

Memorandum



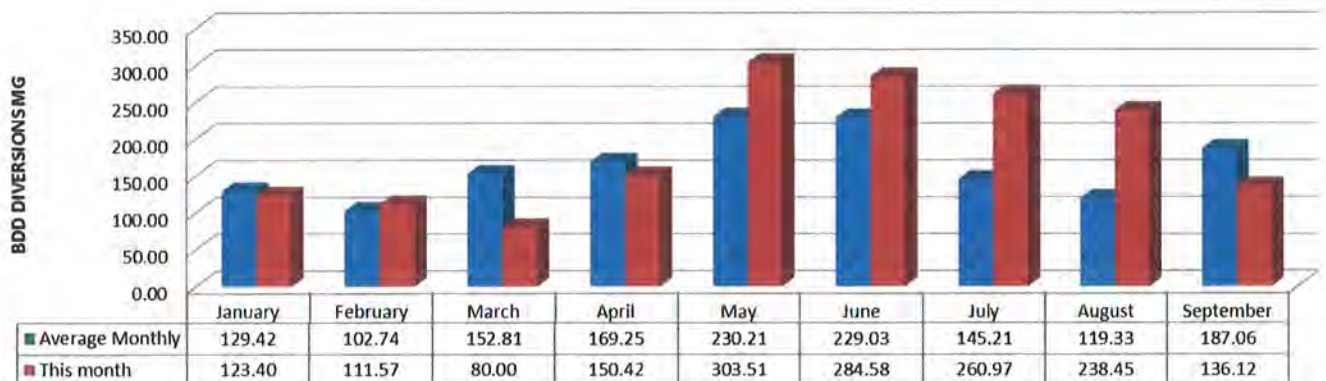
Buckman Direct Diversion

Date: September 19, 2018
To: Buckman Direct Diversion Board
From: Michael Dozier, BDD Operations Superintendent MD
Subject: Update on BDD Operations for the Month of August 2018

ITEM:

- This memorandum is to update the Buckman Direct Diversion Board (BDDDB) on BDD operations during the month of August 2018. The BDD diversions and deliveries have averaged, in Million Gallons Per Day (MGD) as follows:
 - Raw water diversions: 5.33 MGD
 - Drinking water deliveries through Booster Station 4A/5A: 4.84 MGD
 - Raw water delivery to Las Campanas at BS2A: 0.49 MGD
- The BDD is providing approximately 40% percent of the water supply to the City and County for the month.
- The BDD year-to-date diversions are depicted below:

Year-To-Date Comparison



4. Background Diversion tables:

Buckman Direct Diversion Monthly SJC and Native Diversions

Sep-18

In Acre-Feet

Month	Total SJC + Native Rights	SP-4842 RG Native COUNTY	SD-03418 RG Native LAS CAMPANAS	SJC Call Total	SP-2847-E SJC Call CITY	SP-2847-N-A SJC Call LAS CAMPANAS	All Partners Conveyance Losses
JAN	380.137	77.791	0.000	302.346	302.346	0.000	3.023
FEB	336.287	66.413	0.000	269.874	269.874	0.000	2.699
MAR	362.730	266.898	0.000	95.832	95.832	0.000	0.958
APR	661.333	568.669	0.000	92.664	92.664	0.000	0.927
MAY	933.072	340.260	0.000	592.812	481.647	111.165	5.928
JUN	873.384	44.160	0.000	829.224	693.960	135.264	8.292
JUL	807.939	0.000	0.000	807.939	719.953	87.986	11.277
AUG	731.455	61.799	0.000	669.656	669.656	0.000	6.697
SEP	414.537	27.348	0.000	387.189	387.189	0.000	3.872
OCT	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NOV	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	5,500.874	1,453.338	0.000	4,047.536	3,713.121	334.415	43.673

In Million Gallons (MG)

