

TECHNICAL MEMORANDUM

To: Eagle Bend Metro District (EBMD)-Board of Directors

From: Mitchell Weldon and Justin Korkus, PE

Date: August 7th, 2020

Subject: Final Water Operations Summary for June 2020

CC: Larry Moore-President-EBMD, Denise Denslow-District Manager, CliftonLarsonAllen, LLC.

Project No.: 0416019.01

This Technical Memorandum provides a summary of the EBMD water operations for the month of June 2020.

Water Supply Operations

South Well:

- During the month of June, approximately 11,787 kilogallons (kgal) of water were delivered from the South Well to the Heritage Eagle Bend (HEB) golf course irrigation pond.
- The maximum production flow rate achieved was 288 gpm, and the minimum production flow rate was 258 gpm.
- During recovery periods in June, the water level in the South Well reached a maximum of 298 feet above transducer. Pumping water level reached a minimum of 167 feet.

Figure 1 – South Well Drawdown and Recovery (June 2020)

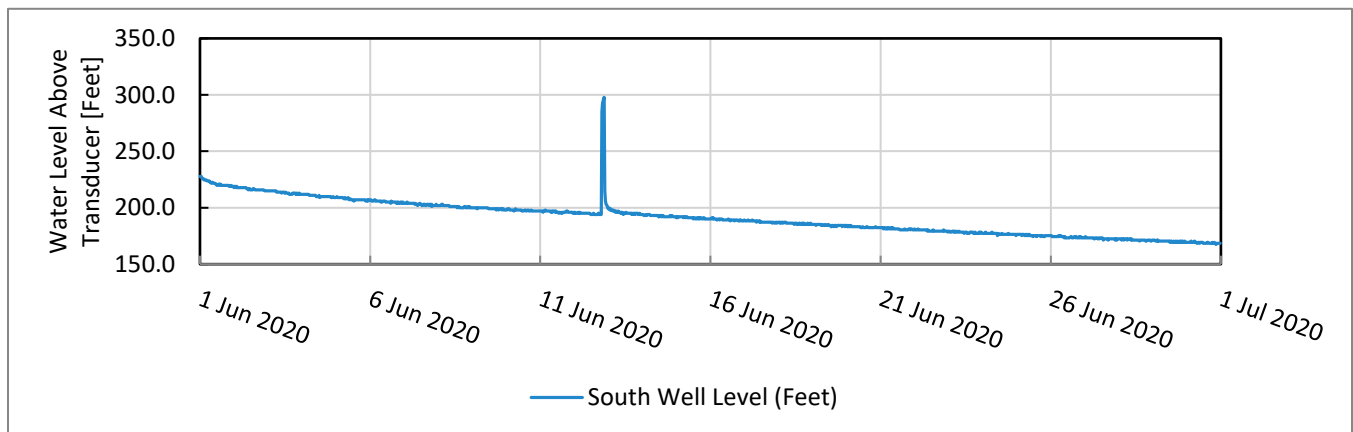
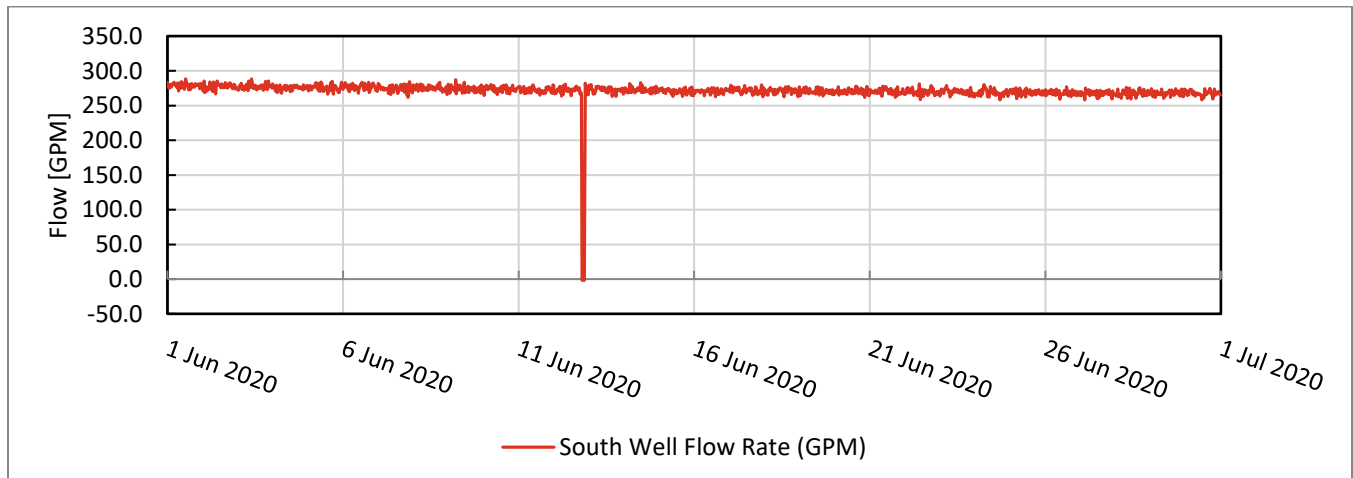


