

Memorandum

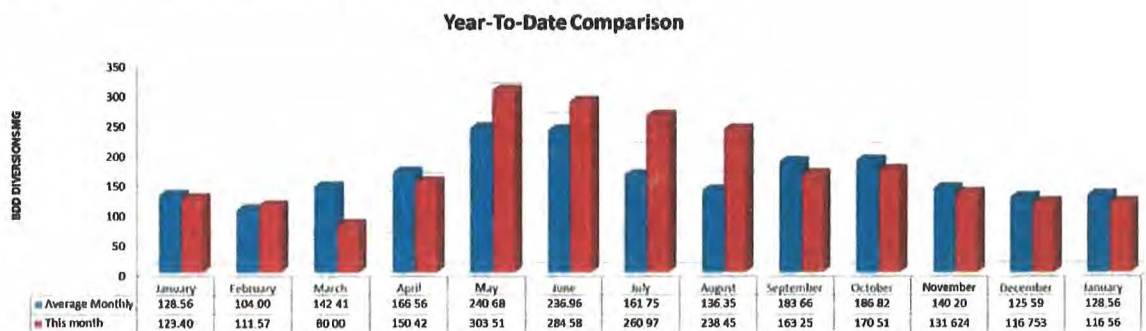


Buckman Direct Diversion

Date: January 24, 2019
To: Buckman Direct Diversion Board
From: Randy Sugrue, BDD Interim Operations Superintendent
Subject: Update on BDD Operations for the Month of January 2019 RS

ITEM:

1. This memorandum is to update the Buckman Direct Diversion Board (BDDDB) on BDD operations during the month of January 2019. The BDD diversions and deliveries have averaged, in Million Gallons Per Day (MGD) as follows:
 - a. Raw water diversions: 3.76 MGD
 - b. Drinking water deliveries through Booster Station 4A/5A: 3.32 MGD
 - c. Raw water delivery to Las Campanas at BS2A: 0.047 MGD
 - d. Onsite treated and non-treated water storage: 0.44 MGD Average
2. The BDD is providing approximately 54% percent of the water supply to the City and County for the month.
3. BDD achieved a San Juan/Chama milestone in 2018; for the first time requesting over 5000 AF of SJC waters and utilizing over 7000 AF of water from the Rio Grande. This is a tremendous achievement considering the challenges presented by drought conditions affecting flows in the Rio Grande in recent years. This represents a delivery of approximately 2.3 billion gallons of water.
4. Water Resources drought update.
5. The BDD year-to-date diversions are depicted below:



Drought/Monsoon, Storage, and ESA Update

NOAA has recently (1/19/18) updated ENSO (El Nino/La Niña) status to:

There is an El Niño effect in the Northern Hemisphere, and likely to remain through winter 2018-19.”

Heron, Abiquiu, and El Vado reservoir levels on the Chama River are declining, but good spring runoff is expected. Runoff for this year is far below normal due to previous drought conditions. Local Upper Santa Fe River reservoir storage volume is slowly increasing (about 54% full). 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. 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:

9,583 AF.

El Vado:

0 AF.

Abiquiu:

5,310 AF. SJCP carry-over from previous years plus 2018 deliveries.
No time limit to vacate due to storage agreement with ABCWUA

TOTAL:

14,893 AF

Memorandum cont.

Jan-19		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	153.450	0.000	0.000	153.450	150.435	3.015	1.535
FEB	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MAY	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUN	0.000	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.000	0.000	0.000	0.000	0.000	0.000	3.198
AUG	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.000	0.000	0.000	0.000	0.000	0.000	0.000
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	153.450	0.000	0.000	153.450	150.435	3.015	4.732

In Million Gallons (MG)						
Month	Native COUNTY	Native Las Campanas	SJC TOTAL	SJC CITY	SJC Las Campanas	All Partners Diversions BDD
JAN	0.000	0.000	50.025	49.042	0.983	50.025
FEB	0.000	0.000	0.000	0.000	0.000	0.000
MAR	0.000	0.000	0.000	0.000	0.000	0.000
APR	0.000	0.000	0.000	0.000	0.000	0.000
MAY	0.000	0.000	0.000	0.000	0.000	0.000
JUN	0.000	0.000	0.000	0.000	0.000	0.000
JUL	0.000	0.000	0.000	0.000	0.000	0.000
AUG	0.000	0.000	0.000	0.000	0.000	0.000
SEP	0.000	0.000	0.000	0.000	0.000	0.000
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	0.000	0.000	50.025	49.042	0.983	50.025

Memorandum cont.

Dec-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	801.077	-6.862	0.000	807.939	719.953	87.986	11.277
AUG	673.552	3.896	0.000	669.656	669.656	0.000	6.697
SEP	741.437	54.635	0.000	686.803	686.803	0.000	6.868
OCT	523.512	60.271	0.000	463.241	454.276	8.964	4.632
NOV	404.169	91.111	0.000	313.058	307.642	5.415	3.131
DEC	358.432	-3.762	0.000	362.193	362.193	0.000	3.622
TOTAL	7,049.120	1,563.479	0.000	5,485.641	5,136.847	348.795	58.054

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	-2.484	0.000	263.388	234.705	28.684	260.904
AUG	1.270	0.000	218.308	218.308	0.000	219.578
SEP	19.778	0.000	223.898	223.898	0.000	243.675
OCT	19.648	0.000	151.017	148.094	2.922	170.665
NOV	32.982	0.000	102.057	100.291	1.765	135.039
DEC	-1.226	0.000	118.075	118.075	0.000	116.849
TOTAL	539.352	0.000	1,788.319	1,674.612	113.707	2,327.671

Memorandum cont.

Dec-17

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	395.248	84.736	0.000	310.512	310.512	0.000	2.717
FEB	383.179	26.107	3.426	353.646	353.646	0.000	3.087
MAR	547.849	17.804	11.643	518.402	518.402	0.000	4.564
APR	592.385	381.170	0.000	211.216	211.216	0.000	1.821
MAY	488.240	478.925	0.000	9.315	9.315	0.000	0.072
JUN	616.871	12.970	0.000	603.900	477.780	126.121	5.517
JUL	626.113	23.719	0.000	602.394	484.406	117.988	5.429
AUG	557.303	17.073	0.000	540.230	540.230	0.000	4.871
SEP	637.339	230.584	0.000	406.755	395.200	11.555	3.873
OCT	444.333	127.611	0.000	316.723	316.723	0.000	2.938
NOV	356.536	107.143	0.000	249.394	203.128	46.266	1.658
DEC	360.218	73.071	0.000	287.147	287.147	0.000	2.321
TOTAL	6,005.614	1,580.910	15.069	4,409.635	4,107.705	301.930	38.868

In Acre-Feet

Month	Native COUNTY	Native Las Campanas	SJC TOTAL	SJC CITY	SJC Las Campanas	All Partners Diversions
JAN	84.736	0.000	307.795	307.795	0.000	392.531
FEB	26.107	3.426	350.559	350.559	0.000	380.091
MAR	17.804	11.643	513.838	513.838	0.000	543.285
APR	381.170	0.000	209.395	209.395	0.000	590.565
MAY	478.925	0.000	9.243	9.243	0.000	488.168
JUN	12.970	0.000	598.383	473.415	124.969	611.354
JUL	23.719	0.000	596.965	480.040	116.925	620.684
AUG	17.073	0.000	535.359	535.359	0.000	552.431
SEP	230.584	0.000	402.883	391.437	11.445	633.466
OCT	127.611	0.000	313.785	313.785	0.000	441.396
NOV	107.143	0.000	247.736	201.777	45.958	354.878
DEC	73.071	0.000	284.826	284.826	0.000	357.898
TOTAL	1,580.910	15.069	4,370.767	4,071.470	299.297	5,966.747

2016 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)	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	ABIQUIU			
Month	Total Release (Ac-ft)	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)	Conveyance 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	ABIQUIU			
Month	Total Release (Ac-ft)	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	ABIQUIU			
Month	Total Release (Ac-ft)	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)	Conveyance 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	ABIQUIU			
Month	Total Release (Ac-ft)	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)	Convey- ance 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		HERON		EL VADO		ABIQUIU	
Month	Total Release (Ac-ft)	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	

Memorandum



Buckman Direct Diversion

Date: February 7, 2019
To: Buckman Direct Diversion Board
From: Mackie Romero, BDD Financial Manager
Subject: 2nd Quarter Financial Statements

Information Item:

This report is to update the BDD Board and its partners on the 2nd Quarter financial position as of December 31, 2018.

Budget Overview – A financial plan that quantifies our current and future operations.

- Beginning Budget – FY18/19 Adopted Budget includes any budget adjustments.
- Expended – Expenditures for services and/or goods received as of 12/31/2018.
- Encumbrances – Executed purchase orders for goods and services.
- Projected – Projected salary and benefits as currently staffed, pending requisitions and or contracts to be executed within the fiscal year.
- Available Balance – Represents vacancy savings and uncommitted budget balance.
- Percentage – Represents percentage of projected expended budget balance.

90 Day Cash Reserve Credit – Represents the partners cash reserve credit, which is used to fund current and future obligations as per the BDD Working Capital and Billing Policy.

Fixed & Variable Costs – Expenses billed to our partners for services and/or goods received as of December 31, 2018. Billing for project wide costs were pre-billed on an estimated water usage through the second quarter.

Other Funds - Major Repair & Replacement and Emergency Reserve Fund monthly contributions, cash balances and budget overview of funds authorized by the BDDDB for expenditure.

Carve-Out Budget – Budget overview of funds budgeted and expenditures as of 12/31/2018.

BDD will continue to provide quarterly updates with financial information to provide the highest level of transparency to our partners and the BDD Board.

If you require any additional information to be included in this report, please contact me.





2nd Quarter Financial Statement – Operations (07/01/2018-12/31/2018)

Budget Overview

CATEGORY	BEGINNING BUDGET	EXPENDED 1st Quarter	EXPENDED 2nd Quarter	ENCUMB Thru 12/31/2018	PROJECTED Thru 06/30/2019	TOTAL	BALANCE AVAILABLE	EXP BDGT %
Employee Salaries & Benefits	2,372,849	495,662	477,082	-	1,078,384	2,051,128	321,721	86%
Electricity	1,198,824	253,053	232,979	-	555,129	1,041,161	157,663	87%
Chemicals	1,200,000	353,660	234,315	612,024	-	1,200,000	-	100%
Solids	336,000	116,709	64,160	-	155,130	336,000	-	100%
Materials & Supplies	120,000	16,730	30,151	-	73,119	120,000	-	100%
Other Operating Costs	851,239	60,015	101,817	312,131	306,592	780,555	70,684	92%
Litigation Costs	950,952	286,035	193,843	322,095	61,379	863,352	87,600	91%
Fiscal Agent Fees	1,690,000	148,928	200,952	1,340,120	-	1,690,000	-	100%
TOTAL	318,760	-	-	-	312,463	312,463	6,297	98%
DOE Federal Grant	9,038,624	1,730,793	1,535,300	2,586,370	2,542,196	8,394,659	643,965	93%

Total Expenses thru 12/31/2018

3,269,768

90-Day Cash Reserve Credit

	Balance
City of Santa Fe	1,492,079
Santa Fe County	473,340
LC - Club	73,319
LC - Coop	14,895
	<u>2,053,633</u>

Fixed & Variable Cost – Operations

July - December	Total	1st Quarter July - Sept	2nd Quarter Oct - Dec	Project Wide (Projected)
Partner Revenue				
City of Santa Fe	2,474,573	680,325	617,248	1,177,001
Santa Fe County	629,039	187,667	159,332	282,040
LC - Club	92,423	24,840	19,194	48,388
LC - Coop	35,478	13,430	22,047	-
Total	<u>3,231,513</u>	<u>906,263</u>	<u>817,821</u>	<u>1,507,429</u>
Total Project Wide	<u>1,507,429</u>	<u>812,466</u>	<u>694,963</u>	
Other Revenue				
PNMSolar Rebate	34,580			
DOE Federal Grant	3,675			
Total	<u>38,255</u>			
Grand Total	<u>3,269,768</u>			





2nd Quarter Financial Statement – Other Funds (07/01/2018-12/31/2018)

Pre-Bills – Major Repair & Replacement Fund (Yearly Contribution)

	Total	City of SF	SF County	Las Campanas Club	Las Campanas Coop
Major Repair Fund	626,706	445,545	156,494	10,769	13,898
	626,706	445,545	156,494	10,769	13,898

Financial Position - Cash

	* Emergency Reserve	Major Repair
Balance at 06/30/2018	2,063,495	1,570,854
18/19 Yearly Contributions - Pending	-	626,706
Total	2,063,495	2,197,560
Beginning Budget		617,870
Projected Cash Balance		1,579,690

* Emergency Reserve Fund has reached the funding target, per the established policy.

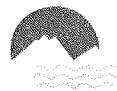
Budget Overview – Major Repair and Replacement Fund

CATEGORY	FY18/19 BUDGET	EXPENDED	EXPENDED	ENCUMB	BALANCE
		1st Quarter	2nd Quarter	Thru 12/31/2018	AVAILABLE
Engineering Services	4,776	3,923	-	853	-
System Equipment	384,102	-	40,600	343,502	-
Rep & Maint System Equip	156,714	88,865	14,315	53,534	-
Vehicles < 1.5 Ton	72,278	-	-	69,342	2,936
TOTAL	617,870	92,788	54,915	467,231	2,936

Budget Overview – Capital Carve-out Budget

CATEGORY	FY18/19 BUDGET	EXPENDED	EXPENDED	ENCUMB	BALANCE
		1st Quarter	2nd Quarter	Thru 12/31/2018	AVAILABLE
Legal Services	50,000	692	8,051	12,945	28,313
Professional Services	284,811	-	-	-	284,811
Consulting Services	10,000	1,249	4,569	-	4,182
TOTAL	344,811	1,940	12,620	12,945	317,306





Date: February 7, 2019
To: Buckman Direct Diversion Board
From: Mackie M. Romero, BDD Financial Manager
Subject: Presentation of the BDD Annual Financial Report

ITEM AND ISSUE:

Presentation of the Buckman Direct Diversion Project Annual Financial Report for fiscal year ended June 30, 2018.

BACKGROUND AND SUMMARY:

Under the Project Management and Fiscal Service Agreement (PMFSA) Article 7. Fiscal Agent Responsibilities, item 6 states:

“within 90 days after the end of each fiscal year, provide copies of financial statements to the City, County and Las Campanas, showing the assets, liabilities, revenue, expenses, equity balances and budget comparisons for the Project Fund on an annual basis for the prior fiscal year in accordance with GAAP and GASB, complete the Management’s Discussion and Analysis (MDA) for the annual report, and provide upon request, a monthly general ledger report but may recommend that its auditors produce the financial statements, dependent on staff available and the complexity of the report requirements”

On December 17, 2018 a report of independent certified accountants was issued by CliftonLarsonAllen, LLP for the business-type activities of the Buckman Direct Diversion Project Water Treatment Facility Operations as of and for the year ended June 30, 2018.

The Buckman Direct Diversion is a single purpose government entity and has only business type activities. In the statement of net position, activities are presented on a consolidated basis and are reflected on the full accrual, economic resource basis.

The presentation of the financial statements includes consolidation of all activity of the following enterprise funds.

- ❖ BDD Operating Fund
- ❖ BDD Capital Carve-out Project Fund
- ❖ BDD Emergency Reserve Fund
- ❖ BDD Major Repair and Replacement Fund

The auditors have disclosed the following audit finding, untimely completion of monthly billing to the partners due to the lack of resources. Prior year findings have been resolved and the auditors have issued an unmodified report.

The Financial Statements and Supplementary Information are available on our website.



**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS**

**FINANCIAL STATEMENTS AND
SUPPLEMENTARY INFORMATION**

YEAR ENDED JUNE 30, 2018

CliftonLarsonAllen LLP



WEALTH ADVISORY | OUTSOURCING | AUDIT, TAX, AND CONSULTING



STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
TABLE OF CONTENTS
YEAR ENDED JUNE 30, 2018

OFFICIAL ROSTER		1
INDEPENDENT AUDITORS' REPORT		2
MANAGEMENT'S DISCUSSION AND ANALYSIS		5
FINANCIAL STATEMENTS		
	<u>EXHIBITS</u>	
STATEMENT OF NET POSITION	A	11
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION	B	12
STATEMENT OF CASH FLOWS	C	13
NOTES TO FINANCIAL STATEMENTS	14	
SUPPLEMENTARY INFORMATION		
	<u>SCHEDULES</u>	
SCHEDULE OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION – BUDGET (NON-U.S. GAAP BUDGETARY BASIS) AND ACTUAL	I	30
SCHEDULE OF CHANGES IN RESTRICTED NET POSITION BY PARTNER	II	31
COMPLIANCE SECTION		
REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH <i>GOVERNMENT AUDITING STANDARDS</i>		32
SCHEDULE OF FINDINGS AND RESPONSES		34
EXIT CONFERENCE		35

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
OFFICIAL ROSTER
YEAR ENDED JUNE 30, 2018**

ELECTED OFFICIALS

Peter Ives	Chairperson of the BDD Board, City Councilor
Michael Harris	Councilor, City of Santa Fe
Anna Hamilton – (Vice Chair)	Commissioner, Santa Fe County
Anna Hansen	Commissioner, Santa Fe County Alternate
Henry Roybal	Commissioner, Santa Fe County
Ms. Dennis Fort	Member At-Large
Mr. J.C. Helms	Member Alternate At-Large
JoAnne Vigil Coppler	City Councilor Alternate
Mr. Tom Egelhoff	Las Campanas, nonvoting member
Ginny Selvin	Las Campanas, Alternate

FISCAL AGENT ADMINISTRATION

Mary T. McCoy	Finance Director, City of Santa Fe
Teresita Garcia	Assistant Finance Director, City of Santa Fe
Erica Martinez	Senior Financial Analyst, City of Santa Fe

BUCKMAN ADMINISTRATION

Charles Vokes	Facility Manager, Buckman
Mackie Romero	Fiscal Manager and Business Administrator, Buckman

INDEPENDENT AUDITORS' REPORT

Board Members
Santa Fe County, City of Santa Fe, Las Campanas,
Buckman Direct Diversion Project
Water Treatment Facility Operations, and
Mr. Wayne Johnson, New Mexico State Auditor
Santa Fe, New Mexico

Report on the Financial Statements

We have audited the accompanying financial statements of business-type activities of the Buckman Direct Diversion Project Water Treatment Facility Operations (Buckman) as of and for the year ended June 30, 2018, and the related notes to the financial statements, which collectively comprise Buckman's basic financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to Buckman's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Buckman's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall financial statement presentation.

Board Members
Santa Fe County, City of Santa Fe, Las Campanas,
Buckman Direct Diversion Project
Water Treatment Facility Operations, and
Mr. Wayne Johnson, New Mexico State Auditor

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of business-type activities of Buckman as of June 30, 2018, and the changes in financial position and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 5 through 10 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

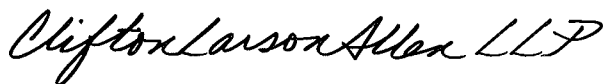
Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collective comprise Buckman's basic financial statements. The Schedules listed under Supplementary Information in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements. The Supplementary Information is the responsibility of management and was derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Supplementary Information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Board Members
Santa Fe County, City of Santa Fe, Las Campanas,
Buckman Direct Diversion Project
Water Treatment Facility Operations, and
Mr. Wayne Johnson, New Mexico State Auditor

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated December 17, 2018, on our consideration of Buckman's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of Buckman's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Buckman's internal control over financial reporting and compliance.

A handwritten signature in black ink that reads "CliftonLarsonAllen LLP". The signature is written in a cursive, flowing style.

CliftonLarsonAllen LLP

Albuquerque, New Mexico
December 17, 2018

**BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2018**

Management's discussion and analysis (MDA) of the Buckman Direct Diversion Project – Water Treatment Facility Operations is designed to provide an overview of Buckman Direct Diversion's financial activity for the year ended June 30, 2018.

Under a joint powers agreement dated January 15, 2005 for the Buckman Direct Diversion (BDD), the City of Santa Fe (City) joined Santa Fe County (County) to design and construct the Buckman Direct Diversion Project in order to divert surface water from the Rio Grande River to the independent water systems of the City and the County. Other project participants include the Las Campanas Water and Sewer Cooperative and the Club at Las Campanas (Las Campanas Entities). Construction of the facility was completed by the end of December 31, 2010. Operations of the facility commenced on May 2, 2011. Operations are fully funded by the City, County, and Las Campanas Entities who are billed pursuant to the Facility Operations and Procedures Agreement (FOPA) dated October 16, 2006.

The BDD operates pursuant to the Facility Operations and Procedures Agreement for the Buckman Direct Diversion Project between the City of Santa Fe Santa Fe County and Las Campanas Entities with the City of Santa Fe acting as fiscal agent, per the Project Management and Fiscal Services Agreement (PMFSA). A board of directors has been established and delegated all powers necessary to oversee both the management and operations of the BDD. The board is comprised of two members of the governing body of the City (along with an alternate), two members of the governing body of the County (along with one alternate), one non-voting member of the Las Campanas Entities (along with one alternate) and one citizen member at large (along with one alternate) appointed by a majority vote of the four other voting members.

Financial Highlights

- In 2018 the Buckman Direct Diversion provided 2,003,030,000 gallons of water to the project partners.
- The Buckman Direct Diversion Board authorized \$180,000 of funding from restricted cash of the Major Repair and Replacement Fund to rebuild pumps at the Raw Water Lift Station facility.
- The Buckman Direct Diversion Board received a 2005 Sterling LT (roll off bin truck) from Santa Fe County; this donation saved the Board an estimated \$208,000.

Overview of the Financial Statements

This discussion and analysis are intended to serve as an introduction of the BDD's basic financial statements. The BDD's financial statements are comprised of basic financial statements, notes to the financial statements and other information. The notes to the financial statements provide additional information that is essential to a full understanding of the data provided in the financial statements.

The BDD operates under the accrual basis of accounting, required for State and Local Governments' enterprise operations. The BDD's operating fund utilizes cost codes to track expenditures for proper allocation and billing to the City, County, and Las Campanas Entities.

**BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2018**

Proprietary Fund

The BDD operates as proprietary fund for regional water supply with all operating costs covered by reimbursements to the City, County, and Las Campanas Entities. Proprietary funds are used for activities that are financed and operated in a manner similar to a private business enterprise. The intent of the BDD Board of Directors is to ensure the costs (expenses) of providing services, in this case, regional water supply on a continuing basis be financed or recovered through billings.

Proprietary financial statements are designed to provide readers with a broad overview of the BDD's finances, in a manner similar to a private-sector business.

Budgets

The BDD's annual operating budget is adopted on annual basis and includes annual contributions to the Emergency Reserve Fund and Major Repair and Replacement fund based on yearly targeted balances. The annual budget is recommended by the BDD Board to be approved by the governing bodies of our participating partners. Once the budget has been approved by the governing bodies the budget is formally adopted by the BDD Board. The annual operating budget is budgeted by major category; any adjustments between major categories must be approved by the BDD Board.

The budget is prepared on another comprehensive basis of accounting other than the accrual basis required by GAAP.

There were no major changes to the fiscal year 2018 annual operating budget in comparison to the final fiscal year 2017 annual operating budget.

**BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2018**

Statement of Net Position

The statement of net position presents information on all of Buckman Direct Diversion's assets, liabilities, and net position

The following table provides condensed financial information related to BDD's net assets as of June 30, 2018 as compared to June 30, 2017.

**Statement of Net Position
Fiscal Year Ended June 30, 2018 and June 30, 2017**

	2018	2017	Amount Change	% Change
ASSETS				
Current Assets	\$ 11,507,424	\$ 5,492,155	\$ 6,015,269	110%
Capital Assets, Net	8,476,279	8,229,807	246,472	3%
Total Assets	<u>\$ 19,983,703</u>	<u>\$ 13,721,962</u>	<u>\$ 6,261,741</u>	46%
 LIABILITIES	 \$ 7,372,097	 \$ 1,286,987	 \$ 6,085,110	 473%
 NET POSITION				
Net Investment in Capital Assets	8,476,279	8,229,807	246,472	3%
Restricted for:				
Emergency Reserves	2,063,495	2,035,111	28,384	1%
Major Repair and Replacement Reserves	1,570,854	1,657,304	(86,450)	-5%
Unrestricted	500,978	512,753	(11,775)	-2%
Total Net Position	<u>12,611,606</u>	<u>12,434,975</u>	<u>176,631</u>	1%
 TOTAL LIABILITIES AND NET POSITION	 <u>\$ 19,983,703</u>	 <u>\$ 13,721,962</u>	 <u>\$ 6,261,741</u>	 46%

The statement of net position reports comparison activity of the current and previous fiscal years of operations. The change of current assets is due to a reduction of cash and an increase in accounts receivable, as it relates to amounts due from the participating partners. The change in current liabilities represents unearned revenues for amounts paid by the participating partners in excess of costs due to prebidding estimates. The capital assets held by BDD represent a portion of the original construction cost of the BDD Project, excluding assets reported on the City of Santa Fe and Santa Fe County's financial statements. All new assets purchased by BDD are reported as capital assets.

**BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2018**

Statement of Revenues, Expenses, and Changes in Net Position

The following table provides condensed financial information related to BDD's changes in net position for the year ended June 30, 2018 as compared to the year ended June 30, 2017 as restated.

**Statement of Revenues, Expenses, and Changes in Net Position
Fiscal Year Ended June 30, 2018 and June 30, 2017**

	2018	2017	Amount Change	% Change
OPERATING REVENUES				
Reimbursements:				
City of Santa Fe	\$ 5,450,971	\$ 4,786,062	\$ 664,909	14%
Santa Fe County	1,748,983	1,630,319	118,664	7%
Las Campanas Entities	342,783	227,256	115,527	51%
PNM Solar Rebates	178,164	82,049	96,115	117%
Grants-Federal	90,059	22,785	67,274	295%
Total Operating Revenues	<u>7,810,960</u>	<u>6,748,471</u>	<u>1,062,489</u>	16%
OPERATING EXPENSES				
Buckman Direct Diversion Project Operations	7,389,391	6,447,410	941,981	15%
Habitat Restoration and Compliance	21,695	26,493	(4,798)	-18%
Major Repairs	225,276	85,305	139,971	164%
Emergencies	-	25,000	(25,000)	-100%
Total Operating Expenses	<u>7,636,362</u>	<u>6,584,208</u>	<u>1,052,154</u>	16%
OPERATING INCOME	174,598	164,263	10,335	6%
NONOPERATING REVENUES				
Investment Income	<u>2,033</u>	<u>1,734</u>	<u>299</u>	17%
CHANGE IN NET POSITION	176,631	165,997	10,634	6%
Net Position - Beginning of Year,	12,434,975	12,268,978	165,997	1%
NET POSITION - END OF YEAR	<u>\$ 12,611,606</u>	<u>\$ 12,434,975</u>	<u>\$ 176,631</u>	1%

The BDD's revenues include reimbursements from the City, the County, and Las Campanas Entities (project participants) for fixed, variable and project wide costs, which are billed pursuant to the JPA and the FOPA.

Operating expenses consists of salaries, utilities, chemicals, other operating costs, materials and supplies and a fiscal agent fee. Expenses should approximate revenues as all operating costs are billed to the partners.

**BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2018**

BDD has received federal funding from the Department of Energy for the BDD Location Sampling program which is passed thru the City of Santa Fe as fiscal agent. BDD also receives PNM Solar Rebate revenue for over production of our solar photovoltaic system at our water treatment plant location. The revenue received is used to support a portion of BDD solar expenses.

The BDD has restricted cash held for specific purposes related to the BDD's emergency reserve fund policy and repair and replacement fund policy. All expenditures must be authorized by the BDD Board and must meet criteria as established per the policy.

Partner Reimbursements/Restricted Cash

Participating partners are billed monthly, quarterly, and pre-billed for reimbursement or prepayment of all operating costs per the BDD Working Capital & Billing Policy. In order to secure resources assuring BDD's ability to cover major repairs and replacement of system equipment, BDD has established an annual partner contribution to be fully funded by the end of each fiscal year.

The following table shows the balances outstanding from each partner or partner credit balance as of June 30, 2018. Application of any credits to outstanding accounts receivable must be approved by the partners.

	City of Santa Fe	Santa Fe County	Las Campanas Club	Las Campanas CoOp	Total
Partner Receivables	\$ 5,847,684	\$ 1,906,609	\$ 258,774	\$ 55,460	\$ 8,068,527
Partner Credits	423,384	(336,193)	(33,447)	(8,489)	45,255
Net Total	<u>\$ 6,271,068</u>	<u>\$ 1,570,416</u>	<u>\$ 225,327</u>	<u>\$ 46,971</u>	<u>\$ 8,113,782</u>

The BDD expects to fully collect all outstanding receivables and refund any partner credits.

Items Expected to Have a Significant Effect for Fiscal Year 2018

The Buckman Direct Diversion is expected to operate successfully and will continue to adaptively manage water deliveries to meet changes in partner demands. The ability to meet partner demand can be affected by circumstances beyond the control of the BDD. The BDD will not operate when suspended solids concentrations in the Rio Grande exceed a threshold value or when the Los Alamos National Laboratory Early Notification System indicates the Rio Grande may be influenced by runoff from Los Alamos Canyon. During periods of inability to fulfill water delivery orders, the City will supply both its own and in accordance with the County/City Water Resource Agreement, the County's potable water demands from stored drinking water and its other sources of water supply.

Capital Assets and Debt Administration

Total capital assets, net of depreciation, for BDD make up 42.5% of BDD's total assets. Refer to Note 6 for information about capital assets.

Total compensated absences at June 30, 2018 are \$143,318 and expected to be paid within one year.

**BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
MANAGEMENT'S DISCUSSION AND ANALYSIS
JUNE 30, 2018**

Requests for Information

The financial report is designed to provide a general overview of BDD's finances for those interested in government enterprise finances. Questions concerning any of the information provided or requests for additional financial information should be addressed to the Buckman Direct Diversion, 341 Caja Del Rio Rd. Santa Fe, NM 87506, BDD also maintains a website at www.bddproject.org.

STATE OF NEW MEXICO
 BUCKMAN DIRECT DIVERSION PROJECT
 WATER TREATMENT FACILITY OPERATIONS
 STATEMENT OF NET POSITION
 JUNE 30, 2018

	Business-Type Activity
ASSETS	
CURRENT ASSETS	
Cash, Investments, and Cash Equivalents	\$ 178,197
Restricted Cash:	
Emergencies	2,058,266
Major Repair and Replacement	964,547
Partner's Accounts Receivable:	
City of Santa Fe	5,847,684
Santa Fe County	1,906,609
Las Campanas Club	258,774
Las Campanas Coop	55,460
Interest Receivable	9,498
Other Receivable (includes Pass-through grant)	119,954
Chemical Inventory	108,435
Total Current Assets	<u>11,507,424</u>
NONCURRENT ASSETS	
Capital Assets	10,314,728
Accumulated Depreciation	(1,838,449)
Total Noncurrent Assets	<u>8,476,279</u>
Total Assets	<u><u>\$ 19,983,703</u></u>
LIABILITIES AND NET POSITION	
CURRENT LIABILITIES	
Cash Overdraft	\$ 5,389,848
Partner's Credit Balances:	
City of Santa Fe	423,384
Santa Fe County	336,193
Las Campanas Club	33,447
Las Campanas Coop	8,489
Accounts Payable	931,520
Intergovernmental Payable	-
Accrued Payroll	105,898
Compensated Absences	143,318
Total Current Liabilities	<u>7,372,097</u>
NET POSITION	
Net Investment in Capital Assets	8,476,279
Restricted for:	
Emergency Reserves	2,063,495
Major Repair and Replacement Reserves	1,570,854
Unrestricted	500,978
Total Net Position	<u>12,611,606</u>
Total Liabilities and Net Position	<u><u>\$ 19,983,703</u></u>

See accompanying Notes to Financial Statements.

STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
YEAR ENDED JUNE 30, 2018

	<u>Business-Type Activity</u>
OPERATING REVENUES	
Reimbursements:	
City of Santa Fe	\$ 5,450,971
Santa Fe County	1,748,983
Las Campanas Club	261,354
Las Campanas Coop	81,429
PNM Solar Rebates	178,164
Grants-Federal	90,059
Total Operating Revenues	<u>7,810,960</u>
OPERATING EXPENSES	
Buckman Direct Diversion Project Operations	7,389,391
Habitat Restoration and Compliance	21,695
Major Repairs	225,276
Emergencies	-
Total Operating Expenses	<u>7,636,362</u>
OPERATING INCOME	174,598
NONOPERATING REVENUES	
Investment Income	<u>2,033</u>
CHANGE IN NET POSITION	176,631
Net Position - Beginning of Year	<u>12,434,975</u>
NET POSITION - END OF YEAR	<u><u>\$ 12,611,606</u></u>

See accompanying Notes to Financial Statements.

STATE OF NEW MEXICO
 BUCKMAN DIRECT DIVERSION PROJECT
 WATER TREATMENT FACILITY OPERATIONS
 STATEMENT OF CASH FLOWS
 YEAR ENDED JUNE 30, 2018

	Business-Type Activity
CASH FLOWS FROM OPERATING ACTIVITIES	
Cash Received from Partners and PNM	\$ 988,862
Cash Paid to Suppliers for Goods and Services	(3,893,756)
Cash Paid for Personnel Reimbursements	(2,917,762)
Net Cash Used by Operating Activities	(5,822,656)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES	
Acquisition and Construction of Capital Assets	(545,082)
CASH FLOWS FROM INVESTING ACTIVITIES	
Investment Income	2,033
NET DECREASE IN CASH AND CASH EQUIVALENTS	(6,365,705)
Cash and Cash Equivalents - Beginning of Year	4,176,868
CASH AND CASH EQUIVALENTS - END OF YEAR	<u>\$ (2,188,837)</u>
RECONCILIATION OF OPERATING LOSS TO NET CASH USED BY OPERATING ACTIVITIES	
Operating Income	\$ 174,598
Adjustments to Reconcile Operating Loss to Net Cash Provided by Operating Activities:	
Depreciation Expense	298,611
Changes in Assets and Liabilities:	
Increase in Partner's Accounts Receivable	(6,870,676)
Increase in Partner's Credit Balances	610,720
Increase in Other Receivables	(129,452)
Decrease in Chemical Inventory	9,001
Increase in Accounts Payable	355,545
Decrease in Intergovernmental Payable	(288,724)
Increase in Accrued Wages and Compensated Absences	17,721
Net Cash Used by Operating Activities	<u>\$ (5,822,656)</u>

See accompanying Notes to Financial Statements.

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018**

NOTE 1 ORGANIZATION

Under a joint powers agreement for the Buckman Direct Diversion Project dated January 11, 2005 (JPA), the City of Santa Fe (City) joined Santa Fe County (County) to design and construct the Buckman Direct Diversion Project in order to divert surface water from the Rio Grande River to the independent water systems of the City and County to reduce reliance on over-taxed ground water resources. Operations of the Buckman Direct Diversion Water Treatment Facility (Buckman) commenced May 15, 2011. The Buckman site is located 15 miles northwest of Santa Fe, approximately three miles downstream from where Route 3 crosses the Rio Grande River at the Otowi Bridge. Buckman is considered under the provisions of the Joint Powers Act to be an entity separate from the individual parties named in the JPA as prescribed by State Statute Section II I-5(B) NMSA 1978. The City and County each own 50% of the diversion facilities of Buckman and have established a board to oversee the planning, procurement, financing, permitting, design, and construction of the Buckman Direct Diversion Project as well as the operations and management of Buckman. The board is comprised of two members of the governing body of the City of Santa Fe, two members of the governing body of Santa Fe County Commissioners, and one citizen member at large appointed by a majority vote of the four other members. Other project participants include Las Campanas Limited Partnership (which includes the Las Campanas Club and Las Campanas CoOp), who retains no ownership interest in Buckman but pays for its proportional share of that system (diversion structure, sediment pond, and related infrastructure) it actually uses. The City of Santa Fe, Santa Fe County, and Las Campanas Limited Partnership are referred to in these financial statements as the user partners. Buckman Direct Diversion Project is jointly owned by the City of Santa Fe and the County of Santa Fe. Construction of the facility was completed in December 2010 and the project was completed under the terms of the construction contract on May 15, 2011 which is the approximate date upon which operations commenced.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

This summary of significant accounting policies of Buckman is presented to assist in the understanding of the Buckman's financial statements. The financial statements and notes are the representation of Buckman's management who is responsible for their integrity and objectivity. The financial statements of Buckman have been prepared in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP) as applies to government units. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles.

Financial Reporting Entity

The financial reporting entity consists of (a) the primary government, (b) organizations for which the primary government is financially accountable, and (c) other organizations for which the nature and significance of their relationship with the primary government are such that exclusion would cause the reporting entity's financial statements to be misleading or incomplete. In evaluating how to define Buckman for financial reporting purposes, management has considered all potential component units.

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018**

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Financial Reporting Entity (Continued)

Buckman does not have any component units required to be reported under the GASB codification.

Enterprise Fund Financial Statements

Buckman is a single purpose government entity and has only business-type activities. In the statement of net position, activities are presented on a consolidated basis and are reflected on the full accrual, economic resource basis, which incorporates long-term assets and receivables as well as long-term debt and obligations. Buckman's net position are reported in three parts – net investment in capital assets, restricted net position, and unrestricted net position.

Measurement Focus, Basis of Accounting, and Financial Statement Presentation

The accounts of Buckman are organized on the basis of a proprietary or enterprise fund. Enterprise funds are used to account for those operations that are financed and operated in a manner similar to private business or where the board has decided that the determination of revenues earned, costs incurred, and/or net income is necessary for management accountability. Enterprise funds are accounted for on the flow of economic resources, measurement focus, and use the accrual basis of accounting. Under this method, revenues are recorded when earned and expenses are recorded at the time liabilities are incurred.

Grants and similar items are recognized as revenue as soon as eligibility requirements imposed by the provider have been met. In fiscal year 2018, Buckman received a grant award from the U.S. Department of Energy for water quality monitoring activities. The total award was \$90,059 incurred against the grant during fiscal year 2018.

Enterprise funds distinguish operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services in connection with the fund's principal ongoing operations. The principal operating revenue of Buckman's enterprise fund is reimbursements from user partners for the cost of operations. Operating expenses for enterprise funds include the cost of services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

Assets, Liabilities, and Net Position

Buckman reports the following enterprise fund:

The Buckman Direct Diversion Project Operations Enterprise Fund is used to account for the operations of the Buckman Regional Water Treatment Plant and other Buckman related facilities and reimbursements from user partners.

When both restricted and unrestricted resources are available for use, it is Buckman's policy to use restricted resources first, then unrestricted resources as they are needed.

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018**

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Assets, Liabilities, and Net Position (Continued)

Cash, Investments, and Cash Equivalents

Cash is pooled into one common account maintained by the City of Santa Fe, Buckman's fiscal agent, in order to maximize investment opportunities. Buckman's monies deposited in the pooled cash account have equity therein, and interest earned on any of the investment of these monies is allocated based upon relative equity at month-end. Cash and cash equivalents are considered to be a share of the City's pooled cash and short-term investments with original maturities of three months or less from the date of acquisition. Please refer to the City of Santa Fe's financial statements for the year ended June 30, 2018 for a complete description of permissible investments and risk disclosures concerning cash investments.

Partner's Accounts Receivables/Partner's Credit Balances

A prebilling precedes the month of billing on an estimated basis for cash flow purposes based on the monthly approved budget. Outstanding amounts owed to Buckman from prebilling activities are reported as Partner's Accounts Receivable in the statement of net position. Revenue from the user partners is recognized each month based on the monthly expenses that have been incurred. A final billing is made based on actual costs and expenses incurred for fixed, variable, and project-wide costs. Amounts paid by partners in excess of final invoiced amounts are recorded as partner's credit balances in the statement of net position and used to offset future billings.

Chemical Inventory

Chemical inventory recorded in Buckman's enterprise fund is stated at the lower of cost of market and totals \$108,435 at June 30, 2018. The cost of consumption is billed to each individual partner monthly, and is determined using the average cost method.

Capital Assets

Capital assets are recorded at cost. The fiscal agent's (City of Santa Fe) policy is to capitalize all assets with a cost of \$5,000 or greater. Major outlays for capital assets and improvements are capitalized as projects as they are constructed. Capital assets are depreciated using the straight-line method over the following estimated useful lives as follows:

	<u>Years</u>
Buildings and Structures	50
Equipment and Machinery	7
Vehicles	8
Data Processing Equipment	3

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018**

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Assets, Liabilities, and Net Position (Continued)

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures including the useful lives of depreciable assets and the estimated usage of leave balances by employees. Accordingly, actual results could differ from those estimates.

Compensated Absences

It is the Fiscal Agent's (City of Santa Fe) policy to permit employees to accumulate earned but unused vacation, compensatory hours, and sick pay benefits. Compensated absences are those absences for which employees will be paid, such as vacation, sick leave, and overtime. A liability for compensated absences that are attributable to services already rendered and that are not contingent on a specific event that is outside the control of Buckman and its employees is accrued as employees earn the right to the benefits. Compensated absences that relate to future services or that are contingent on a special event that is outside the control of the government and its employees are accounted for in the period in which such services are rendered or when such events take place. Compensated absences are recorded as an expense and a liability of Buckman.

Pensions/Postemployment Benefits

Buckman is allocated a portion of the pension expense that is paid by the City, as Buckman's fiscal agent. Buckman is not considered an employer with full-time employees. As outlined in the Project Management/Fiscal Agent Agreement (Note 12), the City of Santa Fe (City), as Buckman's Fiscal Agent, provides Buckman with City employees to maintain Buckman operations. The City is a contributing employer to a cost sharing multiple employer defined benefit pension plan administered by the Public Employees Retirement Association (PERA). Disclosure requirements for Buckman apply to the City as a whole, and as such, this information will be presented in the Comprehensive Annual Financial Report (CAFR) of the City of Santa Fe. Information concerning the net pension liability, pension expense, and pension-related deferred inflow and outflow of resources of the primary government will be contained in the CAFR and will be available, when issued, from City of Santa Fe.

Postemployment Benefits are administered by NM Retiree Health Care Authority (RHCA), the City and Buckman have the same arrangement for these benefits as outlined above for PERA. The liability, expense and deferred inflows and outflows are contained in the City's CAFR.

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018**

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Assets, Liabilities, and Net Position (Continued)

Minimum Restricted Net Position Policies

The Emergency reserve and Repair and Replacement reserve are reserve funds that were approved by the board on February 3, 2011. Both the Emergency reserve and the Repair and Replacement reserve are to be funded through specific contributions from the user partners and utilized for specified purposes. The Emergency reserve target balance is \$2,000,000 and was funded over a two-year period and fully funded at June 30, 2014. For the Repair and Replacement reserve, Buckman approved \$626,706 in annual partner contributions for fiscal year 2018. There was also interest additions of \$23,174, for total contributions of \$649,880. During fiscal year 2018, \$736,329 was utilized for combined emergency and repair purposes.

The board approved the Emergency Fund Reserve policy and the Major Repair and Replacement Fund policy on February 3, 2011.

Equity Classifications

Government-Wide Statements

Equity is classified as net position and displayed in three components:

- a. Net Investment in Capital Assets - Net position invested in capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets.
- b. Restricted Net Position - Consist of net position with constraints placed on the use either by (1) external groups such as creditors, grantors, contributors/partners, or laws or regulation of other governments; or (2) law through constitutional provisions or enabling legislation. Buckman's restricted net position balances are a result of the Emergency Fund Policy and Major Repair and Replacement Fund Policy, described below:

Emergency Reserve Fund Policy

In order to secure resources assuring Buckman's timely response to emergencies, which could potentially threaten, reduce, or eliminate Buckman's capacity to meet its customers' demands, Buckman established an accumulation target amount of \$2,000,000 to fund the emergency reserve fund. While insurance may provide reimbursement of costs associated with some emergency situations, the Emergency Reserve Fund will provide an immediate infusion of the fund that are necessary to address the situation without having to first solicit funding from the partners. The total amount funded at June 30, 2018 was \$2,063,495.

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018**

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Assets, Liabilities, and Net Position (Continued)

Equity Classifications (Continued)

Major Repair and Replacement Fund Policy

In accordance with the Buckman's intergovernmental agreements and in order to secure resources assuring Buckman's ability to cover the repair and replacement cost of capital assets already in existence within Buckman, this policy ensures funding is available to repair or replace capital equipment when the capital equipment has reached the end of its effective useful life. Buckman established an accumulation target of \$411,812 in annual contributions, in 2017 the board approved an increase of \$214,894 for a total contribution of \$626,706 to be fully funded by the end of each fiscal year. The total amount funded as of June 30, 2018 was \$1,570,854

- c. Unrestricted Net Position - All other net position that does not meet the definition of "restricted" or "net investment in capital assets."

NOTE 3 STEWARDSHIP, COMPLIANCE, AND ACCOUNTABILITY

Budgetary Information

Buckman's annual operating budget for the enterprise fund is adopted on a basis other than generally accepted accounting principles (Non-U.S. GAAP basis). Depreciation is not budgeted for the enterprise fund. The budget includes both the proposed City and County portions and requires approval from both the City Council and the Santa Fe County Commission. The budget must also be approved by Buckman's board. The budget and any adjustments are subject to the regular budget requirements and calendar cycles of the City and the County. Budgetary control is at the fund level for the enterprise fund. Encumbrances (purchase orders, contracts, and other commitments for the expenditure of resources) outstanding at year-end are carried forward to the new fiscal year and do not constitute expenses or liabilities because the commitments will be re-appropriated and honored during the subsequent year.

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018**

NOTE 4 CASH, INVESTMENTS, AND CASH EQUIVALENTS

Buckman does not have a separate bank account. At June 30, 2018, Buckman had a net cash overdraft totaling \$2,188,838, which represents Buckman's portion in cash and investment pooled accounts maintained by the City of Santa Fe. The City invests its pooled cash into U.S. Government securities, repurchase agreements, municipal bonds, certificates of deposit, the State Treasurer's investment pool, and U.S. Government security mutual funds. Please refer to the comprehensive annual financial report for the City of Santa Fe, New Mexico, for the disclosure information regarding the custodial credit risk and other risks that may apply. The report may be obtained from the City by contacting the assistant finance director at 200 Lincoln Avenue, P.O. Box 909 Santa Fe, New Mexico 87504-0909.

