

Memorandum

Date:

April 28, 2015

To:

Buckman Direct Diversion Board

From:

Charles Vokes, BDD Facilities Manager

Subject:

Update on the Diversion Structure Inspection and Repairs

ITEM AND ISSUE:

Progress report on the Inspection and Repair of the BDD Diversion Structure

BACKGROUND AND SUMMARY:

On Friday April 3, the BDD cofferdam was completed and water production at the BDD ceased. The BDD dedicated the stored finished water to Santa Fe County and was able to continue pumping to the County until Tuesday morning, April 7th. The following table outlines the events that took place during the inspection and repair process.

Date	Activity						
April 6, 2015	BDD staff pumped the water from behind the cofferdam to expose						
	the diversion structure. Initial inspection and documentation						
	(photos) began.						
April 7, 2015	Inspection was performed by the BDD staff and the engineering						
	firms of CDM, CH2MHill, HDR and Deere and Ault. Screens and						
	air frames were pulled to allow inspection inside the cells.						
April 7, 2015	BDD staff and the engineering firms met in the BDD conference						
	room to compare observations and create a repair plan for the						
	structure.						
April $8 - 24, 2015$	BDD staff along with members of the City of Santa Fe began						
	repairs and modifications of the diversion structure.						
April 18, 2014	Painting contractor onsite to paint the diversion frames with epoxy						
	paint to slow down the corrosion caused by dissimilar metals in the						
	structure.						





April 20-27, 2015	Staff of Deere and Ault are onsite to install sand burst system and
	assist BDD staff with the diversion structure repairs.
April 24, 2015	BDD staff discovered damage to floor burst systems and damage
-	to the concrete within the diversion cells.
April 24 – 28, 2015	BDD staff will complete repairs to the air frames, screens and
_	hoses and make temporary repairs to the concrete within the cells
	in preparation for an April 30, 2015 startup.
April 30, 2015	ASI removes sections of cofferdam for BDD startup.

At this point, the final totals for man-hours and materials costs have not been completed. Because of the extensive damage caused by the air burst system, discussions will begin immediately to determine the solutions for these issues. The goal will be to have the solutions and materials in place so that the eventual repair of the structure can be completed during the fall of 2015.

The BDD staff, CDM Smith, CH2M Hill and the design-build team, and Deere and Ault will all be issuing independent reports on their observations and solutions to the BDD Diversion Structure issues before May 15, 2015.

9	

.



Memorandum

Date:

April 23, 2015

To:

Buckman Direct Diversion Board

From:

Michael Dozier, Interim Operations Superintendent

Subject:

Update on BDD Operations for the month of April 2015

ITEM:

- 1. This memorandum is to update the Buckman Direct Diversion (BDD) Board on BDD operations during the month of April 2015. BDD is currently undergoing maintenance of the diversion. No water has been diverted after the second day of the month. 9.82 million gallons were diverted on the first and second day of the month of April. The release of treated water from BDD storage was stopped on the sixth of April.
- 2. Please see the following pages from the Monthly report to the Office of the State Engineer (OSE) for accurate information up to April 23, 2015.
- 3. Please note all prior years are also included for reference.





BACKGROUND AND SUMMARY: Buckman Direct Diversion Monthly SJC and Native Diversions

In Acre-Feet Apr-15

Apr-13	THE POOL							
Month	Total SJC + Native Rights	SP-4842 RG Native COUNTY	SD-03638 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	312.34	66.12	0.00	246.21	246.21	0.00	2.27	
FEB	328.18	49.88	6.85	271.45	271.45	0.00	2.52	
MAR	357.70	169.87	8.15	179.69	179.69	0.00	1.63	
APR	30.55	30.55	0.00	0.00	0.00	0.00	0.00	
MAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
JUN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
JUL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
AUG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SEP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ОСТ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
NOV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
DEC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
TOTAL	1,028.76	316.42	15.00	697.35	697.35	0.00	6.42	

