

WATER OPERATIONS SUMMARY FOR OCTOBER 2018

November 5, 2018

General Operations

During the month of October, the South Well operated for approximately 4 days, operating all 24 hours per day for most of these run days. The average flow rate when running was approximately 255 GPM and a total of approximately 1.10 million gallons was delivered to the HEB irrigation pond. During the periodic shut offs, the static water level would recover from approximately 98 feet to 283 feet. Recovery periods were longer than the preceding summer months due to colder weather, less irrigation, and snow/rainfall.

The North Well operated for approximately 8 days, operating all 24 hours per day for most of these run days. The average flow rate was approximately 130 GPM and a total of approximately 1.31 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 98 feet to 272 feet. Recovery periods were longer than the preceding summer months due to colder weather, less irrigation, and snow/rainfall.

The ECCV line is became available to HEB on October 4, 2018, as per the approval of Glen Bedell. Despite the ECCV Line being available, it was not used to supplement the North and South Well as irrigation demands did not require more than what the wells could pump. The line and associated Back Flow Valve will most likely be winterized in late November.

The Buchanan Tap was not operated this month. Due to cooler temperatures and the ECCV Line (which offers cheaper water) becoming available, the Buchanan Tap was deemed unnecessary in October and was winterized on October 16th in preparation for freezing temperatures.

Action Items

Board Meeting, Buchanan Tap, and ECCV

Date	Status Update
10/25/2018	Brit Attended the HEB board meeting and updated the board on water operations. Additionally, Larry and Denise requested a cost-analysis of a third well, all inclusively, in terms of drilling, connectivity to the irrigation pond, water rights, engineering, permitting, and annual maintenance costs.
10/16/2018	Brit and Roe winterized the Buchanan Tap's Backflow Valve (BFV) by blowing any water out with a pressurizer. A member of Aurora Water supervised the work. Winterization of the BFV was successful. The Buchanan Tap will be turned back on again and exercised in the spring. Exactly when in the spring is contingent on the weather.
10/02/2018	Began preparing plan for fall/winter shut down of ECCV Line and Buchanan Tap (set for shut down around thanksgiving of this year, depending on the weather).
10/01/2018	Brit called Glen Bedell on October 1st to check in on the status of the ECCV Line. Glen responded on October 4th stating that the line will be available for the months of October and November barring any changes (e.g. wells breaking down at ECCV).

Analog Data and South Well Operations

Date	Status Update
10/19/2018	As leaves began to fall off the tree in front of the South Well (suspected to be causing signal issues), the dBm seemed to increase to some degree. The signal is being monitored as leaves continue to fall. If signal continues to improve as the leaves fall, removal of the entire tree before next irrigation season will be recommended.
10/18/2018	Explored pond signal issues with Roe and calling Mission Control after power outage and recalibration of pond level transducer number 1. Power outage occurred on October 14 th .

Utility Notification Center of Colorado (UNCC)

In the month of October, TZA responded to 75 utility locate tickets.

Water Usage

PLEASE NOTE: This section is current through November 5th, 2018. An updated draft will be sent once invoices are received for the month of October. 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	22,971	28	50,100	62	8,147	10	79,934
Average (2010-2017)	23,268	32	42,049	56	9,319	12	74,635