NOTE 5 PARTNERS' ACCOUNTS RECEIVABLE/PARTNERS' CREDIT BALANCES

The following table shows the balances outstanding from each partner or partner credit balance as of June 30, 2018.

Partners' Accounts Receivable					
	City of Santa Fe	Santa Fe County	Las Campanas	Las Campanas CoOp	Total
Buckman Operations	\$ 5,804,384	\$ 1,906,609	\$ 258,774	\$ 55,460	\$ 8,025,227
Pass-Through Grant	43,300	-	-	-	43,300
Total	<u>\$ 5,847,684</u>	<u>\$ 1,906,609</u>	<u>\$ 258,774</u>	<u>\$ 55,460</u>	<u>\$ 8,068,527</u>
Partners' Credit Balances					
	City of Santa Fe	Santa Fe County	Las Campanas	Las Campanas CoOp	Total
Buckman Operations	<u>\$ 423,384</u>	<u>\$ 336,193</u>	<u>\$ 33,447</u>	<u>\$ 8,489</u>	<u>\$ 801,513</u>

No allowance for doubtful accounts has been recorded, as Buckman expects to fully collect all outstanding receivables.

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018**

NOTE 6 CAPITAL ASSETS

Capital asset activity for the year ended June 30, 2018 was as follows:

	Beginning Balance June 30, 2017	Additions	Deletions	Ending Balance June 30, 2018
Non-Depreciable Capital Assets:				
Construction in Process	\$ 264,967	\$ 511,401	\$ -	\$ 776,368
Total Non-Depreciable Capital Assets	264,967	511,401	-	776,368
Capital Assets Being Depreciated:				
Buildings and Structures	8,737,383	-	-	8,737,383
Equipment and Machinery	208,701	20,492	-	229,193
Vehicles	487,695	-	-	487,695
Data Processing Equipment	70,899	13,190	-	84,089
Total Capital Assets Being Depreciated	9,504,678	33,682	-	9,538,360
Less: Accumulated Depreciation:				
Buildings and Structures	1,048,486	174,748	-	1,223,234
Equipment and Machinery	155,618	29,866	-	185,484
Vehicles	282,901	85,091	-	367,992
Data Processing Equipment	52,833	8,905	-	61,738
Total Accumulated Depreciation	1,539,838	298,610	-	1,838,448
Total Capital Assets Being Depreciated, Net	7,964,840	(264,928)	-	7,699,912
Total Capital Assets	<u>\$ 8,229,807</u>	<u>\$ 246,473</u>	<u>\$ -</u>	<u>\$ 8,476,280</u>

Because of the joint venture agreement between the City of Santa Fe and Santa Fe County, the following amounts are recorded in the City's and County's financial statements and are therefore removed from BDD's financial statements. However, they are assets utilized and purchased solely for BDD.

	Buildings and Structures	Equipment and Machinery	Total
City of Santa Fe	\$ 115,440,642	\$ 4,842,162	\$ 120,282,804
Santa Fe County	101,372,507	-	101,372,507
			221,655,311
Accumulated Depreciation	(21,681,315)	(1,427,245)	(23,108,560)
			<u>\$ 198,546,751</u>

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018**

NOTE 7 COMPENSATED ABSENCES

Business-Type Activity

Compensated absences for the year ended June 30, 2018 was as follows:

	Balance June 30, 2017	Additions	Deletions	Balance June 30, 2018	Due Within One Year
Compensated Absences	\$ 130,944	\$ 208,000	\$ 195,626	\$ 143,318	\$ 143,318

NOTE 8 ECONOMIC DEPENDENCE AND RELATED PARTY TRANSACTIONS

1. Buckman is economically dependent on three entities: City of Santa Fe, Santa Fe County, and Las Campanas (the user partners). These entities account for 100% of its funding for the period ending June 30, 2018.
2. See Note 5 for outstanding balances owed from user partners and credit balances outstanding as of June 30, 2018.
3. The City of Santa Fe as fiscal agent for the Buckman Direct Diversion Project receives a fee of 1% of the annual operating budget of the project. The City of Santa Fe received \$78,883 fees for services as fiscal agent for the year ended June 30, 2018.

NOTE 9 RISK MANAGEMENT

Pursuant to the Joint Powers Agreement Section 23, Buckman is required to carry insurance coverage separate and apart from the partner's respective insurance policies. Buckman carries public liability insurance coverage (including directors and officers coverage) consistent with its responsibilities as a public entity under the New Mexico Tort Claims Act, NMSA 1978, Section 41-1-1 with combined single limits of \$1,000,000. Buckman carries a public liability commercial insurance policy with occurrence-based coverage against losses arising out of all operations conducted on the premises, contractual liability coverage, crime, automobile, directors' and officers' coverage, and other appropriate coverages. Buckman carries commercial property insurance on all of Buckman's buildings, structures, equipment, improvements, and vehicles to protect itself from losses arising from fire, earthquake, and flood disasters. Buckman also has commercial insurance for potential losses arising from excess liability and failures to supply materials needed to operate Buckman facilities.

Buckman staff, as employees of the City of Santa Fe, participate in the Santa Fe Health Fund and the Workers' Compensation Fund, which are self-insured programs administered by the fiscal agent. Buckman makes pro rata payments to the City based on actuarial estimates of the amounts needed to pay prior year and current year claims and to establish a reserve for catastrophic losses. Health claims are handled by a professional third-party claims administrator. The fiscal agent maintains specific stop loss coverage for individual

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018**

NOTE 9 RISK MANAGEMENT (CONTINUED)

claims in excess of \$200,000 with a \$1,000,000 statutory limit. Workers' compensation claims are handled by a professional, third-party claims administrator. Buckman maintains specific stop loss coverage for individual claims in excess of \$500,000 with a \$1,000,000 statutory limit. There was no reduction in amount of coverage for 2018.

NOTE 10 PENSION PLAN PUBLIC EMPLOYEE RETIREMENT ASSOCIATION (PERA)

General Information about the Pension Plan

Plan Description

Buckman is not considered an employer with full-time employees. As outlined in the Project Management/Fiscal Agent Agreement (Note 12), the City of Santa Fe (City), as Buckman's Fiscal Agent, provides Buckman with City employees to maintain Buckman operations.

The Public Employees Retirement Fund (PERA Fund) is a cost sharing, multiple employer defined benefit pension plan. This fund has six divisions of members, including State general, State police/adult correction officer, municipal general, municipal police/detention officers, municipal fire, and State legislative divisions, and offers 24 different types of coverage within the PERA plan. All assets accumulated may be used to pay benefits, including refunds of member contributions, to any of the plan members or beneficiaries, as defined by the terms of this plan. Certain coverage plans are only applicable to a specific division. Eligibility for membership in the PERA Fund is set forth in the Public Employees Retirement Act (Chapter 10, Article 11, NMSA 1978). Except as provided for in the Volunteer Firefighters Retirement Act (10-11A-1 to 10-11A-7, NMSA 1978), the Judicial Retirement Act (10-12B-1 to 10-12B-19, NMSA 1978), the Magistrate Retirement Act (10-12C-1 to 10-12C-18, NMSA 1978), and the Educational Retirement Act (Chapter 22, Article 11, NMSA 1978), and the provisions of Sections 29-4-1 through 29-4-11, NMSA 1978 governing the State Police Pension Fund, each employee and elected official of every affiliated public employer is required to be a member in the PERA Fund. PERA issues a publicly available financial report and a comprehensive annual financial report that can be obtained at <http://saonm.org/> using the Audit Report Search function for agency 366.

Benefits Provided

For a description of the benefits provided and recent changes to the benefits, see Note 1 in the PERA audited financial statements for the fiscal year ended June 30, 2017 available at http://www.nmpera.org/assets/uploads/downloads/comprehensive-annual-financial-reports/2016-CAFR_12.22.2017_FINAL-with-corrections.pdf.

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018**

**NOTE 10 PENSION PLAN PUBLIC EMPLOYEE RETIREMENT ASSOCIATION (PERA)
(CONTINUED)**

General Information about the Pension Plan (Continued)

Contributions

The contribution requirements of plan members and the board are established in State statute under Chapter 10, Article 11, NMSA 1978. The requirements may be amended by acts of the legislature. For the employer and employee contribution rates in effect for FY15 for the various PERA coverage options, for both Tier I and Tier II, see the tables available in the note disclosures on pages 40 through 42 of the PERA FY16 annual audit report at the following website address:

https://www.saonm.org/media/audits/366_Public_Employees_Retirement_Association_FY2017.pdf.

The PERA coverage option that applies to the board is municipal general. Statutorily required contributions to the pension plan by the City that were allocated to Buckman were \$399,823 for the year ended June 30, 2018.

Disclosure requirements including schedules of required supplementary information and related notes for governmental funds apply to the primary government as a whole, and as such this information will be presented in the City's Comprehensive Annual Financial Report.

Information concerning the net pension liability, pension expense, and pension-related deferred inflow and outflow of resources of the City will be contained in the City's CAFR and will be available, when issued, from the City of Santa Fe. Questions concerning any of the information provided in the report or request for additional financial information should be addressed to the City Finance Director, P.O. Box 909, City of Santa Fe, New Mexico 87504.

NOTE 11 POSTEMPLOYMENT BENEFITS – STATE RETIREE HEALTH CARE PLAN

Plan Description

Buckman is not considered an employer with full-time employees. As outlined in the Project Management/Fiscal Agent Agreement (Note 12), the City of Santa Fe (City), as Buckman's Fiscal Agent, provides Buckman with City employees to maintain Buckman operations.

Buckman reimburses the City for contributions made by the City to the New Mexico Retiree Health Care Fund, a cost-sharing multiple-employer defined benefit postemployment healthcare plan administered by the New Mexico Retiree Health Care Authority (RHCA) for employees that are loaned to Buckman. The RHCA provides health care insurance and prescription drug benefits to retired employees of participating New Mexico government agencies, their spouses, dependents, and surviving spouses and dependents. The RHCA board was established by the Retiree Health Care Act (Chapter 10, Article 7C, NMSA 1978).

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018**

**NOTE 11 POSTEMPLOYMENT BENEFITS – STATE RETIREE HEALTH CARE PLAN
(CONTINUED)**

Plan Description (Continued)

The board is responsible for establishing and amending benefit provisions of the healthcare plan and is also authorized to designate optional and/or voluntary benefits like dental, vision, supplemental life insurance, and long-term care policies.

Eligible retirees are 1) retirees who make contributions to the fund for at least five years prior to retirement and whose eligible employer during that period of time made contributions as a participant in the RHCA plan on the person's behalf unless that person retires before the employer's RHCA effective date, in which event the time period required for employee and employer contributions shall become the period of time between the employer's effective date and the date of retirement; 2) retirees defined by the Act who retired prior to July 1, 1990; 3) former legislators who served at least two years; and 4) former governing authority members who served at least four years.

The RHCA issues a publicly available stand-alone financial report that includes financial statements and required supplementary information for the postemployment healthcare plan. That report and further information can be obtained by writing to the Retiree Health Care Authority at 4308 Carlisle NE, Suite 104, Albuquerque, New Mexico 87107.

Funding Policy

The Retiree Health Care Act (Section 10-7C-13 NMSA 1978) authorizes the RHCA board to establish the monthly premium contributions that retirees are required to pay for healthcare benefits. Each participating retiree pays a monthly premium according to a service based subsidy rate schedule for the medical plus basic life plan plus an additional participation fee of five dollars if the eligible participant retired prior to the employer's RHCA effective date or is a former legislator or former governing authority member. Former legislators and governing authority members are required to pay 100% of the insurance premium to cover their claims and the administrative expenses of the plan. The monthly premium rate schedule can be obtained from the RHCA or viewed on their website at www.nmrhca.state.nm.us.

The employer, employee, and retiree contributions are required to be remitted to the RHCA on a monthly basis. The statutory requirements for the employer and employee contributions can be changed by the New Mexico State Legislature. Employers that choose to become participating employers after January 1, 1998, are required to make contributions to the RHCA fund in the amount determined to be appropriate by the board.

The Retiree Health Care Act (Section 10-7C-15 NMSA 1978) is the statutory authority that establishes the required contributions of participating employers and their employees. During the fiscal year ended June 30, 2018, the statute required each participating employer to contribute 2.5% of each participating employee's annual salary; each participating employee was required to contribute 1.25% of their salary.

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018**

**NOTE 11 POSTEMPLOYMENT BENEFITS – STATE RETIREE HEALTH CARE PLAN
(CONTINUED)**

Funding Policy (Continued)

In addition, pursuant to Section 10-7C-15(G) NMSA 1978, at the first session of the Legislature following July 1, 2013, the legislature shall review and adjust the distributions pursuant to Section 7-1-6.1 NMSA 1978 and the employer and employee contributions to the authority in order to ensure the actuarial soundness of the benefits provided under the Retiree Health Care Act.

Benefits Provided

The Fund is a healthcare plan that provides eligible retirees (including terminated employees who have accumulated benefits but are not yet receiving them), their spouses, dependents, and surviving spouses and dependents with health insurance and prescription drug benefits consisting of a plan, or optional plans of benefits, that can be contributions to the Fund and by co-payments or out-of-pocket payments of eligible retirees.

Contributions

Employer and employee contributions to the Fund total 3% for nonenhanced retirement plans and 3.75% of enhanced retirement plans of each participating employee's salary as required by Section 10-7C-15 NMSA 1978.

The contributions are established by statute and are not based on an actuarial calculation. All employer and employee contributions are non-refundable under any circumstance, including termination of the employer's participation in the Fund.

Buckman's contributions to the RHCA for the years ended June 30, 2018, 2017, and 2016 were \$38,937, \$34,622, and \$34,226, respectively, which equal the required contributions for each year.

NOTE 12 PROJECT MANAGER/FISCAL AGENT AGREEMENT

In November 2007, the Buckman Direct Diversion (BDD) board entered into an agreement with the City of Santa Fe to act in the capacity as project manager and fiscal agent for the board. Duties of the City include:

Project Manager

- Carry out the directives and policies of the BDD board, make recommendations to the BDD board related to the Project; provide support staff for BDD board meetings; contract with independent legal counsel selected by the BDD board; contract with specialized legal counsel as needed to support design, construction, operation, and maintenance of the Project; and, as directed by the BDD board, implement the Project during design and construction and, following completion of construction, manage, operate, and maintain the Project;

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018**

NOTE 12 PROJECT MANAGER/FISCAL AGENT AGREEMENT (CONTINUED)

Project Manager (Continued)

- Seek and apply for funding (except for funding to be provided by the City and the County pursuant to the Project agreements) in the form of grants, loans or loan guarantees, or other funding sources as may be deemed appropriate by the BDD board, for the Project as directed by the BDD board and manage any such grants, loans or loan guarantees;
- Administer all amounts loaned, granted, or contributed by the City, the County, or Las Campanas in connection with the Project, and respond to related audits as may be necessary;
- Prepare and submit to the BDD board, the City, the County, and Las Campanas no later than December 15 of each fiscal year, an annual operating budget, which shall include annual and five-year projected operations, maintenance, replacement and reserve (OMR&R) costs, including a five-year schedule with the Project manager's proposed facilities and equipment major maintenance and replacement costs, proposed allocation of costs among the City, the County, and Las Campanas as provided in the Facilities Operations and Procedures Agreement (FOPA), a facilities and equipment major repair and replacement fund, and an emergency reserve fund;
- Develop and implement prior to initial operation a cost accounting system to apportion the total fixed and variable cost of OMR&R to the City, the County, and Las Campanas in accordance with the cost sharing provisions of the FOPA;
- Develop a document retention and protection policy for adoption by the BOD board;
- Act as fiscal agent for the Project;
- Provide all necessary staff, materials, and supplies necessary to operate and maintain the Project consistent with BDD board funding;
- Recruit, hire and train staff for the Project accounting to the BDD board's approved staffing plan as it may be amended from time to time and arrange for state drinking water certification for such staff in advance of operation of the Project, so that certified staff is available to operate the Project when the Project becomes operational, and as set forth in each proposed budget the costs of the staff apportioned according to the respective benefit to the City and the Project.
- Once an annual operating budget is approved by the BDD board, implement the budget, adhere strictly to the budget, and make recommendations for necessary budget adjustments throughout the fiscal year, and contract for an annual independent audit, consistent with GMP and GASB and with the New Mexico Audit Act, NMSA 1978, Sections 12-6-1-, et seq., and 2.2.2. NMAC, et seq., as amended, and report the results of the audit to the BDD board;

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018**

NOTE 12 PROJECT MANAGER/FISCAL AGENT AGREEMENT (CONTINUED)

Project Manager (Continued)

- Prepare and submit to the BDD board for approval all documentation to be used for procurement in the Project including, but not limited to, documents related to design, engineering, construction, operation, and maintenance of the Project, including, without limitation, requests for proposals, requests for qualifications, and contracts in amounts greater than \$50,000;
- Develop all procurement documents in accordance with the City's purchasing manual and present same to the BDD board;
- Consult with staff of the City, the County, and Las Campanas regarding the planning and design and OMR&R of the Project;
- In consultation with the BDD board, apply for, manage, and maintain, including the preparation and submittal of all required compliance reports, all necessary permits for the operation of the Project, including, without limitation, those permits, easements, and rights-of-way held in the name of the BDD board, and those permits required to be obtained by the BDD board pursuant to Section 6 of the FOPA;
- Maintain communication with the BDD board, the City, the County, and Las Campanas, primarily via monthly BDD board meetings, and keep these entities informed of important matters as may be necessary in the interim between monthly BOD board meetings;
- As directed by the BDD board, act as liaison for the BDD board and represent the BDD board in Project matters involving tribal governments, state and federal government agencies, and nongovernmental organizations;
- Perform other duties as assigned by the BDD board consistent with funding and the Project agreements;
- Maintain segregated books and records consistent with U.S. GAAP to account for all separate funding sources, including, without limitation, funds provided by the City, the County, or Las Campanas in support of construction or subsequent OMR&R of the Project and funds secured by the board pursuant to grants or loans from funding agencies;
- Within 90 days after the end of each fiscal year, provide copies of financial statements to the City, the County, and Las Campanas, showing the assets, liabilities, revenues, expenses, equity balances, and budget comparisons for the Project fund on an annual basis for the prior fiscal year in accordance with GMP and GASB, complete the Management's Discussion and Analysis (MDA) for the annual financial report, and provide upon request, a monthly general ledger report; and

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2018**

NOTE 12 PROJECT MANAGER/FISCAL AGENT AGREEMENT (CONTINUED)

Project Manager (Continued)

- Procure, contract, and pay for as budgeted an annual independent audit, consistent with U.S. GAAP and GASB and with the New Mexico Audit Act, NMSA 1978, Sections 12-6-1-, et seq., and NMAC, et seq., as amended, and report the results of the audit to the BDD board.

NOTE 13 FEDERAL AND STATE GRANTS

In the normal course, of operations, Buckman receives grant funds from federal and state agencies. Amounts received or receivable from grantor agencies are subject to audit and adjustment by grantor agencies, the purpose of which is to ensure compliance with conditions precedent to the granting of funds. Management believes any liability resulting from these audits would be immaterial.

SCHEDULE I

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
SCHEDULE OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
BUDGET (NON-U.S. GAAP BUDGETARY BASIS) AND ACTUAL
YEAR ENDED JUNE 30, 2018**

	Budgeted Amounts		Non-U.S. GAAP	Variances
	Original	Final	Budgetary	Favorable
			Basis	(Unfavorable)
				Final to Actual
OPERATING REVENUES				
City of Santa Fe	\$ 6,273,327	\$ 6,332,175	\$ 5,450,971	\$ (881,204)
Santa Fe County	2,154,538	2,176,443	1,748,983	(427,460)
Las Campanas Entities	470,460	470,309	342,783	(127,526)
PNM Solar Rebates	142,760	142,760	178,164	35,404
Federal Revenue	96,000	96,000	90,059	(5,941)
Total Operating Revenues	9,137,085	9,217,687	7,810,960	(1,406,727)
OPERATING EXPENSES				
Reimbursement of Personnel Services	3,536,594	3,536,594	3,326,790	209,804
Electricity	1,300,000	1,108,000	1,150,726	(42,726)
Chemicals	280,000	375,000	387,785	(12,785)
Solids	120,000	120,000	91,562	28,438
Materials and Supplies	714,802	714,802	682,106	32,696
Other Operating Costs	2,017,608	2,114,608	1,394,623	719,985
Emergencies	-	-	-	-
Engineering Services	69,515	132,515	127,739	4,776
System Equipment	783,032	783,032	-	783,032
Repair and Maintenance Equipment	-	254,251	97,537	156,714
Fiscal Agent Fee	-	-	78,883	(78,883)
Total Operating Expenses	8,821,551	9,138,802	7,337,751	1,801,051
NONOPERATING REVENUES				
(EXPENSES)				
Investment Income	-	-	2,033	2,033
Total Nonoperating Revenues				
(Expenses)	-	-	2,033	2,033
EXCESS (DEFICIENCY) OF REVENUES				
OVER EXPENSES	<u>\$ 315,534</u>	<u>\$ 78,885</u>	<u>\$ 475,242</u>	<u>\$ 396,357</u>
ADJUSTMENTS FOR U.S. GAAP BASIS (NONBUDGETED ITEMS)				
Depreciation			298,611	
CHANGE IN NET POSITION,			176,631	
Net Position - Beginning of Year			12,434,975	
NET POSITION - END OF YEAR			<u>\$ 12,611,606</u>	

STATE OF NEW MEXICO
 BUCKMAN DIRECT DIVERSION PROJECT
 WATER TREATMENT FACILITY OPERATIONS
 SCHEDULE OF CHANGES IN RESTRICTED NET POSITION BY PARTNER
 YEAR ENDED JUNE 30, 2018

Emergency Reserves:

	Balance June 30, 2017	Additions	Deletions	Balance June 30, 2018
Restricted Net Position				
City of Santa Fe	\$ 1,329,437	\$ 18,542	\$ -	\$ 1,347,979
Santa Fe County	474,349	6,616	-	480,965
Las Campanas Entities	231,325	3,226	-	234,551
Restricted Net Position	<u>\$ 2,035,111</u>	<u>\$ 28,384</u>	<u>\$ -</u>	<u>\$ 2,063,495</u>

Major Repair and Replacement Reserves:

Restricted Net Position				
City of Santa Fe	\$ 1,182,615	\$ 461,839	\$ (523,481)	\$ 1,120,973
Santa Fe County	410,922	162,155	(183,867)	389,210
Las Campanas Entities	63,767	25,886	(28,982)	60,671
Restricted Net Position	<u>\$ 1,657,304</u>	<u>\$ 649,880</u>	<u>\$ (736,330)</u>	<u>\$ 1,570,854</u>

Combined

Restricted Net Position				
City of Santa Fe	\$ 2,512,052	\$ 480,381	\$ (523,481)	\$ 2,468,952
Santa Fe County	885,271	168,771	(183,867)	870,175
Las Campanas Entities	295,092	29,112	(28,982)	295,222
Restricted Net Position	<u>\$ 3,692,415</u>	<u>\$ 678,264</u>	<u>\$ (736,330)</u>	<u>\$ 3,634,349</u>



CliftonLarsonAllen LLP
CLAconnect.com

**INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING
AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL
STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS**

Board Members
Santa Fe County, City of Santa Fe,
Las Campanas,
Buckman Direct Diversion Project
Water Treatment Facility Operations, and
Mr. Wayne Johnson, New Mexico State Auditor
Santa Fe, New Mexico

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards issued by the Comptroller General of the United States, the financial statements of business-type activities of the Buckman Direct Diversion Project Water Treatment Facility Operations (Buckman), as of and for the year ended June 30, 2018, and the related notes to the financial statements, which collectively comprise Buckman's basic financial statements, and have issued our report thereon dated December 17, 2018.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered Buckman's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Buckman's internal control. Accordingly, we do not express an opinion on the effectiveness of Buckman's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Board Members
Santa Fe County, City of Santa Fe, Las Campanas,
Buckman Direct Diversion Project
Water Treatment Facility Operations, and
Mr. Wayne Johnson, New Mexico State Auditor

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that have not been identified. We did identify a deficiency in internal control, described in the accompanying schedule of findings and responses as number 2018-001, which we consider to be a significant deficiency.

Compliance and Other Matters

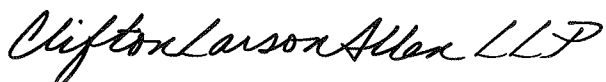
As part of obtaining reasonable assurance about whether Buckman's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instance of noncompliance or other matters that is required to be reported under *Government Auditing Standards*.

Buckman's Response to Findings

Buckman's response to the findings identified in our audit are described in the accompanying schedule of findings and questioned costs. Buckman's response was not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of Buckman's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Buckman's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.



CliftonLarsonAllen LLP

Albuquerque, New Mexico
December 17, 2018

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
SCHEDULE OF FINDINGS AND RESPONSES
JUNE 30, 2018**

SECTION I – SUMMARY OF AUDITORS’ RESULTS

Financial Statements

1. Type of auditors’ report issued	Unmodified
2. Internal control over financial reporting	
a. Material weaknesses identified?	No
b. Significant deficiencies not considered to be material weaknesses?	Yes
c. Noncompliance material to the financial statements?	No

SECTION II – CURRENT YEAR FINDINGS

2018-001 Accounts Receivable (Significant Deficiency)

Condition: During our testwork over accounts receivable, we noted that the billing was not completed timely.

Criteria: One of the internal controls over the billing process is monthly billing and at the same time within the month.

Cause: Lack of resources.

Effect: Funding of the operations. At June 30, 2018, Buckman was in a cash overdraft position.

Recommendation: We recommend that Buckman have the necessary resources to perform important monthly processes. .

Management’s Response: Management concurs with the finding. Due to the complexity of the cost accounting structure and the unsupported cost accounting module in the current accounting system, the issuance of bills to the partners in a timely manner has become a difficult task. However, management will continue its pursuit in hiring competent staff to assist the Financial Manager with this complex process, while ensuring invoices are accurately generated per the governing documents.

SECTION III – STATUS OF PRIOR YEAR FINDINGS

2017-001 Late Submission of Audit Report (Compliance and Other Matters) – Resolved

2017-02 Financial Reporting (Material Weakness) - Resolved

**STATE OF NEW MEXICO
BUCKMAN DIRECT DIVERSION PROJECT
WATER TREATMENT FACILITY OPERATIONS
EXIT CONFERENCE
JUNE 30, 2018**

EXIT CONFERENCE

The contents of this report were discussed on December 14, 2018. The following were in attendance:

Buckman Direct Diversion Project

Councilor Peter Ives, BDDDB Chair
Commissioner Anna Hamilton, BDDDB Vice-Chair
Nick Schiavo, BDD Facilities Manager
Mackie Romero, BDD Financial Manager

City of Santa Fe

Debra Harris-Garmendia, Controller

CliftonLarsonAllen LLP

Georgie Ortiz, CPA, CGFM, Principal

AUDITOR PREPARED FINANCIAL STATEMENTS

CliftonLarsonAllen LLP prepared the U.S. GAAP-basis financial statements and footnotes of Buckman from the original books and records provided to them by the management of Buckman. The responsibility for the financial statements remains with Buckman.



Date: February 7, 2019
To: Buckman Direct Diversion Board
From: Rick Carpenter, Interim BDD Facilities Manager
Subject: 2019 Annual Operating Plan

ITEM AND ISSUE:

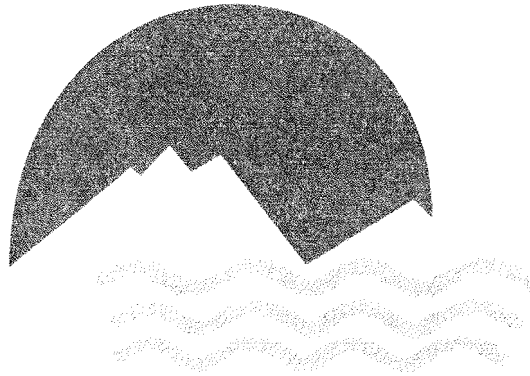
The Buckman Direct Diversion's 2019 Annual Operating Plan

BACKGROUND AND SUMMARY:

The primary purpose of this Annual Operating Plan (AOP) is to collect and summarize the projected wholesale water delivery orders of the City of Santa Fe, Santa Fe County, and The Club at Las Campanas, collectively called the BDD Partners, for the 2019 calendar year. Additionally this AOP sets forth specific procedures and coordination requirements among the BDD Facilities Manager, the BDD Project Manager and BDD Operations. This communication pertains to water orders, water deliveries, water use accounting, water rights, and limitations on diversion for compliance with legal conditions.

The Facility Operations and Procedures Agreement (FOPA), Section 27 requires each BDD Partner to provide its projected daily, weekly, and monthly projected water orders for the upcoming year. The BDD Facilities manager will then distribute the draft AOP containing a delivery schedule with all of the partners' projected water delivery orders and associated procedures to the BDD partners for review and comment by December of each year. The calendar year is the period covered by the AOP to correspond to annual state administration of water rights.





Buckman Direct Diversion

2019 Annual Operating Plan

BUCKMAN DIRECT DIVERSION
2019 Annual Operating Plan

Introduction

The Buckman Direct Diversion (BDD) has continued to successfully operate and produce high quality drinking water for the citizens of Santa Fe and Santa Fe County since beginning operations in 2011.

The primary purpose of this Annual Operating Plan (AOP) is to collect and summarize the projected wholesale water delivery orders of the City of Santa Fe (City), Santa Fe County independent water utility (County), and the Club of Las Campanas, Inc. (CLCI), collectively called the BDD Partners, for calendar year 2019. Additionally, this AOP sets forth specific procedures and coordination requirements among the BDD Facilities Manager, the BDD Support Entity, City of Santa Fe (SE), and the BDD Partners pertaining to water orders, water deliveries, water use accounting, water rights, and limitations on diversions for compliance with legal conditions. The intergovernmental agreements designate the City of Santa Fe as the Support Entity through December 1, 2020.

The Facility Operations and Procedures Agreement (FOPA) at Section 27 requires each BDD Partner to provide its projected daily, weekly, and monthly project water orders for the upcoming year by October 1 of each year. The BDD Facilities Manager, as agent of the SE, will distribute the draft AOP containing a draft delivery schedule with all of the Partners' projected water delivery orders and associated procedures to the BDD Partners for review and comment by December 1 of each year. The calendar year is the period covered by the AOP to correspond to annual state administration of water rights.

Policy direction with regard to the AOP is limited to the following items:

1. Status and approval of the Annual Operating Plan. The BDD Facilities Manager will draft and finalize an AOP and will submit it to each partner for review and comment. The AOP subject matter is limited to water orders and the technical and legal requirements of placing orders, assuring diversions complying with water rights and Endangered Species Act requirements, and accounting for diversions and deliveries of water. It does not establish any new authorities or governance policies and therefore will not be submitted for BDD Board Approval. The final version will be approved by signature of an authorized official of each Partner and the BDD Facilities Manager. It may be amended as needed and as agreed. Amendment requires the same four signatures of approval.
2. Water Rights. The BDD Intergovernmental Agreements require that each BDD Partner own and maintain valid water rights to support its orders for diversion and delivery of its water by the BDD. It is important this structure is literally implemented by the BDD Partners such that the BDD Facilities Manager can rely on the Partners to assure that water is legally available for daily diversion in amounts to meet water orders.

BDD Partners 2019 Water Delivery Orders

In accordance with the Project Management and Fiscal Services Agreement (PMFSA) at 6.F., the BDD Facilities Manager requested 2019 water orders from each BDD Partner.

Table 1 provides data regarding the BDD Partners' monthly water orders for 2019 in million gallons (MG) and acre-feet (Ac-Ft).

2019 Buckman Direct Diversion (BDD) Partners' Water Requests

	Santa Fe County	Club Las Campanas (via County)	Club Las Campanas SJC/Native	City of Santa Fe	Total	
					MGD	Acre-ft/year
Jan	0.80	0.05	0.00	2.90	3.75	11.51
Feb	0.70	0.05	0.11	3.00	3.86	11.85
Mar	0.70	0.26	0.21	3.00	4.17	12.80
Apr	0.80	0.38	0.38	3.50	5.06	15.53
May	1.20	0.37	0.79	4.50	6.86	21.04
Jun	1.50	0.38	0.81	6.00	8.69	26.68
Jul	1.70	0.37	0.58	3.00	5.65	17.33
Aug	1.50	0.37	0.37	3.50	5.74	17.61
Sep	1.40	0.38	0.27	6.50	8.55	26.24
Oct	0.70	0.31	0.11	4.90	6.02	18.46
Nov	0.70	0.16	0.00	4.20	5.06	15.53
Dec	0.80	0.11	0.00	4.00	4.91	15.05
Million Gallons Per Year						Acre-ft/year
Annual Total	381	97.314	110.518	1489.8	2078.632	6379.1

Figure 1 illustrates the BDD Partners' 2019 water delivery requests per month

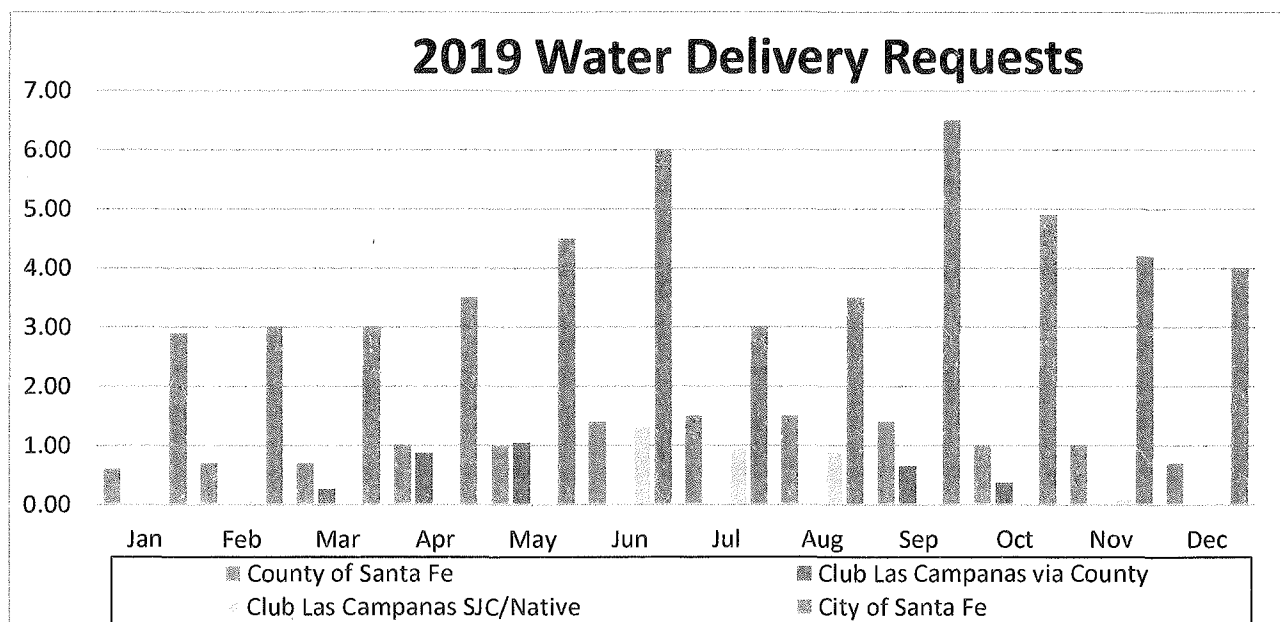
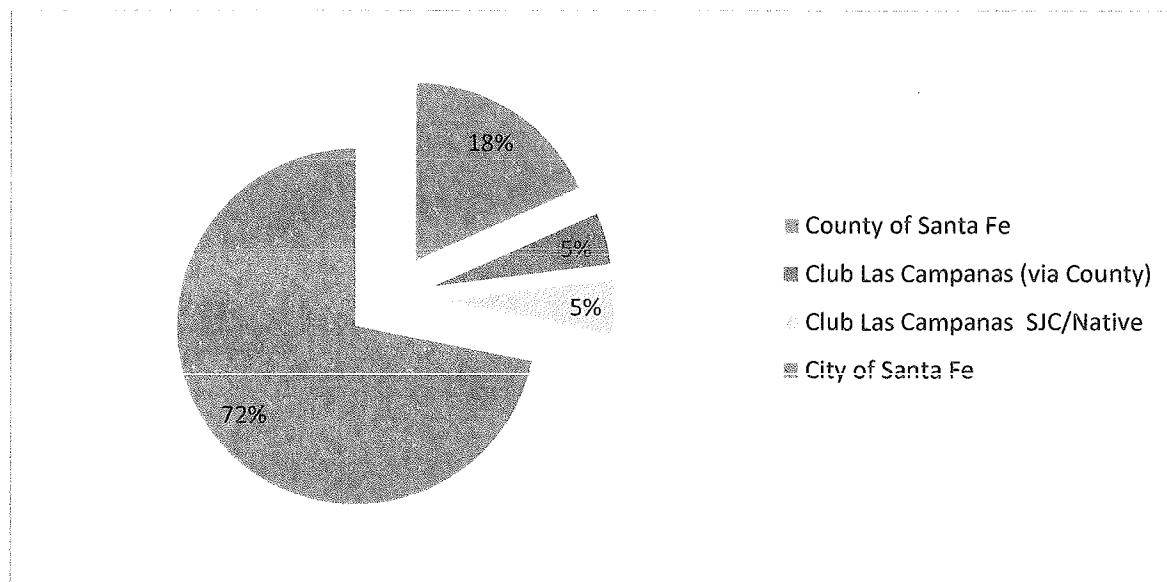


Figure 2 illustrates the BDD Partners' 2019 water delivery requests per year



Additional Purposes of this Annual Operating Plan

This ninth year of BDD operations the AOP will address normal operations, unique issues associated with the complex new project's operation, as well as unforeseen and/or one-time need for issues. The BDD Facilities Manager and partners undoubtedly will have to resolve other issues in order for the BDD to fulfill and properly account for Partners' wholesale water delivery orders in 2019 and to provide needed operational flexibility to meet the BDD purposes.

The remainder of this 2019 AOP individually addresses the following topics:

1. BDD Purposes and Adaptive Management to Meet the Partners' Changes to their Orders
2. BDD Facilities Manager Acceptance of LCLP Water Delivery Order
3. Water Rights:
 - a. Description of Partners' Water Rights
 - b. Roles and Responsibilities of Partners Regarding Water Rights
 - c. Native Water Rights Diversion Compliance with the Endangered Species Act
 - d. San Juan-Chama Project Orders, Reservoir Releases Calls and Reconciliation with Actual Use
4. Water Delivery Metering and Accounting
5. Fiscal Responsibilities
6. Adjustment of Daily Water Delivery Orders by the Partners to Reflect Actual Utility Demand
7. Non-Delivery of BDD Wholesale Water Supply Due to Uncontrollable Circumstances
8. Operations Features To Conserve Resources
9. Annual Operating Plan Approval

1. BDD Purposes and Adaptive Management to Meet the Partners Changes to their Orders

BDD purposes include supplying all or part of the public water system base load demand, peak production when needed, and providing a reliable and sustainable source of surface water supply to reduce reliance on groundwater resources. To meet the Partners' water demand, this AOP assumes continuous BDD production whenever the BDD is operational.

This AOP recognizes that actual water deliveries by the BDD will deviate from the BDD Partner water orders. While these deviations require active management, adjustments have become part of daily and weekly operating procedures. Deviations may result from BDD facilities shutdowns (planned and unplanned), adjustments to meet monthly delivery targets, adjustments to meet unanticipated demand needs (often due to precipitation or temperature), and/or to allow the City to conserve water in the municipal reservoirs as a pro-active response to drought mitigation.

The BDD will work with the BDD Partners and the BDD Board to adaptively manage BDD water deliveries to meet changes to Partner orders for BDD water deliveries, stay within the approved annual operating budget, and to resolve associated issues and problems.

The City coordinates water deliveries from the BDD with production from its two groundwater well fields and the Canyon Road Water Treatment Plant to provide drinking water to City and County customers, and, when necessary, wholesale deliveries of bulk water to the County. The 2005 Water Resources Agreement between the City and County provides for delivery of up to 1350 acre-feet of wholesale water to the County; the County currently takes delivery of wholesale water when the BDD is not operating. The 2005 Water Resources Agreement also provides for drought protection water for the County under catastrophic conditions. The Las Campanas Homeowners Water Cooperative Association (Water Coop) is a bulk potable water customer of the County; The Club of Las Campanas Inc. (CLCI) is a raw water customer of the County and the BDD.

2. BDD Facilities Manager Acceptance of CLCI Water Delivery Order

In November 2011, the County entered into a Raw Water Supply Agreement with CLCI to provide up to 600 acre-feet of raw water deliveries for CLCI's golf course irrigation. The County agreed to deliver raw water to Booster Station 2A, where CLCI installed pumps, a 12" pipeline, and meters to convey the water to CLCI's facilities. The raw water delivery system is designed to be operated from both the BDD's and CLCI's SCADA systems. CLCI's maximum pump capacity at BS2A is 3.02mgd (2,100 gpm) and the BDD's minimum raw water pump rate is 4.5mgd (3,125 gpm). The BDD and Partners have developed and agreed on a revised operating plan to assure continued raw water supply for CLCI when the BDD is not diverting water from the Rio Grande for other Partners.

CLCI diversified its water rights portfolio in 2014 by leasing 600acft of San Juan-Chama (SJC) water and expects to have 600 acft in 2019. CLCI has an agreement with the City regarding storage at Abiquiu reservoir to make this water readily available. During 2019 CLCI will utilize their own SJC water rights to receive 350 ac-ft. directly through the BDD and the County will provide CLCI with at least 300 ac-ft. of raw water.

BDD, County, and CLCI staff have developed and established operational procedures to provide CLCI with raw water during times when the BRWTP should choose not to accept raw water but the raw water quality meets the BDD's policy requirements. Currently CLCI has approximately a thirty (30) day supply in onsite storage capacity.

3. Water Rights

A clear delineation of roles and responsibilities assists in the complex management of water rights and water resources aspects of BDD diversions.

While the BDD is responsible for assuring that its diversions comply with all applicable laws and regulations and accounting of water use associated with cost accounting among BDD Partners, it is the BDD Partners' responsibility to maintain valid water rights to support their water orders.

3a. Description of Partner's Water Rights

The City's BDD Water Rights:

In accordance with the BDD Environmental Impact Statement, the City will divert only San Juan-Chama Project water permitted for BDD diversion by State Engineer Permit SP-2847-E. The City's portion of SP-2847-E is for 5,125.4 ac-ft./yr. For 2019, the City could request the State Engineer to divert up to 1,281.35 ac-ft. of additional San Juan-Chama water at the BDD.

The BDD calls for the City's San Juan Chama water from Abiquiu Reservoir; the released water incurs a 1.1% conveyance loss before arriving at the BDD. However, if the Abiquiu Reservoir has been placed into flood operation mode and therefore no San Juan Chama water can be released, the BDD will divert native water and then substitute the water diverted with San Juan-Chama water stored in Abiquiu.

The City's 2019 water delivery orders total 4,572 acre-feet.

The County's BDD Water Rights:

During 2019, the County will be utilizing native Rio Grande water rights (2,713 ac-ft.) permitted under SP-4842, as well as San Juan Chama Project water (367.5 ac-ft.), permitted under SP-2847-E to deliver water to its customers and to the Club Las Campanas.

The County's 2019 water delivery orders total 1,469 acre-feet.

The Club at Las Campanas BDD Water Rights:

The Club will be utilizing a combination of SJC and native water rights and water purchased from the County for diversion at the BDD to be pumped to their pump station at BS-2A. The Club will utilize San Juan Chama Project Water (up to 600 ac-ft.), permitted under SP-284-N-A, as well as 300 ac-ft. of raw water provided by the County.

Las Campanas's 2019 water delivery orders total 650 ac-ft. This is comprised of 300 ac-ft. provided by Santa Fe County and 350 ac-ft. leased San Juan Chama water rights.

3b. Role and Responsibilities of BDD Partners Regarding Water Rights

The BDD intergovernmental agreements identify water rights permitting, permit compliance, and maintenance as the responsibility of each BDD Partner. The Joint Powers Agreement (JPA) requires

each Partner to independently provide water rights in good standing to support its water delivery orders. The BDD Board has a specific limitation of authority stated in JPA *Section 9, Limits of Board Authority*:

The BDD Board's authority and duties do not encompass ... acquisition or permitting of use of water rights or contract water rights.

The JPA also says in *Section 14. BDD Capacity Allocation*:

Each entity's diversions shall be based upon its own water right or contract right and each entity is responsible for acquisition and maintenance of its own water rights.

Therefore, the BDD Facilities Manager, in making actual diversions of water from the Rio Grande, directed by the provisions of the JPA, relies on each of the BDD Partners designating and maintaining sufficient water rights in good standing to support all BDD river diversions required to support the Partners' water delivery orders.

The BDD Facilities Manager will not divert water to partially or wholly satisfy a Partner's water delivery order until that Partner has provided a written list of valid water rights, permitted by the State Engineer to the BDD, that are designated and sufficient for that Partner's water delivery order.

Each Partner, by signature of this plan, agrees to immediately notify the BDD Facility Manager and BDD Chief Operator if those diversions would in any way violate any of the requirements and conditions of any supporting water right (s).

The BDD Facilities Manager, with the cooperation of the Project Manager and the BDD Partners, will report diversions and water right use to the Office of the State Engineer monthly.

The BDD Project Manager is responsible for reviewing and tracking the actual use of water and water rights based on BDD-measured diversions, deliveries, and cost accounting.

Each Partner is responsible for accounting use of specific native Rio Grande water rights as specified under the relevant permit conditions.

The BDD Partners have developed an Optimized Annual Accounting Protocol (Attachment B) to meet project permitting requirements and increase efficiencies of water right accounting and BDD Project Operations.

