TO BOS
W. Nagel BOS 8/31/2022 #30

THE SACRAMENTO BEE

WEATHER NEWS

The records are in: Here's how much rain fell Sunday from Sacramento's 'bomb cyclone' storm

BY MICHAEL MCGOUGH AND DANIEL HUNT

UPDATED OCTOBER 25, 2021 7:53 AM

As wildfires are contained, darkened barren parts of land are left in the aftermath. What are these burn scars? What do they mean for the environment? BY CAMERON CLARK

It's official: More rain fell Sunday than any other day in Sacramento's recorded history, the National Weather Service confirmed on a waterlogged Monday morning.

The bomb cyclone and atmospheric river storm striking Northern California exceeded forecast expectations, bombarding the capital with more than 5 inches in 24 hours.

The official mark from 1 a.m. Sunday to 1 a.m. Monday at the weather service's city station near Sacramento State was 5.44 inches, gushing past the previous record of 5.28 inches, which had stood since April 20, 1880.

In the 141-year interim, no other day even breached 4 inches.

Marking an exceptionally severe and early start to the rainy season, Sunday obliterated the previous daily record, 1.21 inches, set Oct. 24, 2010.

Sunday also smashed the record for any October day, previously 3.63 inches on Oct. 13, 1962. In fact, it rained more on Sunday than it did during the entirety of any October on record, except for 1962.

The region jolted between climate extremes in dramatic fashion. A record-setting dry spell preceded Sunday's deluge: Downtown Sacramento had gone 212 consecutive days, from late March to mid-October without measurable rainfall.

The weather service's measuring station at Sacramento Executive Airport recorded 5.41 inches, smashing the previous record of 3.77 inches, also set Oct. 13, 1962.

With the mammoth downpour, Sacramento in a single day recorded more than 80% as much rainfall as it received in all of the 2020-21 water year. The city got just 6.61 inches between October 2020 and September 2021.

Records were also broken for Blue Canyon, Northern California's typically wettest location, with 10.40 inches. That broke the all-time, one-day record set there on Dec. 22, 1964. The previous one-day for Oct. 24 was 6.34 inches set in 2010.

Daily rainfall records were also set at Oroville Airport (4.57 inches), Redding Airport (2.99) and Sacramento International Airport (4.13).

Farther north on Sunday, several locations in the Sacramento Valley and Sierra Nevada foothills eclipsed 8 inches, including near Grass Valley, Chico and Paradise.

> Over the course of just 24 hrs, Sac Exec Ap received 81.9% of the total precip from the entire 2020 - 2021 water year! Here is a look at some comparisons. Rain is still falling, so stay tuned for updates on the storm total precip amounts from this #AtmosphericRiver #CAwx #CArain pic.twitter.com/HpjMEfeWyb
>
> — NWS Sacramento (@NWSSacramento) October 25, 2021
>
> Downtown #Sacramento set an all-time 24 hr rainfall total. 5.44 inches were recorded, breaking the old record of 5.28 inches set back in 1880. #CAwx #CArain #atmosphericriver pic.twitter.com/dI3JoLILeb
>
> — NWS Sacramento (@NWSSacramento) October 25, 2021

At around 8 p.m., as Sacramento neared 5 inches inches, weather fanatics kept a close eye on the readouts from SMTC1, the identifier for the "downtown" automated gauge.

"It's going to be close," NWS meteorologist Robert Baruffaldi said a few hours before the mark was toppled. "We got three more hours, it's certainly very doable to beat that record. ... We're getting a quarter of our rainfall (in our water year) in one day."

The 30-year average for the water year, which started Oct. 1, is calculated to an average of 19.20 inches.

"When you think of it in those terms, it's pretty nuts," he said.

Make it FIT!
NEED A Flood of Biblical Size!

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September 10, 2013

Scott Straub
Office of Structures Local Assistance
Caltrans – District 3
P.O. Box 911
Marysville, CA 95901-0911

Now 80+

Subject: **Request Approval to Replace Bridge with Sufficiency Rating >50, State Bridge No. 25C0033, Newtown Road at South Fork Weber Creek (County CIP # 77122, FHWA HBP Project # BRLS-5925(086)) -REQUEST EXPEDITED REVIEW PROCESS**

80+

This cover letter and attached forms and documentation are to request approval to replace idge with a sufficiency rating greater than 50 and a scope/cost/ schedule change.

On January 22, 2013 the County sent Harminder Basi, Office of Local Assistance a request for an HBP Scope/Cost/Schedule change, which was not approved by Caltrans.

On March 21, 2013 the County sent your office a request to replace the bridge with a sufficiency rating greater than 50, in which we never received approval.

On May 10, 2013 Matt Smeltzer, Deputy Director of County Engineering Division; Adam Bane, County Project Manager and myself, project engineer met with you in the field to discuss the scope of the project. You said something to the effect that you could not see the HBP program approving 400 linear feet of retaining walls along the roadway at the bridge approaches. You also said something to the effect that the HBP program would most likely approve replacing the bridge instead of rehabilitating the bridge if the County could demonstrate that the existing bridge could not pass a 100-year storm event without flooding Newtown Road.