In Acre-Feet

III Acie-reet								
Month	Native COUNTY	Native Las Campanas	SJC CITY	SJC Las Campanas	All Partners Diversions BDD			
JAN	66.12	0.00	243.94	0.00	310.06			
FEB	49.88	6.85	268.93	0.00	325.66			
MAR	169.87	8.15	178.06	0.00	356.07			
APR	30.55	0.00	0.00	0.00	30.55			
MAY	0.00	0.00	0.00	0.00	0.00			
JUN	0.00	0.00	0.00	0.00	0.00			
JUL	0.00	0.00	0.00	0.00	0.00			
AUG	0.00	0.00	0.00	0.00	0.00			
SEP	0.00	0.00	0.00	0.00	0.00			
ОСТ	0.00	0.00	0.00	0.00	0.00			
NOV	0.00	0.00	0.00	0.00	0.00			
DEC	0.00	0.00	0.00	0.00	0.00			
TOTAL	316.42	15.00	690.93	0.00	1,022.34			

Buckman Direct Diversion Monthly SJC and Native Diversions

Dec-14

Dec-14										
Month	Total SJC Release (AF)	SJC Conve y anc e Losses (AF)	Total SJC Available at BDD (AF)	SJC Diversion, SP-2847-E (AF)	SJC Diversion, SP-2847-N- A (AF)	Total Native Rio Grande Diversion SP-4842 (AF)	Release of SJC in Elephant Butte (AF)	Total BDD Surface Diversion (all permits)	SJC from SP-2847-E used to offset Buckman Wells RG- 20516 (AF)	SJC from SP-2847-N used to offset Buckman Wells RG- 20516 (AF)
JAN	383.35	3.74	390.34	390.34	0.00	12.68	0	403.01	0	0
FEB	349.51	3.28	341.55	341.55	0.00	11.38	0	352.93	0	0
MAR	373.88	3.66	381.69	357.07	34.09	148.83	0	530.52	0	0
APR	178.75	1.70	176.78	92.46	84.47	227.22	0	404.00	0	0
MAY	491.46	4.61	480.35	389.13	91.22	374.86	0	855.21	0	0
JUN	427.50	3.96	412.65	295.07	117.58	292.84	0	705.49	0	0
JUL	425.22	4.14	431.96	399.51	32.46	72.32	0	504.28	0	0
AUG	496.68	4.60	479.66	479.66	0.00	96.07	0	575.74	0	0
SEP	552.71	5.40	562.83	562.83	0.00	84.85	0	647.68	0	0
OCT	381.93	3.63	378.30	378.30	0.00	142.46	0	520.76	0	0
NOV	441.14	4.09	426.17	426.17	0.00	11.59	0	437.76	0	0
DEC	423.99	4.13	430.74	430.74	0.00	19.56	0	450.30	0	0
TOTAL	4,926.12	46.93	4,893.03	4,542.84	359.82	1,494.66	0.00	6,387.69	0.00	0.00

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

	Total	City of	Santa Fe	Club at Las
	Release	Santa Fe	County	Campanas
Month	(AF)	(AF)	(AF)	(AF)
JAN	383.35	383.35	0.00	0.00
FEB	349.51	349.51	0.00	0.00
MAR	373.88	346.37	0.00	27.37
APR	178.75	93.42	0.00	85.41
MAY	491.46	399.41	0.00	92.41
JUN	427.50	307.54	0.00	120.28
JUL	425.22	397.13	0.00	28.09
AUG	496.68	496.68	0.00	0.00
SEP	552.71	552.71	0.00	0.00
OCT	381.93	381.93	0.00	0.00
NOV	441.14	441.14	0.00	0.00
DEC	423.99	423.99	0.00	0.00
TOTAL	4,926.12	4,573.19	0.00	353.55

Buckman Direct Diversion Monthly SJC and Native Diversions

December 2013

Month	Total SJC Release (AF)	SJC Conveyanc e Losses (AF)	Total SJC Available at BDD (AF)	SJC Diversion, SP-2847-E (AF)	SJC Diversion, SP-2847-N- A (AF)	Total Native Rio Grande Diversion SP-4842 (AF)	Release of SJC in Elephant Butte (AF)	Total BDD Surface Diversion (all permits)	SJC from SP-2847-E used to offset Buckman Wells RG- 20516 (AF)	SJC from SP-2847-N used to offset Buckman Wells RG- 20516 (AF)
JAN	439.04	4.24	441.79	441.79	0	44.09	0	485.88	0	0
FEB	261.03	2.47	257.94	257.94	0	10.49	0	268.42	0	0
MAR	353.69	3.30	343.57	343.57	0	75.66	0	419.23	0	0
APR	680.73	6.34	661.33	661.33	0	89.47	0	750.80	0	0
MAY	1045.27	9.88	1030.46	1030.46	0	22.86	0	1053.32	0	0
JUN	817.91	7.85	818.00	734.56	83.44	260.03	0	1078.03	0	0
JUL	606.85	5.90	614.73	397.47	78.83	0.00	0	476.30	83.70	54.73
AUG	108.68	0.91	95.34	41.68	36.91	0.00	0	78.59	5.58	11.18
SEP	136.77	1.43	149.29	63.86	53.76	0.00	0	117.61	25.36	6.32
OCT	255.24	2.46	256.53	213.87	42.66	72.92	0	329.45	0	0
NOV	196.45	1.88	195.50	187.02	8.48	117.33	0	312.83	0	0
DEC	293.76	2.63	274.19	274.19	0.00	12.25	0	286.44	0	0
TOTAL	5195.42	49.29	5138.67	4647.73	304.07	705.09	0.00	5656.89	114.64	72.23