3c. Native Water Rights Diversion Compliance with the Endangered Species Act

The responsibility of complying with Environmental Impact Statement Record of Decision water diversion requirements falls on the BDD Project Manager. Limitations on the BDD diversions include those provided in the Biological Assessment as submitted by the U. S. Forest Service to the U.S. Fish and Wildlife Service. The BDD Partners have agreed to incrementally curtail diversion of native Rio Grande water under low flow conditions to avoid interference with flows maintained by others for endangered Rio Grande Silvery Minnow habitat. The curtailment is initiated when the 5-day moving average of Rio Grande flows at the Otowi gage, minus San Juan-Chama Project water ordered for diversion by the BDD and the Albuquerque Drinking Water Project, falls below 325 cfs.

The Partners', BDD Facilities Manager's, and BDD Project Manager's roles and responsibilities associated with curtailment are delineated below.

- a. The BDD Facilities Manager will notify relevant BDD Partners if curtailment of their native water diversions is anticipated or has been initiated.
- b. If such a low flow curtailment occurs during a period of time when a Partner's native water rights are being diverted, the BDD will curtail that Partner's diversions in accordance with the project-specific regulatory limits (Attachment A). The BDD Facility Manager will rely on details or changes regarding curtailment requirements provided by those Partners who use Native Rio Grande water rights.
- c. Any Partner with a Native Rio Grande water right order, may with the necessary lead time, replace a native water order with an alternate water source, such as San Juan-Chama Project water. In such a case the BDD Facilities Manager, working with the BDD Project Manager, will place the appropriate San Juan-Chama call with the Bureau of Reclamation.

A copy of the BDD's River Diversion Curtailment Protocol is provided in Attachment A.

3d. San Juan-Chama Project Orders, Reservoir Release Calls, and Reconciliation with Actual Use

- a) The BDD will closely coordinate all calls, monthly accounting and reporting associated with San Juan-Chama project water use with the BDD Project Manager.
- b) The BDD will rely on the Partners to maintain valid SJC water rights so that the BDD can divert water to fulfill each partner's water orders in full compliance with all applicable water rights conditions and limitations.
- c) Each Partner will fulfill its responsibilities, pursuant to the BDD intergovernmental and internal Partners agreements, to identify in the annual order when SJC Project water is to be used to support its water delivery orders.
- d) Each Partners will inform the BDD of any modifications to its daily SJC water order a week or at a minimum 2 working days in advance.
- e) BDD Partners will coordinate with the BDD and BDD Project Manager regarding use of their San Juan-Chama Project water at the BDD diversion in the event of native water diversion curtailments. Partners will endeavor to inform the BDD of replacement water sources a week or at a minimum 2 working days in advance.
- f) The BDD, in coordination with the BDD Project Manager, will measure, track and account for BDD Partner SJC use, as needed for cost accounting.
- g) The BDD and the BDD Project Manager will track SJC water use to report monthly water usage to the Office of the State Engineer. This process will include monthly reconciliation between the BDD diversion data and the RG accounting model.
- h) Each BDD Partner, independently, is responsible for reconciling the actual use of SJC Project water based on measured diversions and deliveries, including monthly and annual

reconciliation of San Juan-Chama Project water releases from reservoirs against diversions and groundwater offsets. Reconciliation will also address communications with federal agencies and the State Engineer about San Juan-Chama Project storage accounts in reservoirs.

4. Water Delivery Metering and Accounting

All water diverted at the BDD facility is measured through three intake and one sediment/water return meter. Raw water deliveries to CLCI are metered at Booster Station 2A. All BDD facility delivered potable water is pumped and measured through booster pump stations 4A and 5A. Additional delivery meters, some owned by the BDD facility (Wild West, 2 meters; South Meadow 10", 1 meter, South Meadow 18" bi-directional, 1 meter; Airport Road, 1 meter), some master meters owned by the City of Santa Fe (Beckner , 2 meters; Richards, 2 meters; and Agua Fria, 2 meters), and County customer meters (WaterCoop domestic, 1 meter; Aldea/Sunflower, 2 meters, Archeological Building, 1 meter), allow the BDD Facilities Manager, the BDD Project Manager, and the Partners to differentiate between potable water delivered to the County versus the City. It is anticipated that Santa Fe County will install three (3) additional master meters to improve efficiencies in the water accounting. These will include a "West Sector Meter, Campo Conejo Meter and Richards East Meter.

For any given period of time, usually a calendar month, the City drinking water deliveries from the BDD facility are calculated as the balance of the BDD facility finished water pumped through booster pump station 4A and 5A minus water delivered to the County independent water utility, The difference between water diverted and water delivered (non-revenue water) is apportioned to each of the BDD Partners according to their respective percentage delivery within an accounting period (usually a calendar month). Under the current accounting method, all non-revenue water (including line flushing, water for system pressurization, etc.) downstream of the BDD delivery location is absorbed by the City; a more equitable way of sharing in non-revenue water may be considered in the future.

The current roles and responsibilities with respect to water delivery metering and accounting are as follows:

- a. The BDD Facilities Manager will measure all diversions of water. These measurements will be continuous. The flows will be recorded and totalized daily.
- b. The BDD Facilities Manager will read those meters associated with bulk water delivery to each Partner as identified above.
- c. The BDD Facilities Manager will calculate the deliveries of water to the Partners.
- d. The BDD Facilities Manager will report the water use to the OSE and to the Partners monthly.
- e. The BDD Facilities Manager will calculate and report annual BDD water use by Partner.
- f. During times when the BDD cannot meet the County's water order because the BDD is unable to divert water, the County's water orders will be satisfied by the County/City 2005 Water Resources Agreement.
- g. On the day on which the BDD cannot deliver water, the BDD Facilities Manager will read the BDD delivery and the City→ County master meters identified above to distinguish between water delivered to the County by the BDD facility versus other City water supply sources.

5. Fiscal Responsibilities

- a. The BDD will bill the Partners—based on its **actual measured deliveries** of raw and/or drinking water during any billing period—for its share, pursuant to the FOPA Partner cost share requirements, of the **actual** fixed and variable costs of BDD OMR&R during that billing period.

The BDD will bill the City for the water deliveries, including all drinking water that is pumped by the BDD finished water pumps and not delivered to the County via the delivery and master meters. Therefore, BDD may bill the City for more or less water than the City ordered and more or less than the BDD intended to deliver, depending on the accuracies of the County and CLCI water orders with respect to actual County and LCLP water use.

Should the BDD be unable to divert and deliver water, the BDD will provide the Partners with City→ County master meter readings so that the City's Utility Billing Division can bill the County for water delivered under the County/City 2005 Water Resources Agreement.

In order to maintain the financial viability of the BDD facility, Partners will promptly pay for water deliveries.

The Partners will reimburse the BDD facility for the actual monthly costs of BDD operations through a series of advance payments for the budgeted cost of monthly operations followed by reconciliation payments if necessary at the end of each month based on actual monthly costs of BDD facility operations.

CLCI will fully cover all variable costs associated with the delivery of raw water from BS2A to the golf course.

If the Partner water demand during 2019 exceeds the Partner water delivery order, it may be necessary for that Partner to appropriate additional funds to the BDD for the additional water and for the BDD Board to amend its operating budget to incorporate the additional funds necessary to cover additional costs.

For 2019 expenses for raw water deliveries from the diversion structure to BS2A will be addressed as follows:

1. Variable costs for raw water ordered by and delivered to The Club will be billed to The Club.
 2. Variable costs for raw water ordered by the County and delivered to the Club will be billed to the County.
6. Adjustment of Daily Water Delivery Orders by the BDD Partners to Reflect Actual Utility Demand

Water demand is not precisely predictable. Spring, summer, and fall actual daily retail customer water demand varies with weather and actual amounts of precipitation prior to and during the demand period. Since the 2019 BDD Partners' actual water demand will vary from their projected daily water delivery orders, the following steps will be taken to adjust and reconcile water delivery orders during 2019.

1. The Support Entity will endeavor to maintain the BDD delivery volume at the amount set forth in the AOP by operating its other sources of supply to accommodate the expected difference between its prior delivery order and its expected actual water demand.
2. The City may adjust its daily delivery order for the subsequent day no later than 3:00 pm each day. If the City changes its daily delivery order, the BDD Facilities Manager will operate the BDD facilities to meet the adjusted daily demand. If the change is significant, the BDD Facilities Manager may adjust the SJC call accordingly.
3. The County will endeavor to adjust its daily delivery orders no more frequently than monthly, following its monthly comparison of its actual monthly demand with the previously projected monthly water delivery orders.

7. Non-Delivery of BDD Wholesale Water Supply Due to Uncontrollable Circumstances

The BDD will be unable to meet its wholesale customers' orders for waters from time to time due to circumstances beyond the control of the BDD Facilities Manager or the BDD Partners. For example, the BDD will not operate when suspended solids concentrations in the Rio Grande exceed a threshold value beyond which continued operation is not possible or in conflict with limits recommended by the BDD Board Engineer, might result in damage due to deposition of sediment within the raw water system, or would result in unacceptably high costs for removal and disposal of solids in the water treatment process. Similarly, the BDD may not operate when the Los Alamos National Laboratory Early Notification System indicates the Rio Grande may be influenced by runoff from Los Alamos Canyon. Raw water storage (up to 8 million gallons) and drinking water storage (up to 4 million gallons) may allow the BDD to continue to supply water for a short period of time following temporary curtailment of river diversions due to river water quality or other reasons.

During periods of BDD inability to fulfill water delivery orders, the City will supply both, its own and, in accordance with the 2005 County/City Water Resources Agreement, the County's potable water demands from stored drinking water and its other sources of water supply up to 1350 acre feet.

8. Operations Features To Conserve Resources

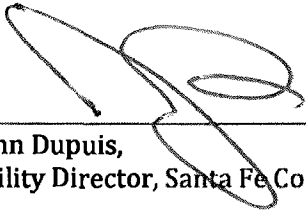
To the extent feasible, raw water pumping will be conducted during PNM electricity 'off-peak' hours in order to avoid contributing to PNM peak system demand and higher electric rates.

City orders for BDD water are weighted to the seasons of the year when the river water is generally much better quality. The cleaner, clearer water is the easier and cheaper to treat.

9. Annual Operating Plan Approval

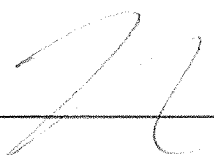
The AOP will be agreed upon and signed by the BDD Partners. The AOP can be modified by mutual agreement of the BDD Partners as the calendar year progresses.

This plan was reviewed and approved by:



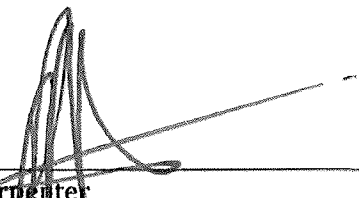
John Dupuis,
Utility Director, Santa Fe County

1/28/19
Date



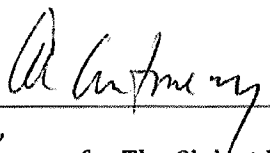
Nick Schiavo,
Interim BDD Facilities Manager

1/4/19
Date



Rick Carpenter
Acting Water Division Director, City of Santa Fe

1/8/19
Date



Al Antonez,
General Manager for The Club at Las Campanas

1/28/2019
Date

ATTACHMENT A

Buckman River Diversion Curtailment Protocol

**Only native Rio Grande River flows are affected by the curtailment policy
Curtailment will only have to take place on the months between March and October.**

Curtailment requirements are based on a 5-day average

To monitor native Rio Grande flow the BDD operations team at the Buckman Regional Water Treatment Plant registered with the USGS e-mail notification system and set the threshold to 500cfs at the Otowi gauge.

Rio Grande flow is monitored from March to October using the hydrologic model viewer, RiverView, which allows us to see the URGWOM model runs by the U.S. Bureau of Reclamation.

Native Rio Grande River diversion curtailments, which were required by the Biological Opinion, are addressed in the table below:

Native Rio Grande flows (cfs)	March Max Diversion (cfs)	April Max Diversion (cfs)	May Max Diversion (cfs)	June Max Diversion (cfs)	July Max Diversion (cfs)	August Max Diversion (cfs)	September Max Diversion (cfs)	October Max Diversion (cfs)
> 325	3.82	4.6	6.87	8.55	7.95	7.56	6.57	5.09
300	3.05	3.68	5.50	6.84	6.36	6.05	5.26	4.07
280	2.44	2.95	4.40	5.47	5.09	4.84	4.21	3.26
260	1.83	2.21	3.30	4.10	3.82	3.63	3.16	2.44
240	1.22	1.47	2.20	2.73	2.54	3.42	2.10	1.63
220	0.61	0.74	1.10	1.37	1.27	1.21	1.05	0.81
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

For example:

- If in March the 5 day average flow of Native Rio Grande water is greater than 325 cfs, a maximum 5-day peak of 3.82 cfs Native Rio Grande water can be diverted. On the day the 5 day average flow of Native Rio Grande water of less than 325 cfs is reached, a max of 3.05 cfs of Native Rio Grande water can be diverted.
- If in July the 5 day average flow of Native Rio Grande water is greater than 325 cfs, a maximum 5-day peak of 7.95 cfs Native Rio Grande water can be diverted. On the day the 5 day average flow of Native Rio Grande water of less than 325 cfs is reached, a max of 6.36 cfs of Native Rio Grande water can be diverted.
- If in July the 5 day average flow of Native Rio Grande water is less than 240 cfs, a max of 1.27 cfs of Native Rio Grande water can be diverted.

ATTACHMENT B

OPTIMIZED ANNUAL WATER RIGHTS ACCOUNTING PROTOCOL

Background

One of the principles of the shared nature of the BDD Project is that each of the partners (County, City and Las Campanas Coop 'LC Coop' & The Club at Las Campanas Inc. 'CLCI') provides access to their water rights that they want diverted and delivered to the respective points of interconnection where the BDD Project transmission lines terminate.

This memo is addressed to those persons at each of the 4 partners who have a role in managing the water rights covered by this policy. This memo will be included in the Annual Operating Plan for the BDD Project reviewed and approved by the BDD Project Partners.

The present accounting process for the diversion from the Rio Grande of SJCP and native NM water rights, and then delivery to each of the BDD Partners, has become inefficient and time consuming. In some cases, the complexity of the current accounting process has led to very significant staff time and reporting errors. The accounting process generally must be coordinated with state and federal agencies and must be done in accordance with BDD Project documents, OSE diversion permits and the Record of Decision for the EIS approval of the BDD Project. The state and federal agency accounting criteria requires the Project to provide detailed reports on volume, and attendant type of water right, that has been diverted.

The methods and procedures for Optimized Annual Water Right Accounting described below are designed to:

1. Lessen the time and resources required of staff to meet Project permitting requirements
2. Move the timing of native NM water rights diversions out of the restrictive time periods when conditions might adversely impact Project operations
3. Generally improve the efficiencies of operations and accounting to federal and state agencies as required by the respective permits
4. Improve the efficiencies of compliance with the City and County SJCP diversion permits
5. Generally optimize the use of SJCP water where appropriate and thereby make that SJCP water available for other purposes.

Introduction

In order to improve the efficiency of operations and the accounting process, staff has identified that an internal accounting process could be developed that changes the timing of diversions of the combined native NM water right portfolio. This proposal does not require the approval of the state and federal agencies and is designed to fit within the existing permit approvals.

For reporting to the state and federal agencies, this approach would show the native NM water rights being diverted at times of the year that avoid or lessen the low flow curtailment constraints described on pages 11-12 of the BDD Project Biological Opinion. By changing the timing of such diversions, the BDD Partners would create additional operational flexibility for the overall benefit of the BDD Project and staff of both the BDD Project and the agencies who monitor compliance with the existing permits.

Several permitting constraints limit the operational flexibility of the BDD Project. During the spring when the Rio Grande is in flood operations, SJCP water cannot be routed through Abiquiu Reservoir and BDD Project diversions of SJCP water can only be permitted by an inefficient process that requires an accounting 'exchange' for downstream stored water in coordination with state and federal agencies. The Biological Opinion limits the diversion of native NM water rights during times when the Rio Grande experiences low flow conditions. The SJCP diversion permits contain a strict rule that requires exact releases from upstream reservoirs and then exact diversions at the intake. The Optimized Annual Accounting method will provide compliance with the federal and state permits while also allowing for greater flexibility in operations for the Project and the BDD Partners.

The Optimized Annual Accounting method allows for some flexibility in the aggregate diversions since native NM water rights are available for diversion without calling for release. This change will allow native NM water rights to be diverted when they are most useful to meeting the combined BDD Project demands, and also allow SJCP water rights to be diverted when they are most useful to meeting the combined BDD Project demands. For example, the native NM water rights owned by the BDD Partners would be diverted during the likely flood operations time period to meet BDD Partner demand...and SJCP water rights owned by the BDD Partners would be diverted during the likely low flow time period to meet BDD Partner demand. A discrete amount of native NM water rights would be identified to balance the SJCP calls for delivery, and actual diversions must be within the native NM diversion flow constraint identified in the Biological Opinion. This will simplify the monthly accounting provided to the agencies and avoid changes to BDD Project operations during this time period. A significant part of the native NM water right portfolio will be scheduled for use during the likely flood operation time period to avoid changes in BDD Project operations during this time period. And the balance of the native NM water right portfolio would be used in the fall in order to preserve the combined SJCP water owned by BDD Partners.

Review of Permit Compliance

OSE permits: The City / County SJCP diversion permit contains the restriction described above, that strictly accounts for upstream reservoir releases and subsequent diversions. From the November 1, 2006 permit:

8. The maximum amount of San Juan-Chama Project water diverted in any day under this permit shall not exceed the amount of the permittees' San Juan- Chama water calculated to be in the Rio Grande at the BDD on that same day. The amount of

the permittees' SJCP water available for diversion at the BDD on a particular day shall be calculated as the amount of water released from either Heron or El Vado Reservoir two days prior to diversion at the BDD, less a 2% conveyance loss or the amount of water released from Abiquiu Reservoir one day prior to diversion at the BDD less a 0.9% conveyance loss. The State Engineer expressly reserves the right to adjust the travel time periods as better information becomes available or based on river channel conditions. The permittees shall notify the State Engineer at the time releases of SJCP water are ordered to be released or are ordered to be discontinued.

9. The permittees' maximum peak daily surface water diversion rate shall not exceed 32.0 cfs. The State Engineer recognizes that other external factors may further limit the actual diversion rate.

Note that 'Otowi Gage native flows' is a defined term from the ROD (discussed below) and is calculated as the total Otowi gage flow less SJCP releases for municipal and industrial uses. This definition of native flow is different from the definition that is used elsewhere in Rio Grande water management.

The proposed Optimized Annual Accounting method does not conflict with the SJCP permit conditions of approval, and is intended to simplify compliance with the permit requirements.

Several native NM water right permits that are permitted for diversion from the BDD were reviewed, and they typically contain two provisions that relate to operations. From a County transfer approved in 2010:

8. The maximum instantaneous rate of diversion from the Buckman Direct Diversion under all permits (San Juan Chama Project water and native water) shall not exceed 32.0 cfs, inclusive of amount of water necessary for sediment removal.

9. Diversion of water under this permit shall be subject to adherence with the Staged Curtailment Schedule (U.S. Department of Interior, Fish and Wildlife Biologic Opinion, June 25, 2007 at 12) for the Buckman Project when Otowi Gage native flows are below 325 cfs.

Note that the requirement to comply with the Staged Curtailment Schedule has been the topic of a related work effort, and the OSE will not independently determine compliance with the BO requirement. The proposed Optimized Annual Accounting method does not conflict with the native NM water right permit conditions of approval, and is intended to simplify compliance with the permit requirements.

Staff of the OSE and ISC has indicated that they are not concerned with who is delivered which water rights (under the proposed Optimized Annual Accounting method) as long as the Rio Grande diversions are consistent with the Conditions of Approval of the permits.

BDD Board documents: The BDD JPA, City-County WRA and BDD PMFSA do not contain provisions that relate to the Optimized Annual Accounting method. BDD FOPA, section 8, states:

8. Water Rights and Divertible Water Supply. Each BDD Partner shall divert only that amount of water in the system for which water rights are in good standing with the New Mexico State Engineer, subject to the limitations on diversions at low flow set as forth in the BDD Project EIS or other applicable permits. The BDD Partners each recognize an individual responsibility to maintain their own water rights portfolio and to manage any water rights shortage within that portfolio. No BDD Partner shall make any claim or attempt to use another BDD Partner's water rights without the express written consent of that BDD Partner.

The final sentence of this section requires written consent to use another BDD Partner's water rights. In order to address this condition, staff and counsel recommend that the procedures described below be added to the BDD Project Annual Operating Plan. This Plan is prepared annually by the staff of the City, County and Las Campanas (CLCI and LC Coop), and is signed by the respective water utility directors.

BDD Project Biological Opinion: The Record of Decision issued by the US Forest Service and Bureau of Land Management incorporated the requirements of the Biological Opinion (BO) issued by the Fish and Wildlife Service. In general, the BO prescribes an annual maximum volume of diversion (8,730 ac-ft/yr), an annual maximum volume of SJCP and native NM water rights, and maximum rates of diversion (32 cfs, sediment return/net diversion, RG low flow native NM water right diversion limits). The BO does not contain a provision that limits the Optimized Annual Accounting method, and the proposed method intended to simplify compliance with the permit requirements.

Conclusion

In summary, the proposed Optimized Annual Accounting method provides for the full use of the native NM water right portfolio in the near term (providing the beneficial use requirement) and allows the BDD Partners to preserve as much SJCP water as possible in any given year. It provides a simplified and efficient process for staff and agency review, and is consistent with the permits and agreements for the BDD Project that have been reviewed.

Implementation of revised Optimized Annual Accounting Process

Staff and counsel recommend that the implementation of the revised accounting process be acknowledged by the respective water utility directors of the BDD Partners through inclusion in future year versions of the Annual Operating Plan (as is described in BDD Project documents).

Operating Plan

2019

Special Use Permit ESP 104602



Buckman Direct Diversion

1.0 Introduction

This “Buckman Direct Diversion (BDD) Operating Plan” covers the operations of the facility from February 1, 2019 to February 1, 2020. The Project is operated by the City of Santa Fe under the auspices of the Buckman Direct Diversion Board.

1.1 BDD Description

The Buckman Direct Diversion (BDD) provides the Santa Fe region with a reliable and sustainable means of accessing surface water supplies to significantly reduce the regions over-reliance on groundwater pumping. The City of Santa Fe (City), Santa Fe County (County), Las Campanas development constructed the BDD which consists of an intake structure on the east bank of the Rio Grande near the western terminus of Buckman Road, low-head lift pumps, a sediment removal and return facility, two booster pump stations (with high-head pumps and water tanks), a 15 mgd water treatment plant with two finished water pump stations, and pipelines necessary to convey the water between system components (about 30 miles of new raw and finished water pipeline). The BDD diverts San Juan-Chama (SJC) project water to stored upstream reservoirs and native Rio Grande water for treatment and conveyance to the regional storage and distribution system.

The effects of the BDD were analyzed in compliance with the National Environmental Policy Act (NEPA). The Final Environmental Impact Statement was published in October 2006. The Record of Decision, published in October 2007, states that both the USFS and the BLM decided to authorize the appropriate permits and rights-of-way for continued BDD operation. Construction of the BDD followed the Master Development Plan/Plan of Development submitted to the United States Department of Agriculture Forest Service (USFS) and United States Department of Interior Bureau of Land Management (BLM) on November 24, 2008. This Operating Plan is submitted in support of the Special Use Permit ESP 104602 issued by the USFS and Right-of-Way Grant numbers NM103618, NM107524, and NM120617 issued by the BLM. This Operating Plan is not intended to address the activities of Public Service Company of New Mexico (PNM) or the BDD Solar Power Supply Facility.

BDD is spread out over a large area (Figure 1). It operates on public lands managed by the United States Department of Agriculture Forest Service (USFS), United States Department of Interior Bureau of Land Management (BLM), and Santa Fe County. The Buckman Direct Diversion Board, Las Campanas, and Public Service Company of New Mexico (PNM) have permits for the use of these lands for this water diversion project. Although the BDD Master Development Plan/Plan of Development described the construction activities of parties other than the Buckman Direct Diversion Board, this Operating Plan only addresses the operational activities conducted on behalf of the BDD Board.

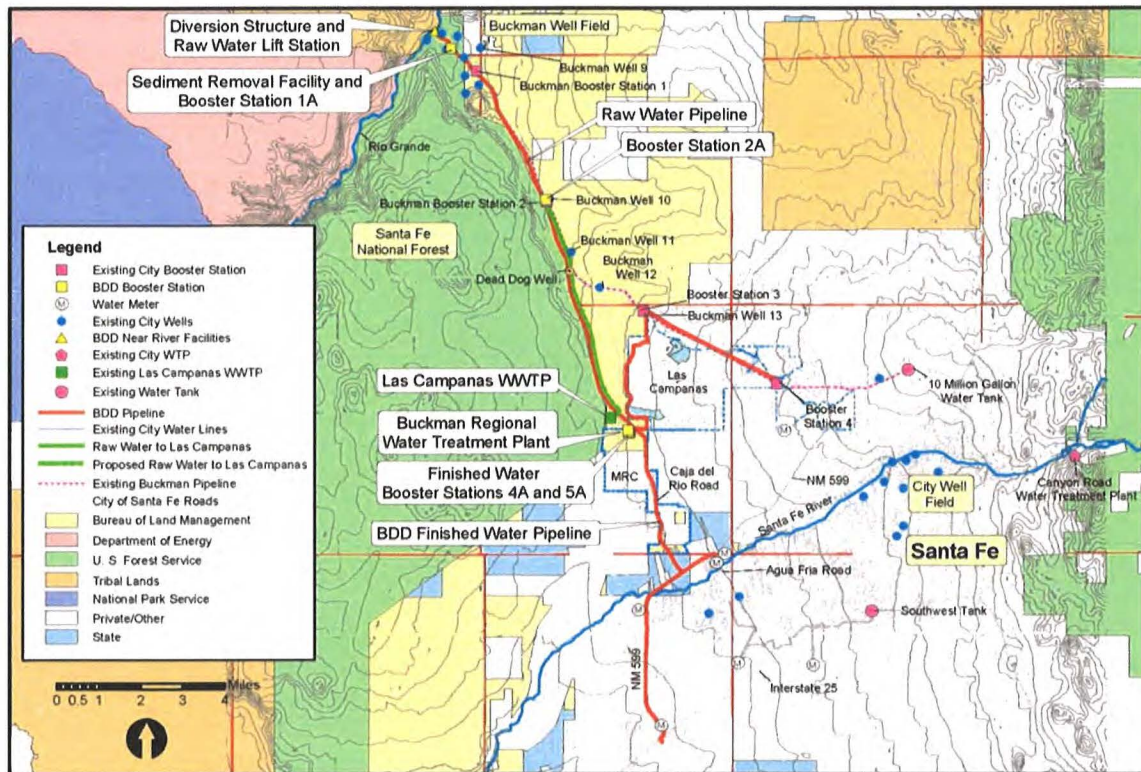


Figure 1: Buckman Direct Diversion Project and Associated Infrastructure

1.2 Purpose of the Operating Plan

An Operating Plan is required by Section III (A) of the BDD Special Use Permit (USFS ESP104602). The Special Use Permit says that the purpose of the Operating Plan is to outline steps the holders will take to protect public health and safety, and the environment, and shall include sufficient detail and standards to enable the USFS to monitor the holder's operations for compliance with the terms and conditions of this permit. The USFS Authorized Officer also require an annual meeting with the BDD Board to discuss any concerns either party may have prior to February 1 each year. The USFS Authorized Officer shall notify the BDD Facilities Manager to schedule an annual meeting. This Operating Plan is a requirement of the USFS Special Use Permit and does not include a formal role for the BLM. The BLM has been provided with a draft of this Operating Plan. The BLM may wish to comment to the USFS on future editions of this plan and to participate in annual meetings. The BDD Board, as the holder of the Special Use Permit, views this Operating Plan as a communication and compliance tool with the federal agencies to provide assurance that permit compliance, public safety, and environmental health will be protected during BDD operations.

1.3 Management Structure

This section provides a broad overview of the management structure for the BDD. Figure 2 is a graphical representation of the relationship between the principal parties. As shown in Figure 2, Santa Fe County and the City of Santa Fe have established a Joint Powers Agreement (JPA) for the BDD. The JPA creates the BDD Board and allows it to enter into and oversee a number of contracts to implement the Project on behalf of the City and the County. Additionally, the County and City have a Water Resources Agreement and Facility Operating and Procedures Agreement (FOPA). The Water Resources Agreement articulates agreement on how the City delivers water to the County. The FOPA addresses issues such as ownership of BDD facilities, capacity rights, cost sharing, transfer of water rights, and sharing of water shortages.

Under the Project Management and Fiscal Services Agreement (PMFSA) the City acts as Project Manager and is responsible for day-to-day management and related fiscal activities.

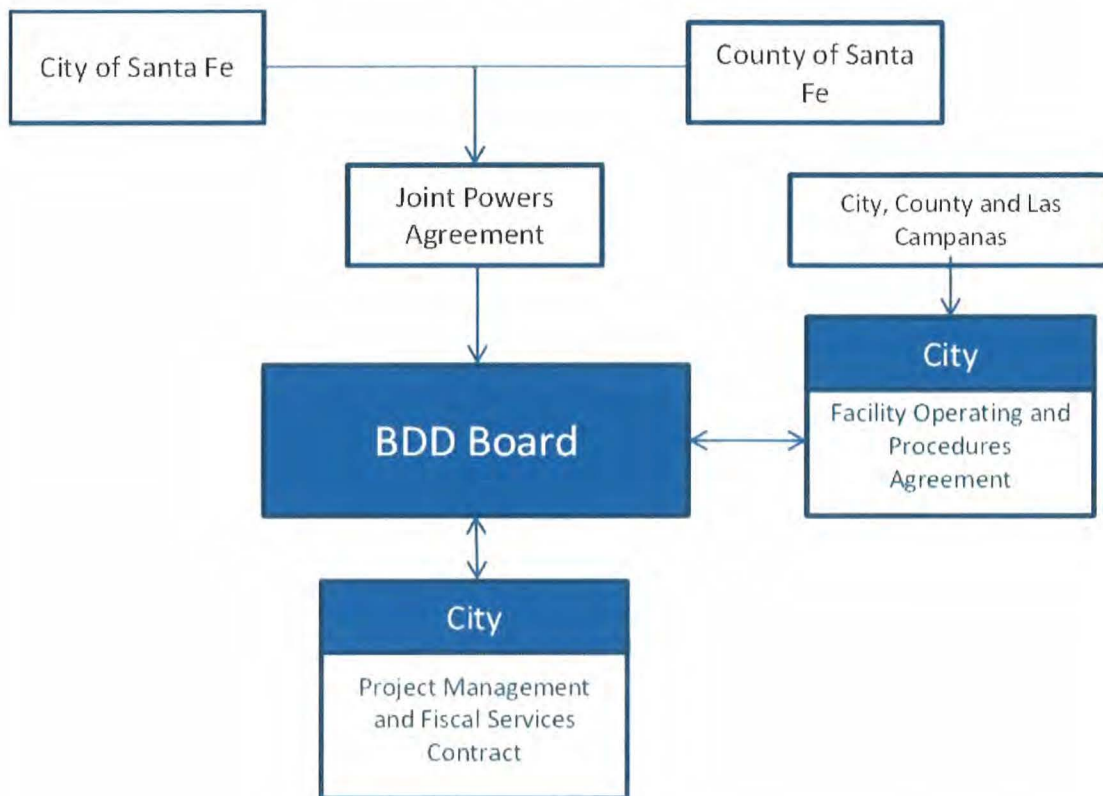


Figure 2: Relationships Between Principal Parties

1.3.1 BDD Board

The BDD is managed and overseen by a joint city-county board called the BDD Board. The five-member BDD Board is made up of two members of the City of Santa Fe Council (City Council)

appointed by the Mayor and approved by City Council, two members of the Board of Santa Fe County Commissioners (County Commissioners) appointed by the County Commissioners, and one at-large citizen member appointed by a majority vote of the other four members of the BDD Board. Each member of the BDD Board has one vote. The BDD Board meets monthly.

The BDD Board manages and provides policy guidance on such efforts as planning, permitting, procurement, legal matters, accounting and budgeting, funding and finance, design, construction, and operations planning. The BDD Board manages and oversees operations and maintenance of the Facility. The City of Santa Fe has been designated as the Project Manager and Fiscal Agent. The City will operate the BDD with its own employees beginning in 2011 and lasting at least until December of 2019, when the management of the project is up for consideration between the City and the County. The BDD Board oversees the work of the City of Santa Fe as the Project Manager and Fiscal Agent. The BDD Board was created by a Joint Powers Agreement that was approved by the State of New Mexico.

The BDD Master Development Plan/Plan of Development incorporates the mitigation measures specified in the ROD and in all environmental and cultural constraints and stipulations included in permits, easements and other grants of access to property owned by federal and state governments and by private parties.

1.3.2 USFS/BLM's Role in the BDD

The USFS and the BLM were the lead Federal agencies for preparing the Environmental Impact Statement (EIS) and the subsequent Record of Decision (ROD). Based on the ROD, both agencies have issued permits for use of lands managed by the respective agencies. The USFS has issued a Special Use Permit and the BLM has issued Right-of-Way grants. The role of the agencies is to ensure adherence to the conditions in the ROD and that the requirements in the permits are complied with in the construction and operation of the BDD .

The Special Use Permit issued by the USFS identifies specific responsibilities for both the agencies and the BDD Board. These respective responsibilities are summarized in Table 1.

Table 1: Roles and Responsibilities Identified in the BDD Special Use Permit (ESP104602)

USFS/BLM Roles/Responsibilities	BDD Board Roles/Responsibilities
<ul style="list-style-type: none"> ▪ Administration of the permit (cover letter; 2nd paragraph) ▪ Designates an authorized officer (Section I(B)) ▪ Approve amendments to the Master Development Plan/Plan of Development (cover letter; 4th paragraph) ▪ Issue new permit before expiration date of December 31, 2029 (Section I(D)). ▪ Amend the permit to incorporate new terms that may be required by law, regulation or land management plan or 	<ol style="list-style-type: none"> 1. Submit application for new permit by December 31, 2028 (Section I(D)) 2. Request amendments to the Special Use permit for new or changed uses or areas (Section I (E3)) 3. Comply with all present and future federal, state, county, and municipal laws, regulations, and legal requirements that apply to the permit area (Section I (F)) 4. Notify the authorized officer if transfer of title for improvements are contemplated (Section I (I(1))) 5. Notify the authorized officer when change of control in the business entity that holds the permit is contemplated (Section I (J(1))) 6. Ensure that all plans for development, layout, construction, reconstruction, or alteration of improvements in the permit

USFS/BLM Roles/Responsibilities	BDD Board Roles/Responsibilities
<p>projects and activities implementing a land management plan pursuant to 36 CFR 215 or to remove authorization to use lands not specifically covered by the permit (Section I (E1 and E2))</p> <ul style="list-style-type: none"> ▪ Provide written approval before plans or plan revisions are implemented (Section II (B)) ▪ Does not have responsibility for enforcing laws, regulations, or legal requirements that fall under the jurisdiction of other governmental entities (Section I (F)) ▪ Jointly with the BDD Board, prepare a site development schedule that becomes part of the Special Use Permit before construction begins (Section II (D)) ▪ Approve the annual Operating Plan (Section III(A)) ▪ Approve lease of authorized concessions and improvements owned by the BDD Board (Section III (D)) ▪ Monitor the BDD Board operations and improvements; maintain a reserve right to inspect the operations and improvements (Section III(F)) ▪ Furnish signs setting forth the USFS nondiscrimination policy to be displayed conspicuously at the public entrance to the premises or at other exterior or interior locations as directed by the USFS (Section III (K3)) ▪ In the case of damage to authorized improvements, the authorized officer shall conduct an analysis to determine whether the improvements can be safely occupied in the future and whether rebuilding should be allowed (Section IV (E)) 	<p>area are prepared by a licensed engineer, architect, landscape architect, or other qualified professional (Section II (B))</p> <ol style="list-style-type: none"> 7. Prepare a Master Development Plan for construction of any improvements to be authorized by the Special Use Permit (Section II (C)) 8. Jointly with the USFS, prepare a site development schedule that becomes part of the Special Use Permit before construction begins (Section II (D)) 9. Prepare and annually submit an Operating Plan by February 1 (Section III(A)) 10. Conduct day-to-day activities authorized by the Special Use Permit (Section III (C)) 11. Compliance with the terms of the Special Use Permit (Section III (C)) 12. May lease authorized concessions and improvements owned by the BDD Board with the approval of the authorized officer (Section III (D)) 13. Maintain the authorized improvements and permit area to standards of repair, orderliness, neatness, sanitation, and safety acceptable to the authorized officer (Section III(E)) 14. Comply with inspection requirements deemed appropriate by the authorized officer (Section III(E)) 15. Obtain prior written approval of the authorized officer to Remove trees or shrubs and/or plant vegetation within the permit area (Section III (G)) 16. Obtain prior written approval of the authorized officer before posting signs (Section III(H)) 17. Comply with all applicable Federal , State, and local requirements related to disposal of refuse resulting from use and occupancy authorized by the Special Use Permit (Section III(I)) 18. Comply with all applicable Federal, State, and local drinking water laws and regulation for the operation and maintenance of a public water system. (Section III(J)) 19. The BDD Board and its employees and any third party agreement shall not discriminate against any person on the basis of race, color, sex (in educational and training programs), national origin, age, or disability or by curtailing or refusing to furnish accommodations, facilities, services, or use privileges offered to the public generally. In addition, comply with the provisions of Title VI of the Civil Rights Act of 1964 as amended, Section 504 of the Rehabilitation Act of 1973 as amended, Title IX of the Education Amendments of 1972, as amended, and the Age Discrimination Act of 1975, as amended. (Section III(K)) 20. Assume all risk of loss to the authorized improvements (Section IV(E)) 21. Protect from damage the land, property, and other interests of the United States. Damage includes but is not limited to fire suppression costs, and all costs and damages associated with or resulting from the release or threatened release of a hazardous material occurring during or as a result of activities

USFS/BLM Roles/Responsibilities	BDD Board Roles/Responsibilities
	<p>on the land, property, or other interests covered by this permit. (Section IV (F))</p> <p>22. Avoid damaging or contaminating the environment, including but not limited to the soil, vegetation, surface water, and groundwater, during the BDD Board's use and occupancy of the permit area. If the environment or any government property covered by this permit becomes damaged during the BDD Board's use and occupancy of the permit area, the BDD Board will repair the damage or replace the damaged items to the satisfaction of the authorized officer and at no expense to the United States (Section IV (F1))</p> <p>23. Retain liability for all injury, loss, or damage, including fire suppression or other costs associated with rehabilitation or restoration of natural resources, associated with the BDD Board's use and occupancy of the permit area. (Section IV (F2))</p> <p>24. Retain liability for damage caused by use of all roads and trails of the United States that are open to public use, not including ordinary wear and tear. (Section IV (F3))</p> <p>25. Take all measures necessary to protect the environment, natural resources, and the health and safety of all persons affected by the use and occupancy authorized by the Special Use Permit. The BDD Board has sole responsibility to protect the health and safety of all persons affected by the use and occupancy authorized by the Special Use Permit (Section IV (G))</p> <p>26. Immediately notify the authorized officer of all serious accidents that occur in connection with the authorized activities, events, or conditions. (Section IV (G))</p> <p>27. Indemnify, defend, and hold harmless the United States for any costs, damages, claims, liabilities, and judgments arising from past, present, and future acts or omissions of the BDD Board in connection with the use and occupancy authorized by the Special Use Permit. (Section IV (H))</p> <p>28. Maintain \$2,000,000.00 worth of insurance coverage for any and all injury, loss, damage. Furnish proof of insurance to the Forest Supervisor annually. (Section IV (I))</p> <p>29. Comply with all applicable Federal, State, and local environmental laws and regulations including but not limited to those established pursuant to: Resource Conservation and Recovery Act (as amended; 42 U.S.C. 6901 <i>et seq.</i>); Federal Water Pollution and Control Act (as amended, 33 U.S.C. 1251 <i>et seq.</i>); Oil Pollution Act (as amended, 33 U.S.C. 2701 <i>et seq.</i>); Clean Air Act (as amended, 42 U.S.C. 7401 <i>et seq.</i>); the Comprehensive Environmental Response, Compensation, and Liability Act (as amended, 42 U.S.C. 9601 <i>et seq.</i>); Toxic Substances Control Act (as amended, 15 U.S.C. 2601 <i>et seq.</i>); Federal Insecticide, Fungicide, and Rodenticide Act (as amended, 7 U.S.C. 136 <i>et seq.</i>); and Safe Drinking Water Act (as amended, 42 U.S.C. 300f <i>et seq.</i>). (Section V (A))</p> <p>30. Do not allow the discharge of waste or by-product material into water if it contains any substance in concentrations which will result in harm to fish or wildlife, or to human water supplies. (Section V (B))</p>

USFS/BLM Roles/Responsibilities	BDD Board Roles/Responsibilities
	<p>31. Protect the scenic esthetic values of the permit area and the adjacent land to the greatest extent possible during construction, operation, and maintenance of the authorized improvements (Section V (C))</p> <p>32. Take reasonable precautions to prevent or discourage vandalism or disorderly conduct and contact the appropriate law enforcement officer to address these problems (Section V (D))</p> <p>33. Obtain prior written approval to use pesticides or herbicides. (Section V (E))</p> <p>34. Immediate notify the authorized officer of antiquities or other objects of historic or scientific interest or human remains, funerary objects, sacred objects, or objects of sacred patrimony. (Section V (F) and (G))</p> <p>35. Take any protective and mitigative measures specified by the authorized officer related to threatened, endangered, and sensitive species (Section V (H))</p> <p>36. Obtain prior written approval from the authorized officer to store hazardous materials (Section V (I))</p> <p>37. Pay an annual land use fee as specified by the authorized officer (Section VI (A))</p> <p>38. Notify the BLM and USFS of any significant ground disturbing maintenance activity at any BDD Project facility</p>

1.4 Management and Staffing

The BDD Board is responsible for the management and staffing.

1.4.1 Management and Staffing

The BDD Facilities Manager, manages, operates, and maintains BDD facilities subject to the policy direction and governance of the BDD Board to divert, treat, and deliver water to the BDD partners.

The BDD Chief Operator, BDD Facilities and Equipment Maintenance Superintendent, and BDD Automation and Security Systems Administrator report to the BDD Facilities Manager. They have line responsibility.

Three additional professional support staff members with limited supervisory responsibilities report to the Facilities Manager. They include the BDD Regulatory Compliance Officer, the BDD Fiscal Manager and Business Administrator, and the BDD Safety Officer and Training Administrator.

BDD Operators are required to have and maintain the New Mexico Environment Department (NMED) certification for operators and is supplemented by BDD specific training addressing the theory and standard operating procedures for all unit processes and the extensive project facilities, equipment and software. New staff must satisfactorily complete a formal, full-time

training and certification program before working at BDD operations. Figure 3 illustrates the BDD Management, Operations, and Maintenance organization.

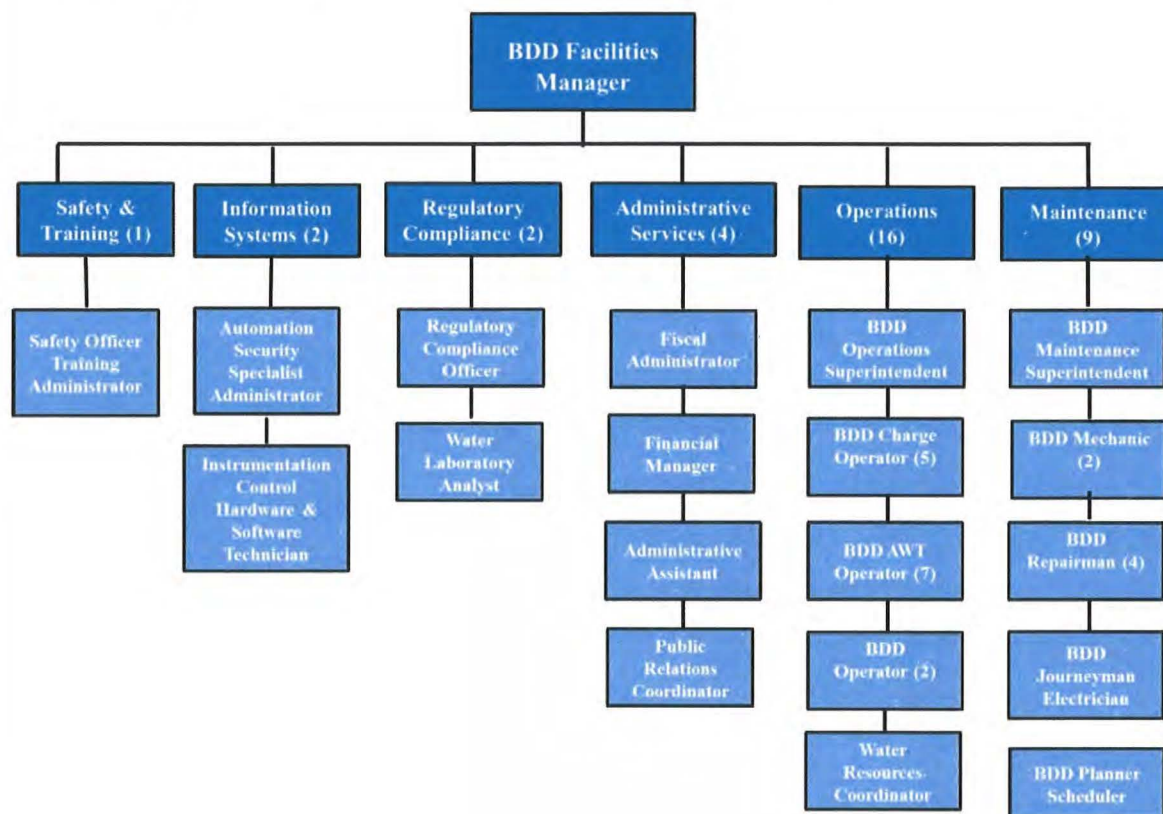


Figure 3: BDD Organizational Chart

Descriptions of the positions shown in the organization chart are as follows:

The BDD Operations Superintendent manages and supervises operating shifts consisting of a Charge Operator, AWT Operators, and Operators in order to oversee the automated and manual operation of the BDD facilities 24 hours per day, seven days per week, continuously. The BDD includes a sophisticated Supervisory Control and Data Acquisition (SCADA) system providing for centralized monitoring and adjustment (supervisory remote control) of all facilities. This automation makes it possible for a crew of two-three operators per shift to operate the BDD raw water diversion and pumping system by automated remote control and to operate the normal and advanced water treatment processes that comprise the BDD Water Treatment Plant. If plant operations are proceeding normally, these operators may also be able to operate the solids (sludge) handling and dewatering systems.