Figure 2 – South Well Production Rate (June 2020)



North Well:

- During the month of June, approximately 6,638 kgal of water were delivered to the Heritage Eagle Bend (HEB) golf course irrigation pond.
- The maximum production flow rate achieved was 154 gpm, and the minimum production flow rate was 141 gpm.
- Static water levels began the month of April at 309 feet above transducer. During the month, the pumping water level reached a minimum of 140 feet. During all recovery periods during the month, the maximum water level reached 293 feet above transducer.

Figure 3 – North Well Drawdown and Recovery (June 2020)

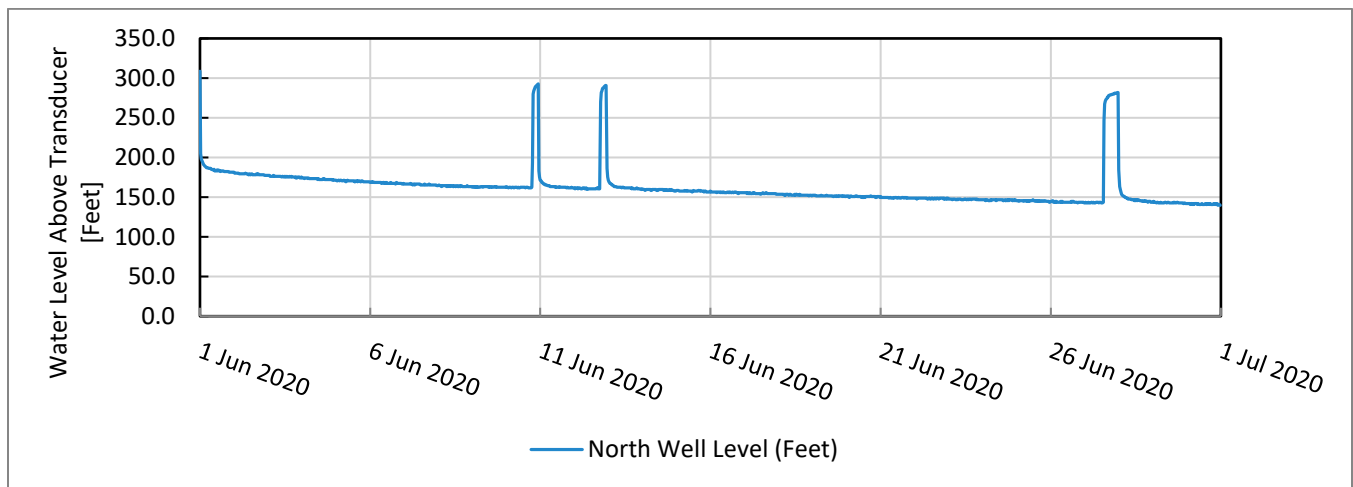
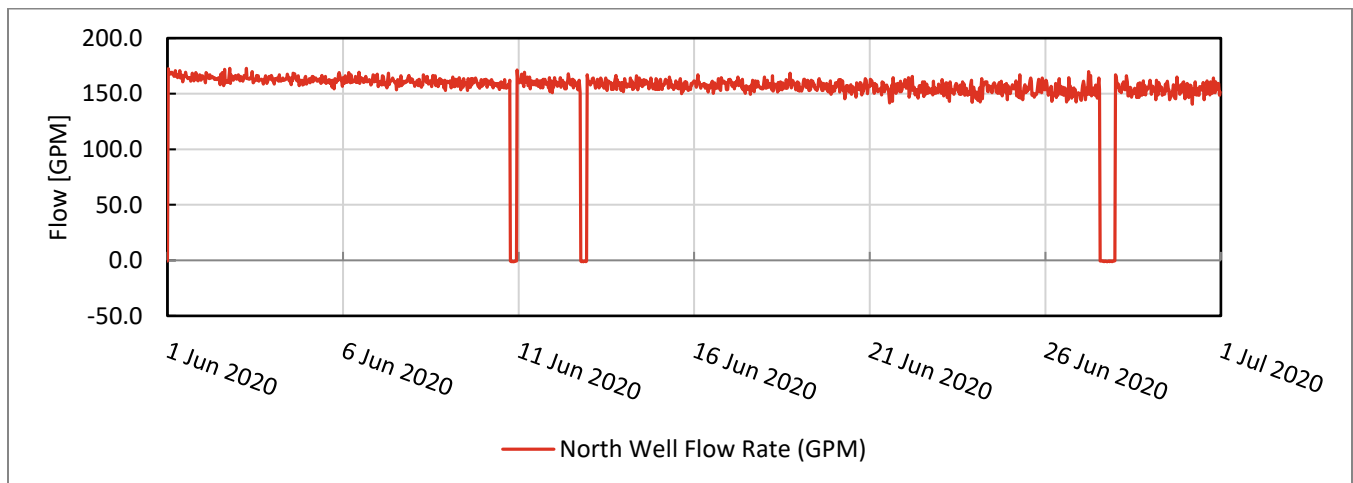