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

	-		ABIQUIU	
	Total	City of	Santa Fe	Club at Las
	Release	Santa Fe	County	Campanas
Month	(AF)	(AF)	(AF)	(AF)
JAN	439.04	439.04	0	0
FEB	261.03	261.03	0	0
MAR	353.69	353.69	0	0
APR	680.73	680.73	0	0
MAY	1045.27	1045.27	0	0
JUN	817.91	729.30	0	88.60
JUL	606.85	473.27	0	133.58
AUG	108.68	65.21	0	43.47
SEP	136.77	83.87	0	52.90
OCT	255.24	211.15	0	44.09
NOV	196.45	186.31	0	10.15
DEC	293.76	293.76	0	0.00
TOTAL	5195.42	4822.62	0.00	372.79

Buckman Direct Diversion Monthly SJC and Native Diversions

December 2012

Month	Total SJC Release SP- 2847-E (AF)	Conveyance Losses (AF)	Total SJC Available at BDD Diversion (AF)	Total SJC Diversion SP-2847- E (AF)	Total Native Rio Grande Diversion SP-4842 (AF)	Release of SJC in Elephant Butte (AF)	Total BDD Surface Diversion SP-2847-E plus SP- 4842 (AF)	SJC used to offset Buckman Wells RG- 20516 (AF)
JAN	448.09	4.06	447.00	411.56	5.02	0	416.59	35.44
FEB	210.29	1.97	216.94	208.13	32.21	0	240.34	8.81
MAR	335.75	2.94	323.61	312.85	59.21	0	372.06	10.76
APR	528.63	4.72	519.90	519.90	108.61	0	628.51	0.00
MAY	660.18	6.24	651.05	651.05	145.51	0	796.55	0.00
JUN	722.36	6.79	692.21	692.21	120.92	0	813.12	0.00
JUL	152.03	2.23	191.75	157.16	0.00	0	157.16	34.60
AUG	86.08	0.58	60.90	60.90	239.96	0	300.87	0.00
SEP	637.17	6.05	630.92	630.92	110.07	0	740.99	0.00
OCT	747.21	7.14	744.87	744.87	50.82	0	795.69	0.00
NOV	479.19	4.63	482.65	482.65	120.91	0	603.56	0.00
DEC	442.67	4.17	434.71	434.71	119.44	0	554.15	0.00
TOTALS	5449.67	51.53	5396.51	5306.90	1112.67	0.00	6419.57	89.61

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

		HER	ON	EL \	/ADO	ABI	QUIU
Month	Total Release (AF)	СІТҮ	COUNTY	СПҮ	COUNTY	CITY	COUNTY
JAN	448.09	0.00	0.00	0.00	0.00	448.09	0.00
FEB	210.29	0.00	0.00	0.00	0.00	210.29	0.00
MAR	335.75	0.00	0.00	0.00	0.00	335.75	0.00
APR	528.63	0.00	0.00	0.00	0.00	528.63	0.00
MAY	660.18	0.00	0.00	0.00	0.00	660.18	0.00
JUN	722.36	0.00	27.21	0.00	0.00	695.15	0.00
JUL	152.03	0.00	21.42	0.00	0.00	130.61	0.00
AUG	86.08	0.00	0.00	0.00	0.00	86.08	0.00
SEP	637.17	0.00	0.00	0.00	0.00	637.17	0.00
OCT	747.21	0.00	0.00	0.00	0.00	747.21	0.00
NOV	479.19	0.00	0.00	0.00	0.00	479.19	0.00
DEC	442.67	0.00	0.00	0.00	0.00	442.67	0.00
TOTALS		0.00	48.63	0.00	0.00	5401.04	0.00