The project footprint has been since down scoped from the January 2013 submittal to Harminder, due to your concerns and concerns from local residents and the County Board of Supervisors. See attached copy of Advanced Planning Study of the proposed Conspan/bridge w alignment, roadway alignment, roadway profile and roadway super-elevation diagram. The project footprint now lies within the HBP program guidelines of 200' roadway approach improvements on either side of the bridge.

In summary, we believe the bridge is justified for replacement, as stated in the Newtown Fact Sheet because:

CSPA = IN CONCRETE!! NOT DIRT!!

1) The PCC slab portion of the bridge was built in 1929 and widened in 1950 with a smaller sized Corrugated Steel Pipe Arch Culvert (CSPA). The life expectancy of the PCC Slab Bridge is 100 years, which means that the PCC slab portion would only last until 2029. Caltrans Highway Design Manual Figure 855.3B indicates a Service life of 20 years for a CSPA, given a PH of 6 and Resistivity of 5,000, based on our draft Geotechnical Report. Caltrans Highway Design Manual Table 857.2 indicates that expected Service Life of a Corrugated Steel Pipe Arch is 50 years. Both of these Caltrans references indicate that the CSPA portion of the bridge has exceeded the expected Service Life by 33 to 63 years. See attached copy of Caltrans Bridge Inspection Report dated September 1, 2011.

2) See attached copy of Newtown/South Fork Weber Creek Final Structures Drainage Report, in which our calculations indicate that the existing bridge can only pass a 10-year return period storm event and Newtown Road would be flooded in storm events greater than the 10-year return period storm. Our calculations indicate that the proposed bridge (28' x 7' Conspan) would pass a 100-year storm event with 1 foot of freeboard, between the "upstream 100-year water surface" elevation and the "proposed roadway finished grade" elevation. Let us know if you want copies of Appendixes D and E with the back-up HEC-HMS and HEC-RAS calculations.

We are also changing the project scope because in the County's request for Preliminary Engineering funding we had indicated we would replace the existing bridge with a cast-in-place concrete slab bridge with a curb to curb width of 40 feet and now the County wants to replace the bridge with a Conspan structure with a curb to curb width of 32 feet. Due to the tight skew of the existing creek to Newtown Roadway the County is of the opinion that the Conspan structure is the most viable bridge alternative. The County is treating the upstream and downstream ends of the Conspan as the begin bridge and end bridge stations.

We would appreciate it if you could expedite your approval process so that the scope can be amended before the fall 2013 Bridge Update.

Please let Harminder and El Dorado County know if the Newtown Road/ South Fork Weber Creek Bridge is eligible for bridge replacement funding through the HBP program and if you approve the scope of work with the justifications provided.

If you have any questions or need further information please contact me at 530-621-5954 or my supervisor, Adam Bane at 621-5983.

Monika Pedigo

Sincerely,
Monika Pedigo
Associate Civil Engineer
County of El Dorado
Community Development Agency, Transportation Division

EL DORADO COUNTY
COMMUNITY DEVELOPMENT AGENCY: TRANSPORTATION DIVISION

Count Summary Beginning: May 23, 2014

Count Station:	1100084	Counter ID:	63
City/Town:	Pleasant Valley	Mile Post:	**5.94**
Road Name:	**Newtown Rd.**	Location:	**500 ft N. of Pleasant Valley Rd.**
Lanes:	2	Direction:	EASTBOUND

Date	25	26	27	28	29	23	24	Weekly	Wk Day
Day	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Average	Avg.
Time									**Non-holiday**
100	5	5	8	4	4	6	10		6
200	2	1	3	3	2	3	5		3
300	3	0	0	1	1	2	3		1
400	4	2	4	3	3	6	3		4
500	1	4	3	2	0	2	2		2
600	2	5	24	30	16	14	3		21
700	9	14	57	58	58	58	19		58
800	31	27	118	122	129	100	30		117
900	39	44	112	120	125	102	59		115
1000	66	58	76	62	76	83	60		74
1100	76	66	44	71	58	89	83		66
1200	79	64	59	85	61	81	88		72
1300	103	72	74	77	78	87	70		79
1400	76	66	77	92	82	106	95		89
1500	70	71	104	93	88	118	106		101
1600	72	78	99	103	108	116	97		107
1700	74	79	113	99	96	96	91		101
1800	72	57	111	96	96	89	74		98
1900	53	55	72	76	89	68	51		76
2000	46	48	73	72	47	53	47		61
2100	40	42	29	46	28	43	46		37
2200	39	24	20	32	22	25	30		25
2300	20	16	10	12	24	18	34		16
2400	11	5	8	9	9	11	10		9
Totals	993	903	1298	1368	1300	1376	1116	1193	1336
AM Peak Hr	12:00	11:00	8:00	8:00	8:00	9:00	12:00		8:00
AM Count	79	66	118	122	129	102	88		117
PM Peak Hr	1:00	5:00	5:00	4:00	4:00	3:00	3:00		4:00
PM Count	103	79	113	103	108	118	106		107

Memorial Day Holiday

TOTAL ADT (Non-Holiday): 2,741