

Lake 4, West Lake and A-Frame Dam Rehabilitation

Weekly Construction Update Report

Date: 3/10/2020

2/24/2020 to 2/28/2020

Location: Boulder County Open Space west of Hygiene, CO

Project Owners: Boulder County and St. Vrain & Left Hand Water Conservancy District

Construction Contractors:

Kirkland Construction (Prime Contractor)

Lobato Construction (Sub-contractor)

Design Engineers:

Lake 4 - Engineering Analytics (EA)

West Lake and A-Frame - Applegate Group (AG);

Lake 4 Outlet Pipeline - Deere & Ault (DA)

Weather & Site Conditions: Cool weather some snow on ground

Update by: Obadiah Broughton, Boulder County



2/25: West Lake - Outlet pipe encasement concrete pour. Stage one.

Work in Progress/Completed

1. Lake 4 upstream embankment (Lake 3 embankment) repair and reconstruction - Clay core and zone 3 filter sand installation continued, with clay tie-in around the original slurry wall on the south and northsides of excavation. Lake 4 flood deposited sediment is being used as fill in the embankment
2. Lake 4 downstream embankment - Outlet pipe foundation forms were set and rebar was tied & covered in preparation for concrete.
3. Lake 4 upstream embankment (Lake 3 embankment) - 259 Tons of Zone 3 sand, 776 Tons of 18" rip rap, and 64 loads of clay were imported to the site for elements of the dam reconstruction. The clay were hauled from Swede Lake to Lake 3.
4. West Lake - Outlet pipe encasement was poured in two stages on Tuesday (2/25) and Friday (2/28).
5. West Lake - 450 Tons of Zone 3 sand was imported to the site for elements of the dam reconstruction.
6. A-Frame Pond - The cutoff wall foundations and sub-grade at the A-Frame Pond outlet were excavated east of N.61st street.
7. Continued dewatering operations to remove nuisance water in Lake 4, Lake 4 and West Lake and to drawdown the water levels in A-Frame Pond to facilitate the work.

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Upcoming Work *(One week look ahead. Week of 3/2/2020 to 3/6/2020)*

1. Lake 4 upstream embankment/dam (Lake 3 embankment) - continue placing clay core and zoned embankment.
2. Lake 4 downstream embankment/dam – pour concrete in the outlet pipe foundation between outlet towers;
3. Lake 4 flood deposited sediment removal – haul and place excavated material unsuitable for embankment fill into the sediment disposal area within West Lake.
4. West Lake dam - excavation of the Foothills Ditch intake structure subgrade and foundation.
5. Lake 4 Outlet Pipeline – begin excavation of manhole #1 to prep for manhole placement and to facilitate locating the existing outlet pipeline.
6. A-Frame Pond – place formwork and rebar of the outlet cutoff wall foundations.
7. Continue dewatering operations to remove nuisance water from project site.

Additional Notes

1. February 25th Weekly construction process meeting was held at the jobsite trailer..
2. N. 61st and 63rd streets between SH 66 and Hygiene Rd. will be temporarily closed to thru traffic for up to two months starting as of Jan. 20.
3. Project website for updates and information:
<https://www.bouldercounty.org/open-space/management/lake-4-west-lake-a-frame-pond/>



2/25: West Lake - Outlet pipe encasement concrete pour.



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2/27: Lake 4 upstream embankment (Lake 3 embankment reconstruction - Clay core and zone 3 filter sand installation.



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2/27: Lake 4 flood deposited sediment removal.



2/27: Lake 4 flood deposited sediment desposed into West Lake.



Longmont, CO
48 °F Fair

Recent Cities

Revelstoke, British Columbia, Canada (weather/ca/revelstoke/50.99,-118.19) Crested Butte, CO (weather/us/co/crested-butte/38.91,-106.97)

40.17 °N, 105.16 °W

Longmont, CO Weather History

50° **VANCE BRAND STATION** (/WEATHER/US/CO/LONGMONT/KLMO?CM_VEN=LOCALWX_PWSDASH) | [CHANGE](#)

[HISTORY](#) (/HISTORY/DAILY/US/CO/LONGMONT/KLMO)

- [TODAY](#) (/WEATHER/US/CO/LONGMONT/KLMO)
- [HOURLY](#) (/HOURLY/US/CO/LONGMONT/KLMO)
- [10-DAY](#) (/FORECAST/US/CO/LONGMONT/KLMO)
- [CALENDAR](#) (/CALENDAR/US/CO/LONGMONT/KLMO)
- [HISTORY](#) (/HISTORY/DAILY/US/CO/LONGMONT/KLMO)
- [WUNDERMAP](#) (/WUNDERMAP?LAT=40.17&LON=-105.16)

[Daily](#) **[Weekly](#)** [Monthly](#)

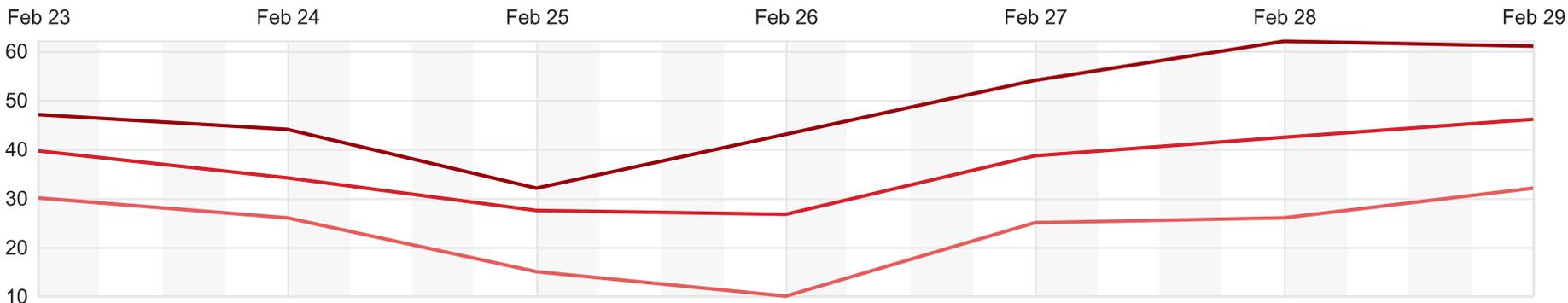
(/history/daily/us/co/longmont/klmo/date/2020-02-24) **(/history/weekly/us/co/longmont/klmo/date/2020-02-24)** (/history/monthly/us/co/longmont/klmo/date/2020-02)