Month	Native COUNTY	Native Las Campanas	SJC TOTAL	SJC CITY	SJC Las Campanas	All Partners Diversions BDD
JAN	28.160	0.000	98.565	98.565	0.000	126.725
FEB	21.651	0.000	87.979	87.979	0.000	109.629
MAR	96.617	0.000	31.241	31.241	0.000	127.858
APR	185.386	0.000	30.208	30.208	0.000	215.595
MAY	123.174	0.000	193.257	157.017	36.240	316.431
JUN	14.396	0.000	270.327	226.231	44.096	284.723
JUL	0.000	0.000	263.388	234.705	28.684	263.388
AUG	20.147	0.000	218.308	218.308	0.000	238.454
SEP	9.900	0.000	126.224	126.224	0.000	136.124
OCT	0.000	0.000	0.000	0.000	0.000	0.000
NOV	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	499.431	0.000	1,319.497	1,210.477	109.019	1,818.927

2016 Buckman Direct Diversion Monthly SJC and Native Diversions

Month	Total SJC Release (Ac-ft)	Convey-ance Losses (Ac-ft)	Total SJC Available at BDD Diversion (Ac-ft)	CITY Total SJC Diversion (Ac-ft)	Las Campanas Total SJC Diversion (Ac-ft)	Total Native Rio Grande Diversion (Ac-ft)	Total BDD Surface Diversion (Ac-ft)	SJC used to offset Buckman Wells
JAN	328.16	3.03	325.13	325.13		50.54	375.67	
FEB	248.93	2.29	246.65	246.65		77.48	324.13	
MAR	459.31	4.26	455.05	455.05		128.55	583.60	
APR	562.55	5.04	557.51	557.51		145.95	703.46	
MAY	407.82	3.63	404.19	404.19		179.69	583.88	
JUN	291.83	2.66	289.17	191.31	97.86	34.26	323.43	
JUL	360.03	3.26	356.77	251.89	104.87	113.93	470.69	
AUG	133.52	1.22	132.30	88.75	43.55	67.55	199.85	
SEP	313.61	2.52	311.09	311.09		316.73	627.82	
OCT	585.70	4.23	581.47	563.60	17.88	149.97	731.45	
NOV	288.72	2.58	286.14	282.09	4.05	122.83	408.97	
DEC	277.86	2.22	275.64	275.64		109.01	384.65	
TOTALS	4,258.04	36.94	4,221.11	3,952.90	268.21	1,496.49	5,717.60	

Source of SJC Releases in reporting month. Includes conveyance losses.

2016	Total Release (Ac-ft)	ABIQUIU		
Month		City	County	Club at Las Campanas
JAN	328.16	328.16		
FEB	248.93	248.93		
MAR	459.31	459.31		
APR	562.55	562.55		
MAY	407.82	407.82		
JUN	291.83	193.07		98.76
JUL	360.03	254.20		105.83
AUG	133.52	89.57		43.95
SEP	313.61	313.61		
OCT	585.70	567.69		18.01
NOV	288.71	284.63		4.08
DEC	277.86	277.86		
TOTALS	4,258.03	3,987.40		270.63

2015 Buckman Direct Diversion Monthly SJC and Native Diversions

Month	Total SJC Release (Ac-ft)	Convey- ance Losses (Ac-ft)	Total SJC Available at BDD Diversion (Ac-ft)	CITY Total SJC Diversion (Ac-ft)	Las Campanas Total SJC Diversion (Ac-ft)	Total Native Rio Grande Diversion (Ac-ft)	Total BDD Surface Diversion (Ac-ft)
JAN	246.57	2.40	244.17	244.17		66.12	310.29
FEB	272.15	2.36	269.79	269.79		56.73	326.52
MAR	180.19	1.60	178.59	178.59		178.02	356.61
APR	0.00	0.00	0.00	0.00		40.13	40.13
MAY	226.67	2.15	224.53	224.53		238.73	463.26
JUN	563.77	5.04	558.72	448.40	110.33	128.54	687.27
JUL	299.65	2.70	296.95	234.93	62.02	148.67	445.62
AUG	279.43	2.54	276.89	276.89		213.73	490.62
SEP	552.16	4.98	547.18	547.18		130.85	678.03
OCT	597.48	5.30	592.18	592.18		80.41	672.59
NOV	428.42	3.89	424.52	424.52		66.27	490.79
DEC	197.65	1.76	195.89	195.89		111.20	307.09
TOTALS	3,844.14	34.72	3,809.41	3,637.07	172.35	1,459.40	5,268.82

Source of SJC Releases in reporting month. Includes conveyance losses.