Figure 4 – North Well Production Rate (June 2020)



ECCV/WISE Waterline:

- The ECCV/WISE line was winterized in October 2019 and was not used to supplement the wells for the irrigation pond this month.
- Per discussion with Glen Bedell, ECCV Water Operator, water will not be available from the ECCV/WISE line during June and July. Water availability during August is not known at this time.

Buchanan Tap:

- The Buchanan Tap was used in June between the following dates:
 - June 5th to June 7th – total volume metered: 906,670 gallons
 - June 19th to June 24th – total volume metered: 1,840,470 gallons
 - June 2020 Buchanan Tap total: 2,747 kilogallons (kgal)

Field Operations

- On June 17th, Mitchell Weldon (Lamp Rynearson) visited the Pump House to replace the backup battery at the Pond Radio Transmission Unit. Both wells were also visited to clear off VFD fan screens and review site conditions.

Utility Locates

- Lamp Rynearson monitors utility locate requests on behalf of the District for buried utilities owned and operated by the District. Notifications are sent by the Utility Notification Center of Colorado (UNCC) to Lamp Rynearson, are reviewed, and responded to. During the month of June, Lamp Rynearson responded to 12 utility locate tickets. No site visits were required to respond to a ticket.
- The handover of UNCC response duties to Diversified Underground is in progress and will be finalized in July.

Water Production Summary

Water production data has been updated through June 2020. EBMD’s historical water delivery summary is provided in Table 1 from 2010 through present, and graphically in Figure 5 - Cumulative Annual Water Deliveries by Month, and Figure 6 - Monthly Water Deliveries (2010-2020). For monthly water production and billing for 2020, refer to Table 2.

