

## WATER OPERATIONS SUMMARY FOR JULY 2018

August 2, 2018

### General Operations

During the month of July, the South Well operated for approximately 19 days, operating all 24 hours per day for most of these run days. The average flow rate when running was approximately 275 GPM and a total of 6.63 million gallons was delivered to the HEB irrigation pond. During the periodic shut offs, the static water level would recover from approximately 160 feet up to 300 feet. Recovery periods were short due to summer irrigation demands although short rainy stretches did provide significantly more recovery than June of this year.

The North Well operated for approximately 19 days, operating all 24 hours per day for most of these run days. The average flow rate was approximately 160 GPM and a total of 3.85 million gallons was delivered to the HEB irrigation pond. During periodic shut offs when the well wasn't needed, the static water level would recover from approximately 135 feet to 285 feet. Recovery periods were short due to summer irrigation demands although short rainy stretches did provide significantly more recovery than June of this year.

### Action Items

#### Buchanan Tap, ECCV Line, and Updated Operations Manual

Date	Status Update
7/31/2018	Email from Glen Bedell informed us that the ECCV line would not be available for HEB use for "at least the month of August." Water will be supplied by North and South Wells as well as Buchanan Tap for the next month.
7/30/2018	Brit checked in with Glen Bedell regularly during the month of July to see if the ECCV line would be available soon. Consistently, due to high water demands in their own domain, Glen informed Brit that the ECCV line was still not available for HEB use and he wasn't sure when it would be. Due to this, in tandem with hot early and mid-July temperatures, the Buchanan Tap was utilized frequently to maintain irrigation pond levels. TZA Water Engineers is tracking use of the Buchanan Tap and estimates that approximately 2,080,000 gallons were used in the month of July.
7/18/2018	Updated Operations Manual (updated contacts list, section on Buchanan Tap, section on Buchanan Operation, Backflow devices, and updated various photos).

#### Analog Data Fixes

Date	Status Update
7/24/2018	Brit arrived on site to give in person assistance to Mission to fix analog issues. Took images for help at Mission Control in an attempt to find out if the analog issues are due to physical set up.
7/12/2018	Brit spoke with Mission Control regarding a mismatch between pond level readings for analog data versus pond level readings as are being read for on and off points for both pumps.
7/06/2018	Brit aided Mike Shanaman with data blips and delays set on both South and North Wells. A delay already existed on the South Well; set one for North Well.

## Utility Notification Center of Colorado (UNCC)

In the month of July, TZA responded to 145 utility locate tickets.

### Water Usage

PLEASE NOTE: This section is current through August 2nd, 2018. An updated draft will be sent once invoices are received for the month of July. Water Usage data is collected from invoices received from Xcel Energy and Aurora Water. For historical water usage, please refer to Table 1 as well as Figure 1 and Figure 2. For monthly water usage and billing for 2018, refer to Table 2.

**Table 1 – Historic Annual Water Usage, to Date**

Year	North Well		South Well		ECCV Line, Buchanan Tap, Aurora Pkwy Tap		Total
	kgal	%	kgal	%	kgal	%	kgal
2011	29,408	37	38,888	48	12,273	15	80,569
2012	25,416	28	55,493	61	10,368	11	91,277
2013	26,223	38	38,791	55	4,982	7	69,996
2014	18,472	33	33,808	60	4,036	7	56,316
2015	20,510	30	37,999	57	8,650	13	67,159
2016	21,569	25	55,478	63	10,824	12	87,871
2017	21,277	31	33,884	49	14,097	20	69,258
2018	12,519	26	31,103	64	5,045	10	48,667
Average (2010-2017)	23,268	32	42,049	56	9,319	12	74,635