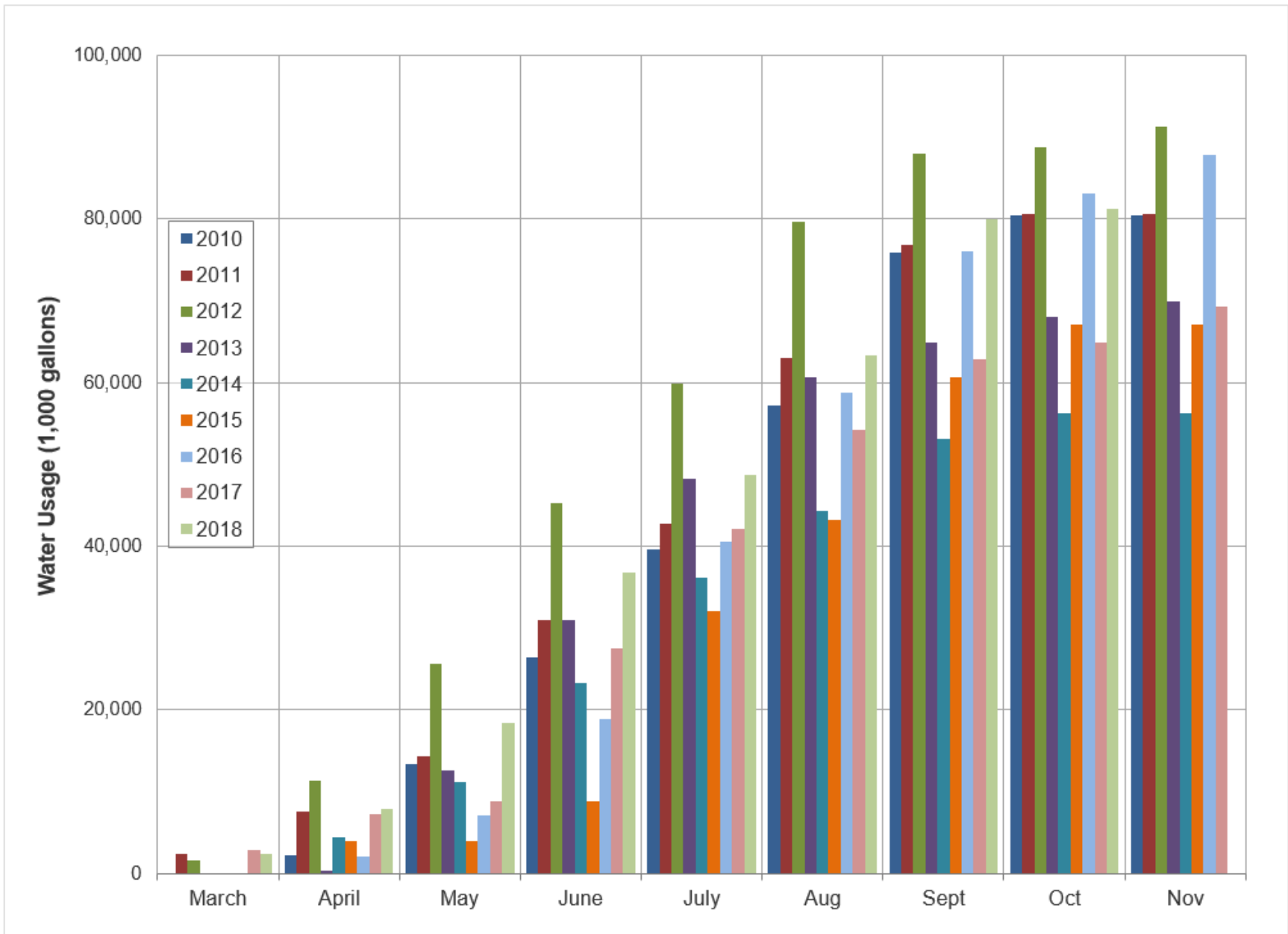


Figure 1 – Current and Historic Cumulative Annual Water Usage (2010 - October 2018)