Routine shifts are designed to have, at a minimum, a Level III or IV and an Advanced Water Treatment (AWT) Operators present. The State requires the shift Charge Operator to have a Level IV Water Operator's License. The AWT Operators will have at least a Level III Water

Operator's License. It is essential that both understand the theory of the BDD water treatment processes, the BDD processes and systems, proper operations of the BDD equipment and controls, and BDD procedures and policies.

Normally, the Shift Charge Operator will be in the control room interacting with the SCADA system, closed circuit TV monitoring system, and the security system. The AWT Operator will be in the field, observing the operations of each process, observing equipment operation, observing water quality, collecting samples and running process control tests, and communicating with the Charge Operator by radio. If processes are not running in the automated mode due to equipment or system problems, the AWT Operator will make calculations about chemical feed rates and other unit process parameters and will manually operate or adjust process equipment. Safety and security requires a minimum of two operators on duty at all times.

The BDD Board has contracted a private security firm to patrol BDD Facilities as an added measure of security and to help enforce restrictions on off road vehicles that may use Old Buckman Road for recreational purposes. The BDD's highly automated system will increase process stability, efficiency, and reliability while optimizing chemical and operations labor costs. Achieving these benefits requires that the automated systems be in well maintained and reliable operation.

The Maintenance Department is staffed with industrial power and controls electrician(s), mechanics, and instrumentation and control (I&C) hardware and software technicians. The BDD Facilities and Equipment Maintenance Superintendent supervises and manages the entire staff in the Maintenance Department.

The BDD Automation and Security Systems Administrator is responsible for preventive maintenance, calibration, and repair of instrumentation and control loops. The responsibilities of the Administrator include refining the control loops, updating the operator/automation system interfaces and reporting software to meet needs, and training operators to effectively use the automated and remote control systems, including the security systems.

2.0 Facilities and Operations

2.1 General Information

The BDD provides infrastructure to divert San Juan-Chama (SJC) Project water that is contracted to the Partners. The BDD is permitted to divert 5,605 AFY of San Juan-Chama water under Office of the State Engineer Permit 4842. In addition, Santa Fe County has 183 AFY of native Rio Grande water rights that may be diverted by the BDD. This shifts Santa Fe's core water supply from groundwater to a sustainable surface water supply while diversifying Santa Fe's water supply options. Planning, permitting and obtaining environmental approvals have been underway since 2001.

2.1.1 Operations Department

The operation of the BDD raw water system and the water treatment plant (WTP) must meet the water demands and operational needs of the BDD's partners. Therefore, the BDD facilities have been designed with significant operational flexibility to meet planned demands.

Water is diverted from the Rio Grande through a diversion structure with a 32.2-cfs (20.8 million gallons per day or mgd) peak duty capacity (Figure 5). This facility is designed based upon three diversion cells normally in use and two diversion cells in standby. Therefore, the hydraulic capacity of the facility is much higher than peak duty capacity, estimated to be approximately 35-mgd with all units in operation. The Raw Water Lift Station (RWLS) pumps water through pipelines from the diversion structure to the Sediment Return Facility (SRF). The RWLS normal peak operating capacity is 20.8-mgd (including about 2.6-mgd of sediment return carriage water for returning sediment to the river) with a minimum operating capacity of 3-mgd. The hydraulic capacity (with the addition of the two standby units in operation) is 34.7-mgd.

Treatment of the diverted water is accomplished at the Buckman Regional WTP with a finished water peak capacity of 15-mgd. Losses and return flows in the various treatment processes requires a feed

water hydraulic capacity of 16.6-mgd from the raw water storage basin, 15.9-mgd from the sedimentation basins, 15.1-mgd from the membrane filters and 15.0-mgd from the GAC contactors. However, water is returned from certain processes to the presedimentation basins so

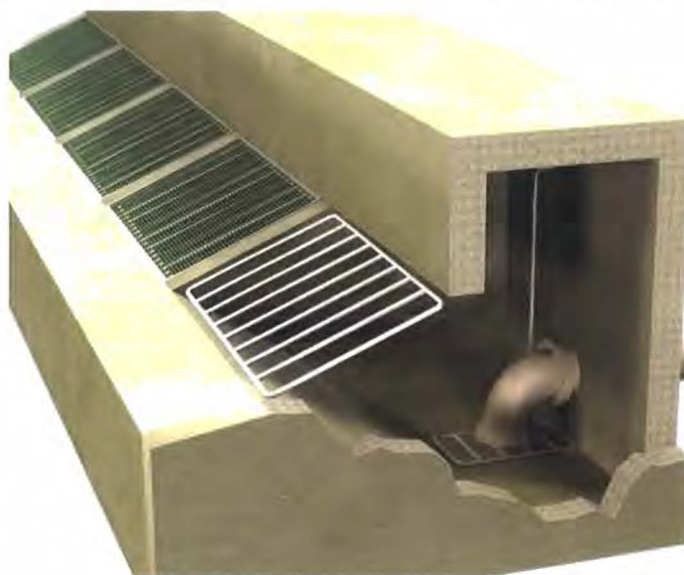


Figure 4: Rendering of Diversion Structure at BDD

that the nominal peak flow from the raw water system to the WTP is 15 million gallons per day (MGD).

Two booster stations (BS4A and BS5A) are located at the WTP. BS4A has an initial hydraulic capacity of 10-mgd and 15-mgd in the future. BS4A pumps finished water to the City's BS3 for distribution of finished water into the City's distribution system via the Buckman pipeline, and the BS3/4 Parallel Pipeline, to the City's 10-MG Storage Tank. BS5A conveys up to 10-mgd of finished water to the southwest portion of the City of Santa Fe water system and connected to the City and County's distribution systems. BS4A and BS5A also provide utility and potable water to the WTP, backwash water for the GAC Contactors, and fire protection water.

The BDD is permitted by the FEIS and ROD to divert water for Santa Fe County, the City of Santa Fe, and for Las Campanas, LP (BDD Partners). Each of the BDD's Partners is responsible for their own water right portfolios (BDD Facility Operations and Procedures Agreement FOPA Section 8) and coordinates with the BDD Facilities Manager to develop and implement an Annual Operating Plan for the diversion of those water rights (BDD FOPA Section 27). The BDD Facilities Manager provides a copy of the draft Annual Operating Plan to USFWS on or before November 1 of each year. If requested by the USFWS, the BDD Facilities Manager holds a meeting during the first week of November to discuss the draft Annual Operating Plan and shall consider recommended changes to the Annual Operating Plan in consultation with the BDD Partners. The BDD Facilities Manager participates with other water users, diverters and stakeholders in the Middle Rio Grande in meetings, telephone calls and other communications regarding water operations. The BDD Facilities Manager (in consultation with BDD's Partners) has the discretion to, and shall not be required to; change the Annual Operating Plan in order to minimize native Rio Grande water right diversions during periods of low flow. The BDD Facilities Manager commits to participate in the current water operations calls and communication or other mechanisms as they are developed and implemented over time. The USFS is copied on all documents submitted to the USFWS, per the requirements in the Special Use Permit.

Due to the physical limitations of the diversion structure, water cannot be diverted from the Rio Grande when the total flow in the Rio Grande at Buckman is below 150 cfs.

As result of the Endangered Species Act Section 7 consultation, the BDD proposed a staged curtailment plan as part of the proposed action. The plan is based on the measured flows of the Rio Grande at the Otowi Gage upstream of the Buckman diversion. The BDD evaluated the effects of native water diversion at the Buckman diversion on flows downstream to Albuquerque. That analysis determined that when flows at the Otowi Gage were over 325 cfs, flows at the Central Gage in Albuquerque were sufficient to meet the 100 cfs requirement of the 2003 Middle Rio Grande Water Operations Biological Opinion covering Reclamation's, the U.S. Army Corps of Engineers' and related non-Federal actions on the Middle Rio Grande (2003 BO).

The staged curtailment plan for reduction in diversions of Rio Grande water at Buckman will operate during the irrigation season (March through October), which is the period of highest water use for irrigation, evaporation, and riparian demands that can result in a drying of portion of the river. The decision to curtail would be based on a 5-day running average

measurement of native flows (those flows except SJC water released for municipal and industrial consumptive use) at Otowi Gage where the measurements showed a decline at or below 325 cfs. When this occurs, diversions of native Rio Grande water are curtailed according to the schedule in Table 2.

Table 2: Curtailment Schedule for Buckman Project Diversion of Rio Grande Flows when Otowi Gage Native Flows are below 325 cfs.

Native Flow in cfs	March	April	May	June	July	Aug	Sept	Oct
325 and above (no reduction)	3.82	4.6	6.87	8.55	7.95	7.56	6.57	5.09
300	3.05	3.68	5.50	6.84	6.36	6.05	5.26	4.07
280	2.44	2.95	4.40	5.47	5.09	4.84	4.21	3.26
260	1.83	2.21	3.30	4.10	3.82	3.63	3.16	2.44
240	1.22	1.47	2.20	2.73	2.54	3.42	2.10	1.63
220	0.61	0.74	1.10	1.37	1.27	1.21	1.05	0.81
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

The BDD may stop or reduce diversion from the Rio Grande when the quality of the raw water may have an adverse impact on raw water facilities and pipelines or the treatment process. The most likely cause of poor raw water quality is a high sediment load in the river. Evaluation of sediment load may be determined by total suspended solids, settleable solids, turbidity, physical appearance, and/or other factors.

The BDD will stop diverting water from the Rio Grande when contaminants from Los Alamos National Laboratory (LANL) in Pueblo Canyon or Los Alamos Canyon could potentially contaminate the Rio Grande. The flow of water through these canyons is intermittent and is usually only significant during a storm event or snow melt runoff.

LANL has installed and operates an Early Notification System based on real-time stream flow data from two gaging stations that will enable the BDD to make decisions regarding facility operations, including temporarily ceasing diversion of water from the Rio Grande. The purpose of the Early Notification System is to provide real time stream flow data to the BDD at the following locations:

- Station E060.1 in Pueblo Canyon above the Los Alamos Canyon confluence,
- Station E050.1 in Los Alamos Canyon above the Pueblo Canyon confluence, and

The components of the Early Notification System include two stations each equipped with gaging (flow measurement) capabilities, real-time conveyance of stream-flow data, imaging capabilities and automated storm water samplers. The purpose of these stations is to provide water quality contaminant sampling during flow events at the Stations described above in order to characterize contaminants in Los Alamos and Pueblo Canyon flows. These stations are

equipped for event sampling, including automated samplers that are triggered by the occurrence of runoff at these stations. A system of autosamplers triggered by the Early Notification System is located very near the diversion structure at Buckman. These autosamplers are operated and maintained by BDD personnel.

2.1.2 Maintenance Department

While the near-river facilities (diversion structure and raw water lift station) are designed to operate without an operator present, the rest of the BDD facilities require routine maintenance and inspections including occasional troubleshooting. Raw and finished water pipelines require maintenance such as occasional flushing, lubrication and exercising of valves. Booster Stations 1A and 2A require routine maintenance and BDD staff visit these facilities on a daily basis to evaluate the facilities.

The BDD is continuously staffed with a least two operators at all times. In addition, the BDD maintenance personnel are available at all times and are responsible for performing preventative and emergency maintenance at the treatment plant, raw water facilities, and pipelines.

2.1.3 Changes on public land

The BDD is required to perform certain environmental mitigation measures pursuant to the Project's NEPA Environmental Impact Statement. A large part of these prescribed mitigation efforts will be to restore and improve sensitive riparian and upland habitats, that will involve costly removal of non-native tree and shrub species and replacement of native trees, shrubs, and understory plants and grasses. However, the installation of new native plant species will be at risk for up to 10 years until the plants become established and self-sufficient.

One specific risk will be the potential destruction of the new plants by grazing and foraging cattle as they make their way down to the Rio Grande to access drinking water. Therefore the cattle must be fenced out of the sensitive at-risk restoration areas, but as a result, the cattle will require a new source of water to replace water from the river. The work that is required will be to erect a set of fences and a new livestock watering tank and ancillary facilities. This must be connected to the City's Buckman Well Number 4, and integrated into the existing system of fence lines and livestock watering system in order to render the required functionality.

2.1.4 Environment, health and safety

Existing City health and safety practices are integrated into the operations and maintenance manuals of each facility. BDD project-specific health and safety plan includes documentation on the safe operation of all BDD facilities.

For all BDD facilities, basic physical security and personnel protection measures have been considered, including locks for access ladders, hatches, buildings, gates, and doors; bollards to prevent vehicle damage; back-up generators or battery supply for emergency power of alarms, security systems, fire alarm systems, communications and life safety devices; and appropriate signage and lighting. Specific BDD facilities plans include: confined space procedures, emergency preparedness plan, disinfection procedures, and chemical safety plan. In the event of

a chemical spill or emergency that may have an impact on the environment, BDD staff will make best efforts to contain the spill and immediately contact a professional clean up company. On site, mitigation measures are already in place such as adequate double containment of each specific chemical.

The following hazards may be encountered at some, if not all BDD Facilities:

- Confined space
- Work in/near an open waterway
- Venomous and wild animals
- Severe weather
- Electrical equipment
- Moving parts on equipment
- Loud interior noises
- Isolated remote location
- Work in traffic right-of way
- Electrical equipment
- Chemical exposure
- Liquid and gaseous oxygen; gaseous ozone
- Heavy equipment traffic
- Chemicals at booster stations

2.2 Raw Water Facilities

2.2.1 Diversion intake

Description and Design

The Diversion Structure is on the southeast bank of the Rio Grande. The length of affected river shoreline is approximately 114 feet including the 56 foot long concrete diversion structure and 29 feet of erosion control material both upstream and downstream of the diversion structure. Figure 4 shows a drawing of the diversion structure. The diversion includes a side inlet structure with five separate diversion cells. Each cell has fine, v-notch fish/sediment screens to prevent the entry of aquatic organisms and biota.

Operation and Maintenance

The facilities are designed to divert a peak flow of about 32 cfs. System demands govern the actual diversion flow. The Diversion structure can operate 24 hours per day, but actual operation is based upon system demands. A cleaning system using compressed air operates automatically on a daily basis to clean debris and sediment buildup on the intake screens. The cleaning system discharges compressed air through the screens below the water surface. The screen cleaning process operates for a short period per cycle per screen. The cleaning system also operates when pumps are started. The daily diversion volume during any given month varies from a net flow of zero to 28.2 cfs, averaging 12 cfs over the course of a year. Because of system redundancies at all facilities, in most cases, maintenance can be performed on the facilities and equipment during operation. Shut down of the diversion facilities for maintenance will occur at most a few times per year. BDD staff shall notify the USFS of any significant ground disturbing maintenance activity.

Locking access hatches have been installed for each intake cell. Although it is not expected that it will be necessary to enter the diversion cells on a regular basis, measures have been taken to isolate a cell with a specially design box or by using a water tight panel that cover the intake cell opening. After installation of the watertight box or panel, a portable submersible pump is used to pump down the Diversion Structure cell in order to perform the maintenance or clean out. The intake screens and air backwash manifolds are designed so that they can be removed from the Diversion Structure. The screens' air backwash manifolds are designed such that they can be dismantled and removed by a boom truck when necessary.

2.2.2 Raw water lift station

Description and Design

The Raw Water Lift Station (RWLS) consists of a low-head pump station, equipment vault, and piping. The lift station consists of a mechanical and electrical building, a low-head pump station, and an unroofed electrical enclosure. The low-head pump station is constructed of reinforced concrete, both below and partially above grade designed to minimize visual impact from White Rock overlook. The RWLS conveys water from the diversion to the Sediment Removal Facility (SRF). The maximum net diversion flow (total diversion less returned carriage water) is 28.2 cfs.

An access road on top of the pipeline alignment from the Diversion Structure to RWLS was added during construction. Prior to the addition of this access road, Buckman Road was the only access to the RWLS. However, Buckman Road in this location is located within an active arroyo and may not always be usable. The new access road provides a safer and more stable road while staying within the area analyzed in the FEIS. This short length of access road was developed in consultation with the U.S. Forest Service as an alternative to developing the Buckman Roadway through this active arroyo. During a site tour with the USFS it was agreed to that this secondary roadway should become the primary roadway to the RWLS area, which also provides the required public access to the river area downstream of Buckman Road. The lift station building is mostly below grade, whereas the electrical building has soil and/or vegetation on the sides facing White Rock Overlook.

Operation and Maintenance

The low-head pump station is operated remotely through the SCADA (Supervisory Control and Data Acquisition) system to turn pumps on or off as needed. Because of system redundancies at all facilities, in most cases, maintenance can be performed on the facilities and equipment during operation.

For all outdoor PNM and facility distribution electrical equipment such as switchgears, transformers, etc., concrete block walls surround each piece or group of equipment on four sides (open top) to provide an additional layer of protection. A set of bullet-resistant double doors has been provided to allow access and installation/removal of the equipment. For the ventilation louvers at the RWLS facility buildings, a similar three sided (open top) concrete block wall has been constructed. The RWLS will be equipped with a bullet-resistant door for personnel access. BDD staff shall notify the USFS of any significant ground disturbing maintenance activity.

The following design provisions were used to protect the public from inadvertent incursion to the RWLS:

- Non-reflective galvanized perimeter chain-link fencing with concertina wire (razor wire) around the individual facilities with bullet-proof rated warning signage for deterrence and protection
- Shackled-protected locks to prevent breach with a bolt cutter or firearm
- Bullet-proof rated restricted access signage
- Bullet-proof rated restricted vehicle access signage
- Video surveillance via CCTV cameras (triggered by motion sensors), cameras and lenses installed in bullet-resistant metal enclosures, monitored by staff at the WTP.
- Continuous video surveillance of the Diversion Structure.
- Perimeter protection utilizing intruder technology.
- Card access/security system protected with card access/security system bullet-resistance covers.
- Bullet-resistant doors with hinged covers for handles and locks

The Buckman Direct Diversion Board, vested entities, contractors, etc. are responsible for any release, characterization, and remediation of hazardous substances, hazardous waste, pollutants, or contaminants from the drains in the RWLS. The USDA Forest Service has the right for full cost recovery for all efforts expended. The BDD Board, vested entities, contractors, etc. are not responsible for conditions existing before construction of the RWLS.

2.2.3 Sediment removal facility

Description and Design

The sediment separation equipment removes larger sediment (sand and gravel > 0.075 mm) from the water that is diverted from the Rio Grande. The finer silt and clay particles are pumped through the system and removed at the WTP. However, about 25 percent of the sediment is coarser sand particles that are removed by centrifuged separation of sediment at the Sediment Removal Facility (SRF) (adjacent to BS1A) approximately 1 mile from the diversion facility. These sand-sized particles are removed from the water soon after diversion to prevent accumulation and damage to the pipelines and pumping facilities. These sand particles are returned to the river along with a portion of the diverted water under an NPDES permit (Permit No. NM0030848) issued by the USEPA. It is anticipated that there will be occasions when sand removed from the raw water at the SRF will be trucked out rather than discharged back to the river. In these cases, the sand will be discharged to grit basins and will be removed with a loader and dump truck. Since this material is moist and is sand/grit sized material, dust from the grit basins is not anticipated. Trucking of sand from the SRF will occur on an as-needed basis, but is not expected to exceed 6 to 12 times per year. The sand will either be offered to local aggregate businesses or disposed of at the Caja del Rio landfill.

Operation and Maintenance

The SRF separates sediment from raw water diverted from the Rio Grande through a number of centrifugal separators. Flows into the SRF are governed by the RWLS and out of the facility by BS1A operation. The return flow of sediment out of the facility back to the river is controlled by an automated pumping system connected to the SCADA control system with the addition of carriage water. As the diverted water goes through the RWLS, the water is pumped in three pipes to the SRF. Three inlet flow meters measure the flow from the RWLS where it enters the SRF. The raw water meters are totalizing flow meters with continuous data recorders, one on each of the three pipelines will be used to measure the total amount of water diverted from the Rio Grande on a real-time continuous basis. A fourth totalizing flow meter, is on the sediment return pipeline to measure the flow of water back to the river. BDD Staff shall notify the USFS of any significant ground disturbing maintenance activity. Security features similar to those described for the RWLS are utilized at the SRF.

2.3 Raw Water Pipelines and Booster Stations 1A and 2A

Description and Design

The raw water pipelines consist of four distinct reaches: 1) from the Diversion Structure into the RWLS; 2) from the RWLS to the SRF approximately one mile to the south; 3) from the SRF to 2A approximately 5 miles south; 4) from 2A to the Buckman Regional Water Treatment Plant (BRWTP) approximately five miles further south; and 4) a separate Raw Water pipeline for Las Campanas only that extends between BS2A near Dead Dog Well and Las Campanas.

Five 18-inch pipelines extend between the Diversion Structure and the RWLS. These pipes are within the 2.155 acres of permanently disturbed land attributed to the Diversion Structure and

RWLS. To protect these pipes from damage due to river flooding, the bedding and pipe zone have been backfilled with controlled low strength cement material.

The pipelines between the RWLS and the SRF are 3,400-ft long and the width of the permanent utilities is 20 ft. to accommodate all three pipes plus a utility water pipe, a fiber optic line, and the sediment return pipe. This area, 20-ft wide over the 3,400-ft is 1.6 acres. Three smaller pipelines (plus the sediment return pipeline) were selected to transmit the raw water from the RWLS to the SRF so that the velocity of water in the pipelines is maintained at a level high enough to prevent sediment deposits in the pipes. Due to the expected variation in diversion flow, the number of pipelines in use and the flow through the pipes will likewise vary. If one large pipe was used, it would be susceptible to settling of solids when the velocity of water decreases. The velocity of water in three smaller pipelines can be controlled by opening and closing valves. Control of flow will be done remotely with the SCADA system and does not require an operator at the site. The utility water pipeline is needed to provide equipment water for operation and maintenance of equipment at the RWLS from a utility water system at BS1A. The sediment return pipeline will convey separated solids removed at the SRF back to the Rio Grande.

A single pipeline conveys raw water from the Sediment Removal Facility/BS1A to BS2A. One pipeline conveys water from BS2A to the BRWTP. A parallel pipeline and fiber optic conduit have been constructed from BS2A to Dead Dog Leg Well (a landmark on the Buckman Road) which will eventually go to the Las Campanas Wastewater Treatment Plant effluent ponds.

Booster stations 1A and 2A (BS1A and BS2A) house pumps and other equipment that move the water through the pipelines from the sediment removal facility to the BRWTP. BS1A and BS2A are similar in appearance, both have a building that houses the pumps and both have a storage tank that serves as a forebay for the pumps. The forebay tanks have an operating volume of 350,000 gallons and have a gravel access road to them, within the fenced area. The storage tanks are made of steel and are painted to blend in with the surrounding environment. Figure 5 shows the storage tank at BS1A. BS1A is adjacent to the SRF. The color and texture of building and roofing material were selected to blend in as much as possible with the surroundings. Booster Station 2A contains two pump stations within one building: one for Las Campanas to pump to the Las Campanas Wastewater Treatment Plant effluent ponds and one for the City/County to pump to the BRWTP.

A fiber optic communication line is installed parallel to the Raw Water pipelines. A fiber optic communication line conduit has also been installed for Las Campanas along with the Las Campanas Raw Water pipeline.



Figure 5: Storage Tank at BS1A

Operation and Maintenance

The new pipelines typically do not require additional attention. Conditions of the pipe are monitored through flow meters and pressure sensors at adjoining booster stations. Accuracy of the flow meters is maintained to determine if substantial leakage occurs between booster stations. The actual frequency of pipe leaks cannot be predicted but based upon the strength of the proposed pipe, repair frequency could be as little as once in 20 years. The current Buckman Wells line has had no substantial leaks or breaks in nearly 30 years of operation.

Monitoring of the flow data is conducted continuously using the SCADA control and monitoring system. Operators travel the length of the pipeline in combination with other facility visits previously discussed. Additionally, valves located on the lines and other appurtenances are maintained or otherwise operated quarterly to ensure continual proper operation. Air/vacuum relief valves and meters located along the raw water system require periodic maintenance. Periodic cleaning of the pipe or condition assessment is done as necessary, but likely no more than once every 3 to 5 years. Blow off stations have been located at low points along the pipeline. This maintenance will require complete flushing of the pipe segment and disposal of the flushed water. At a minimum, test stations are used to monitor pipeline corrosion which require annual testing. The BDD Staff shall notify the BLM and USFS of any significant ground disturbing maintenance activity.

For the pipelines between BS1A and BS2A, and BS2A and the BRWTP, a minimum velocity of 2 fps is needed to prevent settling of sediment during operations. Although the particle size dictates only 1 fps is necessary, a higher 2 fps velocity reduces sedimentation at bends and other pipeline appurtenances. However, sediment in the water remaining in the pipelines when the system is not in operation settles so re-suspension of settled materials is needed when the pipeline is put back in operation. Startup of the pumps at both BS1A and BS2A provides a minimum initial velocity of 4 fps or higher for re-suspension of settled material.

Sedimentation within the pipeline may cause the system capacity to lessen over time by increasing head losses and increasing the amount of maintenance required. Periodically, a "cleansing" velocity of at least 5 to 6 fps is used in the pipelines between BS1A and the BRWTP. As is standard practice, the pipeline segments shall periodically need routine maintenance and inspection.

2.4 Buckman Regional Water Treatment Plant

Description and Design

The BRWTP is on BLM land at a location north of the Santa Fe Municipal Recreation Complex (MRC). The BRWTP comprises raw water storage, pretreatment, filtration, disinfection and finished water storage and pumping facilities. A schematic of the BRWTP layout including labeled process units is presented in Figure 6.

Operation and Maintenance

Operations and maintenance for the entire Buckman water system (BDD) will be conducted primarily from the BRWTP. Under normal weekday operations, there is a total of 19 staff members at the BDD. This includes Maintenance (7), Charge Operators (1), Operators (2), Administrative and Lab staff (2) and senior staff (7). During night time and weekend operations there are 3 staff members at BDD: Charge Operators (1) and Operators (2).

Operators oversee operation of the plant utilizing direct observation plus instruments and an automatic monitoring and data storage system. Extensive recordkeeping is essential for both regulatory requirements and optimization of the treatment facilities.

There is a diverse collection of mechanical equipment necessary for proper operation of the BRWTP including pumps, solids thickening centrifuges, mixers, strainers, membrane equipment, pressure filter vessels, valves and sluice gates, analytical devices, and materials handling equipment. BDD operations and maintenance personnel are responsible for the proper operation and maintenance of this and all other project facilities.

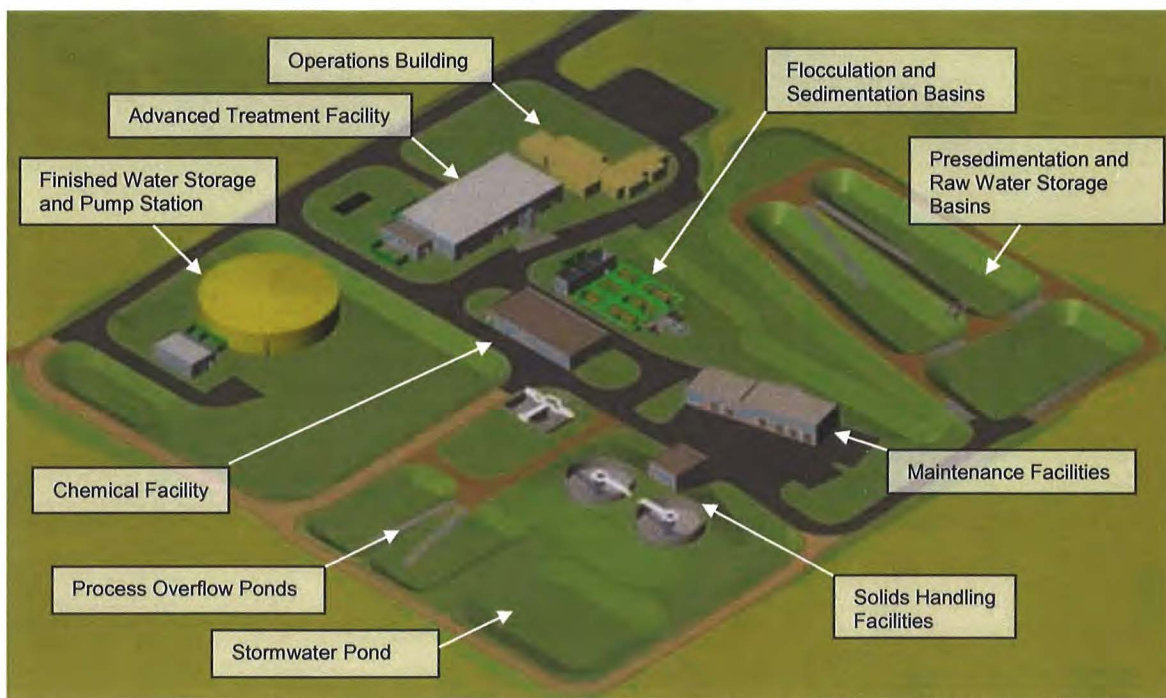


Figure 6: Layout of Buckman Regional Water Treatment Plant

Maintenance of the access corridors and rights-of way to BDD facilities including the BRWTP are managed by BDD staff.

Continual optimization of chemical feed systems in response to water quality changes is important in order to provide high quality drinking water as well as minimize sludge volumes. Water quality monitoring instruments are necessary to assist operators in this endeavor and include particle counters, turbidity monitors, pH and temperature meters, and chlorine residual

analyzers. Approximately one month's supply of each chemical is stored at the WTP. Chemicals are delivered separately and are stored in separate secondary containment areas. Chemical transport and storage meets requirements are set by State and Federal regulations. Compatibility of chemicals with the materials of construction was considered during design and mitigation measures are in place to reduce the likelihood of corrosion of facilities from treatment chemicals. Chemical pipelines have secondary containment and have leak sensors to alert operators of leakage. A chemical truck off-loading containment system is used to prevent leakage of chemicals to the environment.

Solids generation is a component of drinking water treatment plant processes. A portion of solids settle out in the presedimentation basins (Figure 7). Solids are further separated from water in the sedimentation basins and in the membrane filtration process (Figure 8). These solids are also thickened in solids thickeners and the water content further reduced through the use of centrifuges (Figure 9). The thickened solids are hauled and disposed of at the Caja del Rio Landfill located just southwest of the treatment plant.



Figure 7: Presedimentation Basins at BRWTP



Figure 8: Membrane Arrays at BDD during Installation (Modules not Installed yet)



Figure 9: Dewatering Centrifuges at BDD during Installation

Liquid oxygen (LOX) is stored at the BRWTP and is used to produce ozone. Hazards associated with chemical handling were considered during design and mitigation measures were implemented during construction.

A standby generator at the BRWTP provides emergency power for lights and life safety systems in the event of an electrical outage. The generator uses diesel fuel and the fuel tank size is approximately 300 gallons and built into the generator enclosure. There are extensive chemical

handling facilities at the BRWTP including storage, feed pumps, chemical feed pipelines, and injection. The following chemicals are used at the BRWTP:

- Ferric Chloride
- Sodium Hydroxide
- Calcium Thiosulfate
- Sodium Hypochlorite
- Zinc Orthophosphate
- Sulfuric Acid
- Hydrofluorosilicic Acid
- Ozone (generated on-site)
- Polymer

Natural gas is conveyed to the BRWTP through a New Mexico Gas pipeline and is used for heating and hot water systems.

2.5 Booster Stations BS4A and BS5A and Finished Water Pipelines

Description and Design

BS4A conveys treated water to the City's existing BS3 which feeds into BS4 and the 10-MG storage tank, which in turn supplies the City and County distribution systems in the northeast portion of the City. BS5A conveys treated water into the City and County distribution system through new piping connected to the southwest portion of the system (Figure 10). There are five finished water pipelines included in this Project: BS4A; BS3/4 Parallel Pipeline; Caja del Rio; NM-599 and South Meadows Road Finished Water Pipelines.

The BS4A Finished Water Pipeline begins at the BRWTP and ends at the City's existing Buckman BS3. The length of this pipeline is approximately 4 miles, and is located primarily within western limits of the Las Campanas Drive and Caja del Rio Road rights-of-way. The diameter of this pipeline is 30-inches. This pump station fills the 10-MG Tank in the northwest part of Santa Fe and provides water to this service area. BS4A is sized to pump 10.0 mgd to existing BS3 as currently planned and up to 15 mgd in the future. The 24-inch BS3/4 Parallel Pipeline also conveys water from BS3 to BS4. Las Campanas will receive finished water from the pipelines between BS3 and BS4.

The Caja del Rio Potable Water Pipeline begins at the BRWTP and ends at New Mexico Highway 599 (NM-599). The length of this pipeline is approximately 4 miles long, and it is located in the western Caja del Rio Road right-of-way until reaching NM-599. The diameter of

this pipeline is 24-inches. This is primarily a transmission pipeline to serve the NM-599 pipeline and the South Meadows Potable Pipeline; however a few future connection locations have been included to serve facilities along Caja del Rio road.

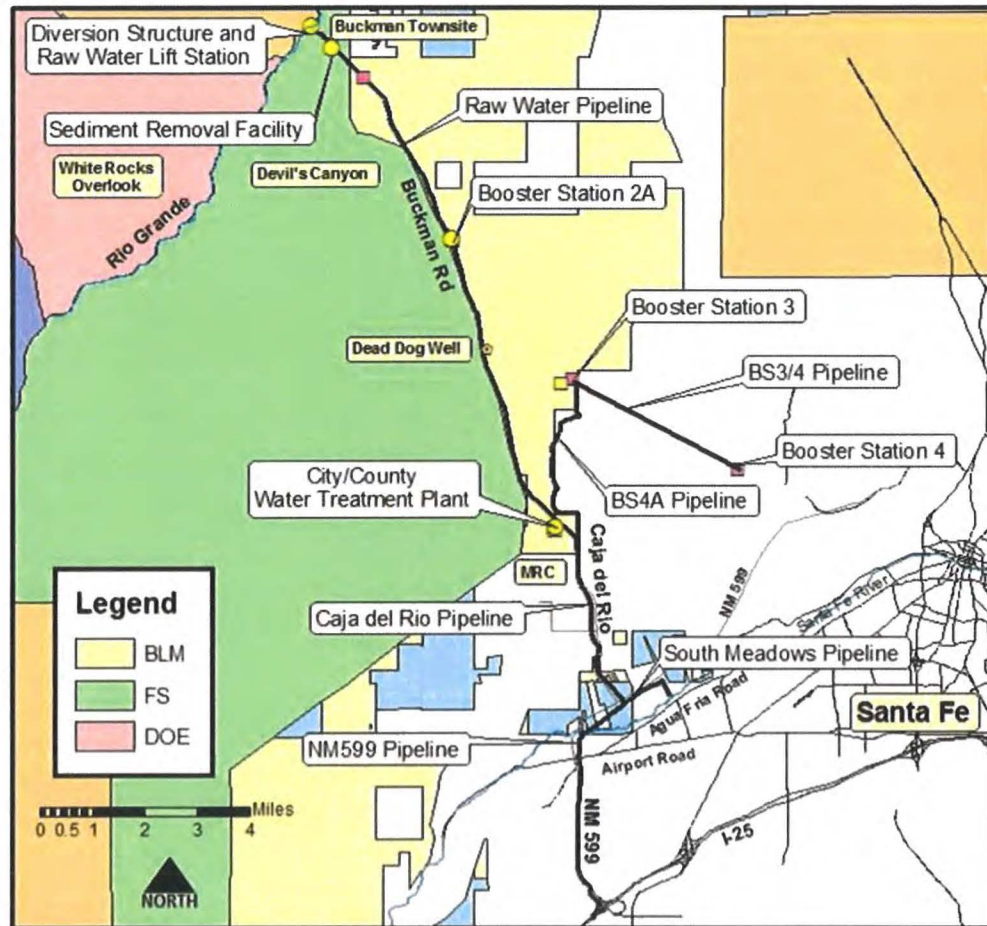


Figure 10: BDD Finished Water Pipelines (Highlighted in Red)

The NM-599 Potable Water Pipeline begins as a continuation of the Caja Del Rio pipeline at a 90-degree bend at the intersection of Caja del Rio Road and NM-599. The pipeline ends approximately 5 miles south after crossing beneath Interstate Highway 25. The pipeline follows the western road right-of-way along NM-599. This pipeline is not on land managed by Federal agencies. This pipeline connects to the Santa Fe County distribution system south and east of I-25, and at Airport Road and NM-599 to serve existing distribution system near the Santa Fe Municipal Airport.

The South Meadows Road Potable Water Pipeline begins at a tee provided in the Caja Del Rio Potable Water Pipeline at the intersection with NM-599. This pipeline traverses northerly within the northern frontage road right-of-way of NM-599 and turns south, crosses under

NM599 and follows South Meadows Road where it connects to a newly constructed pipeline north of a planned bridge at the Santa Fe River. This pipeline is not on land managed by Federal agencies. This pipeline serves the southern extents of the City of Santa Fe distribution system, primarily in Zones 7 and 8.

Operation and Maintenance

Operation and maintenance for the booster stations and finished water pipelines is the same as for Raw Water Pipelines and BS1A and BS2A (Section 3.3). However, pipeline flushing due to very fine sediment accumulation in the finished water lines will be much less frequent. Routine exercising of valves will be required to maintain functionality of appurtenances.

BS4A and BS5A operate while the BRWTP is in operation and also draw from the 4-million gallon finished water storage tank at the BRWTP even if the plant is not in operation. BS4A is controlled based upon the tank level at the existing BS3. BS4A is sized to pump 10 mgd to existing BS3 as currently planned and up to 15 mgd in the future. BS5A is controlled by system demands and pressure including the Southwest Tank level. BS5A is sized to pump 10 mgd to the City and County distribution systems. BDD Staff shall notify the BLM and USFS of any significant ground disturbing maintenance activity on federally-managed land.

The following chemicals are added at BS4A and BS5A to the treated water prior to distribution: sodium hypochlorite to maintain a disinfectant residual, sodium hydroxide for pH adjustment, zinc orthophosphate for corrosion control in the pipeline, and hydrofluorosilicic acid for public health dental decay protection.

3. Environmental Requirements

This section describes the required permits of the BDD: the Final Environmental Impact Statement (FEIS), Record of Decision (ROD), and all other permits issued for the BDD. The ROD also includes requirements in the implementing regulations of the Clean Water Act, the Endangered Species Act, the National Historic Preservation Act, and the Migratory Bird Treaty Act. Together, all of these regulations, commitments, conditions, and stipulations are referred to as the BDD environmental requirements.

3.1 Historical NEPA Compliance

The FEIS for the BDD was published in October 2006 and the ROD was signed in October 2007. The ROD articulates twenty-one required mitigation and monitoring measures that are part of the authorizations for the BDD facilities. Some of the mitigation and monitoring measures were completed during construction of the BDD. The remaining measures were addressed as the project moved into operations. The status of the ROD mitigation and monitoring measures were discussed by the BDD Facilities Manager and staff and the two lead federal agencies on a bi-monthly basis at the NEPA Implementation meetings. The progress of ROD mitigation and monitoring measures was also documented in periodic letters to the lead federal agencies. The purpose of the letters was to maintain a written record of the BDD progress and the concurrence of the lead agencies on that progress. Table 3 lists the ROD mitigation and monitoring measures. Appendix A was the most recent letter describing the status of each of these measures. Two plans were required in the monitoring and mitigation measures: aquatic species monitoring plan (ROD measure 7) and operations and sediment return plan (ROD measures 8 and 14). These plans are provided in Appendices B and C, respectively for historical perspective.

3.2 Permits, Easements, and Other Requirements

The permits, easements and other requirements necessary to design, construct, and operate the BDD in compliance with all applicable regulations or other requirements are described in this section. For the purposes of this plan, permits, easements and other requirements are defined as follows:

- *Permits* are written approvals by a governing agency allowing a specific action. A formal application process is required and conditions or stipulations are typically made part of the permit approval.
- *Easements and right of ways (ROWS)* are agreements to allow access to maintain and operate a facility, such as a pipeline, within property owned by another entity.
- *Other requirements* encompass stipulations of permits and other commitments necessary to comply with the regulatory requirements and other agencies' and utilities' procedures to complete a project.

Table 3: ROD Mitigation and Monitoring Measures

ROD Mitigation Item#	Description
1	Identify all flood plains, including those of the arroyo crossings and avoid them through directional drilling underneath, or adequately by-passing them with properly sized culverts, low water crossings, and placement of riprap (no concrete blocks, gabions, jersey jacks), where used. Use Best Management Practices (e.g. those identified in the 404 certificate) for crossings (FWCAR pp. 14, 18, 52, 54)
2	Obtain CWA 402 and 404 permits including any required toxicity testing as well as Section 401 water quality certification from the State of New Mexico (FWCAR pp. 41, 43, 54)
3	Design sand return to disperse TSS to the greatest extent practicable that minimizes the impacts of sedimentation on aquatic life (FWCAR pp. 36-43, 46-49, 52, 55)
4	Avoid release of chlorinated water by planning for and preventing pipe breaks at the crossings of the Santa Fe River or any other arroyos where piped water contains chlorine compounds or through restriction of the use of chlorinated water during dust suppression near aquatic habitats, flood plains or riparian areas. Construction and maintenance will be done per best management practices. In addition, no use of chlorinated water would be allowed where it could impact riparian/aquatic habitats (FWCAR p. 54)
5	Require, as a condition of any permits, all recommendations for species protection by USFWS & NMDGF to protect migratory birds, as well as avoiding wildlife entrapment during construction or trenching (FWCAR p. 54)
6	Before construction occurs in the near river environment, applicants must coordinate with the NMED, the LANL or any other appropriate entity to obtain the necessary analytical support. Specifically, before digging in the river area, conduct tests on surface and buried sediment in the route and if concentrations of radiological contaminants are found that exceed worker safety levels, the route would be modified to avoid such exposure. This measure would avoid exceeding health/safety or other standards (FWCAR p. 54)
7	Develop and implement an aquatic species monitoring program, in the vicinity of the Buckman Project, in collaboration with nearby landowners and stakeholders, to confirm actual impacts to aquatic life compared with the analysis, and implement an adaptive management program so as to incorporate the findings of this program. The purpose is to minimize impacts by the Buckman Project (FWCAR pp. 37-43, 54)
8	Develop a diversion and discharge operations plan that includes methods to minimize the potential effects to aquatic life, fisheries, or fish habitat (FWCAR pp. 37-43, 46-49, 52, 54)
9	Contract appropriate and qualified personnel to rescue fish or other aquatic life that become stranded in the area dried by the cofferdam (FWCAR pp. 34, 52, 54)
10	Minimize potential wildlife loss at onsite storage ponds and at Las Campanas surface water treatment plant lagoons with appropriate wildlife exclusion devices or deterrents techniques in consultation with appropriate wildlife agencies (FWCAR p. 54)
11	Rectify the impact to riparian vegetation and habitats by restoring the riparian system along this reach of the Rio Grande to the maximum extent practical. FWCA Report recommends no net loss of 6.61 acres of riparian habitat, in perpetuity (FWCAR pp. 29-30, 32-36, 55).
11.a.	In order to accomplish this objective, the revegetation plan described in the FEIS will include a riparian restoration section identifying the type of vegetation, timing of planting, location of plantings, monitoring protocols and frequency and adaptive management necessary to recover the lost

Table 3: ROD Mitigation and Monitoring Measures

ROD Mitigation Item#	Description
	riparian habitat value associated with the Buckman Project (FWCAR p. 55)
12	Rectify the impact to upland vegetation and habitats by restoring the native vegetation in this area to the maximum extent practical to benefit upland species. In order to achieve this objective, one or more of the following actions will be implemented: a. Rio Grande at Buckman site invasive plant control/riparian habitat restoration (about 30-40 acres available); b. County land dedication as open space for wildlife habitat. Santa Fe County has begun acquiring land for this purpose and expects to have several hundred acres potential for use during the next few years; c. La Cienega/Santa Fe River willow restoration/invasive plant control; d. Provide the Forest Service with assistance in enforcement of the existing non-motorized use on the east side along the Rio Grande (e.g. maintain closure behind City Well 8); e. Improvement of the watershed through planting of vegetation along the Canada Ancha. The focus of this effort will be along those portions of the watershed affected by the pipeline and road improvements, which also provides stability for these improvements (FWCAR pp. 33-34, 36, 44).
13	Compensate for the loss of up to 6.98 acres of aquatic habitat/wetlands by replacing or providing substitute resources or environments for the acres. This compensation will be undertaken to replace lost habitat value after all other forms of mitigation have been applied (e.g. effort to reduce habitat loss to TSS return). Specific habitat losses are described in the FWCAR (pp. 26-29, 34-43, 46-49, 52, 55). In order to achieve this objective, the following needs to be considered: a. To determine the relative compensation for different types of habitats lost and mitigated, the FWCAR recommends using habitat equivalency analysis (HEA). HEA provides a framework for determining the area required for compensatory restoration. As much as possible, this method, or one of equal validity, will be employed to make this determination of habitat replacement. b. Compensation can be in two forms. In-kind compensation measures are those that provide substitute resources that are physically and biologically different from the resources lost. Compensation is accomplished through management of habitat where there is potential for increasing its value or, in some instances, through protection of land where it can be predicted that all or part of its habitat value would be lost over time (FWCAR pp. 55-56)
14	The operations and sediment return plan will include conservation of fish and wildlife to avoid impacts (FWCAR pp. 29, 35, 44, 51, 52,54)
15	Work with Santa Fe County to include ordinances or BMPs that require low impact development techniques for storm water runoff and reduce irrigation needs (FWCAR pp. 51, 52, 54)
16	Encourage conservation of water to benefit fish and wildlife (FWCAR pp. 51, 52, 54)
17	The project proponents will seek to minimize the amount of native Rio Grande flows diverted at times when the likelihood of the river drying is high. A. Prior to implementation of the project, work with each other, the USFWS, and to the extent practicable the City of Albuquerque and Bureau of Reclamation, to establish a coordination strategy that will minimize diversions of native Rio Grande water during periods of low flow and associated river drying in the Middle Rio Grande (BO p. 44). b. Elements of this strategy may include identifying opportunities to modify diversion schedules at the Buckman Diversion and/or divert San Juan Chama water instead of native water to minimize reduction of silvery minnow habitat from March through October. Written documentation of this strategy must be submitted to the USFWS prior to the operation of the Buckman Direct Diversion Project (BO, p. 45)
Cons #1	Encourage conservation of water to benefit the silvery minnow (BO p. 45)
Cons #2	Support the efforts of the Middle Rio Grande Endangered Species Act Collaborative Program (BO p. 45)

Table 3: ROD Mitigation and Monitoring Measures

ROD Mitigation Item#	Description
Unnumbered 1	To ensure that locations on both FS and BLM administered lands are consistent with this decision, engineering maps and a staked centerline will be reviewed on the ground by authorized agency representatives (e.g. EPA, Corps of Engineers requirements) will be incorporated into an implementation plan (directed by FS/BLM) that will be integrated into the plan of development and operations
Unnumbered 2	As described in the FEIS, an additional requirement is for the Buckman Direct Diversion Board to designate a project manager to monitor all construction activities on FS and BLM administered lands and to coordinate with the designated agency representatives. The required monitoring will provide quality control for the project, and help develop the adaptive management strategy to respond to changing conditions

The permits, easements and other requirements that were necessary for construction and operation are described separately in the following sections. Table 4 provides a list of permits that have been obtained by the BDD. It indicated the status of each permit (pre-construction) and whether the permit was also required for operations of the BDD.