Table 1 – Annual Water Production

Year	North Well		South Well		Buchanan Tap		ECCV Line, Aurora Pkwy Tap		Total kgal
	kgal	%	kgal	%	kgal	%	kgal	%	
2010	26,564	33	43,702	54	0	0	10,259	13	80,525
2011	29,408	37	38,888	48	0	0	12,273	15	80,569
2012	25,416	28	55,493	61	0	0	10,368	11	91,277
2013	26,223	38	38,791	55	0	0	4,982	7	69,996
2014	18,472	33	33,808	60	0	0	4,036	7	56,316
2015	20,510	30	37,999	57	0	0	8,650	13	67,159
2016	21,569	25	55,478	63	0	0	10,824	12	87,871
2017	21,277	31	33,884	49	0	0	14,097	20	69,258
2018	22,971	28	50,100	62	5,400	7	2,747	3	81,218
2019	22,265	29	45,311	60	3,654	5	4,449	6	75,679
2020	12,743	30	25,187	60	3,763	9	420	1	42,113
Average (2010-2019)	23,123	31	43,306	57	4,527	1	8,047	11	75,483

Table 2 – Monthly water production and billing for Eagle Bend Metro District (2020)

Eagle Bend Metro District Water and Energy Utilities - through May 2020														
Service Month (nominal)	Initial	January	February	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	YTD
Meter Reads														
North Well (Meter No. 12066794)	52,528	52,528	52,528	52,528	53,419	57,913	65,271							
South Well (Meter No. 12269060)	7,443	7,443	7,443	7,448	10,083	19,523	32,630							
ECCV (Meter No. 05359993)	17,280	17,280	17,280	17,280	17,280	17,280	17,280							
Aurora-Buchanan Way (Meter No. 06170036)	34,351	34,351	34,351	34,351	34,351	34,353	38,114							
Aurora-7623 South Aurora Parkway (Meter No. 05150070)	6,509	6,509	6,509	6,509	6,572	6,653	6,929							
kgal														
North Well		0	0	0	891	4,494	7,358						0	12,743
South Well		0	0	5	2,635	9,440	13,107						0	25,187
ECCV		0	0	0	0	0	0						0	0
Aurora (Buchanan Way)		0	0	0	0	2	3,761						0	3,763
Aurora (Aurora Pky)		0	0	0	63	81	276						0	420
Total - kgal		0	0	5	3,589	14,017	24,502							42,113
Total - af		0.0	0.0	0.0	11.0	43.0	75.2							129.2
COA Billing*														* Late fees not included
North Well	\$0.00	\$0.00	\$0.00	\$0.00	\$392.04	\$1,977.36	\$3,237.52							\$5,606.92
South Well	\$0.00	\$0.00	\$0.00	\$2.20	\$1,159.40	\$4,153.60	\$5,767.08							\$11,082.28
ECCV	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00							\$0.00
Aurora (Buchanan Way)	\$0.00	\$65.82	\$65.82	\$65.82	\$65.82	\$80.24	\$27,182.63							\$27,526.15
Aurora (Aurora Pky)	\$0.00	\$17.07	\$17.07	\$17.07	\$471.30	\$601.08	\$2,007.03							\$3,130.62
Total	\$0.00	\$82.89	\$82.89	\$85.09	\$2,088.56	\$6,812.28	\$38,194.26							\$47,345.97
Xcel Energy Billing														
North Well	\$0.00	\$391.44	\$391.44	\$407.09	\$426.28	\$4,170.92	\$5,591.30							\$11,378.47
South Well	\$0.00	\$470.47	\$470.47	\$488.99	\$2,840.56	\$5,883.75	\$7,147.75							\$17,301.99
Total	\$0.00	\$861.91	\$861.91	\$896.08	\$3,266.84	\$10,054.67	\$12,739.05							\$28,680.46
Xcel \$/kgal (approx., some time lag)														
North Well	\$0.00	-	-	-	\$0.48	\$0.93	\$0.76							\$0.89
South Well	\$0.00	-	-	\$97.80	\$1.08	\$0.62	\$0.55							\$0.69
Combined	\$0.00	-	-	\$179.22	\$1.08	\$0.62	\$0.62							\$0.76
HOA Billing	\$0.00	\$0.00	\$0.00	\$25,013.75	\$35,150.73	\$63,916.93	\$110,385.52							\$234,466.93
Net to District	\$0.00	-	-	\$24,032.58	\$29,795.33	\$47,049.98	\$59,452.21							\$160,330.10
Credit towards ECCV SL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00							\$0.00