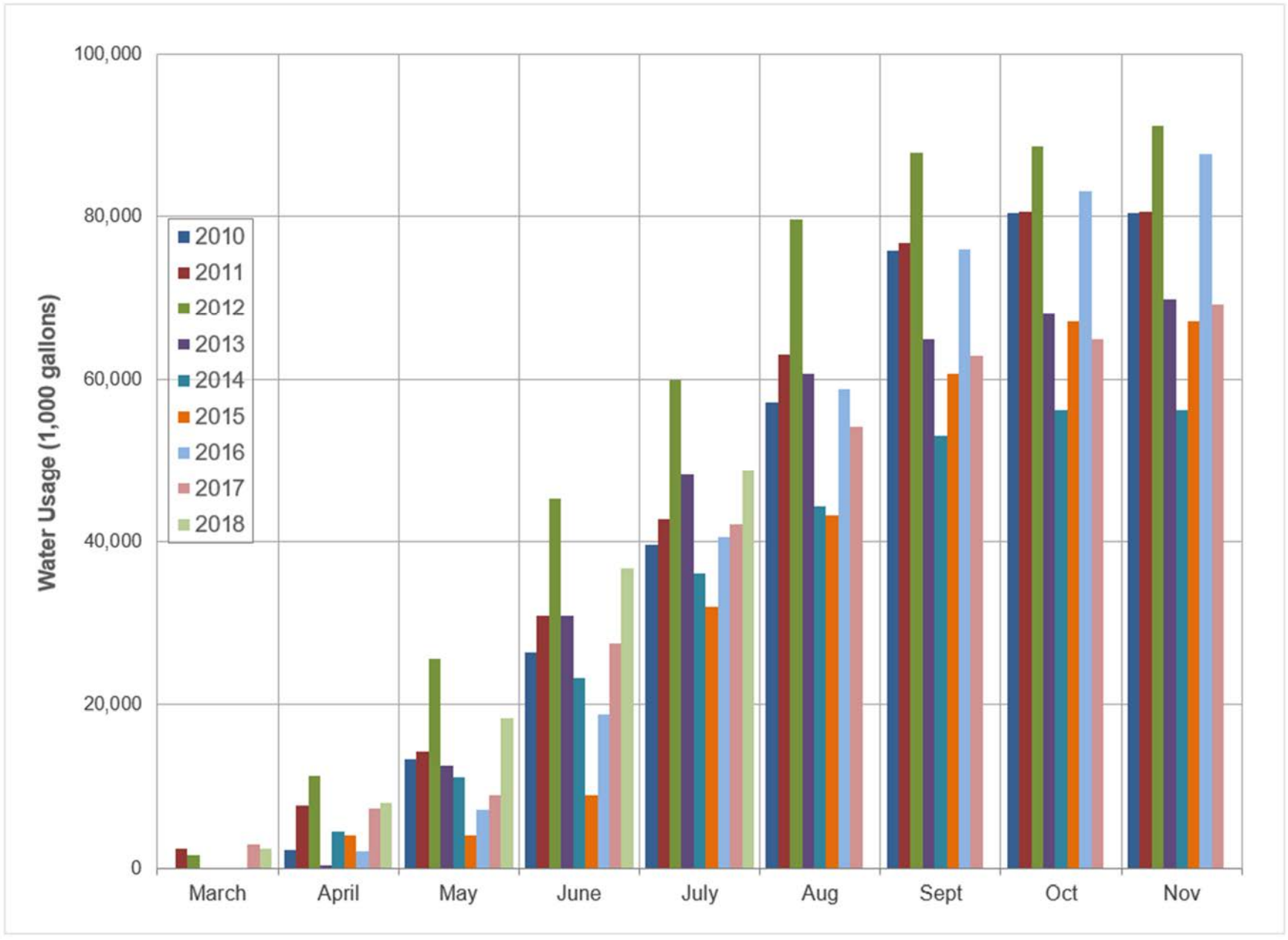


Figure 1 – Current and Historic Cumulative Annual Water Usage (2010 - July 2018)