Table 4: BDD Permit Status

Issuing Agency	Permit Description	Status	Construction or Operations
Permits Required for Construction			
USACE	US Army Corps of Engineers, Permit for Diversion (Intake) Structure, River, and Arroyo Crossings	Permit issued June 19, 2007.	Construction
NMED SWQB	NM Environment Department, Surface Water Quality Bureau, USACE dredge and fill Certification	Certification issued on May 4, 2007.	Construction
NMDCA	New Mexico Department of Cultural Affairs, National Historic Preservation Act (Section 106)	SHPO concurrence was issued on November 26, 2007. Cultural clearance for areas previously not surveyed completed and report submitted to BLM.	Construction
NMED CPB	NM Environment Department Construction Programs Bureau	Approved components funded by the State of New Mexico in August 2008.	Construction
NMFA	New Mexico Finance Authority	Approved components funded by the State of New Mexico in August 2008.	Construction
USEPA	US Environmental Protection Agency Notice of Intent and Notice of Termination to Comply with NPDES Permit	The NOI was submitted by both the DB Contractor and BDD Board in July 2008.	Construction

Table 4: BDD Permit Status

Issuing Agency	Permit Description	Status	Construction or Operations
NMCID	NM Construction Industries Division Approval for Construction	Conditional approval in October 2008. Final Approval January 2009.	Construction
Permits Required for Construction (continued)			
USFWS, NMDGF, and NMSFD	Endangered Species Act and Regulations Concerning Special Status Species and Migratory Birds	Completed and submitted as part of the MDP/POD on November 24, 2008.	Construction
Santa Fe County LUD	Santa Fe County Land Use Department, Development Permit	Approved in November, 2008.	Construction
Permits Required for Operations			
USEPA	US Environmental Protection Agency Sediment Discharge Permit	Permit issued on October 24, 2008. Permit effective date is December 1, 2008. Permit effective until November 30, 2013.	Operations
OSE	Office of the State Engineer Permit to Divert Surface Waters and Permit to Change Place, Purpose of Use, and Point of Diversion for Native	Permit for City of Santa Fe to divert San Juan Chama Project water was issued November 1, 2006.	Operations
NMED AQB	NM Environment Department Air Quality Bureau	NOI for emergency generators were completed March 22 and this is considered complete.	Operations
NMED SWQB	NM Environment Department, Surface Water Quality Bureau, NPDES sediment return	Certification of NPDES permit was issued March 20, 2008.	Operations
Permits Required for Construction and Operations			
NMSLO	NM State Land Office Application for Right of Way Easement,	Right-of-Way granted by SLO on September 26, 2007.	Construction/ Operations
Private	Easements through Private Property	Santa Fe County is obtaining easements through private land.	Construction/ Operations
US BLM	Bureau of Land Management Right-of Way and Temporary Use	BLM granted Right-of-Way on September 25, 2008.	Construction/ Operations
USFS	US Forest Service Special Use Permit	USFS issued Special Use Permit on November 26, 2008.	Construction/ Operations
BLM and USFS	Bureau of Land Management Plan of Development and US Forest Service Master Development Plan	The Master development Plan/Plan of Development (MDP/POD) was submitted on November 24, 2008.	Construction/ Operations
NMDOT	NM Department of Transportation Permit to Install Utility Facilities within Public Right of Way	Permits to install utilities in the DOT ROW were issued October 7, 2008.	Construction/ Operations

Table 4: BDD Permit Status

Issuing Agency	Permit Description	Status	Construction or Operations
Permits Required for Construction and Operations (continued)			
NMED FOD/GWQB	NM Environmental Department Field Operations Division, Liquid Waste Permit and Groundwater Quality Bureau Pollution Prevention	Final permits issued July 2008.	Construction/Operations
NMED DWB	NM Environment Department Drinking Water Bureau Approval of Construction or Modification of Existing Public Water Supply System	Plans approved in May 2009.	Construction/Operation
Santa Fe County Public Works	Santa Fe County Public Works Department Right of Way	Permit to install utilities in the Caja del Rio ROW was issued on October 7, 2008.	Construction/Operations

3.2.1 Post Construction Activities

Table 5 is a list of post-construction activities required by the permits and/or the Master Development Plan/Plan of Development.

Table 5: BDD Post Construction Requirements

<ul style="list-style-type: none"> ▪ The CH2M Hill/Western Summit Constructors Joint Venture will restore native vegetation to all areas that are disturbed by vehicle travel in accordance with the Landscaping and Revegetation Plan. ▪ The CH2M Hill/Western Summit Constructors Joint Venture will restore the upland vegetation and habitats by restoring the native vegetation in the disturbed area to the maximum extent practical to benefit upland species in accordance with the Landscape and Revegetation Plan. Measures to prevent damage by beavers, wildlife, or livestock are required through the length of the CH2M Hill/Western Summit Constructors Joint Venture Contract. ▪ Plantings must be monitored and replaced for an overall survival rate of at least 80 percent. Once established, native plants adapted to the site must be able to thrive with no supplemental water or treatment. ▪ The CH2M Hill/Western Summit Constructors Joint Venture will monitor revegetated areas for success of revegetation and for invasive species for the length of the Design-Build Contract and prepare and furnish annual monitoring reports to the USACE, BLM, and USFS during this period. ▪ The CH2M Hill/Western Summit Constructors Joint Venture will manage revegetated areas to prevent adverse impacts from human activities. ▪ The CH2M Hill/Western Summit Constructors Joint Venture will restore all areas adjacent to watercourses that are disturbed because of the Project, including temporary access roads, to pre-Project elevations and replanted with native vegetation and/or physically protected from erosion. Stabilization measures including vegetation are required at the earliest practicable date, but by the end of first full growing season following construction. Native woody riparian and/or wetland species must be used in areas that support such vegetation. ▪ The CH2M Hill/Western Summit Constructors Joint Venture will recontour disturbed areas to their original contours where possible and reseed all disturbed areas within the Temporary Use areas, temporary access roads and within the permanent facility boundaries as described in the CH2M Hill/Western Summit Constructors Joint Venture's Landscape and Revegetation Plan. The CH2M Hill/Western Summit Constructors Joint Venture will repeat seeding until a satisfactory vegetative cover is established. The

Table 5: BDD Post Construction Requirements

<p>vegetative cover once established, must be comparable to the vegetative cover in the surrounding non-disturbed areas as determined by an authorized officer of the Federal land management agency. Fences will be maintained around all reseeded areas (around facilities, but not Raw or Finished Water pipelines) until a satisfactory vegetative cover has been established. All seed mixtures must be certified as noxious weed free as approved by BLM or USFS, as appropriate. Seeds will be planted using a drill or augur unless the reseeded is occurring on slopes and then application with an erosion control blanket is required. The seed mixture will be evenly and uniformly planted over the disturbed areas. After seeding is completed, all disturbed areas will be mulched with certified noxious weed-free straw, which will be turned into the soil or tackifier or biodegradable light netting will be emplaced to prevent wind scour. Measures to prevent wind scour will be at the discretion of the land management agency representative. Specific seed planting measures will be submitted to federal agencies for approval as part of the Landscaping and Revegetation Plan.</p>	
<ul style="list-style-type: none"> ▪ The CH2M Hill/Western Summit Constructors Joint Venture will manage all excavated material used in connection with construction activities so that it either is placed back in the excavated areas, such as pipeline trenches; spread over disturbed areas within the boundaries of the rights-of-way to facilitate regrowth of vegetation; used in other construction activities as soil characteristics allow; or removed entirely from the public land. No excavated material will be left at the construction sites after construction is completed. Methods to control the release of fugitive dust will include using a water truck to water down excavated piles or covering the piles with tarps or plastic sheeting. ▪ The CH2M Hill/Western Summit Constructors Joint Venture will provide final legal descriptions for all facilities and pipeline and roadway corridors. This includes permanently fenced areas and Temporary Use areas as modified by the CH2M Hill/Western Summit Constructors Joint Venture. ▪ The CH2M Hill/Western Summit Constructors Joint Venture will provide final record/as-constructed drawings for roadway improvements, all Project facilities and pipelines including identification of all planned utilities, safety valves and appurtenances for all pipelines, electric, and other facilities. ▪ The CH2M Hill/Western Summit Constructors Joint Venture will remove the temporary fencing around TUAs Project facilities within 1 month of the completion of construction activities, with the exception of fencing required to protect areas that have been revegetated. The fencing for the protection of revegetated areas will remain in place until the land management agencies have agreed that a satisfactory vegetative cover has been established. ▪ The CH2M Hill/Western Summit Constructors Joint Venture will minimize any potential wildlife lost in any on-site storage pond with appropriate wildlife exclusion devices or techniques in consultation with the appropriate wildlife agency. 	

3.2.2 Permits Necessary for Operations

Many of the permits that are in effect during operations have monitoring and other conditions. These permit conditions are summarized in Table 6. The BDD Regulatory Compliance Officer will be responsible for ensuring compliance with the permit conditions.

Table 6: Monitoring and Other Requirements of BDD Operating Permits

Applicable Permits	Permit Condition
BLM Right-of-Way (ROW) USFS Special Use Permit (SUP) USFS/BLM Record of Decision (ROD)	Minimize potential wildlife loss at storage plants and lagoons with wildlife exclusion devices or deterrent techniques in consultation with wildlife agencies .
BLM ROW USFS SUP	Follow "Suggested Practices for Avian Protection on Power Lines Recommendation the State of the Art in 2006" for any above-ground power lines and associated facilities.

Table 6: Monitoring and Other Requirements of BDD Operating Permits

Applicable Permits	Permit Condition
USEPA NPDES BLM ROW USFS SUP USFS/BLM ROD	An aquatic survey to establish a baseline for aquatic species; this survey will have to be repeated quarterly when operations have started to evaluate the effect of operations on the aquatic habitat.
USEPA NPDES	A geomorphic survey of the stream bottom as a baseline for stream bottom topography; this survey will have to be repeated quarterly to when operations have started to evaluate the potential of building up sand bars at the discharge point.
USACE 404 BLM ROW USFS SUP	All revegetated areas shall be monitored for at least three years; with an overall survival rate of 80%. Once established, native plants must be able to thrive without supplemental water. Annual monitoring reports shall be submitted during monitoring period.
USEPA NPDES*	Continuous monitoring of flow in the outfall and the Rio Grande. Flow for the Rio Grande is to be measured at the US Geological Survey stream gage at Otowi.
USEPA NPDES*	Daily monitoring of turbidity in the Rio Grande upstream and downstream of the sediment return outfall and in the outfall itself.
USEPA NPDES*	Weekly monitoring of settleable and suspended solids in the influent water and the effluent water
USEPA NPDES*	Quarterly monitoring of the discharge for 113 specific toxic chemicals for a period of one year. BDD voluntarily continues this monitoring 2/yr.
USEPA NPDES*	Quarterly monitoring of the discharge for specific radioactive compounds: tritium, plutonium-238, plutonium-239, and americium-241 for a period of one year. BDD voluntarily continues this monitoring 2/yr.
USEPA NPDES*	2/yr biomonitoring of the effluent using Whole Effluent Toxicity testing methods is required after first year of operation.
OSE Diversion	The permittees' maximum peak daily surface water diversion rate shall not exceed 32.0 cfs.
OSE Diversion	All diversion of surface water under this permit shall be measured with totalizing meters. The permittees shall submit a measurement and metering plan [information re: plan in permit conditions] for approval prior to installation of any meters and prior to any diversion of water. [additional info in permit conditions].
BLM ROW USFS SUP USFS/BLM ROD	Develop a diversion and discharge operations plan to minimize aquatic biota impacts .
NMED AQB Notice of Intent	Operate standby generator only during unavoidable loss of commercial utility power and for less than 500 hours per year; Maintain adequate record keeping to verify standby generator is operated less than 500 hours per year.
NMED DWB	Monthly Operating Report: The Monthly Operating Report (MOR) must be submitted each month by ALL surface water treatment systems. Required information includes turbidity measurements from Individual Filter Effluent (IFE), Combined Filter Effluent (CFE) and raw water. Systems must also input data on daily flow and daily minimum chlorine dose.

Table 6: Monitoring and Other Requirements of BDD Operating Permits

Applicable Permits	Permit Condition
NMED DWB	A supplier of water shall begin routine sampling in accordance with 40 CFR Part 141 within 90 days after commencing operation of a public water system and shall conduct sampling at rates set forth in 40 CFR 141, Subpart C.
BLM ROW USFS SUP	Remove the temporary fencing around TUAs Project facilities within 1 month of the completion of construction activities, with the exception of fencing required to protect areas that have been revegetated. The fencing for the protection of revegetated areas will remain in place until the land management agencies have agreed that a satisfactory vegetative cover has been established.
OSE Diversion	By March 1st of each year, the permittees shall, as separate entities, submit to the State Engineer a report of their per capita water usage for the prior calendar year, computed in accordance with protocols and methodology prescribed by and acceptable to the State Engineer's Water Use and Conservation Bureau.
OSE Diversion	On or before the 15th day of the month, or such other times as may be determined acceptable to the State Engineer, the permittees shall submit to the OSE, a comprehensive report, both in writing and electronically. [additional info in permit conditions].
NMED DWB	NMED Drinking Water Bureau; NMAC 20.7.10.
City of Santa Fe	City of Santa Fe Ordinance 25-1.8: The water supply of the city shall be fluoridated by the addition of sufficient fluoride ion to raise the concentration of fluoride ion reaching each customer to an optimal level on one (1) part per million parts of water. The fluoride ion level shall be maintained between a minimum of eight-tenths (.8) part per million parts and a maximum of one and two-tenths (1.2) parts per million parts of water.
NMED SWQB	NMED Surface Water Quality Bureau: NMAC 20.7.4.15 A public wastewater facility or public water supply system shall provide the minimum number of certified operators needed to operate the system or facility to protect human health, public welfare or the environment.

*NPDES Permit expires 09/1/2019. Renewal application must be submitted 180 days prior to expiration.

4. Emergency Preparedness

4.1 Water System Emergency Response Plan

The Emergency Response Plan (ERP) for the City of Santa Fe will be revised by the BDD Facilities Manager to incorporate the BDD facilities and operations. The updated ERP details the actions that will be taken to respond to both potential and actual emergencies. The ERP addresses who will respond to an emergency, what actions will be taken, where key items are located, when actions should be taken and how the public will be notified. The ERP will be organized following the United States Environmental Protection Agency (EPA) "Emergency Response Plan Guidance for Small and Medium Community Water Systems".

Title IV of the Public Health Security and Bioterrorism Preparedness and Response Act, Public Law 107-188, required the City of Santa Fe to perform a vulnerability assessment (VA) and to prepare an Emergency Response Plan that incorporates the results of the vulnerability assessment. The City's VA was completed in December of 2003 and submitted to EPA. In 2012, BDD completed its VA. The Bioterrorism Act required drinking water utilities to identify plans, procedures and equipment that can be implemented or utilized in the event of an emergency.

The City of Santa Fe All-Hazard Emergency Operations Plan describes how the City of Santa Fe will handle emergency situations and disasters within their jurisdictions. The plan assigns responsibilities for emergency preparedness and planning and for coordinating emergency response activities and resources before, during and after any type of emergency or disaster. The plan does not contain specific instruction for each department in combating the disaster or emergency situation. The All-Hazard Emergency Operations Plan is the starting point for all other emergency plans in the City of Santa Fe area. The plan provides broad guidelines for emergency management, thus enabling responsible agencies to write detailed operational plans of their own.

The updated ERP includes the updated appendices, which are briefly described in the following paragraphs. The appendices will be:

- Appendix A Emergency Classification and Emergency Response Procedures
- Appendix B Emergency Response Team
- Appendix C Emergency Notification - Internal and External Listing
- Appendix D Emergency Action Plans
 - Power Outage
 - Water Main Break and Procedures for Depressurization
 - Bacteriological Contamination
 - Inorganic/Organic Contamination

- Suspected Tampering
- Suspected Backflow or Cross Connection
- Fire in the Watershed
- Appendix E Emergency Response Check List
- Appendix F Boil Water Order – Waterborne Disease
- Appendix G Boil Water (Order) Advisory (2)
- Appendix H No-Use Advisory (3)
- Appendix I Do Not Drink
- Appendix J Local Media Contacts
- Appendix K Press Release and Immediate Response Templates
- Appendix L Chemical Safety Information
- Appendix M EPA Response Protocol Toolbox: Planning for and Responding to Drinking Water Contamination Threat and Incidents
- Appendix N TCR Monitoring Plan
- Appendix O Approved Laboratories and Sample Collection Guide
- Appendix P City/County All Hazard Emergency Operation Plan
- Appendix Q Total Coliform Positive Sample Procedure
- Appendix R Critical Water Users
- Appendix S Guidelines for Depressurization Emergencies
- Appendix T Disinfection Procedures for Wells (AWWA)
- Appendix U Disinfection Procedures for Finished Storage (AWWA)
- Appendix V Disinfection Procedures for Water Mains (AWWA)
- Appendix W ERP Certification

The first step is to identify the emergency according to its severity using level, 1, 2, 3, 4 and 5, with level one being routine problems such as main breaks, and level 5 being a nuclear disaster or major terrorist act. Emergency situations are differentiated according to criteria.

“Emergency Classification and Emergency Response Procedures” that will assist the ER Lead in classifying and responding to specific emergencies are listed in the All-Hazard Emergency Operations Plan. An intentional act to disrupt the operations of the water utility or to jeopardize public health is a criminal act. This creates a need to immediately notify local law enforcement and the area FBI field office.

City of Santa Fe Water Division Lines of Authority

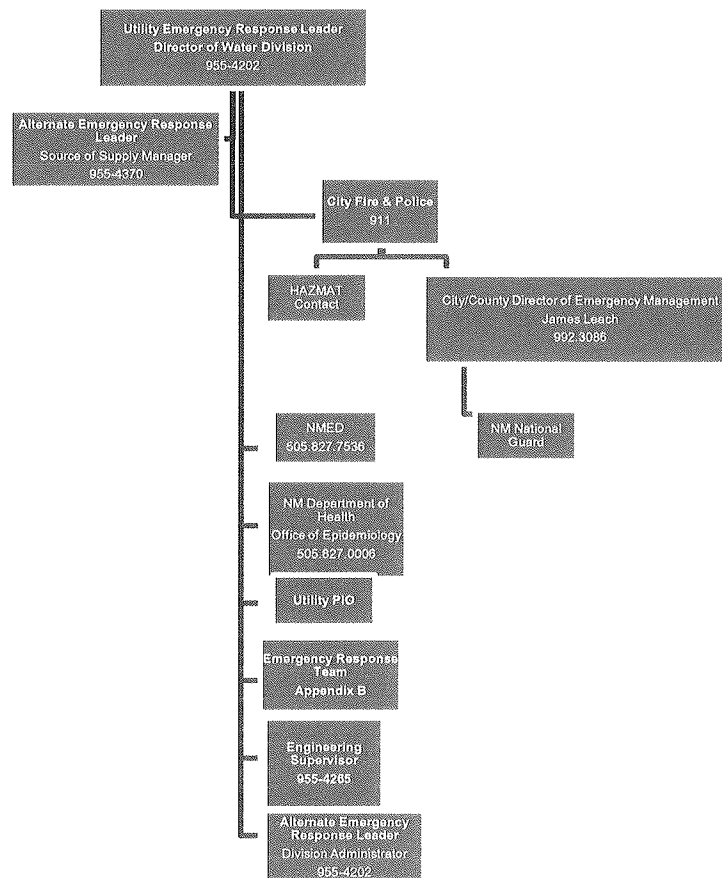


Figure 11: Organization and Lines of Authority for the Water Division

Depending on the level and type of emergency, the Director is authorized to activate the emergency response plan (ERP) and the emergency response team (ERT). The City of Santa Fe Water Division Director is designated as the Emergency Response Lead (ER Lead) for emergencies involving the water system (Figure 11). The Director will have responsibility for evaluating incoming information, managing resources and staff, and deciding on appropriate response actions. The Director is responsible for emergency plan activation and coordinating emergency response efforts with first responders. The Director will serve as the main point of contact and decision-maker for the water system during an emergency event. The Division's Source of Supply Manager and the Division Administrator are identified as alternate ER leads. An emergency response team is established. The Water Division has established and maintains internal and external communications throughout an emergency situation. The ER Lead and the alternative leads are the first persons notified. Staff at all levels, are instructed to notify their immediate supervisor of any problems that could ultimately lead to an emergency. The Emergency Response Lead will determine the level of emergency and will determine activation of the ERP and ER Team.

The level of the emergency determines the appropriate action to be taken. Action Plans have been developed that describe actions that will be taken in response to specific major events identified in the VA. The Specific Action Plans include:

1. Power Outage
2. Water Main Break and Depressurization Procedures
3. Bacteriological Contamination
4. Inorganic/Organic Contamination
5. Suspected Tampering
6. Suspected Backflow or Cross Connection
7. Fire in the Watershed

An Emergency Checklist must be completed for every emergency. If the emergency was categorized as a Level III or IV, an Emergency Report must be filed within thirty (30) days. The Emergency Report must include the Emergency Checklist completed during the Emergency Response.

The following advisories are included to provide advice or recommendations to water system customers on how to protect their health when drinking water is considered unsafe by the New Mexico Environmental Department. The advisory should only be issued when health risks to consumers are sufficient as determined by City, NMED and DOH Officials.

1. Boil Water Order – Waterborne Disease
2. Boil Water (Advisory) Notice

3. Do Not Use

4. Do Not Drink

Communications with customers can be established through several media outlets. Sample templates for immediate response to inquiries and an initial press statement which includes answers to the basic questions: who, what, where, when. This statement should also provide whatever guidance is possible at this point, express the Division's concern, and detail how further information will be disseminated.

Land line telephone and cellular phones are the primary link to convey information. Water Division Operations staff utilizes a four channel mobile radio system. This system is intended for immediate transmission of specific information regarding an emergency to all affected areas of the system. During an emergency, system phones must be restricted to water system official traffic only. In the absence of phone services runners will be used for emergency notification.

Chemicals are used by the operations staff for the treatment of drinking water. A schematic indicating the location of chemicals used and NFPA Hazard ID and Material Safety Data Sheets (MSDS) are located at the facilities.

The USEPA has developed a very detailed document on water sampling and monitoring issues, Response Protocol Tool Box Module 3, "Site Characterization and Sampling Guide". If there is reason to believe that the water has been contaminated, the ER Leader (or his designee) should consult with both NMED and the Office of Epidemiology and consider issuing a health advisory as soon as possible, possibly before conducting water quality sampling. If there are obvious signs of hazards at the site, Water Division staff are not to approach the site and City Emergency Response personnel should be contacted. Teams trained in hazardous materials safety and handling techniques, such as HazMat, may need to conduct an initial hazard assessment at the site and either "clear" the site for entry by utility personnel, or the HazMat team may decide to perform all site characterization activities itself. Furthermore, the site might be considered a crime scene if there are obvious signs of hazards, and law enforcement may take over the site investigation.

The Water Division maintains a coliform monitoring plan that designates sampling sites, procedures, laboratory requirements, and contact numbers. This plan serves as an integral part of the Division's emergency response sampling procedures. The plan includes a table which describes the container size and type, preservatives, and dechlorinating agents, and specific analyses, to be performed on a sample. The sample containers align with the analytical approach: a basic chemistry screen, an expanded chemistry screen, a pathogen screen, and general water quality parameters. A list of approved laboratories is also included in the plan.

The All-Hazard Emergency Operations Plan describes how the City of Santa Fe will handle emergency situations and disasters within their jurisdictions. The plan assigns responsibilities for emergency preparedness and planning and for coordinating emergency response activities and resources before, during and after any type of emergency or disaster. The plan does not

contain specific instruction for each department in combating the disaster or emergency situation.

The All-Hazard Emergency Operations Plan also contains instructions for the collection of drinking water samples for total coliform analyses. The prescribed procedures must be followed in detail for a valid laboratory analysis.

Critical Users are water users that have a need for continuous water supply. These users have been identified and are listed including name, address, and phone number in the All-Hazard Emergency Operations Plan.

In the event of depressurization due to water main breaks or other physical disruptions in the integrity of a water system, the system should be considered micro-biologically unsafe. The guidelines for responding to depressurization emergencies are listed in the plan. After the depressurization event has been corrected, the system must be disinfected. Disinfection procedures for wells, finished storage and water mains are provided in the All-Hazard Emergency Operations Plan.

The City of Santa Fe has completed an Emergency Response Plan that complies with Section 1433(b) of the Safe Drinking Water Act as amended by the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Public Law 107-188, Title IV – Drinking Water Security and Safety). The emergency response plan that this community water system completed incorporates the results of the vulnerability assessment completed for the system and includes “plans, procedures, and identification of equipment that can be implemented or utilized in the event of a terrorist or other intentional attack ” on this community water system. The emergency response plan also includes “actions, procedures, and identification of equipment which can obviate or significantly lessen the impact of terrorist attacks or other intentional actions on the public health and the safety and supply of drinking water provided to communities and individuals.”

4.2 Emergency Planning

The Emergency Planning and Community Right to Know Act (EPCRA) was enacted by Congress on October 17, 1986, as an outgrowth of concern over the protection of the public from chemical emergencies and dangers. Previously this had been covered by state and local regulatory authorities. After the catastrophic accidental release of methyl isocyanate at Union Carbide's Bhopal, India facility in December 1984, and a later toxic release from a West Virginia chemical plant it was evident that national public disclosure of emergency information was needed. EPCRA was enacted as a stand-alone provision, Title III, in the Superfund Amendments and Reauthorization Act of 1986 (SARA).

In Title 40 CFR 355.30 there are requirements for facilities at which there is present an amount of any extremely hazardous substance equal to or in excess of its threshold planning quantity. The BRWTP will have one extremely hazardous substance, sulfuric acid, on site in quantity above the threshold planning quantity of 1000 pounds. The BDD complies with the following requirements:

- Provide notification to the State Emergency Response Commission (c/o New Mexico Department of Homeland Security and Emergency Management, P.O. Box 27111 Santa Fe, NM 87502) that the BRWTP that it is a facility subject to the emergency planning requirements within 60 days of having over 1000 pounds of sulfuric acid on site.
- Designate a facility representative who will participate in the local emergency planning process as a facility emergency response coordinator.
- Inform the local emergency planning committee of any changes occurring at the facility which may be relevant to emergency planning.
- Provide to the local emergency planning committee any requested information necessary for development or implementation of the local emergency plan.

Memorandum



Buckman Direct Diversion

Date: January 3, 2018
To: Buckman Direct Diversion Board
From: Nancy R. Long
Subject: Adoption of Annual Open Meetings Act Resolution; 2019-1

Item and Issue:

Adoption and approval of the Annual (2019) Open Meetings Act Resolution

Background and Summary:

As the Board is aware, public bodies are required by the New Mexico Open Meetings Act (Act) to annually address the issue of what determines reasonable notice for its public meetings in compliance with the Act.

In 2013, and carried forward in the 2014 - 2018 Resolutions, the Board imposed an additional requirement not required by the Act that in order for a Board member to attend a board meeting by telephone, that board member must be needed to meet Board quorum requirements. That requirement is contained in the proposed 2019 resolution.

Action Requested

Independent counsel recommends adoption by the Board of the Resolution Determining Reasonable Notice for Public Meetings of the Buckman Direct Diversion Board; Rescinding Resolution No. 2018-1, subject to revisions the Board may wish to make, if any.



1 **THE BUCKMAN DIRECT DIVERSION BOARD**

2 **RESOLUTION NO. 2019-1**

3 **A RESOLUTION DETERMINING REASONABLE NOTICE FOR**
4 **PUBLIC MEETINGS OF THE BUCKMAN DIRECT DIVERSION BOARD;**
5 **RESCINDING RESOLUTION NO. 2018-1**
6

7
8
9 **WHEREAS**, Section 10-15-1 (B), NMSA 1978 of the “Open Meetings Act” (hereinafter
10 referred to as “the Act”) provides that “... meetings of a quorum of members of any board,
11 commission ... or other policymaking body ... held for the purpose of formulating public policy,
12 including the development of personnel policy, rules, regulations or ordinances, discussing
13 public business or taking any action within the authority of or the delegated authority of any
14 board, commission or other policymaking body are declared to be public meetings open to the
15 public at all times, except as otherwise provided in the Constitution of New Mexico or the Open
16 Meetings Act;” and

17 **WHEREAS**, Section 10-15-1 (D) of the Act further provides that “(a)ny meetings at
18 which the discussion or adoption of any proposed resolution, rule, regulation or formal action
19 occurs and at which a majority or quorum of the body is in attendance, and any closed meetings,
20 shall be held only after reasonable notice to the public;” and

21 **WHEREAS**, the Act further requires a public body to determine in a public meeting at
22 least annually what notice is reasonable when applied to that body; and

23 **WHEREAS**, Santa Fe County and the City of Santa Fe are parties to that certain Joint
24 Powers Agreement, as amended, between the City of Santa Fe and Santa Fe County governing
25 the Buckman Direct Diversion Project, dated March 7, 2005; and

26 **WHEREAS**, the Buckman Direct Diversion Board (the “Board”) desires to determine

1 herein what constitutes reasonable notice to the public of its meetings as required by the Act, and
2 to otherwise specify important elements of its continuing compliance with the Act.

3 **NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE BUCKMAN**
4 **DIRECT DIVERSION BOARD, AS FOLLOWS:**

5 1. **Regular Meetings.** Unless otherwise noticed, regular meetings of the Board shall
6 be held each month on the first Thursday of the month in the City of Santa Fe Council Chambers
7 or at the Santa Fe County Commission Chambers. Notice of any regular meeting shall be
8 provided to those broadcast stations licensed by the Federal Communications Commission and
9 newspapers of general circulation that have made written request for such notice ten (10) days
10 before such meeting.

11 2. **Special Meetings.** A special meeting of the Board may be called by the Chair or
12 by any three members of the Board upon three (3) days' notice at such time and place as the
13 Chair or the three members deem appropriate. Notice of special meetings shall be met by
14 posting notice of the date, time and place in a conspicuous and appropriate place at the Santa Fe
15 County Administrative building, at Santa Fe City Hall and on the Board's, Santa Fe County's
16 and the City's internet websites (www.bddproject.org, www.santafecounty.org and
17 www.santafenm.gov) at least seventy-two (72) hours prior to a special meeting. Notice of a
18 special meeting shall also be provided to those broadcast stations licensed by the Federal
19 Communications Commission and newspapers of general circulation that have made written
20 request for such notice.

21 3. **Emergency Meetings.** An emergency meeting of the Board may be called by the
22 Chair or by any three members of the Board to consider unforeseen circumstances that, if not
23 addressed immediately, will likely result in injury or damage to persons or property or

1 substantial financial loss. An emergency meeting may be conducted at a time and place as the
2 Chair or the three members deem appropriate. If possible, given the emergency circumstances,
3 notice of an emergency meeting shall be posted in a conspicuous and appropriate place at the
4 Santa Fe County Administrative Building and at Santa Fe City Hall at least twenty-four (24)
5 hours prior to the meeting. If twenty-four (24) hours advance notice cannot be given, notice
6 shall be posted as soon as possible under the emergency circumstances in existence. Notice of
7 an emergency meeting shall also be provided to broadcast stations licensed by the Federal
8 Communications Commission and newspapers of general circulation that have made written
9 request for such notice. Within ten (10) days of taking action on an emergency matter, the Board
10 shall report to the attorney general's office the action taken and the circumstances creating the
11 emergency.

12 **4. Agendas.** Any notice for meetings of the Board shall include an agenda
13 containing a list of specific items of business to be discussed or transacted at the meeting, or
14 information on how the public may obtain a copy of an agenda. At least seventy-two (72) hours
15 prior to a regular or special meeting, the final agenda shall be posted in a conspicuous and
16 appropriate place at the Santa Fe County Administrative Building, at Santa Fe City Hall, and on
17 the Board's, Santa Fe County's and the City's internet web sites (www.bddproject.org,
18 www.santafecounty.org and www.santafenm.gov).

19 **5. Recessed Meetings.** The Board may recess and reconvene a meeting to a later
20 day, if, prior to recessing, the Board specifies the date, time and place for continuation of the
21 meeting, and, immediately following the recessed meeting, posts notice of the date, time and
22 place for the reconvened meeting on or near the door of the place where the original meeting was
23 held. Only matters appearing on the agenda of the original meeting may be discussed at the

1 reconvened meeting unless notice of the reconvened meeting is provided as otherwise set forth
2 herein.

3 **6. Participation by Conference Telephone.** Voting members of the Board may
4 participate in a meeting of the Board by means of conference telephone or other similar
5 communications equipment when it is difficult or impossible for the voting member to attend the
6 meeting in person and only when necessary to meet the quorum requirements for the meeting.
7 At least one voting member of the Board must be physically present at the noticed location for
8 the meeting.

9 **7. Closed Meetings.** A meeting may be closed in the following manner:

10 a. If the Board is in an open meeting when a closed meeting is desired and
11 authorized by the Open Meetings Act, then the closed meeting shall be approved on motion by a
12 majority of a quorum of the Board and the authority for the closure shall be stated in the motion.
13 The votes of the voting members of the Board shall be recorded in the minutes.

14 b. If the Board is not in a public meeting and a closed meeting is desired and
15 authorized, public notice of the closed meeting, appropriate under the circumstances, shall be
16 given stating the authority for the closure.

17 c. Following completion of any closed meeting, the minutes of the open
18 meeting that was closed, or the minutes of the next open meeting if the closed meeting was
19 separately scheduled, or held after adjournment, shall state that the matters discussed in the
20 closed meeting were limited only to those specified in the motion or notice for closure.

21 **8. Definitions: "Meeting" and "Member."** For purposes of this Resolution, the
22 term "meeting" shall be defined as a meeting of a quorum of the Board held for the purpose of
23 formulating public policy, including the development of personnel policy, rules, regulations or

1 ordinances, discussing public business, or taking any action within the authority of or the
2 delegated authority of the Board. For purposes of this Resolution, the term "Member," when not
3 otherwise qualified within this Resolution, shall mean both the voting and non-voting members
4 of the Board.

5 9. Resolution No. 2018-1 is hereby rescinded.

6 **PASSED, APPROVED AND ADOPTED this ____ day of January 2019.**
7
8
9

10 **BUCKMAN DIRECT DIVERSION BOARD:**
11
12
13

14 _____
15 Peter Ives, BDDDB Chair

16 **ATTEST:**
17
18
19
20

21 _____
22 County Clerk


23 **APPROVED AS TO FORM:**
24
25
26
27

28 _____
Nancy R. Long, Board Counsel

Memorandum



Buckman Direct Diversion

Date: February 7, 2019
To: Buckman Direct Diversion Board
From: Mackie M. Romero, BDD Financial Manager 
Subject: Proposed Fiscal Year 2020 Annual Operating Budget Request

ITEM AND ISSUE:

Request for approval and recommendation of the BDD Annual Operating Budget & Other Fund Contributions for Fiscal Year 2020.

BACKGROUND AND SUMMARY:

BDD is pleased to present the proposed Buckman Direct Diversion (BDD) Annual Operating Budget for Fiscal Year 2020 and proposed contributions to our Major Repair & Replacement Fund. The proposed budget accounts for all projected necessary costs to meet the Board's service level objectives and to continue to provide high quality water to our partners, the City of Santa Fe, Santa Fe County, the Club at Las Campanas and the Las Campanas Water and Sewer Cooperative.

In Fiscal Year 2020, the BDD will be in its ninth year of operations. This milestone influenced our analysis of costs, as maintenance of our facilities will increase due to the age of the equipment and machinery. The BDD actively collaborated with its partners on the development of this budget, and with their support, we present this budget request.

Budget Highlights & Considerations:

- Requesting budget approval of \$9,696,409 for FY 2020 Operations (Page 2)
 - \$9,415,409– Partner Reimbursements
 - \$120,000– PNM Solar Rebate Revenue
 - \$96,000 – Federal Funds
 - \$65,000 – Unrestricted Fund Balance



Memorandum cont.

- \$65,000 – Unrestricted Fund Balance FY 2020 Budget Request increased by \$1,151,785 from the FY 2019 Adopted Budget (Page 5)
- Emergency Reserve Fund is fully funded to our target balance of \$2,000,000 (Page 14)
- Major Repair & Replacement Fund - \$626,706 requested contributions. (Page 15)

ACTION REQUESTED:

Staff recommends approval and recommendation of the BDD Annual Operating Budget for Fiscal Year 2020 and the requested contributions to our Major Repair and Replacement Fund to City of Santa Fe's City Council and Santa Fe County Board of Commissioners.

We look forward to presenting the proposed budget and addressing your comments and questions.

Thank you





Buckman Direct Diversion

FISCAL YEAR 2020

Proposed Annual Operating
Budget & Partner Contributions

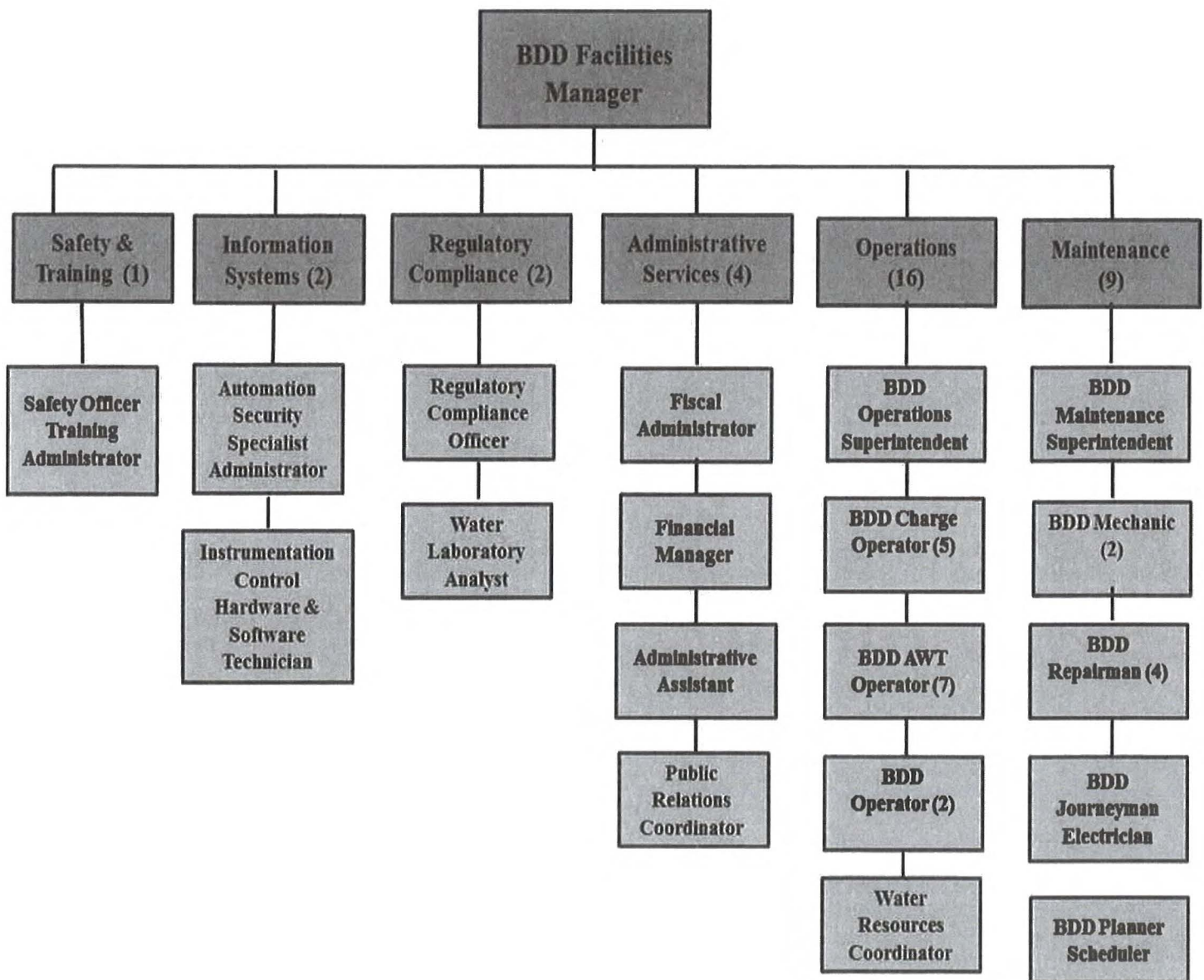


Prepared by:

Mackie M. Romero, BDD Financial Manager
Rick Carpenter, Interim BDD Facilities Manager



**BUCKMAN DIRECT DIVERSION REGIONAL WATER PLANT
ORGANIZATIONAL CHART**





Buckman Direct Diversion (BDD) Proposed Annual Operating Budget

Budget Message

The *Project Management and Fiscal Services Agreement* (PMFSA) requires the Project Manager to submit an Annual Operating Budget. With this submittal, the Project Manager requests the Buckman Direct Diversion Board (BDDDB) approve and recommend the Fiscal Year 2020 Operating Budget of \$9,696,409.

Budget Revenue/Reimbursement Summary

TOTAL PROPOSED FISCAL YEAR 2020 OPERATING BUDGET

TABLE A

	<u>Fixed</u>	<u>Variable</u>	<u>Total</u>	<u>%</u>
Revenues/Reimbursements by Source:				
Unrestricted Fund Balance	\$ 65,000	\$ -	\$ 65,000	1%
Federal Funds	96,000	-	96,000	1%
PNM Solar Rebates	-	120,000	120,000	1%
City of Santa Fe	5,645,404	1,146,631	6,792,035	70%
Santa Fe County	1,883,143	290,762	2,173,905	22%
Las Campanas (Club)	326,379	47,508	373,887	4%
Las Campanas (Coop)	75,582	-	75,582	1%
Total Revenues by Source	<u>\$ 8,091,508</u>	<u>\$ 1,604,901</u>	<u>\$ 9,696,409</u>	<u>100%</u>
% of overall budget	83%	17%	100%	

This budget request consists of fixed and variable costs and includes revenue/reimbursements from several sources. The principle operating revenue of BDD's operating budget is reimbursements from the partners for the cost of operations.

As of June 30, 2018, the BDD had an unrestricted fund balance from miscellaneous refunds and interest earned. These funds will be used to acquire capital equipment, in accordance with the BDD Working Capital Policy.

BDD was granted federal funds from the Department of Energy for the BDD Storm Water Sampling Program. This funding will be used for the collection of samples from the Rio Grande at the BDD in order to make determinations on the water quality of the river during LANL events.

The monthly PNM solar rebates received for the water treatment plant solar array are also accounted for as a source of revenue. The resulting reimbursement requests for American Capital Energy (primary owner of this solar array) to the City of Santa Fe and Santa Fe County will be reduced by the revenue received.

The partner reimbursement revenue is estimated based on projected expenditure types and allocated based on the cost sharing allocations established in the governing documents. Partners are billed in accordance with the BDD Working Capital and Billing Policy.



Budget Expenditure Summary

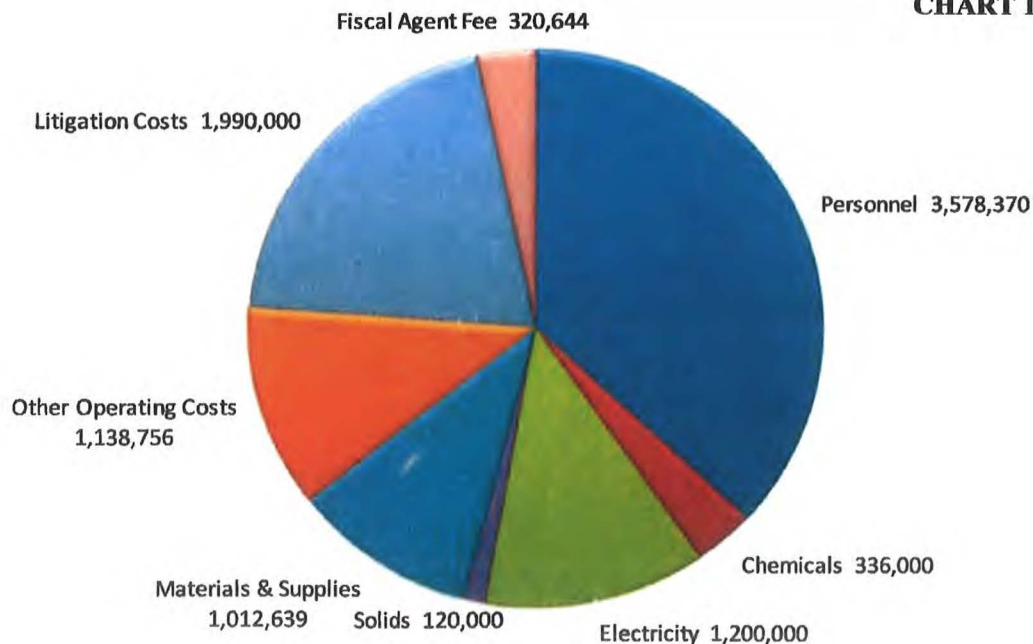
The Buckman Direct Diversion budget consists of seven major categories as presented below. These categories are used to track expenditures for reporting and monitoring our available budget balance. In accordance with our BDD Working Capital and Billing policy, any budget adjustment requests between major categories require board approval. Expenditures are generally recorded when a liability is incurred and are reported in BDD's main enterprise fund.