Note: Grey fields indicate revisions to previous monthly report

MEMORANDUM

TO:

City of Santa Fe Public Utilities Committee

City of Santa Fe Water Conservation Committee

Buckman Direct Diversion Board

FROM:

Rick Carpenter, Water Resources and Conservation Manager

VIA:

Nick Schiavo, Public Utilities Department and Water Division Director

ne

DATE:

April 23, 2015

SUBJECT: 44th Monthly Update on Drought and Water Resource Management

ESA/Silvery Minnow Update

<u>There are no new updates</u> on endangered species related to our water supply (e.g., silvery minnow, SW willow fly catcher, yellow billed cuckoo, etc.). River and wetland conditions are still expected to be challenging unless significant monsoonal activity occurs. All resource agencies will attempt compliance with the prevailing Biological Opinion.

CURRENT UPDATE - GENERAL WATER RESOURCE MANGEMENT

As the Committee/Board is aware, our region is still suffering through a drought. Our region has gone through four consecutive years of record drought and heat, and it appears that we are in our fifth year of drought – albeit drought conditions have eased slightly. This drought is likely present significant challenges to all water purveyors, utilities, and irrigators going forward into the rest of this water-year.

Most models are still predicting the likelihood of a return of an El Nino weather pattern, 50%-60% chance of a return to El Nino conditions with normal to above normal precipitation over the spring and summer. The most recent April NOAA ENSO update states that:

ENSO- (El Nino) conditions continue to improve with increasing equatorial sea surface temperature (SST) anomalies continuing across the Pacific Ocean. There is an approximate 50%-60% chance of El Nino conditions will continue through summer 2015.

It is worth noting that City of Santa Fe has invested in a robust and diverse portfolio of four distinct water supply sources that allows for flexibility in meeting demand: Buckman well field, City well field, Canyon Road Water Treatment Plant on the Upper Santa Fe River, and the

Buckman Direct Diversion on the Rio Grande. Supply from these groundwater and surface water sources are expected to be adequate in meeting local demands. The City also has a considerable amount of SJCP water stored ("banked from previous years") in reservoirs upstream from the BDD diversion, and that water could be called for if needed over the coming 2 or 3 years.

LOCAL CONDITIONS

Source of Supply Utilization Summary

March 2015

City Wells	0.276mg/m	0.85af/m
Buckman Wells	0.00mg/m	0.00af/m
CRWTP	99.24mg/m	304.56af/m
BRWTP	34.84mg/m	357.70af/m
Other Wells(Osage, MRC, etc)	0.00mg/m	0.00af/m

Upper Santa Fe River/CRWTP

	Total Combined	Santa Fe Snow Gage	Reservoir Inflow		
	Reservoir Level				
April 23, 2015	14.3.0%	31.00 inches	4.78 MGD		
5-Year Average for This	54.37 %	23.02 inches	6.13 MGD		
Date (2010 – 2014)					

As of April 23, 2015 total combined storage in Nichols and McClure reservoirs is 14.3% of total (or about 572 acre-feet of storage out of 4,000 acre-feet of capacity). Some flows have been by-passed or released due to construction on the new intake facilities and the start of irrigation season. Inflows are expected to continue for the near future and so the reservoirs have been managed to allow for water treatment plant production, active construction, irrigation, and draining/drying.

Buckman Regional Water Treatment Plant (BDD)

Flows in the Rio Grande are relatively high for this time of year (earlier than normal runoff), and turbidity has been generally good. The BDD has been able to divert and treat in line with demand with the exception of time off-line for repairs/maintenance to the diversions structure.

REGIONAL CONDITIONS

Rio Grande Basin

Surface flows in the Rio Grande and its tributaries through mid-April have been relatively good. However, storage levels in regional reservoirs are still very low (see attached figure). There was very little carry-over storage from 2014 into 2015. There are no new updates regarding Wild Earth Guardians legal actions or endangered species issues.

San Juan Basin

It should be stressed that, conditions could significantly worsen for San Juan Chama Project deliveries this coming year, if the drought persists, due to a lack of carry-over storage in Heron from last year to this year. Heron Reservoir is currently at a very low level. Recent estimates by the BoR suggest that the deliveries from the San Juan-Chama Project should be about 50%-55% of normal firm yield, but if there are dry conditions and unseasonably warm temperatures, these figures will likely continue to be revised downward.

