitation deficit from the previous several months. As a result, nearly all of the central California Interior remained in an extreme drought at the end of April, 2022. As of April, 2022, most of the impacted area has received less than 40% of normal precipitation since July 1, 2020.

(CA-Z338) MOJAVE DESERT SLOPE(S)

04/05/22 02:19 PST 0

A strong shortwave trough dropped southeast over the Great Basin while high pressure strengthened off the California coast producing a strong onshore pressure gradient between the afternoon of April 4 and the morning of April 5. This resulted in a period of strong winds across the Kern County Mountains and Deserts most noticeably along the Mojave Desert Slopes where several stations measured guts exceeding 60 mph.

(CA-Z323) YOSEMITE NP OUTSIDE OF THE VALLEY, (CA-Z326) UPPER SAN JOAQUIN RIVER, (CA-Z327) KAISER TO RODGERS RIDGE, (CA-Z328) KINGS CANYON NP

04/11/22 10:00 PST 0 Winter Weather 04/12/22 04:00 PST 0

04/12/22 04:001 01

(CA-Z316) SOUTH END SAN JOAQUIN VALLEY, (CA-Z331) SOUTH END OF THE UPPER SIERRA, (CA-Z334) TEHACHAPI, (CA-Z337) INDIAN WELLS VALLEY, (CA-Z338) MOJAVE DESERT SLOPE(S)

04/11/22 11:00 PST 0 High Wind (MAX 96 kt)

04/11/22 23:40 PST

A strong low pressure system moved east across the Pacific Northwest on April 11. This system spread precipitation southward into the area between midday on April 11 through the early morning of April 12 as a cold front dropped through the region. The system also produced very strong wind gusts across Kern County with several stations measuring gusts exceeding 60 mph with a few low impact indicator sites measuring gusts exceeding 100 mph. North of Kern County widespread gusts above 30 mph were observed, mainly during the cold frontal passage. Precipitation was most significant over the Sierra Nevada and adjacent foothills north of Kings Canyon with several stations measuring between a quarter and three quarters of an inch of liquid precipitation with elevations above 6000 feet picking up between 3 and 8 inches of new snowfall. Further south the precipitation was less significant with only a tenth to a quarter inch of liquid precipitation in the Sierra Nevada and rainfall in the San Joaquin Valley was minimal due to rain shadowing as areas north of Fresno generally picked up a tenth of an inch or less with little to no rainfall from Fresno southward. The precipitation moved out of the area by late morning on April 12 and winds diminished during the evening as the system moved to the east of our area.

(CA-Z323) YOSEMITE NP OUTSIDE OF THE VALLEY, (CA-Z326) UPPER SAN JOAQUIN RIVER

04/16/22 04:00 PST 0 Winter Weather

04/16/22 16:00 PST 0

 $(\text{CA-Z331}) \ \text{SOUTH END OF THE UPPER SIERRA}, (\text{CA-Z334}) \ \text{TEHACHAPI}, (\text{CA-Z338}) \ \text{MOJAVE DESERT SLOPE}(S)$

04/16/22 10:10 PST 0 High Wind (MAX 69 kt)

04/16/22 17:00 PST 0

A low pressure system moved into northern California during the morning of April 16 spreading precipitation southward into central California. This system brought a brief period of significant precipitation north of Fresno County with several stations in the Sierra

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Storm Data and Unusual Weather Phenomena - April 2022