PARTNER SHARE OF TOTAL PROPOSED FISCAL YEAR 2020 OPERATING BUDGET

TABLE B

Expenditure by Category:	<u>City of Santa Fe</u>	<u>Santa Fe County</u>	<u>Las Campanas (Club)</u>	<u>Las Campanas (Coop)</u>	<u>Federal/ Unrestricted Funds</u>	<u>Total</u>
Personnel	\$ 2,540,361	\$ 865,612	\$ 119,281	\$ 53,116	\$ -	\$ 3,578,370
Electricity	919,722	226,620	50,193	3,465	-	1,200,000
Chemicals	267,557	68,443	-	-	-	336,000
Solids	95,444	24,556	-	-	-	120,000
Materials & Supplies	661,037	227,799	40,869	17,934	65,000	1,012,639
Other Operating Costs	747,431	253,640	40,618	1,067	96,000	1,138,756
Litigation Costs	1,426,233	457,899	105,868	-	-	1,990,000
Fiscal Agent Fee	229,806	73,780	17,058	-	-	320,644
Total	6,887,591	2,198,349	\$ 373,887	\$ 75,582	\$ 161,000	\$9,696,409
PNM Solar Rebates	(95,556)	(24,444)				
Total	\$ 6,792,035	\$ 2,173,905				

CHART 1





Budget Summary & Highlights

In Fiscal Year 2020, the BDD will be in its ninth year of operations. This major milestone was a prime consideration in our analysis of costs. The BDD also uses yearly volumetric flow predictions provided by each partner for our variable and project wide allocation of expenditures.

The BDD has actively collaborated with its partners on the development of this budget and with their support; we present the Fiscal Year 2020 budget request with the following changes:

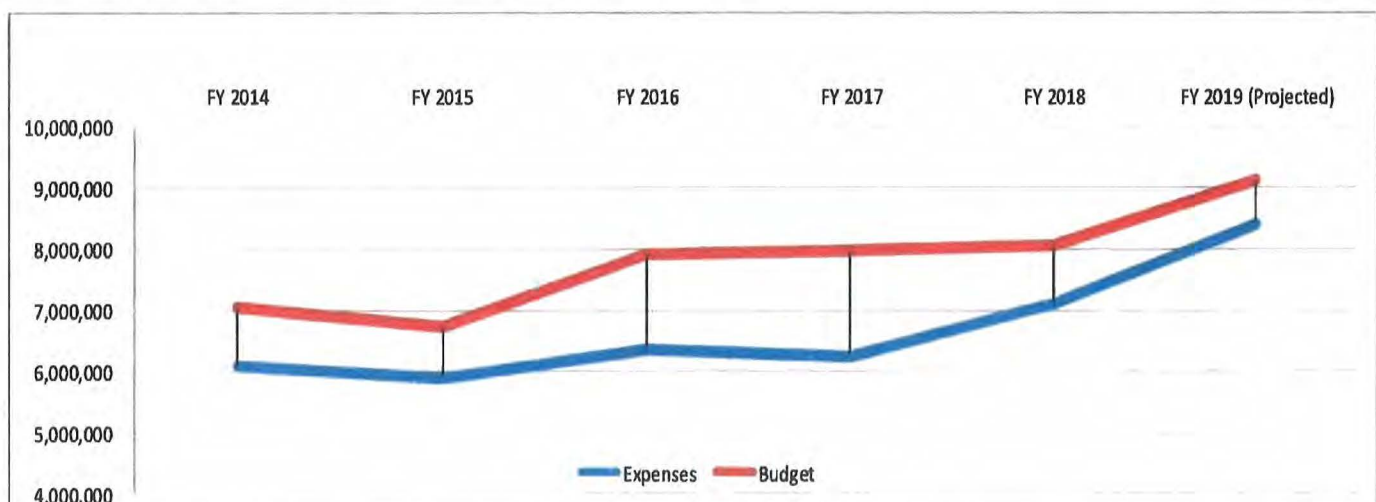
- The proposed annual operating budget for fiscal year 2020 is \$9,375,765 plus the fiscal agent fee of \$320,644, which represents 4.5% of the prior year's annual operating budget, not to include litigation cost, as per the amended Facility Operations and Procedures Agreement (FOPA).

Closing the gap between actual expenditures and budget was considered in the development of the annual operating budget request. This will continue to be factor, to ensure funds are properly allocated to our budgeted line items.

- Fiscal Year 2016 Actual Expenditures \$6,361,582 (with 7 vacant positions and \$798,668 of unexpended legal fees) which was \$1,541,818 lower than our adopted budget.
- Fiscal Year 2017 Actual Expenditures \$6,242,497 (with 6 vacant positions and \$701,988 of unexpended legal fees) which was \$1,724,657 lower than our adopted budget.
- Fiscal Year 2018 Actual Expenditures \$7,112,089 (with 5 vacant positions and \$641,427 of unexpended legal fees) of which \$590,000 was carry forwarded to the FY2019 Adopted Budget.

CUMULATIVE BDD EXPENSES TO ADOPTED BUDGET

CHART 2





Budget Comparisons

Table C presents actual expenses by major category for fiscal year ended June 30, 2018. The change in the fiscal year 2020 operating budget request in comparison to the current 2019 adopted budget, which is an increase of 13% and is primarily due to the following:

- Salaries and Benefits - \$31,760 due to 2% Union increase.
- Materials & Supplies - \$193,204 projected increase due to final phase of Security System Upgrade project, and purchase of a new utility vehicle with attachments.
- Other Operating Costs - \$60,000 for the SQL/Access Server Database Upgrade.
- Litigation Costs – projected increase of \$890,000

The BDD staff will continue to work with its partners, the City of Santa Fe, Santa Fe County and Las Campanas entities, in determining the costs and funding needed to ensure BDD properly operates and maintains the facilities to meet the demands of its partners.

BUCKMAN DIRECT DIVERSION OPERATING BUDGET

TABLE C

	FY 2018 Adopted Budget	FY 2018 Unaudited Actual 6/30/18	FY 2018 Variance \$ (Under) / Over Budget	%	FY 2019 Adopted Budget	FY 2020 Proposed Budget	\$ Change FY 2020 vs FY 2019	%
Revenues/Reimbursements by Fund:								
Partner Reimbursements	\$ 7,809,127	\$ 6,843,869	\$ (965,258)	88%	\$ 8,328,624	\$ 9,415,409	\$ 1,086,785	13%
PNM Solar Rebates	142,760	178,164	35,404	125%	120,000	120,000	-	0%
Federal Funds	96,000	90,056	(5,944)	94%	96,000	96,000	-	0%
Unrestricted Fund Bal	-	-	-	0%	-	65,000	65,000	100%
Total	\$ 8,047,887	\$ 7,112,089	\$ (929,854)	88%	\$ 8,544,624	\$ 9,696,409	\$ 1,151,785	13%
Expenditures by Category:								
Personnel Salaries	\$ 2,196,994	\$ 2,057,692	\$ (139,302)	94%	\$ 2,222,850	\$ 2,254,610	\$ 31,760	1%
Overtime	150,000	162,137	12,137	108%	150,000	150,000	-	0%
Benefits	1,189,600	1,094,575	(95,025)	92%	1,198,823	1,173,760	(25,063)	-2%
Electricity	1,108,000	1,150,726	42,726	104%	1,200,000	1,200,000	-	0%
Chemicals	375,000	384,028	9,028	102%	336,000	336,000	-	0%
Solids	120,000	91,562	(28,438)	76%	120,000	120,000	-	0%
Materials & Supplies*	714,802	719,559	4,757	101%	819,435	1,012,639	193,204	24%
Other Operating Costs*	1,089,224	988,970	(100,254)	91%	1,078,756	1,138,756	60,000	6%
Litigation Costs	1,025,384	383,957	(641,427)	37%	1,100,000	1,990,000	890,000	81%
Total	7,969,004	7,033,206	(935,798)	88%	8,225,864	9,375,765	1,149,901	14%
Fiscal Agent Fee	78,883	78,883	-	0%	318,760	320,644	1,884	1%
Total	\$ 8,047,887	\$ 7,112,089	\$ (935,798)	88%	\$ 8,544,624	\$ 9,696,409	\$ 1,151,785	13%
* See Table C-1 and C-2 for a detailed summary of Major Category Costs								



BDD Materials & Supplies Detailed Summary

TABLE C-1

<u>Description</u>	<u>Amount</u>	<u>Total</u>
Repair & Maintenance Building / Structures - sprinkler, fire alarm, plumbing	26,400	
On-Call HVAC Service Agreement	50,000	
Total		\$ 76,400
Repair & Maintenance System Equipment		
General maintenance, repairs and replacement to water system facilities	176,150	
Hach Service Agreement - Yearly calibration of instrumentation	38,000	
Eaton Service Agreement - VFD Troubleshooting	10,000	
Yukon & Assoc - On-call process instrumentation and control systems	5,000	
Wunderlich-Malec - On-call SCADA & computer networking	15,000	
Great Southwest Meters- Annual meter calibration and inspection	10,000	
Subsurface Contracting - On-call repair and replacement to water systems	43,000	
Alpha Southwest - On-call services mechanical & electrical	54,000	
Automation & Electric - On-call SCADA support, software, programming	33,000	
Positive Energy - Maintenance and service of BS2A Solar Array	6,000	
Total		\$ 390,150
Repair & Maintenance Grounds/Rd - Landscaping agreements		35,000
Repair & Maintenance Machine & Equipment -Copiers, machinery & equipment		35,200
Operating Supplies -Field supplies maintenance/operations		68,500
Auto Parts, Tires, Gasoline & Diesel - Fleet maintenance of vehicles		20,000
Inventory Exempt / IT - Small tools, radios, and phase III replacement of computers		22,189
Uniforms (\$500 clothing, \$200 boots = \$700 per employee)		20,000
Safety Supplies - First aid, protective gear, safety guides, periodicals		10,000
Capitalized Equipment - utility vehicle w/attachments		65,000
Equipment - Outdoor water dispenser (public outreach program)		4,200
Data Processing - Phase IV server replacement for SCADA		16,000
System Equipment - Security system upgrades and repairs (Access Control Panel)		250,000
Total		\$ 546,089
Total Materials & Supplies Category		\$ 1,012,639



BDD Other Operating Costs Detailed Summary

TABLE C-2

<u>Description</u>	<u>Amount</u>	<u>Total</u>
Agreements		
BDDDB Insurance Broker/Agent	9,500	
Chavez Security - provides facilities patrol along Buckman road corridor	194,200	
Stenographer Agreement - BDD Board meetings	4,000	
USDA Collection Agreement - Federal law enforcement	15,000	
USGS Operation and maintenance agreement of sediment and stream gage	52,694	
BDDDB Independent counsel	108,438	
Consultant for Technical Assistance	50,000	
Compliance Agreements -TREAT Study analysis	30,000	
Compliance Agreements -Stormwater sampling (Federal program)	120,000	
Compliance Agreements -Drinking water, solids analysis	20,000	
Compliance Agreements -Annual fire inspection and compliance	9,000	
Audit professional services agreement	7,000	
BDD Board - Public liability and real property insurance premiums	134,928	
SQL Server Database Upgrade	60,000	
Land Leases - BLM right of way agreements	71,756	
Total		\$ 886,516
Benefits Dept. Assessments - City Benefits Assessment Fees		9,712
General Liability Dept Assessments - City Risk Assessment Fees		9,464
General Liability Third Party - Crime Liability Assessment Fees		71,000
Public Relations - tours, outreach, promotions, website, virtual tour		13,650
Software/Software Subscriptions- Software support and upgrades		39,682
Employee Training - Safety, training, education, travel, dues & registrations		26,032
Advertising - Job postings, RFP bids		2,000
Office Supplies - General office supplies		7,000
Postage & Mailing Services - Delivery of water samples, correspondence		3,700
Utilities - Cell phones, landlines, data, website, satellite phone, natural gas, fees		70,000
Total		\$ 252,240
BDDDB Litigation Costs		\$ 1,990,000
Total Other Operating Costs Category		\$ 3,128,756



Budget Fixed & Variable Costs Analysis

The BDD's annual operating budget consists of fixed, variable and project-wide costs. These costs are allocated by percentages contained in the Facility Operations and Procedures Agreement (FOPA). This budget request was prepared with the following cost sharing principles.

Cost Sharing

TABLE D

<u>Fixed</u>	<u>City of Santa Fe</u>	<u>Santa Fe County</u>	<u>Las Campanas (Club)</u>	<u>Las Campanas (Coop)</u>	<u>Total</u>
Shared Facilities (CCL)	62.09%	25.61%	5.37%	6.93%	100.00%
Separate Facilities (CC)	75.33%	24.67%	0%	0%	100.00%
<u>Project Wide</u>					
Projected Volumetric Flow (PW)	71.67%	23.01%	5.32%	0.00%	100.00%
<u>Variable</u>					
Projected Volumetric Flow (CCL)	71.67%	23.01%	5.32%	0.00%	100.00%
Projected Volumetric Flow (CC)	79.63%	20.37%	0.00%	0.00%	100.00%

Annual volumetric flow predictions provided by the partners are also used as the basis for project wide costs and variable costs that are primarily related to chemicals, electricity, and solids management.

Volumetric Flow History and FY 2020 Predictions

TABLE E

<u>Volumetric Flow (Af)</u>	<u>City of Santa Fe</u>	<u>Santa Fe County</u>	<u>LC (Raw Water) via County</u>	<u>Las Campanas (Raw Water)</u>	<u>Total Diverted</u>
FY 2015	3,565.50	1,051.72	418.32	139.01	5,174.55
FY 2016	4,127.74	1,077.23	374.33	165.14	5,744.44
FY 2017	3,896.60	1,156.87	273.60	297.73	5,624.80
FY 2018	4,397.40	1,147.92	343.38	260.61	6,149.30
<i>FY 2019</i>	<i>4,582.90</i>	<i>1,177.68</i>	<i>300.00</i>	<i>325.63</i>	<i>6,386.21</i>
<i>FY 2020</i>	<i>4,573.69</i>	<i>1,169.67</i>	<i>298.75</i>	<i>339.29</i>	<i>6,381.40</i>
<i>FY 2020 %</i>	71.67%	18.33%	4.68%	5.32%	100%

% Percentage is used in calculation of partner share (CCL) of variable costs & project wide

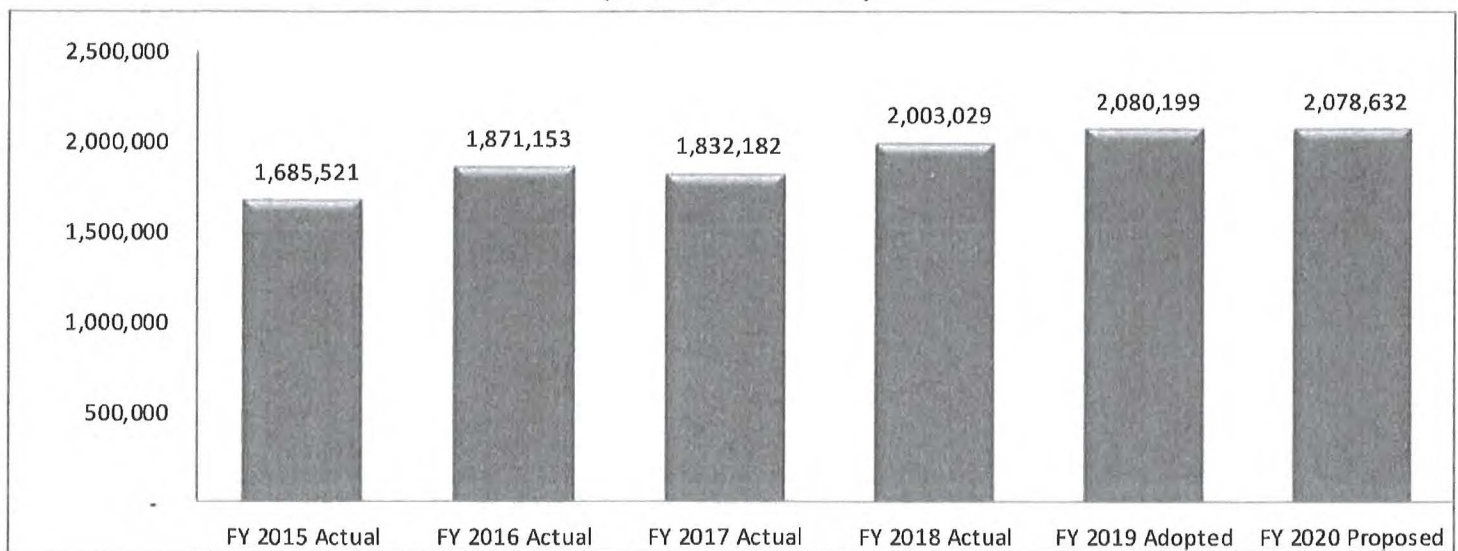


Volumetric Flow History

BDD has completed a budget analysis for fiscal year 2020, which includes volumetric predictions of 2,078,632 gallons. This is an estimated .08% decrease in water delivery thru BDD over fiscal year 2019 predicted water call. The BDD will continue to work with the partners to adaptively manage BDD water deliveries to meet changes in partner demands.

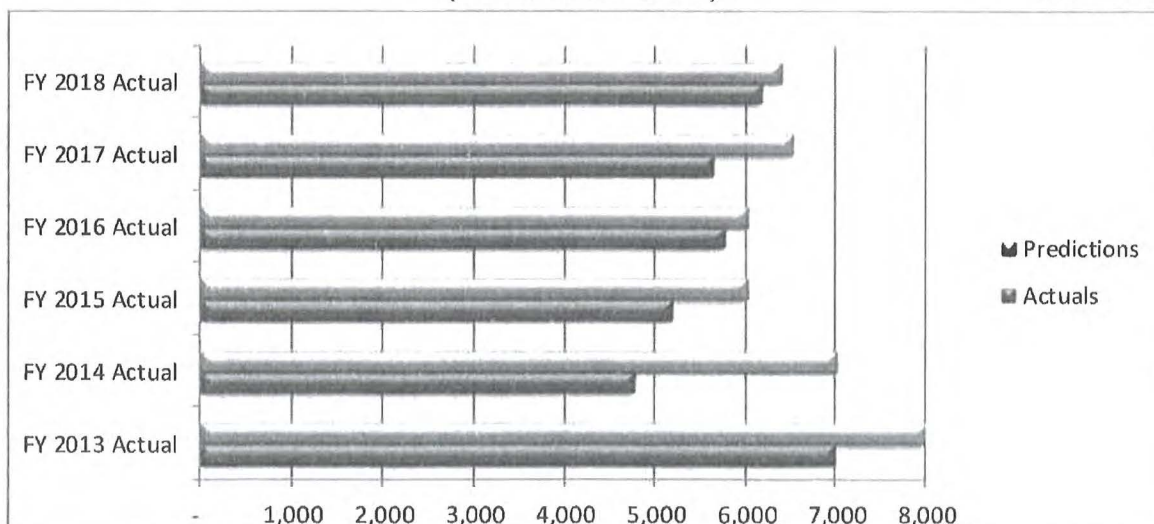
Total gallons delivered in 1,000's
(Includes raw water)

CHART 3



Total gallons delivered vs. volumetric predictions
(Includes raw water)

CHART 4





Cost Analysis

BDD's budget development utilizes several complex cost accounting models to determine solids management, electricity, and chemical costs, which make-up 17% of the total fiscal year 2020 approved budget. Variable costs are associated with the amount of water delivered and are closely related to raw water quality. Raw water carrying elevated levels of solids require increased chemical dosing, create increased maintenance activities, and result in greater solids management costs. Electricity costs are directly influenced by varying on-peak and off-peak rates.

Cost Analysis

TABLE F

	FY 2019 Adopted Budget	FY 2020 Proposed Budget*	City of Santa Fe	Santa Fe County	Las Campanas Club	Las Campanas Coop	Total
Expenditures							
Chemical Expenditures	\$ 336,000	\$ 336,000	\$ 267,557	\$ 68,443	\$ -	\$ -	\$ 336,000
Solids Expenditures	120,000	120,000	95,444	24,556	-	-	120,000
Electric Expenditures	1,076,535	1,080,000	824,166	202,176	50,193	3,465	1,080,000
All Other Expenditures	6,735,681	7,879,409	5,604,868	1,878,730	323,694	72,117	7,879,409
Total Operating Expenditures	\$ 8,268,216	\$ 9,415,409	\$6,792,035	\$2,173,905	\$ 373,887	\$ 75,582	\$9,415,409
Operational Costs							
Total gallons raw water	203,788	207,831	-	97,313	110,518	-	207,831
Total Cost per 1,000 gallons	\$ 2.59	\$ 2.69		\$ 2.42	\$ 2.93	\$ -	
Electric Cost per 1,000 gallons	\$ 0.45	\$ 0.44		\$ 0.43	\$ 0.45	\$ -	
Total gallons finished water	1,876,410	1,870,801	1,489,801	381,000	-	-	1,870,801
Total Cost per 1,000 gallons	\$ 4.12	\$ 4.73	\$ 4.56	\$ 5.09	\$ -	\$ -	
Electric Cost per 1,000 gallons	\$ 0.52	\$ 0.53	\$ 0.55	\$ 0.42	\$ -	\$ -	
Solids Cost per 1,000 gallons	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.06	\$ -	\$ -	
Chemical Cost per 1,000 gallons	\$ 0.18	\$ 0.18	\$ 0.18	\$ 0.18	\$ -	\$ -	
Monthly Average Costs	\$ 689,018	\$ 784,617	\$ 566,003	\$ 181,159	\$ 31,157	\$ 6,299	\$ 784,617
*Excludes Federal Funds (\$96,000), PNM Solar Rebates (\$120,00) and Fund Balance (\$65,000)							



Programs

As the focal point for key resource decisions, the budget process is a powerful tool. The *National Advisory Council for State and Local Budgeting* (NACSLB) was created in 1997 to provide assistance to governments in improving their budgeting processes. In fulfilling that role, the NACSLB set forth a voluntary framework that provides budgeting guidance for state and local governments. The NACSLB established “Best Budgeting Practices” (BBP) which link budget decisions to desired outcomes consistent with organizational goals. This budget incorporates many BBP’s set forth by NACSLB.

While local governments struggle with declining revenues, *Outcome-based* budgeting has become an increasingly important national budgeting standard. This type of advanced budgeting links resources to key business strategies and performance indicators. This “performance-based” approach connects key financial decisions to interdependent concepts of strategy, planning, business execution and measurement. Hence, this budget document contains more than a tabulation of financial figures. Rather than narrowly focusing on expenditures, we’ve established a structure for measuring the “value” citizens receive for their dollars by quantifying organizational achievement. In other words, the heart of this budget centers on determining how well the BDD executes its core business functions. We’ve shifted the focus from “paying for costs” to “buying results”. In addition, this budget simultaneously unifies our financial planning efforts with the *High Performance Organization* (HPO) principles which have become thriving core values of the BDD’s working culture.

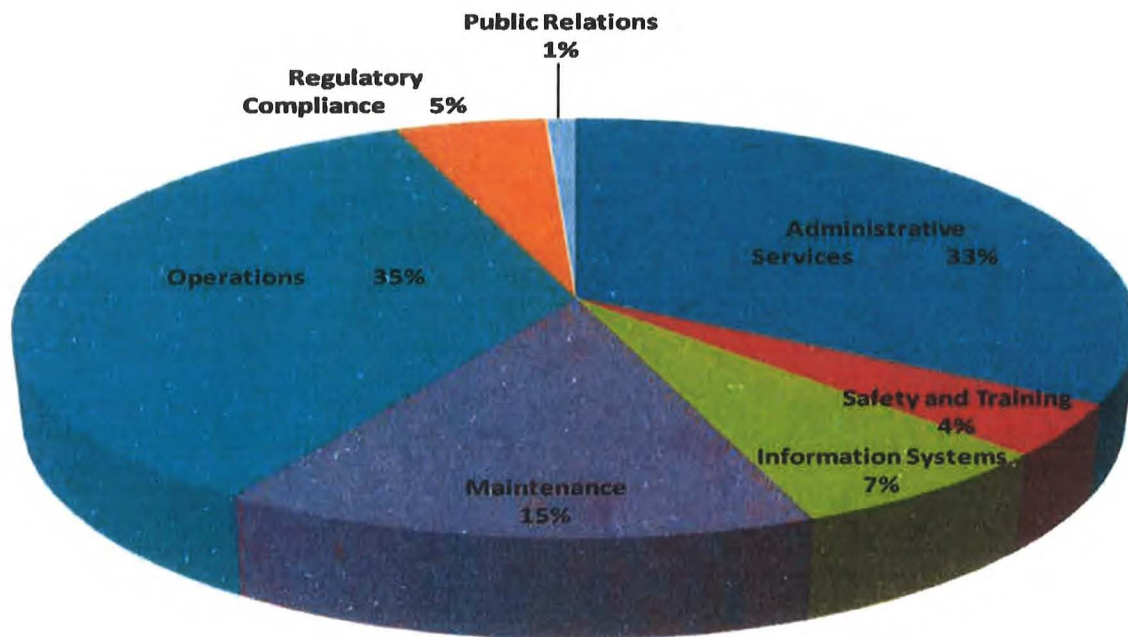
The BDD is divided into seven (7) key programs with explicit business functions as shown in Table G. Each Program was developed to support specific goals and objectives. These business activities encompass all functions necessary to operate the water treatment plant, maintain full regulatory compliance, execute Fiscal Agent responsibilities, and optimize infrastructure investments through comprehensive asset management.



TABLE G

Key Program	Business Funtion
1. Operations	Produce high quality drinking water
2. Regulatory Compliance	Provide full compliance with State and Federal water quality standards
3. Asset Management and Maintenance	Provide cost-effective maintenance services to BDD Operations and optimize infrastructure life-cycle costs
4. Safety and Training	Provides full compliance with State and Federal Health and Safety Regulations
5. Administrative Services	Provides general oversight and management support. Provides accounting, budgeting, procurement and payroll services as well as records management.
6. Information Systems	Provides automation security and communications services
7. Public Relations	Provides public outreach and awareness

CHART 5





Program Budget Comparison

The expenditure budgets for these seven key programs are presented below. Total program funding includes all employee wages and benefits for full time equivalent employees, and associated overhead expenses. These key programs incorporate all business expenses necessary to execute core business functions, and allow the reader to understand how limited resources are allocated within the budget.

Strategic Goals – Supported by program resources

- ✦ **Operations** – To ensure the highest standard of water quality, using the most efficient and up to date water production methods.
- ✦ **Regulatory** – To maintain and improve LANL/DOE monitoring program and renew NPDES Permit.
- ✦ **Maintenance** – To equip the staff with the tools and equipment to efficiently and effectively maintain and repair the assets of the BDD.
- ✦ **Safety & Training** – To promote and assure workplace safety and health in preventing workplace injuries.
- ✦ **Administrative Services** – To operate and maintain the BDD within budget and in accordance with the governing documents.
- ✦ **Information Systems** – To maintain and support all automation and security systems, including security camera replacements.
- ✦ **Public Relations** – To coordinate, create and support key events for the BDD outreach program.

BDD Operating Budget – by Program

TABLE H

	FY 2018 Adopted Budget	FY 2018 Actuals 06/30/2018	Variance \$ (Under) or Over Budget	FY 2019 Adopted Budget	FY 2020 Proposed Budget	\$ Change FY 2019 vs FY 2018
Expenditures by Program:						
1. Operations (16 FTE)	\$3,454,635	\$ 3,234,912	\$ (219,723)	\$3,388,222	\$ 3,398,845	\$ 10,623
2. Regulatory Compliance (2 FTE)	422,948	503,653	80,705	482,462	476,552	(5,910)
3. Maintenance (9 FTE)	1,272,147	1,158,696	(113,451)	1,340,872	1,439,561	98,689
4. Safety and Training (1 FTE)	307,167	304,892	(2,275)	309,084	346,587	37,503
5. Administrative Services (4 FTE)	2,022,908	1,314,297	(708,611)	2,071,697	2,948,410	876,713
6. Information Systems (2 FTE)	401,059	430,116	29,057	538,789	674,793	136,004
7. Public Relations (1 FTE)	88,140	86,640	(1,500)	94,738	91,017	(3,721)
Total Expenditures (35 FTE)	7,969,004	7,033,206	(935,798)	8,225,864	9,375,765	1,149,901
Fiscal Agent Fee	78,883	78,883	-	318,760	320,644	1,884
Total	\$8,047,887	\$ 7,112,089	\$ (935,798)	\$8,544,624	\$9,696,409	\$ 1,151,785



Emergency Reserve Fund (ERF)

The Project Management and Fiscal Services Agreement, Article 3. (E.) requires the BDD Board create an Emergency Reserve Fund, and establish procedures for its management. The Emergency Reserve Fund provides immediate reserves for unforeseen or catastrophic infrastructure failures that render facilities unable to deliver water at the needed capacity. The Project Manager, in consultation with the partners, must submit to the BDD Board an analysis of the funds required for an emergency reserve and suggest procedures for creation of and management of the Emergency Reserve Fund.

The BDD Board approved the Emergency Reserve Fund policy and funding contributions as part of the Fiscal Year 2012 budget request. This policy established target balances, replenishment requirements and funding allocations.

Emergency Reserve Fund Balance

TABLE I

Emergency Fund	City of Santa Fe	Santa Fe County	Las Campanas Club	Las Campanas Coop	Balance
Fund Balance at June 30, 2018	1,347,979	480,965	130,775	103,777	2,063,495

As of June 30, 2018 the Emergency Reserve Fund was fully funded to its targeted balance of \$2,000,000. As per the BDD Working Capital and Billing Policy, these funds are interest bearing and are allocated to the partners based on the percentage of cash held in their respective accounts at the end of each fiscal year.



Major Repair and Replacement Fund (RRF)

The BDD Board also previously approved the Major Repair and Replacement Fund as part of the Fiscal Year 2012 Budget. Per the Major Repair and Replacement Fund policy these funds are to receive yearly contributions held in reserve to support major repair and replacement costs of facility equipment and systems.

The BDD Board has authorized expenditures of \$617,870 for repair and replacement of system equipment in accordance with the policy. These authorizations, upon expenditure will reduce the available balance in this fund. The Major Repair and Replacement fund will continue to receive yearly contributions in accordance with the policy.

Major Repair and Replacement Fund Balance

TABLE J

Major Repair & Replacement	City of Santa Fe	Santa Fe County	Las Campanas Club	Las Campanas Coop	Balance
Balance as of June 30, 2018	1,120,973	389,210	33,118	27,553	1,570,854
2019 Contributions	445,545	156,494	10,769	13,898	626,706
Funds authorized for expenditure	(439,264)	(154,287)	(10,617)	(13,702)	(617,870)
Projected Fund Balance	1,127,254	391,417	33,270	27,749	1,579,690

Major Repair and Replacement Fund Fiscal Year 2019 Contributions

TABLE K

Major Repair & Replacement	City of Santa Fe	Santa Fe County	Las Campanas Club	Las Campanas Coop	Balance
2020 Proposed Contributions	445,545	156,494	10,769	13,898	626,706

With the approval of this contribution and no additional authorizations, the fund balance will be \$2,206,396 for fiscal year 2020.

Capital Assets Management

During fiscal year 2018, the BDD staff began work on maintaining our capital asset and replacement system with software upgrades, data verification and vehicle replacement schedule and policy. Our goals and initiatives are to continue to work on development of a multi-year projected asset plan, funding requirements, and related replacement/disposal policy.



Budget Summary

With this submittal, the Project Manager requests the Buckman Direct Diversion Board approve and recommend the funding for our Fiscal Year 2020 Operating Budget of \$9,696,409 plus the annual contribution of \$626,706 for the Major Repair and Replacement Fund for a total request of \$10,323,115. We appreciate the input and support from our partners and our Buckman Direct Diversion Board Members.

Fiscal Year 2020 Funding Allocation

TABLE L

Funds	City of Santa Fe	Santa Fe County	Las Campanas (Club)	Las Campanas (Coop)	Total
Operating Fund	\$6,792,035	\$2,173,905	\$ 373,887	\$ 75,582	\$ 9,415,409
			PNM Solar Rebate Revenue		120,000
				Federal Funds	96,000
				Unrestricted Fund Balance	65,000
					\$ 9,696,409
Major Repair & Replacement Fund	445,545	156,494	10,769	13,898	626,706
Total Fiscal Year 2020 Request	<u>\$7,237,580</u>	<u>\$2,330,399</u>	<u>\$ 384,656</u>	<u>\$ 89,480</u>	<u>\$ 10,323,115</u>

1
2
3 **MINUTES OF THE**
4 **THE CITY OF SANTA FE & SANTA FE COUNTY**
5 **BUCKMAN DIRECT DIVERSION BOARD**
6 **SPECIAL STUDY SESSION**
7

8 **November 29, 2018**
9

10 This special study session of the Santa Fe County/City Buckman Direct Diversion
11 Board meeting was called to order by Councilor Peter Ives, Chair, at approximately 9:00
12 a.m. in the Santa Fe City Council Chambers, 200 Lincoln Avenue, Santa Fe, New Mexico.
13

14 Roll was called and the following members were present:
15

16 **BDD Board Members Present:**

17 Councilor Peter Ives, Chair
18 Commissioner Anna Hamilton
19 Denise Fort
20 Commissioner Anna Hansen [County alternate]
21

16 **Member(s) Excused:**

17 Councilor Michael Harris
18 Commissioner Henry Roybal

22 **BDD Board Alternate Members Present:**

23 J.C. Helms [Citizen Alternate]
24 Tom Egelhoff [Las Campanas, non-voting]
25 Ginny Selvin [Las Campanas alternate]
26

27 **Others Present:**

28 Nick Schiavo, Interim BDD Facilities Manager
29 Stephanie Lopez, City Utilities Department
30 Daniela Bowman, BDD Regulatory Compliance Officer
31 Alex Puglisi, City Utilities, Environmental Compliance Specialist
32 Bernardine Padilla, BDD Public Relations Coordinator
33 Jerry Schoeppner, County Utilities
34 Sara Smith, County Constituent Liaison
35 Rick Carpenter, City of Santa Fe
36 Kyle Harwood, BDD Board Counsel
37 Joni Arends, CCNS
38 Rachel Conn, Amigos Bravos
39 Stephanie Stringer, NMED-DWB
40 Shelly Lemon, NMED-SWQB
41 Patrick Longmire, NMED-GWQB
42 John Verheul, NMED Counsel
43 Andy Otto, Santa Fe Watershed Association
44 John Buchser, Sierra Club
45 Andy Stiny, *New Mexican*
46

1
2 **3. APPROVAL OF AGENDA**

3 [Exhibit 1: Agenda]
4

5 CHAIRMAN IVES: Any changes from staff?

6 NICK SCHIAVO (Interim BDD Facilities Manager): There are no
7 changes, Mr. Chair.

8 COMMISSIONER HAMILTON: Mr. Chair, I move to approve the
9 agenda as it is.

10 CHAIRMAN IVES: Very good. We have a motion. Is there a second?

11 COMMISSIONER HANSEN: I second.

12 CHAIRMAN IVES: So we have a motion and a second. Discussion?

13 MEMBER FORT: Mr. Chair, I would just like to say there is something I
14 think is intended in the agenda which is to ask the NGO participants and other members
15 of the public to stay and engage in conversation throughout the session.

16 CHAIRMAN IVES: That would be correct. Excellent. Any further
17 discussion?
18

19 **The motion passed by unanimous voice vote.**
20

21 **DISCUSSION ITEM**

22 **Discussion of BDDB Rio Grande Water Quality Issues**

23 [Exhibit 2: Joni Arends, CCNS; Exhibits 3 & 4: Rachel Conn, Amigos Bravos]
24

25 CHAIRMAN IVES: And I wasn't sure, Nick, if you wanted to lead off or
26 if Kyle was going to lead off.

27 MR. SCHIAVO: Mr. Chair, it looks like there's an issue with the laptop.
28 Staff was going to make a presentation so while they get that worked out I don't want to
29 put Kyle on the spot but I know that he probably does have some opening comments.

30 CHAIRMAN IVES: Very good. Kyle, lead us off please.

31 KYLE HARWOOD (BDDB Counsel): Thank you, Chair. Yes, so this has
32 been a discussion for some time as you all know and it's great to finally convene this
33 study session. Just a couple of comments about the structure. We haven't done a study
34 session in some time but it is specifically the intent of a study session to have an open
35 conversation/discussion as Board Member Fort mentioned, and specifically that there will
36 be no action taken today, although we have publicly noticed this meeting according to the
37 Board's Open Meetings Act resolution and noted on the agenda that this is for discussion
38 only. We do have an upcoming Board meeting, as you all know, the end of next week and
39 obviously meetings to follow after that.

40 So just a couple of opening comments about the genesis I think of this study
41 session. As you all know, we have a long-running memorandum of understanding with
42 Los Alamos National Labs regarding certain elements of Rio Grande water quality as it
43 relates to stormwater, and you've all been briefed on that over the many months that
44 you've served on the Board. We've also presented to you in months passed the 303B list
45 and the segment that the Buckman Direct Diversion diverts from, has some particular
46 provisions that the Board engaged in a triennial review hearing in 2009 and asked for

1 those particular monitoring criteria that we've briefed you on before to be added to that
2 section and we may hear today a little bit more detail about the status of that list and the
3 TMDLs that we've discussed with you in the past.

4 So the only other comment I was going to make while we start off, we have
5 panelists Joni Arends from Concerned Citizens for Nuclear Safety. We have invited
6 panelists Rachel Conn from Amigos Bravos, and we've invited two NMED staffers –
7 Stephanie Stringer and Shelly Lemon to also speak to us about the status of the State's
8 water quality monitoring and management programs.

9 And so I've asked each of them, as you know, to present on their perspective of
10 Rio Grande water quality so that it can inform the Board's policy posture going forward.
11 And I think with those comments – is the staff presentation ready? No?

12 MR. SCHIAVO: Mr. Chair, I think staff will be ready in a few minutes
13 but we could always move to the NGOs first and hold our presentation also to keep things
14 moving.

15 CHAIRMAN IVES: Let me just ask a general question of the NGO
16 presenters, which is do you have any type of visual presentation that you want to
17 accompany your remarks?

18 JONI ARENDS: I just have a handout.

19 MR. HARWOOD: I believe Rachel has a handout also.

20 CHAIRMAN IVES: So I'm not sure how quickly staff will be ready so if
21 we want to take – Joni, I don't know if you want to come down and lead things off and
22 we would certainly invite the presenters, because we are interested in having – I wish that
23 we were in a room that had all of us down at this floor level with microphones so we could
24 just have a discussion as one might hope to have in a study session. But if other
25 presenters want to get as close or speak up during this we want to make it as interactive
26 and participatory as possible.

27 MEMBER FORT: Mr. Chair, if this is an appropriate time, could I add to
28 Kyle Harwood's comments about the purpose of this, in my mind? And just for the
29 purpose of those who are presenting. Almost every meeting of the BDD we talk about
30 some issue of water quality in the Rio Grande. We talk about treatment issues at the BDD
31 and so my interest in this session is bringing out what are the issues in the water quality
32 in the Rio Grande? How do those issues affect the water that we are withdrawing from
33 the Rio Grande? What is the timing with respect to those issues? What role does the
34 Board have to play in advocating for a cleaner river, because it's my perspective that
35 every water utility should be concerned with the source water as well as the water that it
36 serves. I'm hoping that at some time the Board will have the opportunity to have some
37 expertise with respect to the water that we serve, so looking at what our treatment is and
38 not simply whether our treatment meets the MCLs but whether we're providing
39 appropriate water, given what we know about the risks of every contaminant that might
40 be present in it at whatever level, ensuring that we're providing appropriate treatment.

41 But I think in this session we'll really be focusing on the river quality itself and
42 what role public agencies – the BDD, the City and the County – have in advocating for a
43 cleaner river. Where, if anywhere, should our efforts be directed? I'm really pleased to
44 see Patrick Longmire here again. His comments at the previous meetings were really
45 instructive to me so I'm hoping that you'll jump in as well and there may be other people
46 present – hello, John Verheul – other people present who may want to comment as well.

1 Thank you.

2 CHAIRMAN IVES: Any other Board members care to make any
3 preliminary remarks? If not, we will jump in. Joni, please welcome.

4 MS. ARENDS: Good morning, members of the Board and members of the
5 public. I appreciate this opportunity to talk about this, so Board Member Fort, you asked
6 about the source.

7 CHAIRMAN IVES: Let me just interrupt. Just for our record if you state
8 your name and affiliation to begin.

9 MS. ARENDS: Yes. Thank you. I'm Joni Arends with Concerned Citizens
10 for Nuclear Safety. I am a co-founder of the organization back in 1988 and I am currently
11 serving as the executive director.

12 With regard to your question about the source, for many decades the laboratory
13 said that the Rio Grande provided a barrier from water entering the Rio Grande [sic] and
14 for a while they talked about the fact that the water wouldn't migrate to the Rio Grande,
15 that the water – actually, at one public meeting, one water expert said that the water was
16 moving from the river to the Jemez Mountains. But since then the laboratory has been
17 saying that the water is moving from the Jemez Mountains as a source of recharge to the
18 Rio Grande. So there's been a lot of back and forth over the many decades. And I've
19 been involved in these issues since the Cerro Grande fire in May 2000 when specifically
20 the community of Santa Fe was very concerned about water quality with regard to the
21 river.

22 So I've put together a brief chronology, a cherry-picked chronology and it starts
23 with 1943 and the fact that the Department of Energy, the Atomic Energy Commission,
24 came to New Mexico. Even before that it was the Manhattan Project, so there's very
25 many iterations. But the main point is that the DOE, the Department of Energy, has
26 polluted every river where its major nuclear facilities have been located, whether it's the
27 Savannah River, the Columbia River, the Snake River, the Ohio River, we don't need to
28 think that we're immune from the DOE because it's the same patterns and practices that
29 the DOE has implemented around the county that the Rio Grande is going to be
30 contaminated by LANL pollutants, whether they're radioactive, hazardous or toxic.

31 So in the early 1990s, after the end of the Cold War, the Department of Energy
32 launched a national effort to find out how big the cleanup project was going to be. And at
33 LANL they identified 2,100 different dumps. They're all unlined. They're not monitored.
34 Some are monitored. Some are under the consent order. Some are under the individual
35 stormwater permit. So that's one fact.

36 Another fact is that there's over 18 million cubic feet of waste buried in unlined
37 pits, trenches and shafts on the Pajarito Plateau. That's three times the amount of waste
38 that's scheduled to go into the WIPP site. So that's a significant amount of waste that is
39 in situations where it can migrate. It can migrate into the air, into the groundwater, into
40 the surface water.

41 In the early 1990s the lab asked for a waiver from groundwater monitoring and
42 the Environment Department said no, and as a result they ordered that the laboratory
43 characterize – which is a very important word – characterize the Pajarito Plateau to
44 understand the transport of the water. And the reason that I'm focusing on the
45 groundwater is that CCNS looks at the water as holistic. Whether the water is coming
46 from the Jemez Mountains and it flows in the surface water, it infiltrates, it becomes

1 groundwater and it can discharge at the springs along the west side of the Rio Grande.

2 So I mentioned in 2000 that the Cerro Grande fire happened and CCNS held a
3 conference at the El Dorado Hotel called Fire, Water and the Aftermath, and 400 people
4 showed up about their concerns. And as a result CCNS began really focusing on the
5 water issues. And in 2002, the Buckman scoping process started and CCNS attended the
6 first scoping meeting held by TetraTech. In 2004 we started working with Robert
7 Gilkeson, an independent registered geologist and LANL whistleblower on the
8 groundwater monitoring program at LANL.

9 And then in 2004, CCNS released its report about New Mexico's right to know
10 about the potential for groundwater contaminants from LANL to reach the Rio Grande.
11 And we worked with hydrologist George Rice and George put together a – let me just
12 back up and say that at the time the lab was saying it would be thousands of years for the
13 contaminants to reach the Rio Grande. And through George's analysis of LANL's data,
14 George found that in a hypothetical fast pathway a contaminant could leave the discharge
15 pipe at Outflow 051 and reach the Rio Grande Springs in 26 years or less. And after that
16 the lab stopped talking about thousands of years of transport time; they talked about
17 decades.

18 And about this time, the Citizens for Environmental Safeguards, Elaine Cimino
19 and Zane Spiegel, obtained sole-source aquifer designation for the regional drinking water
20 aquifer from EPA, and that area runs from Tres Piedras almost down to Galisteo, in
21 between the two mountain ranges. And what a sole source aquifer designation says is that
22 50 percent of the people living within that region have no other source of drinking water
23 and that there's no source to replace it. So this is a really important fact with regard to
24 what's happening there. I think that the sole source aquifer designation could be used in
25 many ways by the Board and by the City and County to push more strongly for better
26 cleanup at the lab, and more timely cleanup.

27 So in May 2005 the consent order was released by the Environment Department
28 and the Area G, which is the 63-acre dump that has everything in it, was supposed to be
29 cleaned up by December 31, 2015. About that time Bob Gilkeson was challenging the
30 groundwater characterization program and the National Academies of Science was sent
31 out to study this and here's their report. And I've quoted their report to say that many of
32 the wells drilled for characterization into the regional aquifer under the hydro work plan
33 appear to be compromised in their ability to produce water samples that are
34 representative of ambient groundwater for the purposes of monitoring.

35 So this is a significant statement as well with regard to the wells that we are – I
36 don't know. Pat, do you know when the Environment Department said the
37 characterization wells became monitoring wells?

38 PATRICK LONGMIRE (NMED): I think around 2009.

39 MS. ARENDS: 2009. The Environment Department declared that the
40 characterization wells that were not drilled according to the monitoring well requirements
41 then became monitoring wells for the purposes of providing compliance samples for
42 LANL. So that's when we're looking at what's happening with the groundwater we're
43 using wells that have not been built, have not been constructed for the purposes of
44 monitoring.