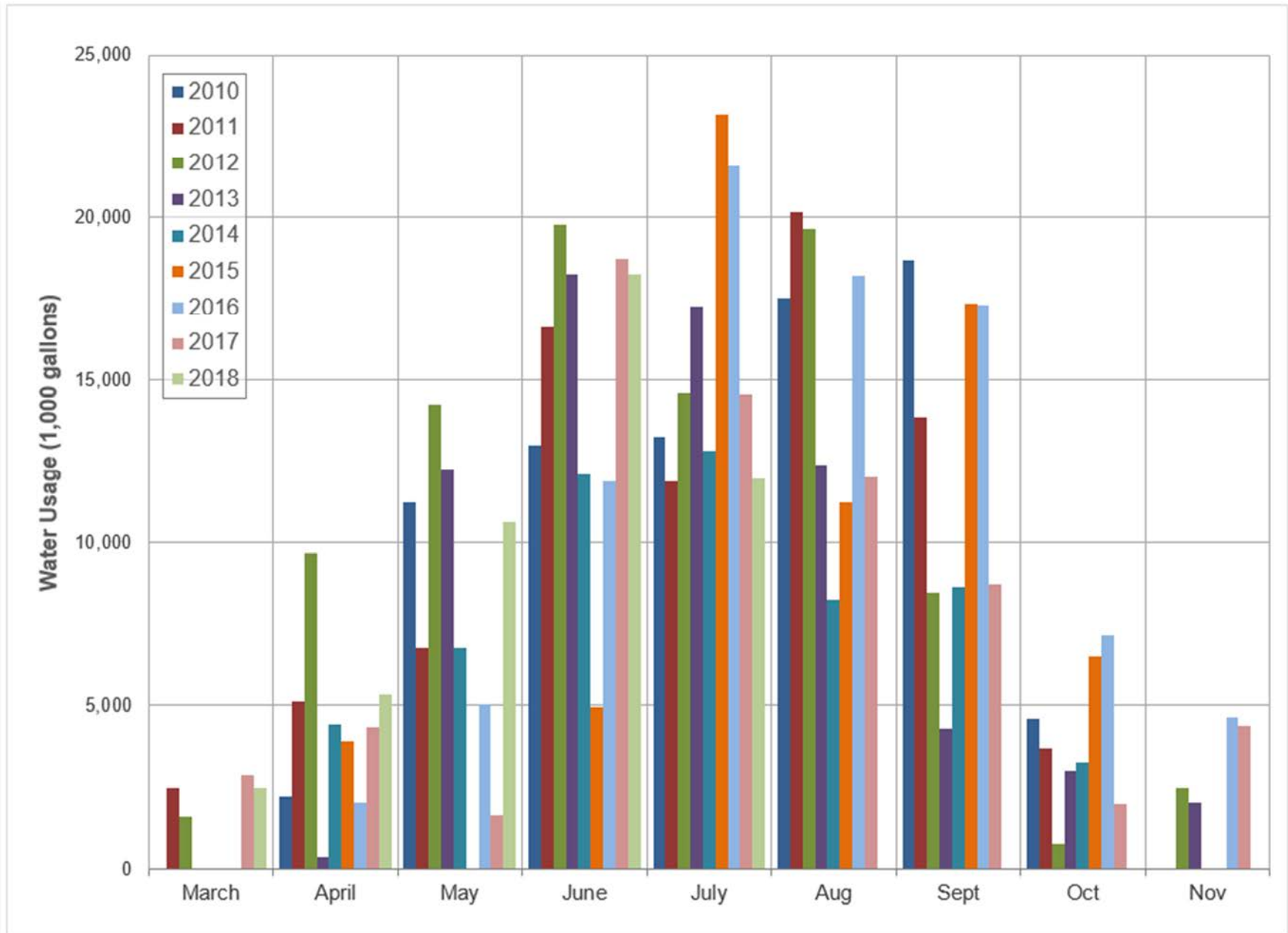


Figure 2 – Current and Historic Monthly Water Usage (2010 - July 2018)

**Table 2 – Monthly water usage and billing for Eagle Bend Metro January - July 2018**

<b>Eagle Bend Water and Energy Utilities (2018) - through July 2018</b>														
Service Month (nominal)	Initial	January	February	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	YTD
<b>Meter Reads</b>														
North Well	7,292	7,292	7,292	7,292	7,292	10,805	16,104	19,811						
South Well	12,031	12,031	12,031	14,487	19,804	26,874	36,503	43,134						
ECCV	11,109	11,109	11,109	11,109	11,109	11,109	13,360	13,360						
Aurora (Buchanan Way)	25,297	25,297	25,297	25,297	25,297	25,297	26,287	27,814						
Aurora (Aurora Pky)	5,484	5,484	5,484	5,484	5,521	5,586	5,670	5,761						
<b>kgal</b>														
North Well		0	0	0	0	3,513	5,299	3,707						12,519
South Well		0	0	2,456	5,317	7,070	9,629	6,631						31,103
ECCV		0	0	0	0	0	2,251	0						2,251
Aurora (Buchanan Way)		0	0	0	0	0	990	1,527						2,517
Aurora (Aurora Pky)		0	0	0	37	65	84	91						277
Total - kgal		0	0	2,456	5,354	10,648	18,253	11,956						48,667
Total - af		0.0	0.0	7.5	16.4	32.7	56.0	36.7						149.4
<b>COA Billing*</b>													* Late fees not included	
North Well	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,510.59	\$2,278.57	\$1,594.01						\$5,383.17
South Well	\$0.00	\$0.00	\$0.00	\$1,056.08	\$2,286.31	\$3,040.10	\$4,140.47	\$2,851.33						\$13,374.29
ECCV	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$14,586.48	\$0.00						\$14,586.48
Aurora (Buchanan Way)	\$0.00	\$65.82	\$65.82	\$65.82	\$65.82	\$65.82	\$6,768.12	\$10,403.61						\$17,500.83
Aurora (Aurora Pky)	\$0.00	\$17.07	\$17.07	\$17.07	\$267.56	\$457.12	\$585.75	\$633.14						\$1,994.78
Total	\$0.00	\$82.89	\$82.89	\$1,138.97	\$2,619.69	\$5,073.63	\$28,359.39	\$15,482.09						\$52,839.55
<b>Xcel Energy Billing</b>														
North Well	\$803.92	\$401.89	\$399.15	\$401.96	\$396.56	\$3,718.65	\$4,895.74	\$4,046.84						\$15,064.71
South Well	\$7,299.22	\$535.80	\$541.27	\$3,649.61	\$4,538.60	\$5,099.28	\$6,315.49	\$5,132.85						\$33,112.12
Total	\$8,103.14	\$937.69	\$940.42	\$4,051.57	\$4,935.16	\$8,817.93	\$11,211.23	\$9,179.69						\$48,176.83
<b>Xcel \$/kgal (approx., some time lag)</b>														
North Well	\$0.00	-	-	-	-	\$1.06	\$0.92	\$1.09						\$1.20
South Well	\$0.00	-	-	\$1.49	\$0.85	\$0.72	\$0.66	\$0.77						\$1.06
Combined	\$0.00	-	-	\$1.65	\$0.85	\$0.72	\$0.75	\$0.89						\$1.10
HOA Billing	\$0.00	\$0.00	\$0.00	\$31,754.00	\$39,872.24	\$54,543.30	\$87,909.46	\$64,383.36						\$278,462.36
Net to District	\$0.00	-	-	\$26,563.46	\$32,317.39	\$40,651.74	\$48,338.84	\$39,721.58						\$187,593.01
Credit towards ECCV SL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,791.85	\$0.00						\$9,791.85