2015	Total Release (Ac-ft)	ABIQUIU		
Month		City	County	Club at Las Campanas
JAN	246.57	246.57		
FEB	272.15	272.15		
MAR	180.19	180.19		
APR	0.00	0		
MAY	226.67	226.67		
JUN	563.76	452.44		111.32
JUL	299.65	237.07		62.58
AUG	279.43	279.43		
SEP	552.16	552.16		
OCT	597.48	597.48		
NOV	428.42	428.42		
DEC	197.65	197.65		
TOTALS	3,844.13	3,670.23		173.90

2014 Buckman Direct Diversion Monthly SJC and Native Diversions

Month	Total SJC Release (Ac-ft)	Convey- ance Losses (Ac-ft)	Total SJC Available at BDD Diversion (Ac-ft)	CITY Total SJC Diversion (Ac-ft)	COUNTY Total SJC Diversion (Ac-ft)	Total Native Rio Grande Diversion (Ac-ft)	Total BDD Surface Diversion (Ac-ft)	SJC used to offset Buckman Wells
JAN	383.35	3.74	390.34	390.34		12.68	403.02	
FEB	349.51	3.28	341.55	341.55		11.38	352.93	
MAR	373.88	3.66	381.69	357.07	34.09	148.83	539.99	
APR	178.75	1.70	176.78	92.46	84.47	227.22	404.15	
MAY	491.46	4.61	480.35	389.13	91.22	374.86	855.21	
JUN	427.50	3.96	412.65	295.07	117.58	292.84	705.49	
JUL	425.22	4.14	431.96	399.51	32.46	72.32	504.29	
AUG	496.68	4.60	479.66	479.66		96.07	575.73	
SEP	552.71	5.40	562.83	562.83		84.85	647.68	
OCT	381.93	3.63	378.30	378.30		142.46	520.76	
NOV	441.14	4.09	426.17	426.17		11.59	437.76	
DEC	423.99	4.13	430.74	430.74		19.56	450.30	
TOTALS	4,926.12	46.94	4,893.02	4,542.83	359.82	1,494.66	6,397.31	

Source of SJC Releases in reporting month. Includes conveyance losses.

2014	Total Release (Ac-ft)	ABIQUIU		
Month		City	County	Club at Las Campanas
JAN	383.35	383.35		
FEB	349.51	349.51		
MAR	373.74	346.37		27.37
APR	178.83	93.42		85.41
MAY	491.82	399.41		92.41
JUN	427.82	307.54		120.28
JUL	425.22	397.13		28.09
AUG	496.68	496.68		
SEP	552.71	552.71		
OCT	381.93	381.93		
NOV	441.14	441.14		
DEC	423.99	423.99		
TOTALS	4,926.74	4,573.18		353.56

2013 Buckman Direct Diversion Monthly SJC and Native Diversions

Month	Total SJC Release (Ac-ft)	Convey- ance Losses (Ac-ft)	Total SJC Available at BDD Diversion (Ac-ft)	CITY Total SJC Diversion (Ac-ft)	COUNTY Total SJC Diversion (Ac-ft)	Total Native Rio Grande Diversion (Ac-ft)	Total BDD Surface Diversion (Ac-ft)	SJC used to offset Buckman Wells
JAN	439.04	4.24	441.79	441.79		44.09	485.88	
FEB	261.03	2.47	257.94	257.94		10.49	268.43	
MAR	353.69	3.30	343.57	343.57		75.66	419.23	
APR	680.73	6.34	661.33	661.33		89.47	750.80	
MAY	1,045.27	9.88	1,030.46	1030.46		22.86	1,053.32	
JUN	817.91	7.85	734.56	734.56	83.44	260.03	1,078.03	
JUL	606.85	5.90	397.47	397.47	78.83		476.30	138.43
AUG	108.68	0.91	41.68	41.68	36.91		78.59	16.46
SEP	136.77	1.43	63.86	63.86	53.76		117.62	31.68
OCT	255.24	2.46	213.87	213.87	42.66	72.92	329.45	
NOV	196.45	1.88	187.02	187.02	8.48	117.33	312.83	
DEC	293.76	2.63	274.19	274.19		12.25	286.44	
TOTALS	5,195.42	49.29	4,647.74	4,647.74	304.08	705.10	5,656.92	186.57

Source of SJC Releases in reporting month. Includes conveyance losses.