Rio Grande Water Fund/Watershed Management Update

The Rio Grande Water Fund Charter will be going before Santa Fe City Council on Wednesday, April 29, 2015.

Mike Crimmins

Chiltre of the Environment Editor Stephanie Doster

Dave Dubois

nounce to Estimated Depay Director of Contression in Stigute of Bloc Environments Gregg Garlin

Zack Guido

Application Program (HAP)

Ben McMahan

Nancy J. Selover

Emily Huddleston

THE THE STATE OF THE PERSON OF THE THE LATER STANDARD SLAW LINGERS

April Southwest Climate Outlook

winter wet season is wrapping up, and instead of above-average precipitation (as many of the El Niño influenced seasonal forecasts suggested), water year observations since October 1 show below-average precipitation across much of Arizona and portions of New Mexico. The situation is direr in other western regions, with California, the Pacific Northwest, and the Precipitation: In the past 30 days, most of the southwestern U.S. received below-average precipitation (Fig. 1). The Intermountain West recording significantly below-average winter precipitation (Fig. 2).

between 4 to 8 degrees F above average across most of the region (Fig 3). In the six months since the water year began Temperature: In the past 30 days, temperatures were above-average across Arizona and New Mexico, with anomalies on October 1, Arizona, California, Nevada, Oregon, and Washington saw record-warm average temperatures (Fig. 4).

Snowpack: High temperatures and below-average precipitation led to limited snowpack across the western U.S. As of April 16, snow water equivalent (SWE) is below average in every basin in the West (Fig. 5). In our region, SWE ranged from 0 to 32 percent of average in Arizona and 0 to 50 percent of average in New Mexico.

identifies both short- and long-term drought conditions in Arizona and New Mexico. Total reservoir storage in March was 45 percent in Arizona (same value as last year) and 26 percent in New Mexico (compared to 24 percent last year) (see Drought & Water Supply: The U.S. Drought Monitor highlights persistent drought conditions across the West and reservoir storage on page 5 for details). Wildfire: There is potential for wildfire in any month of the year, but March through June is the windiest time of year (see page 4), which increases likelihood of red flag warning days. This is also one of the driest times of the year, so all eyes are on fire risk potential from now through the onset of the monsoon.

El Niño: Despite a relatively late start, El Niño continued for a second consecutive month, with potential for a stronger event as we look forward towards summer and fall of this year (see page 3 for details). Precipitation & Temperature Forecasts: The April 16 NOAA-Climate Prediction Center seasonal outlook predicts aboveaverage precipitation this spring into summer for most of the Southwest and Intermountain West, although California and southern Arizona are notable exceptions. Temperature forecasts remain split across the region, with elevated chances for above-average temperatures along the West Coast and eastward into Arizona (and most of the western U.S.), and increased chances for below-average temperatures in western Texas and into eastern New Mexico.

Streamflow Forecasts: The April 1 forecast for the Colorado, Rio Grande, and Arkansas river basins project well belowaverage streamflow for Arizona and New Mexico. This pattern is repeated across much of the western U.S., especially in Utah, Nevada, California, New Mexico, and Arizona (Fig. 6), following the unusually warm and dry conditions in March.



Apr 2015 @CLIMAS_UA SW Climate Outlook - El Niño Sticks Around, Snowpack, Drought, Streamflow, and Wildfire http://bit.ly/1DNxUNI ARIZONA
ARIZONA
ARIZONA
CARIZONA
CARIZONA
CARIZONA
CARIZONA
CARIZONA
CARIZONA
CARIZONA
CARIZONA
CARIZONA







Online Negumes

Portions of the information provided in this figure can be accessed at the Natural Resources Conservation Service

lew Mexico. http://www.yido. rcs.iisda.gov/cgibin/essv.rpl.

lotes

and the 1981-2010 reservoir average (red line) table. The cup next to each reservoir shows the representational and not to scale. Each cup also represents last year's storage (dotted fine) reservoir. One acre-foot is the volume of water meet the demands of 4 people for a year. The of 1 foot (approximately 325,851 galloris). On capacity. Note that while the size of each cup varies with the size of the reservoir, these are current storage (blue fill) as a percent of total corresponding to the reservoirs listed in the are given in thousands of acre-feet for each sufficient to cover an acre of land to a depth last column of the table lists an increase or decrease in storage since last month. A line Mexico. Reservoir locations are numbered average, 1 acre-foot of water is enough to The map gives a representation of current The table details more exactly the current storage for reservoirs in Arizona and New capacity (listed as a percent of maximum storage). Current and maximum storage within the blue circles on the map, indicates no change.