Location Date/Time Deaths & **Event Type and Details** Property & Injuries Crop Dmg Nevada picking up between a half inch and an inch of liquid precipitation. Several SNOTEL stations above 7000 feet in Madera and Mariposa Counties picked up between 3 and 7 inches of new snowfall. Between a quarter and a half inch of rain fell in the San Joaquin valley north of Fresno County. Further south, precipitation was much less significant with most stations in the Sierra Nevada picking up between one to two tenths of an inch of liquid precipitation and stations in the valley measuring less than a tenth of an inch of rainfall. This system also produced some strong wind gusts over the mountains and deserts of Kern County between the late morning and late afternoon hours as the cold front that was associated with this system pushed through the area. Several stations measured gusts exceeding 45 mph with a some low impact indicator sites measured gusts exceeding 60 mph. (CA-Z331) SOUTH END OF THE UPPER SIERRA, (CA-Z334) TEHACHAPI, (CA-Z338) MOJAVE DESERT SLOPE(S) 04/19/22 12:00 PST High Wind (MAX 70 kt) 04/19/22 21:26 PST 0 A Pacific low pressure system moved across northern California on April 19. This system did bring some light precipitation to the Yosemite Park area with several stations measuring a few hundredths of an inch of liquid precipitation. Most of the precipitation from this system remained to the north of our area. However, as this system moved across northern California; onshore gradients strengthened enough per a period of windy conditions across the mountains and deserts of Kern County during the afternoon and evening of April 19. Several stations measured gusts exceeding 45 mph while a handful of stations had gusts exceeding 60 mph. The winds decreased by the early morning hours of April 20 as the system moved east of the area. (CA-Z323) YOSEMITE NP OUTSIDE OF THE VALLEY 0 Heavy Snow 04/21/22 11:00 PST 04/22/22 08:00 PST 0 (CA-Z326) UPPER SAN JOAQUIN RIVER, (CA-Z327) KAISER TO RODGERS RIDGE, (CA-Z328) KINGS CANYON NP, (CA-Z329) GRANT GROVE AREA, (CA-Z330) SEQUOIA NP, (CA-Z331) SOUTH END OF THE UPPER SIERRA 04/21/22 11:00 PST 0 Winter Weather 04/22/22 08:00 PST 0 (CA-Z331) SOUTH END OF THE UPPER SIERRA, (CA-Z334) TEHACHAPI, (CA-Z338) MOJAVE DESERT SLOPE(S) 04/21/22 15:00 PST 0 High Wind (MAX 60 kt) 04/22/22 19:40 PST 0 A very strong low pressure system moved through the area between the late morning of April 21 and the early morning of April 22. This system produced widespread precipitation across the area. Much of the Sierra Nevada and adjacent foothills measured between 0.75 and 1.5 inches of liquid precipitation with the majority of the precipitation falling as snow above 6000 feet. Several SNOTELs had an estimated 15 or more inches of snow in Yosemite Park and 6 to 14 inches further south. Most of the San Joaquin Valley, West Side Hills and the Tehachapi Mountains measured between a quarter and three quarters of an inch of rainfall while rain shadowing limited the Kern County Deserts to a tenth of an inch or less. However, a period of gusty downslope winds impacted the Kern County Mountains and Deserts between the afternoon of April 21 and the evening of April 22 with several stations measuring gusts above 45 mph and a few low impact indicator sites reporting gusts exceeding 60 mph. (CA-Z331) SOUTH END OF THE UPPER SIERRA, (CA-Z332) KERN RIVER VALLEY, (CA-Z334) TEHACHAPI, (CA-Z338) MOJAVE DESERT SLOPE(S) 04/28/22 15:00 PST High Wind (MAX 68 kt) 0 04/28/22 19:14 PST (CA-Z338) MOJAVE DESERT SLOPE(S) 04/28/22 17:40 PST 48K Strong Wind (MAX 49 kt) 04/28/22 19:41 PST 0 A dry upper trough moved through central California during the early morning of April 28 bringing a much cooler airmass into the area. This system also brought increased winds to the area during the afternoon and evening hours as pressure gradients strengthened.

Strong wind gusts impacted the mountains and deserts of Kern County during this time frame with the Mojave Desert slopes being the most impacted. Several stationed reported wind gusts exceeding 45 mph with several gusts exceeding 60 mph being observed during the early evening. The strong wind gusts also resulted in at least four semi-trucks being blown over in the Mojave area. The winds

slowly diminished overnight as the trough moved east of our area.

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