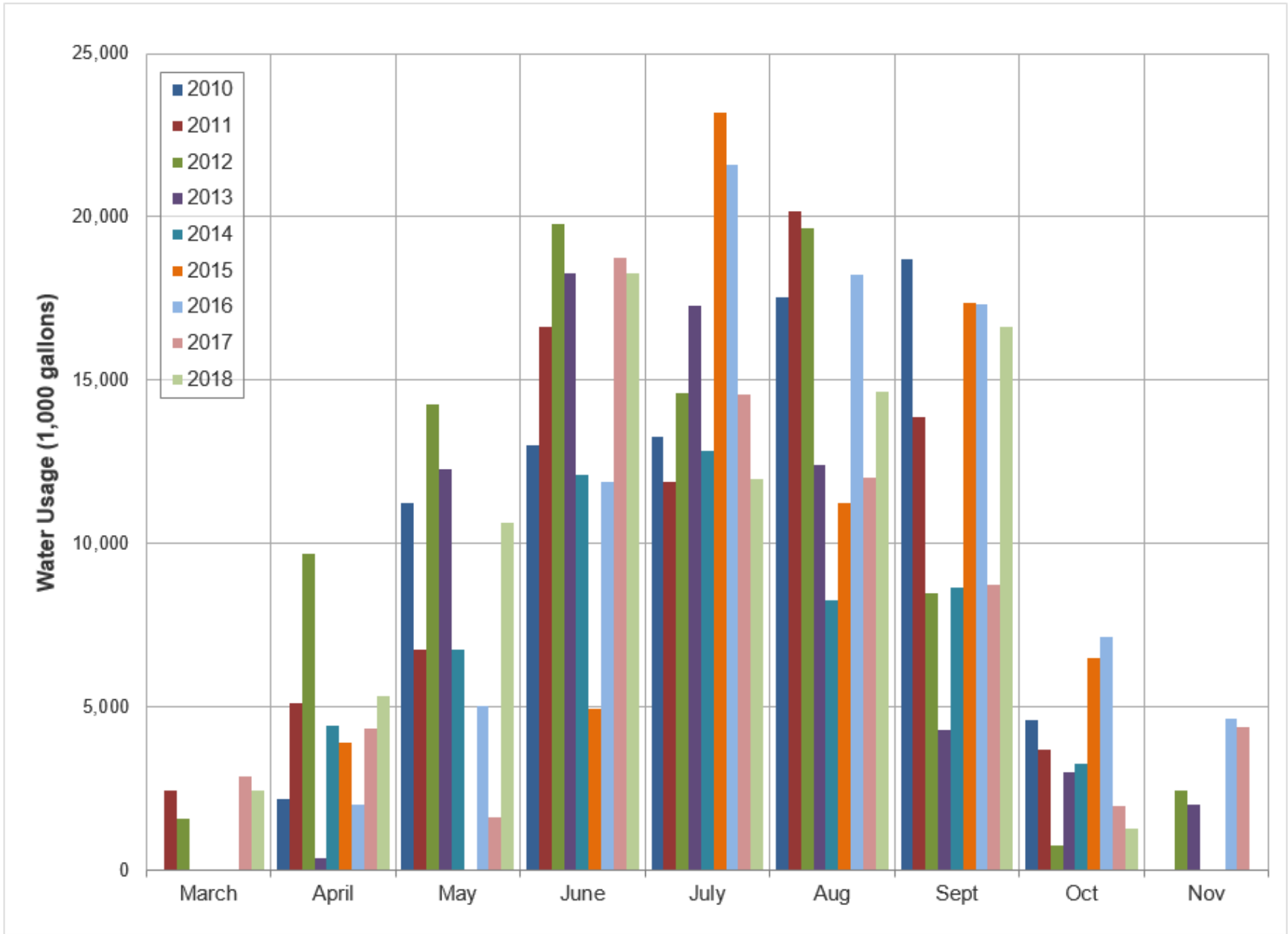


Figure 2 – Current and Historic Monthly Water Usage (2010 – October 2018)

Table 2 – Monthly water usage and billing for Eagle Bend Metro District January - October 2018