45 And then in 2016 NMED revised the consent order and there's no deadlines.
46 There's no – it's based on campaigns. There's not very much public input.

1 So with that background here are CCNS's recommendations for the study session.
2 The City and County need to work more closely together to address the migrating
3 pollution from LANL. It needs to be a long-term strategy to deal with this contamination.
4 The JPA needs to be strengthened. The MOU between the Buckman Board and LANL
5 needs to be strengthened and require more sampling, more specific, analytical sampling
6 systems, procedures, and transparent reporting. And it needs to be more often than
7 quarterly; it needs to be monthly. We need to be watching very carefully what's
8 happening now, especially with the \$220 million investment that the community has
9 made in the Buckman Diversion project.

10 One thing that I didn't talk about is that the R-16 well is a well that's near the
11 point where the White Rock Overlook is, and that's supposed to provide the sentry well
12 for the Buckman from LANL contaminants. But the lab used over 33,000 pounds of
13 bentonite clay in that drilling, and what the bentonite clay has been shown, it captures the
14 contamination rather than allows it to be monitor. So you use bentonite clay when you're
15 drilling a drinking water well in order to capture the contaminants. But when you're
16 monitoring you don't want bentonite clay to be in that well. Most of the wells, bentonite
17 is at the bottom of the well, and that's at the level – the well is about 1,000 feet down, so
18 it's about the level of the Buckman. So we're not getting good sampling results for that
19 bottom screen. And I can email you information about that, reports that Bob has done.

20 Okay, so the replacement wells need to be drilled with air rotary casing advanced
21 drilling methods and someone needs to be there to watch what's happening. Because the
22 lab spends one, two, three or four million dollars on drilling these wells now and they
23 need oversight on how they're drilling those wells so that we can protect the water, so
24 that we can urge better cleanup, so that we can ensure the supply of water for the long
25 term.

26 And then the final recommendation is to oppose cap and cover for Area G. We
27 know from other DOE sites that excavation reduces the contaminants in the groundwater
28 by 90 or 95 percent, and that example is at the Fernald site, which is in Ohio, and it was a
29 uranium processing plant. The groundwater levels for uranium were very, very high, and
30 once they excavated the waste and they put the waste in lined landfills, the groundwater
31 levels for uranium were reduced by 90 or 95 percent.

32 So with that. The bearer of good news.

33 CHAIRMAN IVES: Questions? Commissioner.

34 COMMISSIONER HANSEN: Joni, are all your reports on your website
35 online? The ones by George Rice and –

36 MS. ARENDS: Yes.

37 COMMISSIONER HANSEN: Okay. So they're available to the public if
38 people need to read them. And just for full disclosure, I was chair of Concerned Citizens
39 for Nuclear Safety in 2000 and I organized the conference on the fire and also at that
40 point Secretary Richardson, our former governor, was the Secretary of Energy, and he
41 sent people from the Department of Energy. He told LANL that they had to show up at
42 this conference and it would not have been anywhere near as successful without
43 Governor Richardson's participation in that and at that point he was the Secretary of
44 Energy. So we were very fortunate to have his full participation.

45 MS. ARENDS: Then there's a white paper as well on our website.

46 COMMISSIONER HANSEN: Yes. We had a white paper written and Bob

1 Alvarez was there. I mean it was a very influential, important conference that took place
2 and many people recognized the devastating effect. I also want to state that CCNS had,
3 before the fire, recommended clearing parts of the forest around LANL and we were
4 ignored.

5 CHAIRMAN IVES: Other questions?

6 COMMISSIONER HAMILTON: Just since we're talking about full
7 disclosure, a lot of you know I work for TetraTech Center for Ecological Sciences, but
8 it's a different group that did this work and that was four years before I worked for
9 TetraTech and I was not directly involved with it at all.

10 CHAIRMAN IVES: Questions?

11 MEMBER FORT: One question with respect to your recommendation
12 about pushing for more cleanup. Could you be somewhat more – I understood that to be
13 your recommendation, that the public bodies do that. So is that opportunity on a yearly
14 basis in the budget cycle and is that done by the LANL Communities? What specifically
15 would you be suggesting the public bodies do with respect to supporting cleanup?

16 MS. ARENDS: I think being more vocal about the need to excavate the
17 waste, number one. The way that the new consent order is set up, Area G won't be
18 addressed for probably 15 or 20 years. And recently, we have experienced the fact that
19 even through under the Resource Conservation and Recovery Act, or the hazardous waste
20 law in New Mexico, there's time limits, there's time schedules. LANL has been working
21 consistently to extend those deadlines out, in terms of cleanup. For instance, there's this
22 multi-step process with regard to when they are going to clean up a big project. They do
23 an investigation report, a RPA facility investigation. There's a conversation about it.
24 They pick a remedy for an interim measure; it's not the final decision. The interim
25 measures can go on forever and it appears that that's the plan for the chromium plume at
26 this point.

27 After the interim measures, then they put out a corrective measures evaluation,
28 and at that point the public has an opportunity to make comments and ask for a public
29 hearing. But right now, the corrective measures evaluation under the old consent order
30 probably would have come out in the 2012 timeframe, but now it looks like it's not going
31 to come out till 2030, maybe 2035 timeframe.

32 So it's holding the laboratory accountable and this is an opportune time to do that
33 because we have a new weapons contractor, the Triad, and a new cleanup contractor
34 which is N3B. So there's an opportunity for a larger discussion about better cleanup,
35 more cleanup. There's also the discussion about getting more money for more cleanup as
36 well, and to excavate the waste, because we know that that's the most protective cleanup.
37 And the laboratory has demonstrated that with the material disposal Area B, which is
38 located near the town site, in the town site, on DP Road, which goes out – it runs parallel
39 to the airport, and they did a big cleanup of MDA B, and no one was hurt. They met the
40 time schedule and they met the budget for that project. So they can – they have
41 demonstrated that they can do good cleanup. And that was a Manhattan era dump. They
42 found the truck that took the Trinity bomb in it, in the dump. That's what some people
43 say. Do you say that, Pat?

44 COMMISSIONER HAMILTON: As a follow-up to that, can you speak a
45 little to – in your chronology, you mentioned that Area G originally should have been
46 cleaned up by 2015.

1 MS. ARENDS: Yes.
2 COMMISSIONER HAMILTON: And now it sounds like it's essentially
3 off the table for another decade or two? So what impaired that deadline in the first place
4 and why is it now postponed so far? Is there something more specific to talk about in that
5 regard that might give us some insights into the process?
6 MS. ARENDS: When Governor Martinez came in there were many
7 changes within the Environment Department and one of those changes was transferring
8 James Bearzi, the head of the Hazardous Waste Bureau over to – I don't know where he
9 went, and Steve Zappe, the head of the WIPP project over to food inspection. And so
10 there was a concentrated effort to gut the Environment Department. And so there may be
11 an opportunity under this new administration to regain pieces that we've lost. And
12 specifically about a renegotiation of the consent order and to get actual deadlines back
13 into the process.
14 COMMISSIONER HAMILTON: Thanks for that.
15 COMMISSIONER HANSEN: With the new governor and the Board and
16 City Council and County Commission, it sounds like we could be in a good position to
17 lobby and request to make sure that the new head of the Environment Department
18 actually understands these issues. And so if it's possible, I'd like to suggest at some point
19 that the Buckman Direct Diversion Board write a letter stating how important this is and
20 how important the consent decree is to our water system. I know we can't make any
21 decisions today. I'm just making a suggestion. And so I think that would be one way that
22 we could start to move forward on making our problems and issues known to the new
23 governor and to her staff.
24 MEMBER FORT: I know this is a study session, if we can just kind of
25 jump in whenever, but Mr. Chair, could you advise – Commissioner Hansen's
26 suggestion, with which I would agree, we can't take action now. What's the proper way
27 to move from a suggestion to Board action requesting a letter?
28 CHAIRMAN IVES: We would presumably take it up as an agenda item at
29 one of our regularly scheduled meetings, so we could discuss it and determine a plan of
30 action in that regard.
31 MEMBER FORT: Would this suggestion be sufficient to put it on the
32 agenda at the next meeting?
33 COMMISSIONER HAMILTON: Yes. We could put it on the record
34 requesting things be put on the agenda as an agenda item.
35 COMMISSIONER HANSEN: Okay, I'm requesting it as an agenda item
36 for the next meeting.
37 CHAIRMAN IVES: Our next meeting, which is next week, is probably
38 too early to add that.
39 COMMISSIONER HANSEN: Okay.
40 CHAIRMAN IVES: Because we've already worked on the agenda.
41 COMMISSIONER HANSEN: But I think that we're – I'm going to make
42 that an emergency request because my January 1st we are going to have a new governor
43 and she is in the process of appointing her cabinet and so I think that it is important that
44 something that directly concerns her staff and her appointments be known that this Board
45 is concerned about water quality in the basin and the effects of LANL.
46 COMMISSIONER HAMILTON: Mr. Chair.

1 CHAIRMAN IVES: Yes, Commissioner.
2 COMMISSIONER HAMILTON: Can I just ask Stephanie directly?
3 What's the possibility for getting a short-term amendment to the agenda.
4 STEPHANIE LOPEZ (Liaison): As we speak the packet is being printed. I
5 could go up –
6 CHAIRMAN IVES: On that point, is our meeting in January on January
7 3rd? So effectively, we'll be able to take this up two days after the new governor is
8 actually sworn in and her capacity to deal with it –
9 COMMISSIONER HANSEN: Okay. I accept that.
10 CHAIRMAN IVES: Because January 3rd is plenty of time.
11 COMMISSIONER HAMILTON: I mean, honestly, I don't think there is
12 very much that would be needed in terms of packet materials if it's a discussion item that
13 we could maybe – it could be added as an amended agenda item for packet material.
14 COMMISSIONER HANSEN: Don't you amend agendas – don't you have
15 the right to amend an agenda by the weekend before our meeting?
16 MS. LOPEZ: Right now we could amend the agenda without adding
17 packet material.
18 COMMISSIONER HANSEN: Right. So that's a possibility. And that
19 would give us time to work on the letter.
20 MS. LOPEZ: Excuse me. But we would need to do that almost right now
21 because we need to get the hard copy packets to you before the weekend. And as we
22 speak, there's five or six packets in front of our packet. It's a little harder.
23 CHAIRMAN IVES: It's a whole complex system in other words. Can it
24 not be, I think it's in the BDD – can we write a letter saying please do more cleanup? I
25 think we certainly have that capacity. Again, I think each of our respective governing
26 bodies is a far more impactful place to be making those types of statements, quite frankly.
27 I'm just – I don't mind us doing that, but –
28 COMMISSIONER HAMILTON: The thing is, respectfully there needs to
29 be the need for the Board to actually discuss it. The idea is not here requesting it as an
30 item is not to push through an action, de facto. Whatever my personal – and frankly, it's
31 premature to make that decision. That's part of what this study session is about. I just
32 think we do need the time. So having some discussion, if it were possible next week
33 might be – especially if it takes more than one meeting to think about.
34 CHAIRMAN IVES: I was not sure how much everybody would have had
35 an opportunity, especially given the many members who are absent to actually digest to
36 really try and discuss it thoroughly. I would love to see us get minutes from this meeting,
37 get that distributed to everybody with the various materials that are being submitted and
38 considered before we take that up so that we could take it up in a – I don't think we could
39 do that by next Thursday. But again, I would stress our meeting in January is January 3rd
40 and I would suspect our incoming governor has a few things on the plate. And I think
41 perhaps the capacity to deliver that before the session begins in any event is probably a
42 Board-critical factor rather than jumping into it next week. So that's my sense of things.
43 I had a few questions if others were finished with questioning. Any questions
44 from our other participating members? I had a few. I'm not sure I was aware of the report
45 that you referred to, Joni, with regards to Mr. Rice. This is on the second page of the
46 handout you distributed under July 2004. And you note that he calculates a hypothetical

1 fast-flow path from a discharge pipe Outfall 051 into Mortandad Canyon through the
2 complex geology of the Rio Grande Spring 3 series, an eight-mile journey in 26 years of
3 less. LANL's been there since the forties so we're almost three times that 26 years or
4 less. Is there any evidence that those pollutants, those materials are reaching the Rio
5 Grande as Mr. Rice had predicted.

6 MS. ARENDS: Yes. Every year the Environment Department, LANL,
7 CCNS, Amigos Bravos and others would sample the springs of the river and
8 contaminants have been found. The public was able to go out with the agencies for about
9 four or five years but that was discontinued about the time the consent order came into
10 effect. But yes, there are contaminants at the river. There's cesium and strontium that's
11 been found in the Spring 4 series, which is down-gradient of Area G. There's high
12 explosives down at the Spring 9 series which is near Ancho Canyon. There's tritium,
13 which is a fast moving radioactive isotope of hydrogen found in the springs. They can be
14 found seasonally. They can be found during drought conditions and non-drought
15 conditions.

16 So there's a lot of data from that sampling effort that's been going on for decades.

17 CHAIRMAN IVES: Actually, I think having that data would be of
18 interest. I noted that these time frames have long been presumably in place, suggesting
19 that those pathways might or might not exist and I don't know what that data is, quite
20 frankly. So I don't know if that data is gathered anywhere.

21 MS. ARENDS: Yes. It's in the Intellus database, but that's a nightmare. I
22 do want to mention that Dennis McQuillan did some Stiff diagrams to show that – that
23 talk about the chemistry and Dennis found that – I think in the Spring 2 or 3 series down
24 here above the Buckman, that show that the chemistry was similar to wells that are near
25 the Y, where the road splits where you can go either up the hill or around to Bandelier, in
26 that area. So that they're showing again that we don't know – there's a lot of uncertainty
27 but there are connections that are being shown that indicate that contaminants are
28 traveling to the springs and to the Rio Grande because we don't know about the
29 mechanisms underneath the river that would allow for polluted water to get into the river,
30 other than the springs, at this point.

31 CHAIRMAN IVES: That raises an interesting point which Mr. Longmire
32 made a number of sessions ago to this body was that there was no – as I understood the
33 point – hydrologic connection between the chromium plume at 900 to 1,000 feet and the
34 Buckman wells. It was a statement made by him. I hope you will correct me if I'm
35 misstating any of that when you have your opportunity to come down and speak, Mr.
36 Longmire. That is what NMED through Mr. Longmire had shared with us, so there does
37 seem to be – perhaps call it level of disagreement with regards to what contaminants
38 through what mechanisms can reach the Rio Grande. And I would certainly hope to get a
39 little more clarity on that point from the various speakers here today, so that we're clear
40 on that. We deal, obviously, with water quality to the residents of the City of Santa Fe
41 and Santa Fe County and Las Campanas, county residents, and again, there are a number
42 of other organizations who certainly are also advocating for greater cleanup dollars,
43 which I think is always appropriate. The level of cleanup is a question that folks can
44 probably debate. I certainly understand the desire to remove it all but until we get
45 Congress to devote significantly more money and we know from Mr. Hintze's latest
46 appearance before the BDD that that amount is approximately \$220 million per year for

1 the legacy wastes and I'm quite frankly not sure how much more we're going to be able
2 to get regardless of what changes are made. Just saying.

3 MS. ARENDS: So with regard to the transport mechanisms and the
4 chromium plume, CCNS is advocating that we be pro-active, that we use the
5 precautionary principle in order to get things cleaned up now and we're not sitting
6 waiting for the chromium plume to show up in the Buckman wells, number one. Because
7 we don't know that mechanism. The lab has always said that the transport mechanism in
8 the regional groundwater is to the southeast, but the fact that the latest plume shows the
9 plume going to the northeast is significant. So we don't know. As a community that
10 depends on the river, we need to be pro-active to say that cleanup needs to happen by the
11 laboratory. And it's not so much the dollars; it's the actual shovels in the ground. There's
12 been a lot of shenanigans with regard to cleanup money paying off old pension debts, all
13 sorts of different things with the cleanup money over the years.

14 And then I just want to mention one more thing. In 2006, in the Safe Drinking
15 Water Act report that the City put out, they detected plutonium in Buckman wells 1 and
16 8, and it was fingerprinted back to the lab. And those are the wells closest to the river. So
17 there is a mechanism for LANL contaminants to get into the wells at this point. Whether
18 it shows up again is a whole other issue. And that's why we're asking for more frequent
19 sampling, using the best analytical methods and more transparent reporting. And that we
20 get out of that Intellus database because it's a waste of time and it's a nightmare. Frankly,
21 it's a nightmare. The Buckman Board should be posting its own data on its own website
22 with regard to these contaminants. That would hold LANL more accountable.

23 CHAIRMAN IVES: Other questions?

24 COMMISSIONER HANSEN: Just a comment. I do not believe that we
25 are limited by the amount of money that we can now get from Congress. Our
26 congressman has just been put in the number four position which is now on
27 appropriations in the House. The Democrats control the House and considering that this
28 Board and many of the people in this room have an excellent relationship with
29 Congressman Lujan I think it behooves us to move forward with working with
30 Congressman Lujan and Senator Udall, who is also on the Appropriations Committee to
31 make sure that these things happen.

32 CHAIRMAN IVES: I couldn't agree more, and I've been participating in
33 those efforts for a number of years, which is why I think we have \$220 million annually
34 going towards legacy cleanup. But if Congress can find its way to do more, I'm certainly
35 all for that.

36 COMMISSIONER HANSEN: I'm going to comment also. It's great that
37 we have \$220 million. I just don't like the way that it's being used. I don't think that
38 there's enough oversight and I think that there needs to be more oversight, just like there
39 needs to be more oversight of BOR, BIA. There needs to be more oversight now that we
40 have Democrats in this House and are in charge of our congressional monetary funds I'm
41 hoping that we will have the DOE – the DOI needs more oversight also. I have been
42 reading this incredible book called *Distance in his Eyes* about Secretary of Interior
43 Stewart Udall and the amount of things that he did at the Department of Interior is
44 overwhelming compared to what has happened in the last 20 to 30 years. We all owe him
45 a tremendous amount of thanks.

46 MR. HARWOOD: Mr. Chair.

1 CHAIRMAN IVES: Yes.

2 MR. HARWOOD: Not to interrupt the conversation because this is clearly

3 what the study session is intended but I just noted we are almost through our first hour

4 and we have other invitees so I know, thank you, Joni. Miss Conn.

5 CHAIRMAN IVES: I don't know if staff is ready to give a presentation at

6 this point. Please, jump in.

7 DANIELA BOWMAN (Regulatory Compliance Officer): We were able

8 to correct some of the technical difficulties but not 100 percent so I want to apologize if I

9 interrupt from time to time to figure out how to manage this. Mr. Chair and members of

10 the Board, the BDD staff is presenting some background information on the Rio Grande

11 water quality monitoring at the BDD. We also are going to explain in short how we

12 analyze the results from the long-term monitoring that we have been doing at the BDD

13 and how we reach certain conclusions.

14 This slide lists a few major dates in the history of the BDD and the Rio Grande

15 water quality concerns. The water quality concerns at BDD location started since the

16 inception of the facility. That is because the location of the BDD was selected to be

17 downstream from Los Alamos Canyon Watershed, which is known to have contaminated

18 sediments. In fact the Pueblo Canyon that is a tributary to Los Alamos Canyon is

19 probably the most contaminated with plutonium.

20 In February of 2002 a formal agreement became effective between the Forest

21 Service, the BLM and BOR and the three applicants proposing to build the BDD. Now

22 we know that these three applicants are the City of Santa Fe, the County of Santa Fe and

23 Las Campanas. Five years later, a letter to DOE, Los Alamos National Laboratory

24 environmental officials went out from the chair of the BDD Board presenting six specific

25 requests to LANL and those requests had to do with protecting the source or the reach of

26 the Rio Grande where the BDD is located.

27 November 5, 2009 the BDD Board approved a \$200,000 contract with ChemRisk

28 to perform an independent peer review study and the work was funded by the DOE grant.

29 I believe that study was very thorough. It had a lot of information and it had very good

30 conclusions. It is posted on our website if you want to go through it. It's really very

31 informative.

32 And a year later, on May 12, 2010, the first MOU between the Board and the

33 DOE-Los Alamos National Laboratory was signed into effect and we started sampling

34 the Rio Grande in the season of 2011. So in that particular MOU there were four years of

35 monitoring of the Rio Grande surface water.

36 You've seen this slide before. The BDD is in the business of producing drinking

37 water. In order to do that we have to comply with some regulations and we are running

38 five environmental programs. The largest one of course, and the most important is the

39 Safe Drinking Water Act. We have to make sure that whatever water we produce meets

40 the standards and that it's good quality drinking water, which we do or we believe we do.

41 We haven't had any exceedences of MCLs and our treatments are very effective for

42 treating the surface water in the Rio Grande.

43 The other program that takes a lot of attention is the solid waste disposal. Since

44 the Rio Grande is a surface water it has a lot of solids, suspended and otherwise, and so

45 the removal of those – we use a lot of solids. And our treatment technologies as I

46 presented last time are very efficient to remove all the solids. We proved last time – we

1 showed that the BDD treatments remove more than 97 percent of the solids that are
2 pumped into the facility. The NPDES permit we have is also an important program. We
3 remove some large sand particles before the water is sent to the treatment facility and we
4 discharge those back to the Rio Grande and we have proven that that discharge does not
5 change or disturb the Rio Grande by any means, which is good news.

6 The other two programs, the universal ways that we generate and reporting of the
7 hazardous chemicals that we store are very small environmental programs. And so all
8 these are mandatory regulatory programs that we must run and the last environmental
9 program that we run is voluntary and as you know, these are the programs that are run
10 under the MOU between the Board and Los Alamos National Laboratory.

11 Here's a little bit of history of the MOU. The 2010 covered four seasons. We have
12 a huge report; without appendixes and attachments it's a 250-page report. It's posted on
13 our website. It's very informative. It's a great report to familiarize with. The 2015 MOU
14 covered three seasons, so we have a preliminary report, which I have loaded here. I can
15 always flip back and forth in order to show you some of the results from that preliminary
16 report. That, for the past three seasons, 2015 through 2017, the analytical results from
17 that report confirm the analytical results from our previous report.

18 Currently we are operating under the third MOU, that's the 2017 MOU, for the
19 season of 2018, 2019 and 2020. The programs of the MOU are the early notification
20 system. We'll talk about this with one slide. The surface water monitoring of the Rio
21 Grande – I have many slides for that, and we spent a lot of time on the contaminated fate
22 analysis, upgraded to the TREAT study last time, I believe.

23 The early notification system has always been designed as a preventive program,
24 so preventive meaning we like to stop the diversion when there is any risk of flow from
25 Los Alamos Canyon reaching the Rio Grande and of course reaching the BDD. So it was
26 designed to prevent LANL legacy contaminants reaching the BDD and being pumped
27 into the treatment system. Of course that doesn't always happen the way it's designed but
28 that was the idea behind it. That program has changed throughout the years. As you see,
29 the program includes some Los Alamos National Lab gauge stations. Gauge station 50
30 represents the middle of Los Alamos Canyon. Gauge station 60 represents the Pueblo
31 Canyon, the most contaminated with plutonium. Gauge station 99 represents the Guaje
32 Canyon, supposedly not contaminated by Los Alamos National Lab activities.

33 The former 109.9 gauge station does not exist anymore. It's former because it was
34 buried a long time ago in 2013. We've been trying to install some equipment that will
35 indicate when flow reaches that part of the canyon. We haven't been successful yet. The
36 radar did not work. The bubbler- last year was not very rainy. We couldn't figure out if it
37 works or not so we're still making it work.

38 COMMISSIONER HANSEN: Mr. Chair, I just have one question on that.
39 Is this the sampling station on San I?

40 MS. BOWMAN: Correct. But there's no sampling station really.

41 COMMISSIONER HANSEN: Okay. But there was.

42 MS. BOWMAN: There was, yes. Los Alamos National Lab had a
43 sampling station and New Mexico Environment, DOE Oversight Bureau has a sampling
44 station. The sample but the last two years they haven't sampled that many events. They
45 have changed slightly the scope of their program for the last two years. So I'm not quite
46 sure if anybody is sampling at that particular location. I wanted to mention that all these

1 stations are important, including the former 109.9 gauge station because the weather
2 patterns in that area are very peculiar and it's possible that the lower Los Alamos Canyon,
3 which is the former 109.9 station, flows, but the others don't flow. And it's possible all
4 other combinations. Like it's possible that 50 and 60 you see flow, but it doesn't get to
5 the river, and it's possible that the Guaje flows but it doesn't get to the river. Or it's
6 possible that only Guaje flows, or Guaje and the former 109.9 station flows. All
7 combinations are possible, which indicates that it is possible that sometimes the lower LA
8 Canyon flows but we don't know about it because there's no station or indicator. And so
9 that I wanted to make very clear that the ENS as it's currently designed, it's slightly
10 deficient from that point of view.

11 And I wanted to mention, if you can remember those stations, 50 and 60 are the
12 beginning, and then you have 99, the former 109.9, Otowi Bridge and BDD – we're
13 going to talk about these five locations where sampling occurs or has occurred prior in
14 order to explain which are the sources of different contaminants.

15 CHAIRMAN IVES: Daniela, let me just say we do have limited time and
16 other speakers so I think folks are generally familiar with the history and the MOUs. I
17 don't know if it's possible to jump to your conclusions and thoughts on water quality.
18 That would be fabulous.

19 MS. BOWMAN: Okay. I will try that. You've seen this slide before. We
20 have reported these results prior. The concentrations of contaminants that are in the Rio
21 Grande at BDD – metals, rads, and organics such as PCBs and the absence of [inaudible]
22 do exceed established background levels and sometimes they exceed the New Mexico
23 Water Quality Control Commission standards. So you've seen that slide before. And we
24 have determined that the sources of those contaminants do come from Los Alamos
25 Canyon and some of them might come from the Rio Grande Watershed upstream from
26 Otowi Bridge.

27 So this slide, I took this picture from the New Mexico Environment Department.
28 These are all the impaired reaches in the BDD area. The red ones are Category 5. We are
29 located on reach of the Rio Grande that is a Category 5 impairment. Of course the New
30 Mexico Environment Department Surface Water Bureau posts on their website a lot of
31 information and you can read – there's big tables and appendixes and what our reach is
32 contaminated with.

33 One of the contaminants is gross alpha, and I wanted to mention something here.
34 If you notice where BDD is located, all these red lines to the left of BDD, these are all the
35 canyons on the Pajarito Plateau. Every single canyon, almost all the reaches that are
36 marked there, and the Rio Grande associated with those canyons where they flow into the
37 Rio Grande, they're all impaired for gross alpha. This is the only location in the entire
38 state of New Mexico where there's impairment of gross alpha except for one tiny little
39 reach on the Red River.

40 So if you hear – there's no other place in New Mexico that has impairment for
41 gross alpha but these canyons and the reaches of the Rio Grande associated with these
42 canyons. So it becomes obvious who is the source of gross alpha for example.

43 CHAIRMAN IVES: Let me just ask if you could spend 30 seconds
44 explaining what gross alpha is.

45 MS. BOWMAN: Gross alpha – different radionuclides emit different
46 types of radiation. Gross alpha – certain radionuclides like trans-uranic, they emit usually

1 gross alpha and gross beta radiation. The gross alpha travels very short distances and the
2 risk from gross alpha and gross beta is when you ingest or inhale those radionuclides
3 because they travel such short distances. So if you eat something that's contaminated
4 with those type of radionuclides, or if you drink or inhale such air then your body will get
5 damaged. There are some radionuclides that emit gross gamma radiation and those are
6 very dangerous from a distance. Like cancer therapy drugs and others are very often from
7 a distance they will be treating it in that matter.

8 So of course Los Alamos National Lab under the nuclear program handled mostly
9 those type of radionuclides. They emit gross alpha and gross beta radiation.

10 When we say gross alpha we're not talking about one particular radionuclide.
11 We're just talking about any type of radionuclide that emits gross alpha bunched up in
12 one bag, so to speak. It's an initial measurement that we do. It's not the most important
13 one. And here's an example of what we have detected throughout the years, these seven
14 years of monitoring. It's a great graph. Gross alpha is not a priority on our list, so if we
15 don't collect a full set of samples we don't usually send out for gross alpha. We'll send
16 out for plutonium and other radionuclides that are important. So that is why the data here
17 is not as much as for other constituents that we monitor. Only if we have left over
18 samples from what we collect we will send for gross alpha.

19 I wanted to mention here the red line is the standard in New Mexico which is the
20 15 picocurie per liter, and you can see on a regular basis that is exceeded. I wanted to
21 mention also that this program started as stormwater monitoring. When you have storm
22 water monitoring a lot more contaminants are brought down from everywhere. It could
23 even be global fallout. Currently we don't monitor only stormwater. We have a lot of
24 base flow monitoring as well, but the data is bunched up in one bag.

25 Here's another example of our long monitoring program. I'm not going to go
26 through every single constituent. All the reports posted on our website, it's impossible in
27 a presentation like this to go through all the contaminants but you could view all these
28 graphs on our website. It's very easy to download these reports. Here is, for example total
29 PCBs for ten years. Why do we have three extra years? Again, because New Mexico
30 Environment Department, DOE Oversight Bureau have been monitoring – have been
31 taking samples at BDD since 2005. As you see on a regular basis here, we have
32 exceedences of the New Mexico standard for total PCBs.

33 I wanted to place this slide here in order to mention how we read box & whisker
34 plots, and that is important because a lot of the environmental data is presented as a box
35 & whisker plot. Why? Because it's a very convenient way to compare two sets of data, or
36 three sets of data, or five sets of data, instead of having all these little dots. This is a
37 vertical box & whisker plot.

38 CHAIRMAN IVES: Daniela, again, we're about to hit 10:15 which is
39 when I'd love to get another presenter because we have three more presenters and if they
40 each take 15 minutes we're to 11:00, which means our discussion will be significantly
41 limited in any event. So I appreciate the data and if there was some sort of physical report
42 that you had, and maybe it's this power point slide that you could distribute to folks so
43 they could read it, but we've got to keep this moving forward and it sounds like you have
44 tons more. I'm going to hate to say I'm going to have to cut you off, but –

45 MS. BOWMAN: I have two more slides that I think are worth discussing.
46 This is one of them. It shows, if you remember, it compares the 50 and 60 gauges from

1 Los Alamos National Lab monitoring. These are the concentrations of plutonium 239 and
2 it goes down the canyon to Guaje Canyon and it goes down to lower Los Alamos
3 Canyon, and this is Otowi Bridge. Otowi Bridge represents what comes down from
4 upstream from the Rio Grande Watershed. As you see the concentrations of plutonium
5 here are very low. Look at this one which is like a central tendency. It's almost like an
6 average, the average at Otowi Bridge, which you could think of as natural or global
7 fallout. It's very low. Look at Los Alamos Canyon – much higher, for all of the sampling
8 stations in Los Alamos Canyon. This is Otowi Bridge and look at BDD. As you see,
9 BDD is not as low as Otowi Bridge. BDD is somewhere in the middle between Los
10 Alamos Canyon and Otowi Bridge. The only conclusion we can draw from this particular
11 graph is some of the sources of plutonium do come from Los Alamos Canyon. It's very
12 obvious.

13 This green line here represents the background in the Rio Grande, and this blue
14 line is the Pajarito Plateau background for plutonium. So as you see, the concentration for
15 plutonium, this graph came from the first four years of monitoring at the BDD. As you
16 see, the BDD, the plutonium concentrations in suspended sediment – 75 percent of the
17 time were above the Rio Grande background. So this is a very nice graph. That's how we
18 figure out which are the sources of contaminants.

19 And I'm going to go – I have a few more but I'm going to go directly to
20 conclusions and recommendations, that is staff conclusions and recommendations. The
21 surface water monitoring under the MOU requires great effort from BDD staff. We put a
22 lot of effort in it. The complexity of the Rio Grande Watershed is challenging to study
23 and interpret. BDD is a drinking water producing facility and has done well in running its
24 environmental programs including the MOU programs. That's what we think. What is it
25 that we need and is there anything we can improve? Yes, we could. We could improve
26 our ENS system, which is the preventive system by having a flow gauge at the former
27 109.9. Whose flow gauge that is going to be? I don't know. Maybe Los Alamos National
28 Lab. Maybe us. But we need that data from that gauge in order to have a truly
29 preventative system.

30 We can improve our sampling program. We need sampling at that lower Los
31 Alamos Canyon in order to be able to model the concentrations that arrive at BDD. We
32 could figure out and predict by modeling what concentrations come in based on the flows
33 in lower Los Alamos Canyon. Currently we don't have a sampling station there. And we
34 definitely need a sampling station at the Otowi Bridge.

35 And of course, if we're going to be expanding this program we need additional
36 support. That additional support means staff. Staff could be in-house or could be
37 contracted in additional resources to properly manage the program if the program is
38 expanded.

39 CHAIRMAN IVES: Thank you. Questions?

40 COMMISSIONER HANSEN: Just to re-emphasize, the 109.9 is the
41 station on San Ildefonso.

42 MS. BOWMAN: Correct. It is.

43 CHAIRMAN IVES: Other questions? Thank you. Kyle, I'm not sure, but
44 who was next? Perhaps Rachel?

45 RACHEL CONN: Good morning. My name is Rachel Conn. I'm the
46 projects director with Amigos Bravos. We're a statewide organization that works to

1 protect and restore the waters of New Mexico. We just celebrated our 30th anniversary.
2 Had a big party. Maybe some of you were up there. We have an annual Rally for the Rio.
3 I invite you to come join us next year. So I wasn't really clear exactly what you were
4 looking for or what knowledge the Board has on water quality standards and the Clean
5 Water Act in general, so some of these initial talking points – I put together a power point
6 mostly just to help – as talking points for me but then I made copies. I thought it might be
7 useful for you to see. Especially with the – I copied in here the standards that apply to the
8 Rio Grande where the diversion is and included some language about the impaired
9 waters.

10 So I don't know how much time you want me to spend on some of the basics of
11 how clean water – how the Clean Water Act works and how standards work.

12 CHAIRMAN IVES: I'm not sure that that's really our intended focus.

13 MS. CONN: That's great, so we can save a lot of time and focus on some
14 of the recommendations that I had. So if you wanted to skip to sixth slide, which is the
15 bottom slide for the handout that you all have up there. So this is the –

16 MEMBER FORT: Could I interject a question? Rachel, could you just tell
17 everyone what Amigos Bravos' role is in this stretch of the Rio Grande. So you've
18 worked with – just to clarify why you're here. Thank you.

19 MS. CONN: Yes. Amigos Bravos – well, there's a number of ways we
20 engage on this stretch of the Rio Grande. We work statewide on water policy. So we are
21 very engaged in the triennial review and water quality standards throughout the state and
22 in the stretches on Los Alamos National Lab and on the Rio Grande through White Rock
23 Canyon. So we engage on a policy matter on things like water quality standards, the
24 hydrology protocol, and then specifically regarding Los Alamos National Lab, we're
25 involved in a coalition called Communities for Clean Water, and that coalition, which
26 formed back in 2005, 2006, we sued the lab for violations of the Clean Water Act for
27 stormwater discharges. And we also appealed the stormwater permit, the first draft of the
28 individual stormwater permit. Both of those were settled in 2010, 2011 and we've since
29 then been highly engage in monitoring the implementation of that stormwater individual
30 permit.

31 So we engage in technical meetings with the lab and monitor the implementation
32 of that stormwater permit. We also engage in LANL's wastewater permit in the issuance
33 of that wastewater permit. So we're engaged on all those fronts.

34 So I just wanted to draw attention to the standards that apply. I'm sure you guys
35 are aware of this and I believe that NMED is going to talk a little bit more about the
36 radionuclide portion of this so I'll leave that to them to talk about that. But why I wanted
37 to talk about standards is because it's very critical in terms of determining – setting
38 benchmarks for how we're doing in terms of water quality and it's what the 303d list of
39 impaired water is based on. And that's what that second handout that I provided to you
40 all, water quality at LANL is a summary of the impaired waters in Los Alamos as well as
41 in the stretch of the Rio Grande below Los Alamos. And a portion of it is above.

42 So I wanted to draw your attention to the impaired waters in the Rio Grande, from
43 the section of the Rio Grande where the Buckman diverts from. And it's impaired for
44 PCBs in fish tissue, turbidity, gross alpha, PCBs in the water column, selenium, thallium,
45 and cyanide. And these impairments have resulted in four uses not being supported in this
46 stretch of the Rio Grande. That's livestock watering, irrigation, aquatic life, and wildlife

1 habitat.

2 So that's a pretty concerning summary there and if you look at the different
3 canyons that drain into the Rio Grande from Los Alamos there's many of these same
4 impairments in those canyons and that's summarized on that fact sheet.

5 So the next slide on the top of page 5 for you guys that I want to draw your
6 attention to is the list of NPDES permits upstream from the Buckman Direct Diversion.
7 Many of these are on LANL property but there's also some that are not, so I wanted to
8 draw attention to these. These are sources of pollution that I would urge the Board to
9 monitor and be involved in the permitting decisions and monitoring the discharge
10 monitoring the reports.

11 I wanted to take a little bit of time to talk about two of these bullets – the LANL
12 individual stormwater permit is something that we've been engaged in quite intensively
13 for over a decade now and it is under a renewal process right now. It's been a very slow
14 process and under the new management at LANL with N3B they've decided to take a
15 step back and now they're going to be putting together a new application for the renewal
16 of this permit. And there's been ongoing conversations between the EPA, the New
17 Mexico Environment Department, DOE, N3B and their consultants, as well as
18 Communities for Clean Water and our consultants. And it's still a little unclear what the
19 exact changes that they're proposing are, though it appears that they are attempting to
20 remove a lot of the sites from the permit, which is very concerning from Amigos Bravos'
21 as well as Communities for Clean Water's perspective, and I wanted to draw your
22 attention to that and to urge you to be involved in that process.

23 One of the results of our lawsuit that was settled in 2011 is that the current permit
24 requires two public meetings a year. That's unusual in a NPDES permit, to have a permit
25 requirement that they host public meetings, and we were able to get that in place, as well
26 as a specific website that's specific to the permit where you can monitor documents from
27 that permit. And I think – why I'm drawing your attention to this, it seems clear from the
28 slides we just saw that there is a heavy loading of pollutants that move during storm
29 events, and that this permit that is regulating the dirtiest of those stormwater sites at the
30 lab.

31 So there is a public meeting coming up that's associated with the permit. That's
32 December 12th and it's going to be held at the Cottonwood on the Greens in Los Alamos,
33 and actually, they haven't come out with an official notice of that meeting yet, so I'm not
34 sure what time it is. I haven't been notified of the time. It's usually in the evenings
35 starting at 4:00 or 5:00 and is a couple of hours long. Communities for Clean Water is
36 often on the agenda for those meetings and I urge you to track those meetings as a good
37 opportunity to get a lot of information about what's going on with that stormwater
38 permit, what's going on with the monitoring associated with that permit. And also to
39 monitor the website. You can get notifications. You can sign up to be notified any time
40 there's a posting on the website. There's new information posted. So I urge the Board to
41 do that as well.

42 I think the timeline for that is – N3B has indicated that they want to get a new
43 application in to EPA in January, and then they're hoping – I think this is a very
44 hopefully and potentially pretty naïve hope in terms of timeline – they're hoping that
45 EPA will turn around and issue a permit in time for the field season for 2019. I think
46 that's a very tight timeframe and unlikely but that's what their goal is is hopefully EPA

1 would come out with a draft permit in the spring. There would be a public comment
2 period and then they would issue the permit in time for sampling in the summer.

3 COMMISSIONER HAMILTON: In that regard, is this the permit they are
4 looking to – are they requesting major changes in terms of areas of impact included in the
5 permit? Or was that in reference to something else?

6 MS. CONN: It was in reference to that. It is unclear exactly what changes,
7 because there's just been general discussions about what they're looking at. It looks like
8 they're wanting to focus – and in some ways I appreciate some of the work that they've
9 done because it's helped prioritize which are the worst sites. I just disagree that we need
10 to remove the other sites for the permit. So it's a good prioritization process they've been
11 going through. I'm worried about removing some of the lower priority sites from the
12 permit, especially since many of these sites had baseline controls that were put in initially
13 on this permit, and if you remove them from the permit there's no requirement to go back
14 and monitor to make sure that those controls continue to be in place and those could be
15 why they're not showing up as high with results. So there's lots of factors going on but I
16 wanted to let you guys know about this ongoing process and there's going to be a lot of
17 action on it in the next year.

18 The other bullet on this slide that I wanted to draw your attention to is the
19 potential for an MS4 permit for the County of Los Alamos. So that's a multi-sector,
20 separate stormwater permit. So Amigos Bravos submitted a petition in 2014, a long time
21 ago, to EPA that the county and the lab – so all the area on the Pajarito Plateau that
22 includes both the lab property as well as the county property – be covered under an urban
23 stormwater permit. So this isn't the industrial. The permit I was talking about prior covers
24 400 industrial sites that have been high priority, contaminated sites that are on the lab
25 itself. This MS4 petition looks at urban stormwater runoff. And one of the ongoing
26 conversations that has occurred with implementing that first permit I talked about, the
27 industrial contaminated permit, is that there's been a lot of talk about there's
28 contaminated runoff coming onto these sites from the urban areas. And in some ways,
29 we've been concerned that that's been an attempt to deflect on Los Alamos' part the
30 responsibility for the contamination. And I do think that there is. The data does show that
31 there is contaminated runoff coming on. Maybe not to the extent that sometimes has been
32 claimed but it is a problem.

33 And so then the data shows that and we submitted that data to EPA in a petition
34 back in 2014 asking for MS4 coverage. That's an EPA permit that addresses urban
35 stormwater discharges. And they came out with a preliminary determination saying, yes,
36 indeed, it does. There should be Clean Water Act coverage of these discharges.
37 Unfortunately then there was push-back from both the Environment Department and the
38 County of Los Alamos against that preliminary determination. And that's a big concern
39 and that's kind of halted the progress.

40 Why I'm bringing it to your attention is that I'm hopeful that this Board could
41 potentially write to the new Environment Secretary coming in and ask for it to be a
42 priority again. From our conversations with the State prior, under the Richardson
43 administration is that that seemed to be a priority of the Environment Department, or at
44 least the Environment Department supported the concept of looking at those stormwater
45 discharges from the urban areas in Los Alamos County, and under the Martinez
46 administration there was a stepping back from that as was demonstrated in the response

1 to EPA to their preliminary determination.

2 And then Los Alamos County has been very aggressive in pushing back on this
3 designation and that's very concerning. The data clearly shows that there's contaminants
4 coming from the urban areas in Los Alamos County and it deserves regulation and
5 attention. So that's something I would urge the Buckman Direct Diversion Board to
6 consider supporting a final determination and then getting a permit in place.

7 MEMBER FORT: Mr. Chairman, I know the time is tight but I'll ask this
8 question now or from 11:00 and afterwards. So your next point was about strong water
9 quality standards. Do you recommend that the Board play a role, since we are not
10 irrigators; we are not livestock – whatever the third impairment was. Should we have
11 specific public water supply standards?

12 MS. CONN: So, one of the things to look at is there is a drinking water
13 supply standard that is in use, though that doesn't necessarily – it's more in the case for
14 places where people are using drinking water without the treatment that goes on here.
15 What I think would be useful for the BDDDB to do is to look at the proposals from other
16 entities. So one of the other things that has come up in this process where I was
17 mentioning the renewal and having discussions with EPA and N3B and their consultants
18 is that they're looking at different water quality – it's looking like they're wanting to
19 change the water qualities on the lab property. And I would urge using different methods
20 for determining what those standards are, what those numeric criteria would be. They're
21 looking at this biotic ligand model approach, which in many cases would lower the
22 numbers or raise the numbers. It would make them less protective and that's a concern to
23 monitor, to see what's being proposed from other parties is one of the main things that I
24 would urge you to do during the triennial review.

25 The other thing that's coming up during the triennial review is we've been
26 engaged in a hydrology protocol process on the lab looking at the ways the drainages on
27 the lab have been determined to be either perennial, intermittent or ephemeral, and
28 there's varying levels of protection on waters depending on how they're categorized, and
29 we brought up that we think that many of those waters are incorrectly categorized and
30 there should be more perennial categorizations, which have higher protections. And
31 we've been working with LANL and the Environment Department to go out and do – we
32 had a stipulated agreement that came out of the last triennial review to look at some of
33 these drainages and we've identified some perennial drainages that will get better
34 protections. They're currently not protected as perennial; we've determined that they are
35 perennial through the hydrology protocol and we're looking to get them that protection
36 officially in the next triennial review, so that's another area during the triennial review
37 that the Board could support and track.

38 CHAIRMAN IVES: At this point I'd love to get NMED –

39 COMMISSIONER HAMILTON: Could I just ask one – it's not actually a
40 question? It's sort of a request. If you have a little bit of information on – you made
41 reference to different entities that are looking at trying to get some of the standards,
42 criteria changed for the urban or the lab area in particular. Do you have some information
43 on what's going on, who's participating in that? That would be useful to us.

44 MS. CONN: Yes. There haven't been official proposals. The triennial
45 review process is going to be in the future and I believe Ms. Lemon is going to give a
46 summary of that schedule in her next presentation. And so there hasn't been any official

1 presentation. I get concerned in the presentations that I'm seeing from the N3B
2 consultants where they're putting forth some of these models. It's in the context of the
3 stormwater permit, but I can see that they will potentially take those same models and
4 same thinking and transfer it over to the triennial review, or at least that's my concern. So
5 it's just something to monitor and to watch for, if we're changing the goalposts. I want to
6 see on the ground cleanup. I don't want to see us changing the standards and then saying,
7 oh, it's clean now; it's not impaired. So that's what I'm urging caution and attention to.

8 CHAIRMAN IVES: I would ask one quick question. Are these settlements
9 that you have referred to on your website?

10 MS. CONN: Do we have – we used to. I can certainly send the settlement
11 on the Clean Water Act lawsuit against the lab for stormwater discharges. Is that the one
12 you're mentioning?

13 CHAIRMAN IVES: Yes, it sounded like you were referring to two, and if
14 you could just share those with Kyle so he could share them.

15 MS. CONN: Sure. We have a stipulated agreement and then we have a
16 lawsuit. I can share both the lawsuit filing as well as the settlement.