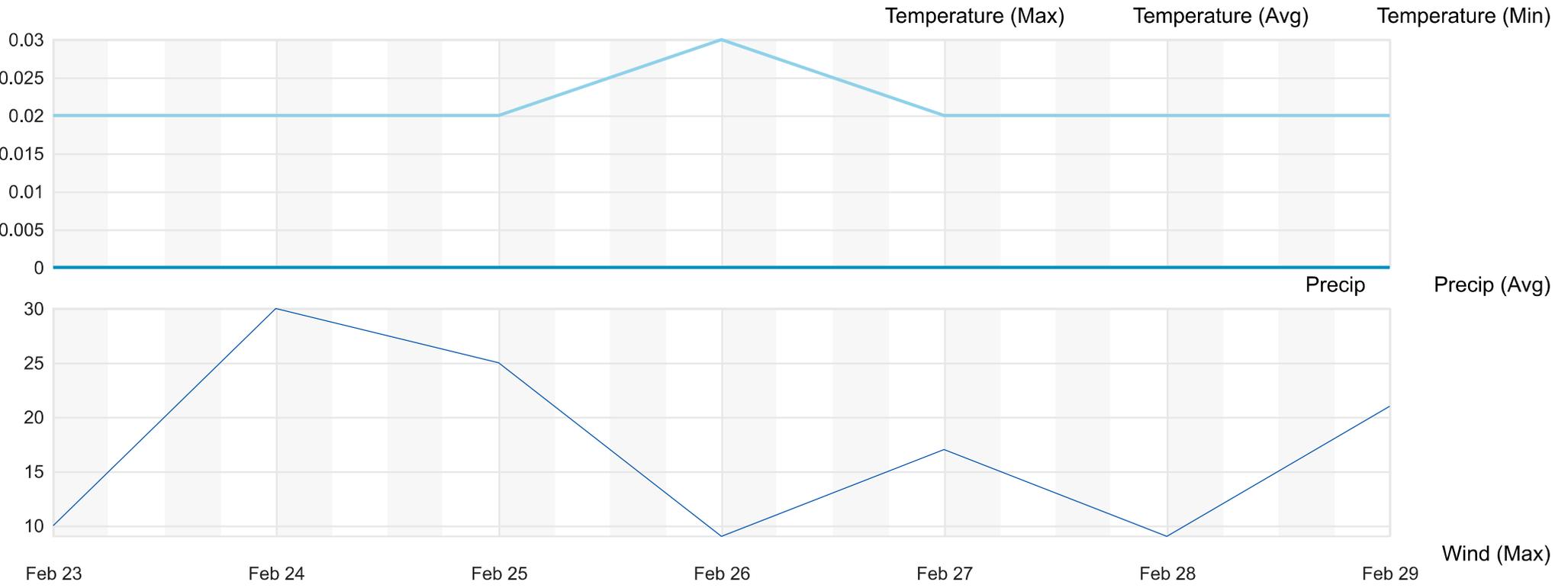
February

24

2020

[View](#)





Summary

Temperature (° F)	Max	Average	Min	▲
Max Temperature	62	49	32	
Avg Temperature	46.04	36.43	26.69	
Min Temperature	32	23.43	10	
Dew Point (° F)	Max	Average	Min	▲
Dew Point	33	15.75	4	
Precipitation (Inches)	Max	Average	Min	Sum ▲

Temperature (° F)	Max	Average	Min	▲
Precipitation	0.00	0.00	0.00	0.00
Snowdepth	0.00	0.00	0.00	0.00
Wind	Max	Average	Min	▲
Wind	30	6.06	0	
Gust Wind	41	4.38	0	
Sea Level Pressure	Max	Average	Min	▲
Sea Level Pressure	25.31	25.01	24.72	

Daily Observations

Time	Temperature (° F)			Dew Point (° F)			Humidity (%)			Wind Speed (mph)			Pressure (Hg)			Precipitation (in)
Feb	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Total
23	47	39.6	30	33	26.7	21	83	61.4	43	10	4.7	0	25.0	24.9	24.8	0.00
24	44	34.1	26	30	15.5	6	82	51.4	24	30	8.6	0	24.9	24.8	24.7	0.00
25	32	27.5	15	14	7.7	4	73	44.4	33	25	12.4	0	25.3	25.2	24.9	0.00
26	43	26.7	10	19	10.8	4	77	55.3	25	9	2.0	0	25.3	25.1	25.0	0.00
27	54	38.6	25	22	14.7	8	67	40.7	18	17	4.9	0	25.1	25.1	25.0	0.00
28	62	42.4	26	24	17.6	10	65	41.5	15	9	3.6	0	25.1	25.1	25.0	0.00
29	61	46.0	32	24	17.4	7	69	37.1	14	21	6.3	0	25.0	24.8	24.7	0.00