Eagle Bend Water and Energy Utilities (2018) - through October 2018														
Service Month (nominal)	Initial	January	February	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	YTD
Meter Reads														
North Well	7,292	7,292	7,292	7,292	7,292	10,805	16,104	19,811	24,421	29,572	30,263			
South Well	12,031	12,031	12,031	14,487	19,804	26,874	36,503	43,134	51,736	61,584	62,131			
ECCV	11,109	11,109	11,109	11,109	11,109	11,109	13,360	13,360	13,360	13,360	13,360			
Aurora (Buchanan Way)	25,297	25,297	25,297	25,297	25,297	25,297	26,287	27,814	29,139	30,697	30,697			
Aurora (Aurora Pky)	5,484	5,484	5,484	5,484	5,521	5,586	5,670	5,761	5,857	5,934	5,980			
kgal														
North Well		0	0	0	0	3,513	5,299	3,707	4,610	5,151	691			22,971
South Well		0	0	2,456	5,317	7,070	9,629	6,631	8,602	9,848	547			50,100
ECCV		0	0	0	0	0	2,251	0	0	0	0			2,251
Aurora (Buchanan Way)		0	0	0	0	0	990	1,527	1,325	1,558	0			5,400
Aurora (Aurora Pky)		0	0	0	37	65	84	91	96	77	46			496
Total - kgal		0	0	2,456	5,354	10,648	18,253	11,956	14,633	16,634	1,284			81,218
Total - af		0.0	0.0	7.5	16.4	32.7	56.0	36.7	44.9	51.0	3.9			249.2
COA Billing*														* 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	\$1,982.30	\$2,214.93	\$297.13			\$9,877.53
South Well	\$0.00	\$0.00	\$0.00	\$1,056.08	\$2,286.31	\$3,040.10	\$4,140.47	\$2,851.33	\$3,698.86	\$4,234.64	\$235.21			\$21,543.00
ECCV	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$14,586.48	\$0.00	\$0.00	\$0.00	\$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	\$9,036.07	\$10,613.48	\$65.82			\$37,216.20
Aurora (Aurora Pky)	\$0.00	\$17.07	\$17.07	\$17.07	\$267.56	\$457.12	\$585.75	\$633.14	\$666.99	\$538.36	\$328.49			\$3,528.62
Total	\$0.00	\$82.89	\$82.89	\$1,138.97	\$2,619.69	\$5,073.63	\$28,359.39	\$15,482.09	\$15,384.22	\$17,601.41	\$926.65			\$86,751.83
Xcel Energy Billing														
North Well	\$803.92	\$401.89	\$399.15	\$401.96	\$396.56	\$3,718.65	\$4,895.74	\$4,046.84	\$4,356.36	\$4,937.27	\$2,799.73			\$27,158.07
South Well	\$7,299.22	\$535.80	\$541.27	\$3,649.61	\$4,538.60	\$5,099.28	\$6,315.49	\$5,132.85	\$5,560.61	\$6,540.25	\$2,977.29			\$48,190.27
Total	\$8,103.14	\$937.69	\$940.42	\$4,051.57	\$4,935.16	\$8,817.93	\$11,211.23	\$9,179.69	\$9,916.97	\$11,477.52	\$5,777.02			\$75,348.34
Xcel S/kgal (approx., some time lag)														
North Well	\$0.00	-	-	-	-	\$1.06	\$0.92	\$1.09	\$0.94	\$0.96	\$4.05			\$1.18
South Well	\$0.00	-	-	\$1.49	\$0.85	\$0.72	\$0.66	\$0.77	\$0.65	\$0.66	\$5.44			\$0.96
Combined	\$0.00	-	-	\$1.65	\$0.85	\$0.72	\$0.75	\$0.89	\$0.75	\$0.77	\$4.67			\$1.03
HOA Billing	\$0.00	\$0.00	\$0.00	\$31,754.00	\$39,872.24	\$54,543.30	\$87,909.46	\$64,383.36	\$70,953.17	\$77,316.20	\$28,715.92			\$455,447.65
Net to District	\$0.00	-	-	\$26,563.46	\$32,317.39	\$40,651.74	\$48,338.84	\$39,721.58	\$45,651.98	\$48,237.27	\$22,012.25			\$303,494.51
Credit towards ECCV SL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,791.85	\$0.00	\$0.00	\$0.00	\$0.00			\$9,791.85