2013	Total Release (Ac-ft)	ABIQUIU		
Month		City	County	Club at Las Campanas
JAN	439.04	439.04		
FEB	261.03	261.03		
MAR	353.69	353.69		
APR	680.73	680.73		
MAY	1,045.27	1045.27		
JUN	817.90	729.3		88.6
JUL	606.85	473.27		133.58
AUG	108.68	65.21		43.47
SEP	136.77	83.87		52.9
OCT	255.24	211.15		44.09
NOV	196.46	186.31		10.15
DEC	293.76	293.76		
TOTALS	5,195.42	4,822.63		372.79

2012 Buckman Direct Diversion Monthly SJC and Native Diversions

Month	Total SJC Release (Ac-ft)	Conveyance Losses (Ac-ft)	Total SJC Available at BDD Diversion (Ac-ft)	Total SJC Diversion (Ac-ft)	Total Native Rio Grande Diversion (Ac-ft)	Total BDD Surface Diversion (Ac-ft)	SJC used to offset Buckman Wells
JAN	448.09	4.06	447.00	411.56	5.02	416.58	35.44
FEB	210.29	1.97	216.94	208.13	32.21	240.34	8.81
MAR	335.75	2.94	323.61	312.85	59.21	372.06	10.76
APR	528.63	4.72	519.90	519.90	108.61	628.51	
MAY	660.18	6.24	651.05	651.05	145.51	796.56	
JUN	722.36	6.79	692.21	692.21	120.92	813.13	
JUL	152.03	2.23	191.75	157.16		157.16	34.60
AUG	86.08	0.58	60.90	60.90	239.96	300.86	
SEP	637.17	6.05	630.92	630.92	110.07	740.99	
OCT	747.21	7.14	744.87	744.87	50.82	795.69	
NOV	479.19	4.63	482.65	482.65	120.91	603.56	
DEC	442.67	4.17	434.71	434.71	119.44	554.15	
TOTALS	5,449.65	51.52	5,396.51	5,306.91	1,112.68	6,419.59	89.61

Source of SJC Releases in reporting month. Includes conveyance losses.

2012 Month	Total Release (Ac-ft)	HERON		EL VADO		ABIQUIU	
		City	County	City	County	City	County
JAN	448.09					448.09	
FEB						210.29	
MAR						335.75	
APR						528.63	
MAY						660.18	
JUN			27.21			695.15	
JUL			21.42			130.61	
AUG						86.08	
SEP						637.17	
OCT						747.21	
NOV						479.19	
DEC						442.67	
TOTALS	448.09		48.63			5,401.02	

Drought/Monsoon, Storage, and ESA Update

NOAA has recently (09/20/18) updated ENSO (El Nino/La Niña) status to:

“ENSO-neutral conditions are present.

Equatorial sea surface temperatures (SSTs) are near-to-above average across most of the Pacific Ocean.

There is ~60% chance of El Niño in the Northern Hemisphere fall 2018 (September-November), increasing to ~70% during winter 2018-19.”

Heron, Abiquiu, and El Vado reservoir levels on the Chama River are declining rapidly. Runoff for this year is far below normal due to drought conditions. Local Upper Santa Fe River reservoir storage volume is slowly decreasing (about 26% full) but water quality has decreased recently due to sediment and algae – the water treatment plant is currently not producing water. These reservoirs are functionally empty; however, demand can be met by using BDD project water as well as groundwater. The City has received over 90% delivery from BoR of full firm-yield of San Juan-Chama Project (SJCP) water so far for year 2018. Portions of the Rio Grande have begun to dry out. Updates on ESA issues will be made as needed. Rio Grande Compact Article VII storage restrictions are in effect, which means the City is not allowed to impound “native” runoff into Nichols and McClure Reservoirs above the pre-Compact pool of 1,061 acre-feet (AF). Updates to this condition will be made as needed; however, Article VII is expected to stay in effect for the foreseeable future.

Most current City of Santa Fe SJCP Reservoir Storage:

Heron:

9,783 AF.

El Vado:

0 AF.

Abiquiu:

5,860 AF. SJCP carry-over from previous years plus 2018 deliveries. No time limit to vacate due to storage agreement with ABCWUA

TOTAL:

15,643 AF