Figure 5 – Cumulative Annual Water Deliveries by Month (2010 – 2020)

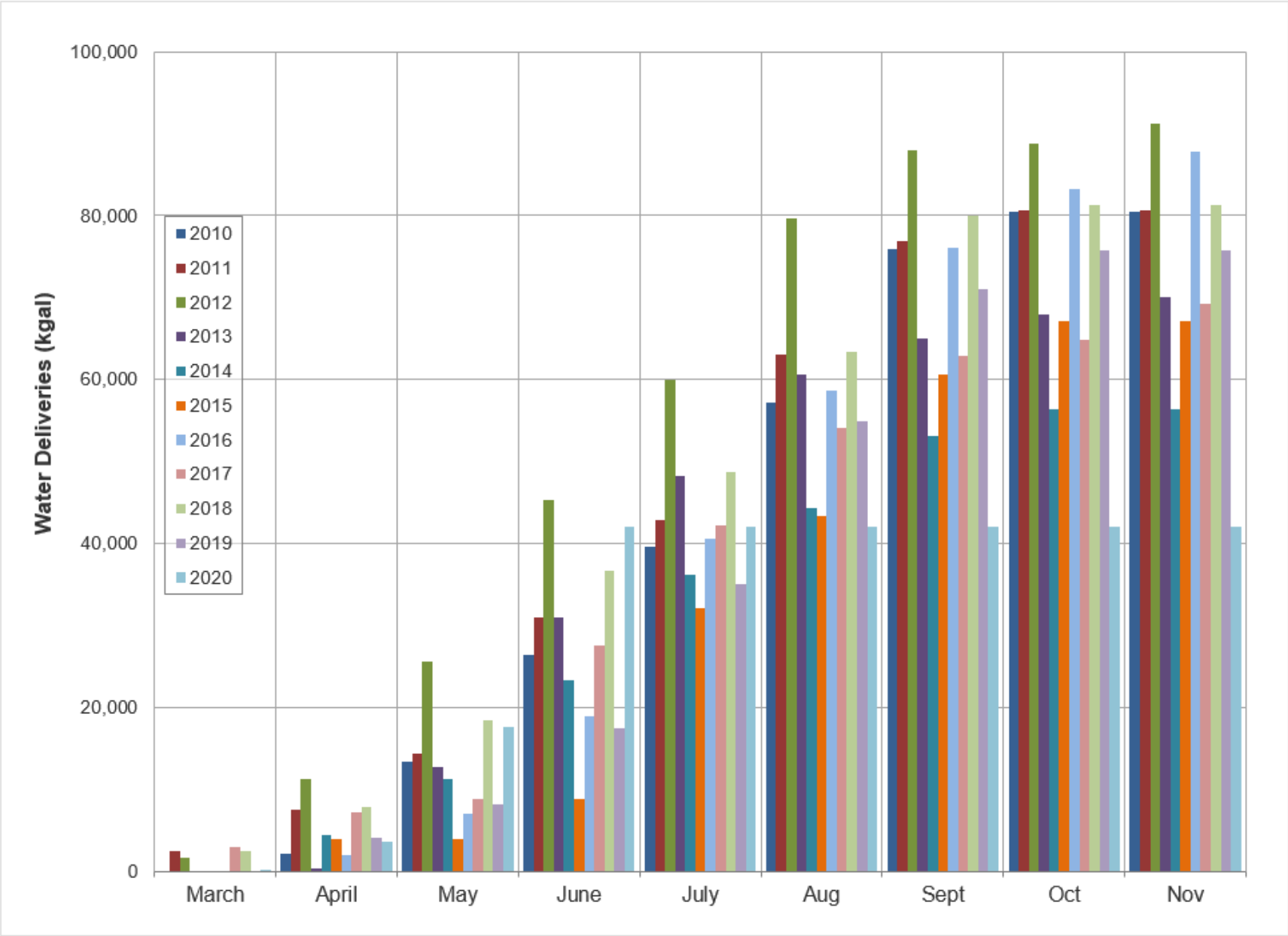


Figure 6 –Historic Monthly Water Deliveries (2010 – 2020)