17 CHAIRMAN IVES: That'd be great.

18 MS. CONN: As well as the permit and our comments on the last draft of
19 the permit. I can also share those.

20 CHAIRMAN IVES: Excellent. Thank you. And thank you for coming and
21 presenting and we'll move on to NMED so we can get everybody who agreed to come
22 and present presenting and thank you for your patience as we have worked through these
23 issues this morning. Not sure who is first. And it's helpful to pull up another chair. And
24 please start with name and affiliation please. Thank you.

25 SHELLY LEMON: Good morning. My name is Shelly Lemon. I am the
26 Surface Water Quality Bureau Chief for the New Mexico Environment Department. The
27 Surface Water Quality Bureau is responsible essentially for the Clean Water Act and
28 Water Quality Act in the State of New Mexico. So we monitor, assess, implement
29 restoration projects, and also work on water quality standards and NPDES permitting.
30 The State of New Mexico is not delegated to administer the NPDES program in New
31 Mexico so we work closely with EPA to draft permits and make sure that they are
32 protective of both federal and state water quality protections.

33 STEPHANIE STRINGER: My name is Stephanie Stringer. I am the
34 Drinking Water Bureau Chief at the New Mexico Environment Department and the
35 Bureau is responsible for overseeing all of New Mexico's public water systems and
36 ensuring compliance with the New Mexico drinking water regulations that are actually
37 adopted by the Environmental Improvement Board rather than the Water Quality Control
38 Commission and implementing the Safe Drinking Water Act.

39 MS. LEMON: Okay, so for today, I'm going to give you a little bit of the
40 history for this reach of the Rio Grande, which is when we assess waters we look at river
41 reaches and so the reach for the Rio Grande where the Buckman Diversion is is the Rio
42 Grande from Cochiti up to San I. And so that's what I'm talking about when we do water
43 quality assessments. We take water quality data from assessment units or river reaches to
44 assess that whole river reach.

45 So as we've stated before, in the 2009 triennial review of the water quality
46 standards there was a new designated use that came into existence and that was the public

1 water supply use and it applies to all regulated public water systems rather than just to
2 municipalities. It's based on the New Mexico drinking water regulations, which define a
3 public water system as a system for the provision to the public of water for human
4 consumption through pipes and other constructed conveyances.

5 Also in the 2009 triennial review we adopted some new criteria associated with
6 the Rio Grande in this segment from Cochiti to San I and part of that was radionuclide
7 criteria and I'll be going into that in a little bit of detail. But those criteria are for
8 monitoring and public disclosure purposes only, and I'll explain that in just a minute.

9 So the public water supply use covers public systems which are subject to
10 treatment requirements. So that would be associated with the Safe Drinking Water Act,
11 and we also have another use in our standards for domestic water supply, and that use
12 covers non-public water supplies which may not provide treatment except for
13 disinfection. So there's two separate uses in our standards for water supply in our
14 protections.

15 For the public water supply use there are no specific numeric criteria that apply to
16 protect that use. The water quality is protected under public water supplies ensured by
17 our general criteria, which apply to all waters of the state, such as no toxic pollutants in
18 toxic amounts, and also numeric criteria for the other designated uses, like aquatic life,
19 livestock watering, wildlife habitat, contact recreation, etc. This segment of the Rio
20 Grande also has flow-dependent criteria for total dissolved solids, for sulfate and for
21 chloride and determining appropriate numeric criteria to protect water supply is not
22 straightforward because the public water supply may have to undergo treatment in order
23 for it to be used. So it's a little bit more complicated than just looking at a river because it
24 has to go through some sort of treatment in order to be distributed for public
25 consumption.

26 MEMBER FORT: Mr. Chair, could I ask a question, clarifying? So do
27 other states – I think in general would expect a public water supply would be treated and
28 you'd want to know all the questions of how it's treated, to what degree. But do other
29 states do classifications, water quality standards for water that's withdrawn for public
30 water supplies, specific standards?

31 MS. LEMON: I'm not certain about that. Part of the standards – there's
32 three different components of standards. There's designated uses, there's criteria, which
33 could be narrative – like just a description, or numeric – an actual number, and then an
34 anti-degradation clause. But I don't know if there are any other states who have specific
35 numeric criteria for a public water supply.

36 MS. STRINGER: I do not know of any either.

37 MEMBER FORT: Easy to find out, but thank you.

38 MS. LEMON: And use-specific criteria could be helpful for reducing
39 treatment costs, like reducing the amount of sediment that is coming into the facility
40 that's treating it so it can be used for other things but essentially that public water supply
41 use is depending on the Safe Drinking Water Act to protect the consumption for the
42 public.

43 So for the Rio Grande, like I said previously, there are radionuclide criteria for
44 monitoring and disclosure purposes only. There are six different radionuclides that we
45 look at and we evaluate every two years. Every two years we assess the quality of our
46 waters. It's based on a rotational water quality survey because we cannot monitor the

1 whole state every year. We kind of rotate around the state and monitor different
2 watersheds, depending on the year. For 2017 and 2018 we monitored the Upper Rio
3 Grande, which is basically from Cochiti up to the Colorado border. So we will be
4 assessing that data in 2019 and coming out with a new integrative report in 2020.

5 But last year, in 2017, we started developing the 2018 list which came out this
6 year and that assessed – we did look at, we pulled data from Intellus to look at
7 radionuclide data for the previous five years, so from 2012 to 2017, and that data
8 included the lab data and also NMED-DOE's Oversight Bureau's data. And so from that
9 data we evaluated those criteria and none of the six radionuclides exceeded the criteria
10 that we established, which is a good thing, for those five years. That will happen again in
11 – we'll come out with a report in 2020 looking at this again. So it's kind of an ongoing
12 assessment.

13 And the reason why we have radionuclide criteria for monitoring and disclosure
14 but not for enforcement, is because of the Atomic Energy Act. It prohibits New Mexico
15 from regulating discharge of certain radioactive constituents from DOE facilities. So we
16 can look at it but absent a change in the federal law, Clean Water Act requirements
17 cannot be imposed on the lab for those contaminants. But we certainly want to be aware
18 of them and figure out if there are any action items that the lab needs to do or anything
19 that we can do to help remedy any issues that may come up.

20 I think I am going to go into our future – what's coming up. So like Ms. Conn
21 said, we will be scoping for the triennial review, which will start probably in the spring of
22 2019 or early summer of 2019, so it's going to be coming up soon. And when we do our
23 scoping, we're basically trying to gauge public interest, concern on what issues with our
24 water quality standards need to be resolved and what things we are going to be looking at
25 to change in our water quality standards.

26 Like I said previously, we monitored the Upper Rio Grande in 2017 and 2018 and
27 so we will be assessing that data in 2019, and every time before we assess the data we
28 revise our assessment protocols, which is now called our listing methodology. It's what
29 we use to evaluate the quality of water, compare it to our standards, and then if we find
30 exceedences of the standards then the water body may be put onto the list of impaired
31 waters, which is that list that you had from Rachel. So we'll be assessing next year and
32 then developing our report for 2020 based on that data. And I think that's all I have for
33 water quality standards. So I can either open it up for questions or Stephanie can talk
34 about how we work together with the Drinking Water Bureau.

35 CHAIRMAN IVES: We can do that. There might be quick questions. Yes.

36 MEMBER FORT: It might be a longer question. Can you talk about the
37 TMDL process and where you are with TMDLs with respect to this stretch.

38 MS. LEMON: For the Rio Grande?

39 MEMBER FORT: Yes.

40 MS. LEMON: The TMDL process, we evaluate and prioritize and develop
41 a list every year for EPA and also for us for our planning purposes. I'm not sure if the Rio
42 Grande in this stretch is on that list for this year. It will probably be, because we
43 monitored the Upper Rio Grande in 2017/2018. We'll know the new assessments in
44 2019, which means the TMDLs will probably be planned in 2020. So it's kind of like this
45 ongoing evaluation. We do know of certain impairments right now. We want to make
46 sure, verify the impairments with the new data and then move forward from there, so it

1 might be when the new list comes out in 2020, that's when we would be planning for
2 TMDL development.

3 MEMBER FORT: Would it be useful for the Board to advocate for a
4 TMDL for this stretch? A or plural TMDLs?

5 MS. LEMON: It could be. There are definitely TMDLs that open up
6 funding opportunities for water quality improvement projects. We are also working on
7 what's known as a TMDL alternative. We're beta testing that right now with a smaller
8 watershed to see how that works. But it's essentially going – instead of writing a TMDL
9 we're writing what's known as a watershed base plan, which is in our non-point source
10 program and that will move directly – it kind of skips a step. It skips the TMDL step but
11 we still have loading targets that are used in that watershed base plan and it kind of
12 streamlines the process a little bit. At least that's what we're hoping, because it's our first
13 attempt; we're going to see how it goes. But it is something that the Board could
14 advocate for and encourage just to help open up funding opportunities for those water
15 quality improvement projects.

16 MEMBER FORT: I'd like to ask Kyle if that's something when we have
17 the Board discussion in January if that could be considered in the letter or a related letter
18 to the governor. Thank you.

19 CHAIRMAN IVES: We can certainly take it up. Yes.

20 COMMISSIONER HANSEN: So I'm just wondering, you mentioned the
21 Atomic Energy Act that we're excluded. What's the year of that?

22 MEMBER FORT: 1954.

23 COMMISSIONER HANSEN: Okay, so the Atomic Energy Act has not
24 been opened up or revised since 1954?

25 MS. LEMON: My notes say 1954 as amended.

26 COMMISSIONER HANSEN: And when was it amended?

27 MS. LEMON: I do not have that in here.

28 COMMISSIONER HANSEN: I would like to get back to that because I'd
29 like to know what's the possibility of amending that act and how we could do it.

30 MS. LEMON: I don't know. That's above me.

31 COMMISSIONER HANSEN: It's a big question.

32 MS. LEMON: I think that would be a congressional –

33 COMMISSIONER HANSEN: Oh, definitely it would be congressional
34 but I think it has to come from our delegation and from our New Mexico Environment
35 Department, our leaders in the Senate and the House and I think that for that – we're still
36 living under a 1954 act when we have so much more data and information that is
37 pertinent to New Mexico. I find that insulting to our state to be limited in that regard.

38 CHAIRMAN IVES: And I had one hopefully quick question. So we heard
39 earlier that this section of the Rio Grande is impaired for gross alpha at a Category 5,
40 which I presume means significantly. But you're saying we don't exceed any limits for
41 drinking water quality. So I'm just sensing a little disconnect between the information.

42 MS. LEMON: Okay, so for the gross alpha, it is impaired for gross alpha
43 for the livestock watering designated use and then for those radionuclides, we do not
44 have gross alpha. It is americium 241, cesium 137, plutonium 238, plutonium 239, 240,
45 strontium 90 and tritium. So for those six, we evaluate and we took the last five years of
46 data and it didn't exceed any of the standards or criteria that we've established for this

1 segment to monitor flow off of the Pajarito Plateau.

2 CHAIRMAN IVES: Thank you.

3 COMMISSIONER HAMILTON: Mr. Chair, for the record, it's the
4 Atomic Energy Act of 1946, amended 1954.

5 [Mr. Harwood, speaking away from the microphone, stated it was amended in the
6 seventies and nineties on specific topics.]

7 CHAIRMAN IVES: Stephanie, please.

8 MS. STRINGER: Okay, as mentioned, I'm Stephanie Stringer with the
9 Drinking Water Bureau and the Drinking Water Bureau's authority really does not
10 oversee anything to do with the surface water quality in the Rio Grande, as I'm sure
11 you're all aware. So our regulatory oversight pertains to the water that is being served to
12 the customers or in this case sold to the downstream public water systems. And so that
13 includes the primary drinking water contaminants. Those are the regulated contaminants
14 that we monitor for to ensure compliance for all the public water systems. And again,
15 that's 20.7.10 NMAC if you want to know what those specific details are.

16 So Buckman Regional Water Treatment Plant directly or indirectly serves over
17 100,000 people. All of the water quality data for drinking water is available on our
18 drinking water watch website, so it's a good tool to see what's going on with any public
19 water system in New Mexico. I think the relevance and the context for which I'm present
20 at this meeting is the Source Water Protection Plan program that the Drinking Water
21 Bureau implements.

22 So that is purely a voluntary program. Historically speaking, the Drinking Water
23 Bureau did not really promote that program until around 2013 when we underwent a
24 major reorganization, and we really brought back and kind of tried to revitalize our
25 assistance program. So we have added to more full-time equivalents. So we have three
26 people dedicated to source water protection planning. This is nothing we mandate; this is
27 something we assist public water systems with developing. But these are local decisions
28 and it's more of a map for the local decision makers to use in their decision making
29 processes.

30 So we help with those efforts. We can do source water assessments. We can assist
31 with community meetings. But it's really up to the local communities to gather the
32 information that goes into these plans and come up with an implementation strategy by
33 which you can protect your source waters. And there's information available. I know Jill
34 Turner worked with Buckman probably two years ago, almost two years ago in
35 developing a draft plan. To our knowledge that plan was never finalized, and again, that's
36 a local decision so it was just something we provided assistance for and the Board can
37 choose to use that at their discretion.

38 COMMISSIONER HAMILTON: Mr. Chair, do you have any information
39 about who at Buckman she worked with or where that might –

40 MS. BOWMAN: Mr. Chair, members of the Board, we did finalize the
41 plan in September/October of 2017, so that is on file. We submitted that to the New
42 Mexico Environment Department and we did work with Jill Turner. And we have that
43 plan.

44 MS. STRINGER: What we have is labeled the final draft. In talking with
45 Jill before this she wasn't sure if it was formally adopted by the Board.

46 COMMISSIONER HAMILTON: I don't think it's ever been presented to

1 the Board. Because I've been here two years.

2 MS. BOWMAN: It was up to our manager to decide what to do with it but
3 it was finalized and we submitted that final plan to the New Mexico Environment
4 Department.

5 COMMISSIONER HAMILTON: But Stephanie, I think you're right. I
6 don't think it ever came to the Board. So I understand the technical differentiation. Could
7 you talk a little, just a teeny, teeny bit about – like it is up to the local group, but there's a
8 size issue here. If it's a very, very small water system, the scope of what they have to do
9 to protect source water, surface water – and there's a difference between whether they're
10 protecting surface water or a single well, right? I mean that's a real big difference.

11 MS. STRINGER: Very true.

12 COMMISSIONER HAMILTON: And then you get bigger and bigger and
13 by the time you get to something as big as the Rio Grande where the watershed is bigger
14 – so how is that handled? Are there cases where there are things that can be done or that
15 you help people do for larger watersheds?

16 MS. STRINGER: Sure. So part of the assistance that we can provide is
17 doing the source water assessments, delineating some of those areas and identifying the
18 potential sources of contamination, and then assessing the risk from those sources. So for
19 example, the City of Albuquerque, they're looking at all of their headwaters and
20 expanding that as far as they need to in order to determine what threats are posed to their
21 source waters. So I think early on, some of the toolkits had some limitations and maybe
22 some suggestions about how far you want to go out. I know we do for groundwater
23 systems, you look a mile out or five miles out. And so that is a local decision but it's not
24 limited to anything.

25 MEMBER FORT: Mr. Chair, could I ask about that? So my recollection is
26 – and Daniela, this would be a question for you, I think that we went ten miles upstream.

27 MS. STRINGER: Yes, and I was asking Jill about that and –

28 MEMBER FORT: Who made that decision would be my question.

29 MS. STRINGER: It would be the group that developed the plan. I think
30 there were some toolkits that EPA had put out that had some of those suggestions for –
31 look ten miles up. But I don't know specifically who made that ten-mile decision in this
32 particular plan.

33 MEMBER FORT: If Albuquerque did the entire basin, and we know for
34 us ten miles isn't the appropriate scale, so that would be a document, perhaps worth
35 reopening.

36 MS. STRINGER: I know that some of the maps that were developed, and
37 I understand they're in that plan, they map out the entire watershed all the way up to the
38 San Juan-Chama diversion. So it was considered as part of that analysis.

39 COMMISSIONER HAMILTON: And if I'm mistaken and that was
40 presented to the Board, it would be more meaningful now. It would cycle back to that. So
41 just for the record. I could be wrong on that. I'd just like to see it again. It would be good
42 to cycle back to that.

43 COMMISSIONER HANSEN: I also concur and so I would like to also
44 request that this document be brought to the Board some time in the new year.

45 COMMISSIONER HAMILTON: Thanks.

46 MS. STRINGER: So if an update is needed we can again provide

1 additional assistance to facilitate that and work with the system to do that. Jill is
2 available. We've got her contact information on the website. You just give her a call and
3 she can start that process. So it's either done through Jill – we do have third party
4 assistance providers that facilitate some of those efforts, but it's Jill – she's the manager
5 of that program and so we want to make sure we're actively engaged in the products that
6 are developed by our third party assistance providers. But again, the decision making and
7 – it's just a facilitation process. It's not anything we're going to require. Source water
8 protection plans are not a regulatory requirement. There are some funding sources who
9 are considering either giving extra points to projects where systems have source water
10 protection plans, and I think there are some conversations occurring that eventually
11 source water protection plans may be a requirement. But they are not currently a
12 requirement as far as the regulations go.

13 COMMISSIONER HAMILTON: I don't know if you had more you were
14 thinking about saying but I have a question that leads from – you're both here but I think
15 it goes first to you. In perspective of all the things you've said, what about things that are
16 not currently regulated?

17 MS. STRINGER: Unregulated contaminants. We have no authority to
18 require the monitoring. EPA implements the unregulated contaminant monitoring rule, so
19 every five years or so they're out sampling for certain contaminants to see how prevalent
20 they are. We participate in those monitoring efforts. Some of that monitoring is covered
21 by the Water Conservation Fund now but as far as regulations, there won't be any
22 additional monitoring unless certain circumstances sort of prompt that but local
23 communities can choose to look for those things and handle those things at the local level
24 and choose to take action within their own water system, but we as the Environment
25 Department do not have the authority to require that monitoring or to require compliance
26 with any values that might be out there for consideration that other states may have
27 adopted.

28 COMMISSIONER HAMILTON: But if there's an unregulated
29 contaminants monitoring program that EPA sort of oversees, there might be then
30 potentially information from areas that would fall into the watershed of concern, or BDD.
31 So in a plan, like things coming from the Española sewage treatment plant. Radionuclides
32 – so there's sort of two categories of things here that are potentially of concern to BDD,
33 and those could be included in some review that we could help doing or that might be
34 relevant.

35 MS. STRINGER: All of the unregulated contaminant monitoring data are
36 available through EPA's website, so I'm not sure exactly what your question is but those
37 data are available to see where it occurred in New Mexico and then that could drive your
38 decisions to either monitor for those contaminants or not.

39 COMMISSIONER HAMILTON: Well, the link from my question was
40 that there could be things of concern to the BDD Board, for example, that are currently
41 unregulated but might be considered in a review of source water and identify sources of
42 things that are contaminating the water.

43 MS. STRINGER: Correct. As long as there's a method that exists, and
44 there are methods that exist for the contaminants that are monitored as part of those rules
45 that EPA implements, but yes, that's certainly something that's available to the
46 communities and the water systems to consider as part of their source water protection

1 planning.

2 COMMISSIONER HAMILTON: I'm going to jump on Denise's quest,
3 pre-empt Denise. What have other states done with some of these heretofore unregulated
4 contaminants?

5 MS. STRINGER: Some other states have adopted some of the health
6 advisory levels that have been published that are not regulated levels. They don't take
7 into consideration the treatment costs and other parts that go into adopting a maximum
8 contaminant level. But other states take very aggressive approaches to protecting for
9 unregulated contaminants making them regulated but we do not at this point do that.

10 COMMISSIONER HAMILTON: But that information might be available
11 as background information.

12 MS. STRINGER: Yes.

13 CHAIRMAN IVES: And in fact on that point, and I ask this simply
14 because I recognize there are these great data caches out there, but if you're not using
15 them all the time like Intellus it might be somewhat opaque. If EPA is doing this report
16 every five years, and I don't know if they do annual update information, is that something
17 you might be able to simply pull and perhaps send to Kyle so he could share with the
18 Board with regards to the city's drinking water.

19 MS. STRINGER: Yes. The data are available. You can essentially
20 download an Excel file from the past year's rules. And then as – there's currently UCMR
21 4 going on right now; the monitoring began this year and EPA is making those data
22 available as they come in. So we're starting to see as of, I think, two, three weeks ago
23 new data from the UCMR 4, contaminants are being published. So I can definitely send
24 the link. I can't send files because they're zipped and they're huge, but we can get that
25 information to you. That's not a problem.

26 CHAIRMAN IVES: That would be great. Hopefully everything we're
27 doing is data driven and that leads actually to my second question. We've talked broadly
28 and the focus of today was essentially water quality in the Rio Grande, but being with the
29 Drinking Water Bureau you're out of the river and into the plant, so to speak. What if any
30 issues have you seen with water coming out of the Buckman plant?

31 MS. STRINGER: Our database shows that the water meets water quality
32 standards. There haven't been any violations for any exceedences of the MCL for the
33 Buckman Treatment Plant.

34 CHAIRMAN IVES: Okay. I just wanted to ask that as part of all of what
35 we're talking about.

36 MEMBER FORT: And Mr. Chair, if I might. If you were asking that for
37 the record, I would just observe that I had really hoped that we could have a study session
38 that looked at the finished product and of course Stephanie worded this quite properly.
39 We haven't exceeded any MCLs and we all know that's not the end of the inquiry with
40 respect to it, but I was unable to find public health toxicology expertise for free to
41 participate in today's session to talk to us some more about what we might be looking at
42 in terms of drinking water quality. I think that would be a question – I think Daniela has
43 pointed out budgetary issues for staff's capacity to go further. I think for the staff and
44 Board's capacity to go further with these things, we might think if there were to be
45 further study sessions or further exploration of this that we would actually pay for some
46 toxicology expertise to advise the Board further about risk levels associated with what is

1 known in our drinking water.

2 CHAIRMAN IVES: Just on that point it sounded like the EPA data was
3 about the only data out there as to those unregulated contaminants.

4 MS. STRINGER: Those are just the results of presence of those
5 contaminants if we're looking at drinking water systems across the nation. So there is this
6 health advisory document that EPA produces and they speak to some of the available in
7 formation relating to toxicity for some of these substances. But again, they're not
8 regulated levels but there are what are referred to as health advisory levels and that
9 document contains a lot of the information that I think you're looking for. But yes, I think
10 some of that information is really spread out and there's not one location to go to to
11 compile all that information.

12 CHAIRMAN IVES: That's why I was asking if we could get that data in
13 some sort of collected format so that we could actually look at that and have those
14 discussions on our drinking water quality.

15 COMMISSIONER HANSEN: That's actually – that's a great idea but
16 that's not an easy thing to ask for. If we get the link from Stephanie then we could get an
17 Excel file, and then it's an effort to get things into a summary format.

18 MS. STRINGER: In addition to the Excel file with the actual data results I
19 can send a link to the EPA document for the health advisory information. That's a good
20 start, I think, and it has references in there.

21 COMMISSIONER HAMILTON: Anything beyond that health advisory
22 link that's already summarized there would be [inaudible]

23 MEMBER FORT: Mr. Chair, I guess my suggestion would be that we
24 would work with Nick and Daniela to think about who takes that Excel file. There are
25 faculty – this is a shameless plug; I get nothing – there are faculty members at the
26 University of New Mexico in toxicology. There are no doubt private firms within the
27 state that have toxicology expertise and so I think we would be at the point of a small
28 contract with someone to walk us through that information and guide us in decision
29 making about the level of treatment that we provide and whether there's any area where
30 we would provide more treatment.

31 CHAIRMAN IVES: We can explore the budget. Yes, J.C.

32 MR. HELMS: Thank you. There's been quite a bit of comment from both
33 the speakers and the Board about unregulated topics. Would you specify some of those?
34 Name them? So that I'm in the picture.

35 MS. STRINGER: I think the biggest example that's in the news right now
36 is the perfluorinated compounds, referred to as PFOAs and PFOs, that's unregulated but
37 is occurring throughout the nation. The primary source – there's a lot of sources, but it's
38 in firefighting foam, aqueous firefighting foam used at DOD, Department of Defense
39 facilities, and so there's been significant water contamination resulting from that. And so
40 that's the example where states have chosen to go ahead in the lack of development of an
41 MCL by EPA to adopt the health advisory levels to be conservative and protective of
42 public health.

43 The list is huge. There's cyanotoxins, there's pharmaceuticals, but the data link
44 will show exactly what contaminants are included in those unregulated. There's less than
45 a hundred regulated contaminants in drinking water. There's a lot more unregulated.
46 [Speaking away from the microphone Mr. Helms asked if there were over 1,000.]

1 MS. STRINGER: Yes. There's more than we even are aware of. And so
2 the problem is we might know of a compound but there's no analytical method to go out
3 and test for it. EPA is responsible for approving these products that are going out into the
4 environment so we are aware of some of those but, yes, the list is huge for unregulated
5 contaminants.

6 CHAIRMAN IVES: And just on that point, Senator Udall's measure
7 requiring monitoring and assessment and standards for the use of certain chemicals in
8 various processes expanded the list from perhaps a few hundred up to 3,000, but it's
9 estimated that there are 50,000 to 60,000 compounds and chemicals out there. So we live
10 in a significantly unregulated world with regards to many of the compounds that we come
11 into on a daily basis.

12 MS. STRINGER: And I would say the Safe Drinking Water Act, safe is a
13 word I take caution in using these days, because you only know what you know. And so
14 it's compliant water is the term that I prefer to use these days.

15 COMMISSIONER HAMILTON: That's a good point.

16 COMMISSIONER HANSEN: Mr. Chair, I think we need another Rachel
17 Carson.

18 COMMISSIONER HAMILTON: It's a good point. You only find what
19 you look for, and you figure out what to look for in the first place. There was a time when
20 nobody was sampling for nitrates and phosphates either, and so it's a process.

21 COMMISSIONER HANSEN: I had one other question. This is unrelated
22 but related. You mentioned this stretch, this reach, and you said it goes to San I, so in the
23 future, will it include the Pojoaque Regional Water System? Will that stay within this
24 reach or is that – because you did mention San Ildefonso. So do you go to the border of
25 San Ildefonso or do you go to the other side.

26 MS. STRINGER: The border. It goes to the border. And then there's
27 another reach on the other side. We do not regulate any tribal waters. So when the Rio
28 Grande goes through tribal property –

29 COMMISSIONER HANSEN: So the Pojoaque Regional Water System
30 will not be just tribal waters.

31 MS. STRINGER: Right.

32 COMMISSIONER HANSEN: I think what she doesn't understand is
33 whether the intake for that regional water system is within the borders of the pueblo, you
34 guys would not be sampling it, likely. Is that –

35 MS. STRINGER: Correct. Correct me if I'm wrong, Shelly, but the
36 designations for that public water supply use are dependent on where those intakes occur.
37 So if an intake were to occur on a reach that isn't currently designated for public water
38 supply, that would need to be updated as part of the triennial process.

39 COMMISSIONER HANSEN: But the Pojoaque Regional Water System
40 will be a public water supply, even though the intake is on San Ildefonso land. So
41 therefore you will not regulate it?

42 MS. STRINGER: From my understanding – we haven't received those
43 final plans so it is a little unclear to us who is going to be hooking up to that so we're
44 trying to engage in that discussion to make sure we're aware of which water systems
45 would be regulated.

46 COMMISSIONER HANSEN: We're happy to hear that you're trying to

1 engage. We would also like to have a little more information ourselves.

2 COMMISSIONER HAMILTON: I think from what Stephanie said it's a
3 process, first of all just because if it's a public water supply they would still have to
4 update the use officially for the designated use for that reach.

5 MS. STRINGER: Correct. Two completely different issues of regulated
6 entities versus those designations.

7 MS. LEMON: If that risk is under state jurisdiction. It depends on if that
8 intake is on a stretch of river that is under state jurisdiction. Otherwise the pueblo has
9 jurisdiction. We do not. So as the Rio Grande flows down through New Mexico it goes in
10 and out of jurisdiction.

11 COMMISSIONER HANSEN: It's a longer discussion. I just wanted a
12 little bit of information so that's helpful. Thank you.

13 CHAIRMAN IVES: Thank you, ladies, for that presentation and a couple
14 of things to follow up on as we move forward. Certainly – and I apologize because we've
15 taken up so much of the time in this study session but if there's anybody who wanted to
16 come down and make remarks. Pat, I see you there. Thank you.

17 MR. LONGMIRE: Good morning. I'm Patrick Longmire, groundwater
18 geochemist and from this area. I'd just like to add, I agree with Joni's Arends' comments
19 and her chronology. There's a lot of aspects that we could improve with the new
20 administration coming in. I wasn't aware of the plutonium finding at one of the Buckman
21 wells but I will certainly look into that.

22 I would just like to add that September 14, 2017 I gave a presentation to this
23 Board on pharmaceuticals in water, and we did sample several stations along the Rio
24 Grande and this is a very apropos discussion on contaminants that aren't regulated. So
25 this was with pharmaceuticals and personal care products. The Española wastewater
26 treatment plant is discharging – the most common ones we found were acetaminophen,
27 from Tylenol, sulfamethoxazole, an antibiotic, and caffeine. And we all know we love
28 our caffeine.

29 But at Española we found a fair amount of methadone, which is a treatment for
30 opiate addiction and we did this preliminary study, 2015 to 2017, and there's about 500
31 parts per trillion. Now these are pretty small amounts. One part per trillion is equivalent
32 to one second in 31,688 years. But they're not naturally occurring, these pharmaceuticals.
33 We take acetaminophen or Tylenol, 200 mg and so we're finding generally a million
34 times less but the Europeans are much farther ahead of us. The ecological risks,
35 endocrine disrupters, how it affects amphibians. So I think that this would be an area
36 where we just did this initial study along with the perfluorosulfinate compounds. I would
37 definitely encourage us to try to investigate that more. And that's all I wanted to say.

38 CHAIRMAN IVES: For purposes of creating our record here today would
39 it be possible to just put in a copy of the report you presented in September of 2017 on
40 what you have in your hand.

41 MR. LONGMIRE: I gave a copy – I can leave this one hard copy and I
42 gave a copy to Kyle, a power point, and then to Alex Puglisi. I'm available if there are
43 any additional comment on this.

44 CHAIRMAN IVES: And know that part of my objective is that hopefully
45 in this record, from this session we have had we will have some of this background
46 material attached. We will have one spot which will aggregate a good deal of this

1 information, recognizing there are many other sources. It will make our job a little easier.

2 MR. LONGMIRE: And I would just like to add that we did sample an
3 individual drinking water source in Santa Fe and there were non-detects for these types of
4 chemicals, the pharmaceuticals, personal care products, and I believe with the Buckman
5 Direct Diversion there's carbon absorption and there's a very effective means for
6 removing these from drinking water.

7 CHAIRMAN IVES: Excellent. Thank you. Commissioner.

8 COMMISSIONER HANSEN: Yes. On the Española water treatment
9 where you found these high levels of methadone, is the City Council or Rio Arriba
10 working to reduce that? Are they aware of this? Are they working – I would like to know
11 what their game plan is.

12 MR. LONGMIRE: They are aware of it. I am not aware if they are taking
13 steps to eliminate it or reduce it from its waste stream.

14 COMMISSIONER HANSEN: And who's in charge of that facility?

15 MR. LONGMIRE: So that would be the City of Española and the
16 operators of the facility.

17 COMMISSIONER HAMILTON: Could you clarify? Remove what from
18 their waste stream?

19 MR. LONGMIRE: Well, if they had a more effective, like say carbon
20 absorption system to remove these trace level organics.

21 COMMISSIONER HAMILTON: Treat for it.

22 MR. LONGMIRE: Treat for it. Yes.

23 COMMISSIONER HAMILTON: Not remove the source. That's not
24 possible, right?

25 MR. LONGMIRE: No, you can't remove the source but you could treat
26 for these organics.

27 COMMISSIONER HANSEN: But I think, yes, treat for it is incredibly
28 important, but also education and awareness of what people are flushing down the toilet
29 and what is going into their waste stream is an educational process and I was just
30 wondering if they had any processes or plans to deal with that.

31 MR. LONGMIRE: I'm not aware of that.

32 CHAIRMAN IVES: There's a whole new meaning to opioid treatment.

33 MR. LONGMIRE: It is a major issue. In fact I heard on the news that the
34 suicide rates, a lot of it is related to opiate addiction, these painkillers. Thank you.

35 CHAIRMAN IVES: Anybody else in our few remaining minutes? Please,
36 John.

37 JOHN VERHEUL: Good morning. Thank you for these few minutes. My
38 name is John Verheul. I'm an attorney with the New Mexico Environment Department.
39 Very briefly, I didn't realize that there was going to be discussion of the 2016 consent
40 order as executed between the Department of Energy and NMED regarding cleanup of
41 legacy waste and Los Alamos National Lab. There is no one from NMED in this room
42 who can speak authoritatively as to that document. However, since it was brought up
43 earlier and characterized in certain ways I would ask that I could provide that document
44 via counsel after this meeting for the record. The document speaks for itself. It's nearly
45 300 pages but it includes an executive summary and a description of the various
46 campaigns.

1 CHAIRMAN IVES: I have read through it and have a copy but by all
2 means, present it and our objective today was to hear from any and all voices on these
3 issues and of course the issues covered in the consent order are long-standing and people
4 come in at all sorts of different points in the discussion of that document, its negotiations,
5 its changes over time. So certainly we appreciate having that made available and
6 understand that for purposes of discussion about it it should be available for folks to look
7 at and read. So I appreciate that, John.

8 MR. VERHEUL: Great. Thank you.

9 COMMISSIONER HANSEN: So you're just offering the consent decree
10 as something for us to look at. You're not defending it.

11 MR. VERHEUL: It's a public document. It's been on our website since its
12 execution in 2016. Had I known that this meeting would refer to it and characterize it in
13 the ways that it had, we might have offered to bring someone from our Hazardous Waste
14 Bureau for example, to discuss it if you felt that that was within the scope of this meeting.
15 But there is no one from NMED who can authoritatively speak to it today.

16 CHAIRMAN IVES: Understood, and I don't think that that's necessarily
17 an issue here today. We understand that's a much longer and different discussion.

18 MR. VERHEUL: It is. Great. Thank you.

19 CHAIRMAN IVES: Thank you, John. Others? We seem to be past time,
20 so if there aren't thoughts, discussions around, we have two items for our January 3rd
21 meeting.

22 MEMBER FORT: Mr. Chair, I'd like to suggest a third item if I didn't say
23 it clearly enough that I do think the budget that goes to our role in monitoring and
24 advocacy with respect and understanding and advocacy with respect to the Rio Grande
25 might need to be increased. And Daniela made reference to this. It's a question for Nick,
26 ultimately, in terms of what's proposed in the budget but we've laid out a lot of work that
27 could be done. We look to Kyle for some of it and some of it is more on the technical
28 side. But we are, in my mind we're suggesting that it would be sensible for staff to attend
29 permit hearings, for example, in Los Alamos, and to be otherwise very engaged in
30 emerging contaminants, to be engaged in NPDES permits and TMDLs, a lot of things so
31 that we would ensure that we're on top of water quality.

32 So maybe it's a question for Nick in the next budget preparation. I wouldn't know
33 how to pull a number out of a hat for what's appropriate but to think about what would
34 staffing up mean. If that's appropriate.

35 CHAIRMAN IVES: Well, I think certainly the budget and staffing and
36 remaining informed on all these issues is well within our purview. Again, some of what I
37 struggle with is our charge that the facility is to deliver safe drinking water to the people
38 of Santa Fe which at least nobody who's presented here today has suggested we are not
39 doing, even with regards to unregulated substances, given the carbon filters that
40 presumably remove most of those. So the thing I would like to make sure we have as part
41 of this discussion is given Buckman's charge in terms of drinking water for the people of
42 the City of Santa Fe and the County of Santa Fe including Las Campanas, is it Buckman
43 that should be leading the charge to change the Atomic Energy Act or modify the safe
44 water drinking standards. We've heard some of the processes that are in place, so that's
45 my only challenge with some of our broader discussions. Please.

46 MEMBER FORT: Again, this is certainly for the elected officials. As a

1 citizen I think – well, as a citizen but also I’m fairly conversant with practices of water
2 utilities across the country, and I think water utilities seek to have the cleanest possible
3 source water. We see that – the City of Albuquerque, I think the Albuquerque Water
4 Authority, we’ve seen them actually working on agricultural pollution throughout the
5 watershed, not because their treatment facilities aren’t as good as ours but because
6 they’re trying to have as clean as possible intake water. And so I would argue that it is the
7 responsibility of this Board and that citizens would want to see this Board doing it. Yes,
8 the City and the County could each do it as well, but it seems to me this Board is a logical
9 place for City and County responsibilities to lie. I’ll let those who have been duly elected
10 comment.

11 CHAIRMAN IVES: Exactly the debate I would like to have. Anything
12 further from Kyle? Nick? Very good. Then I think our study session is complete. Thank
13 you to everyone who presented and was in attendance. I hope it has been informative and
14 looking forward to what will be a long set of minutes and attachments to inform our
15 further discussions on all these topics.

16 COMMISSIONER HANSEN: I have one question. Will the minutes be
17 verbatim like our minutes are? I think it would be important. I just wanted to request that
18 as somebody who reads the minutes.

19
20 **ADJOURNMENT**

21
22 Having completed the agenda, Chair Ives declared this meeting adjourned at
23 approximately 11:35 p.m.

24
25
26 Approved by:

27
28
29
30 _____
31 Peter Ives, Board Chair

32
33 Respectfully submitted:

34
35 Debbie Doyle, Wordswork
36

37
38 **ATTEST TO:**

39
40
41 _____
42 YOLANDA Y. VIGIL
43 SANTA FE CITY CLERK
44
45
46

1
2
3
4

5

6

7

8

9

DRAFT

10

11

12

subject to approval

13

14

15

16

17

18

19

20

21

22

23

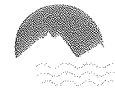
24

25

26

27

Memorandum



Buckman Direct Diversion

Date: January 23, 2019

To: Buckman Direct Diversion Board

From: Kyle Harwood, Counsel

Re: Memo and Recommendations from the BDD Board Rio Grande Water Quality Study Session on November 29, 2018

ITEM/ISSUE:

The BDD Board held a Special Study Session on November 29, 2018 to hear various presentations from advocates and NMED staffers on the topic of Rio Grande water quality programs and priorities in the segment of the Rio Grande where the diversion is located.

Due to the nature of the Study Session, that no action items were noticed or taken by the Board, this 'crosswalk' memo attempts to summarize the suggestions and referenced documents for possible action.

BACKGROUND:

The following individuals were invited to present to the Board:

Joni Arends, Concerned Citizens for Nuclear Safety

Rachel Conn, Amigos Bravos

Shelly Lemon, NMED, Surface Water Quality Bureau Chief

Stephanie Stringer, NMED, Drinking Water Quality Bureau Chief

Other audience members addressed the Board as is reflected in the meeting minutes.

SUMMARY and REFERENCED DOCUMENTS:

This 'crosswalk' memo is organized in a manner to identify the page number in the Study Session meeting minutes, the author of the item, and then either the suggestion (recommendation /possible action item), or the referenced document, report or study. For ease of reference, the suggestion (recommendation /possible action item) is numbered one through fifteen, and the referenced document, report or study is lettered A through Q. Furthermore, if the author of item is a BDD Board member it is bolded.



An electronic archive of all documents referenced in the Study Session will be prepared and a link provided for those who want to download the extensive materials that were referenced.

- A. Minutes page 5, Joni Arends references the *2004 Report on New Mexico's Right to Know: The Potential Groundwater Contaminants from LANL to Reach the Rio Grande* which contains an analysis of pathways by which contaminants from LANL may reach the Rio Grande.
- B. Minutes page 5, Joni Arends references the *2005 Compliance Order on Consent* addressing hazardous waste, including the hazardous waste component of mixed waste at LANL and which specifically excluding radionuclides.
- C. Minutes page 5, Joni Arends references the *2007 Plans and Practices for Groundwater Protection at the Los Alamos National Laboratory: Final Report* which addresses the characterization of groundwater, and recommendations for groundwater protection around LANL.
- D. Minutes page 5, Joni Arends references the *2016 Revised Order on Consent*, the successor document to the *2005 Compliance Order*.
- 1. Minutes page 6, Joni Arends recommends; (a) the City and County work together to address the migrating pollution from LANL, based upon a long-term strategy; (b) strengthen the JPA; (c) strengthen the MOU between the BDDDB and LANL to require more sampling, more specific analytical sampling systems, procedures, and transparent reporting, on a monthly basis; (d) replacement monitoring wells need to be drilled with air rotary casing to replace wells that were completed with bentonite; and (e) oppose cap and cover for Area G and advocate for excavation of the site.
- 2. **Minutes page 8, BDD Board Member Hansen** proposes the BDDDB submit a letter to the new Governor and Cabinet Secretary of the New Mexico Environment Department to highlight the importance of LANL monitoring, Consent Order and NMED engagement on LANL contaminants of concern.
- 3. **Minutes page 9, BDD Board Member Ives** suggests the BDDDB member entities, City and County, make or join that letter and request to the Governor and NMED.
- 4. **Minutes page 10, BDD Board Member Ives** requests contaminant data showing the sampling of springs downstream of LANL.
- E. Minutes page 10, Joni Arends responds that the Rio Grande spring sampling data is in the Intellus database.
- 5. Minutes page 11, Joni Arends further recommends that the BDDDB post its own water quality sampling data on the BDD website, as a means of holding LANL accountable.
- 6. **Minutes page 11, BDD Board Member Hansen** proposes working with Congressman Lujan and Senator Udall on ensuring additional funding and cleanup priorities at LANL.
- F. Minutes page 12, Daniella Bowman presents *BDD Staff Powerpoint* summarizing history of source water sampling and analysis by BDD staff and contractors.
- G. Minutes page 12, Daniella Bowman references the *2009 ChemRisk Buckman Direct Diversion Independent Peer Review Report* which is an independent and broad review of existing studies and information at that time regarding the potential public health risk from LANL water contaminants.
- H. Minutes page 12, Daniella Bowman references the *2010 Memorandum of Understanding between the U.S. Department of Energy and the Buckman Direct Diversion Board Regarding Water Quality Monitoring*.

Memorandum



Buckman Direct Diversion

- I. Minutes page 13, Daniella Bowman references *2015 and 2017 Memoranda of Understanding between the U.S. Department of Energy and the Buckman Direct Diversion Board Regarding Water Quality Monitoring*
7. Minutes page 16, Daniella Bowman recommends improving the BDD sampling program, including sampling at Los Alamos Canyon and at Otowi Bridge on the Rio Grande.
- J. Minutes page 17, Rachel Conn presents *Amigos Bravos Powerpoint* which includes a list of upstream Rio Grande NPDES discharge permits.
- K. Minutes page 17, Rachel Conn presents *Water Quality at LANL and White Rock Canyon* handouts summarizing impaired waters.
8. Minutes page 18, Rachel Conn recommends; (a) the BDDB monitor and engage in LANL NPDES permitting, including monitoring of the reporting requirements under those permits; (b) the BDDB engage in the LANL individual stormwater permitting process and public hearings, which is in the renewal process (current permit requires two public meetings per year, contractor is proposing changes); (c) the BDDD advocate to NMED the prioritization and final determination of an MS4 permit for County of Los Alamos, which includes stormwater runoff from both municipal Los Alamos and LANL; (d) the BDDB monitor the proposals of other parties, including LANL stormwater permitting, especially changes to monitoring criteria; (e) the BDDB support and monitor development of the Triennial review process and studies to characterize the perennial, intermittent, or ephemeral drainages that flow to this Rio Grande segment where the diversion is located.
- L. Minutes page 21, Rachel Conn references *Amigos Bravos' settlement of its Clean Water Act lawsuit with LANL; Amigos Bravos stipulated agreement with LANL; and, LANL draft Stormwater Permit and Amigos Bravos' comments on that draft.*
- M. Minutes page 22, Rachel Conn references *2009 Triennial Review* which adopts monitoring criteria for radionuclides in Rio Grande from Cochiti to San Ildefonso.
9. **Minutes page 22, BDD Board Member Fort** requests information on the status of other states' regulatory programs that have specific numeric water quality criteria for a public water supply.
10. Minutes page 23, Shelly Lemon recommends participation in the scoping process for the next Triennial Review and describes the upcoming NMED assessment of upper Rio Grande monitoring data collected in 2017 and 2018 and development of a new report in 2020 which will include LANL data and NMED DOE Oversight Bureau data regarding radionuclides.
- N. Minutes page 23, Shelly Lemon references the *Atomic Energy Act of 1954 as Amended* which prohibits New Mexico from regulating discharge of certain radioactive constituents from DOE facilities.
11. Minutes page 24, Shelly Lemon suggests the BDDB could advocate for establishing TMDLs or a TMDL alternative for the Rio Grande segment where the diversion is located and identify funding opportunities for water quality improvement projects.



12. **Minutes page 24, BDD Board Member Fort** proposes the BDDDB submit a letter to the Governor advocating for establishment of TMDL for the Rio Grande segment where the diversion is located.
- O. Minutes page 25, Stephanie Stringer references the *2017 Source Water Protection Plan* which describes the source area, potential sources of contaminants, and providing management and implementation strategies for protecting the Rio Grande drinking water supply.
- P. **Minutes page 26, BDD Board Member Hamilton** suggests that the Source Water Protection Plan be presented to the BDDDB and confirm or renew the BDDDB adoption of the Plan, and **BDD Board Member Hansen** concurs.
- Q. Minutes page 27, Stephanie Stringer references *EPA Monitoring Data on Unregulated Contaminants* which is available through the EPA website.
13. **Minutes page 27, BDD Board Member Ives** requests that referenced EPA link.
- R. Minutes page 31, Patrick Longmire references his BDDDB presentation on *September 14, 2017 Powerpoint* which presents pharmaceutical and personal care product sampling data.
14. **Minutes page 33, BDD Board Member Fort** suggests that the BDDDB consider an increase in budget for staffing for monitoring, and take a greater role in advocating for improved Rio Grande water quality including attendance at permit hearings, public meetings, the NPDES permitting of upstream facilities, and support for the TMDL regulatory process.