These data are based on reservoir reports updated monthly by the National Water and Climate Center of the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS).

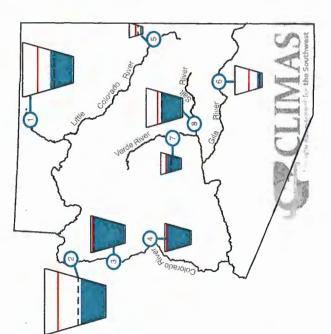
Reservoir Volumes

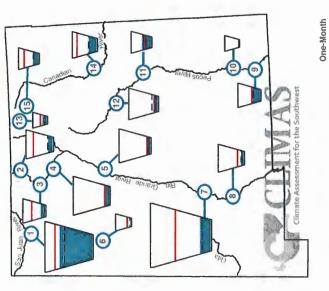
DATA THROUGH MAR 31, 2015

Data Source: National Water and Climate Center, Natural Resources Conservation Service

- Last Year's Volume

Current Volume





Œ	Reservoir Ca	Capacity	Current Storage*	Max Storage⁴	One-Month Change in Storage*
que	1. Lake Powell	45%	10,917.0	24,322.0	-107.0
2	2. Lake Mead	40%	10,419.0	26,159.0	-349.0
(1)	3. Lake Mohave	94%	1,692.7	1,810.0	34.7
4	4. Lake Havasu	%86	577.9	619.0	-0.1
5	5. Lyman	16%	8.4	30.0	9.0
Ø	6. San Carlos	16%	138.4	875.0	က <u>ှ</u> လ
7	Verde River System 66%	%99	188.5	287.4	62.4
00	8. Salt River System	57%	1,146.5	2,025.8	43.2
			*KAF: tho	*KAF: thousands of acre-feet	cre-feet

Change in		6.3	20.1	-0.3	-0.2	0.0	39.4	0.8	-1.9	0.4	-2.7	9.1	0.8	-0.1	2.2	Warner-foot
Max Storage*	1,696.0	400.0	190.3	1,192.8	491.0	38.5	2,195.0	332.0	4.0	1,008.2	102.0	438.3	16.0	254.2	79.0	's KAF = thousands of acre-feet
Storage*	1,150.4	67.6	37.3	133.5	48.7	2.4	368.1	36.1	1.3	84.9	45.6	71.2	4.8	84.4	20.5	EN KIN
Canacity	68%	17%	20%	11%	10%	%9	17%	41%	33%	8%	45%	16%	30%	33%	26%	
Reservoir	1. Navajo	2. Heron	3. Ej Vado	4. Abiquiu	5. Cochiti	6. Bluewater	7. Elephant Butte	8. Caballo	9. Lake Avalon	10. Brantley	11. Sumner	12. Santa Rosa	13. Costilla	14. Conchas	15. Eagle Nest	

Figure 2. NOAA - National Climatic Data Center releconnections/enso/ Figure 3. International Research institute for Climate and Society http://m.columbia.edu/our-expertis Figure 4.

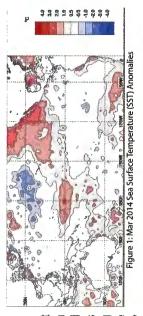
NOAA - Climate Prediction Center http://www.cpc.ncep.noaa.gov/products/NVMME/current/plume-html

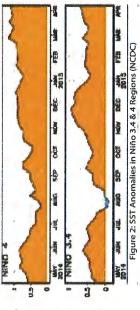
2014-15 El Niño Tracker

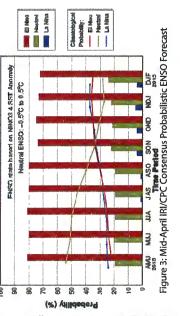
Strong signals in early 2014 stalled, delaying El Niño's onset until last month, when ocean-atmosphere coupling and an additional Kelvin wave indicated more favorable conditions. Despite this late start, El Niño continued for a second consecutive month. Recent increases in sea surface temperature (SST) anomalies (Fig.1 - 2) and ongoing convective activity associated with El Niño-favorable conditions indicate we might be witnessing a two-year El Niño event. These forecasts rely on projections during a time of increasing uncertainty, and the so-called "spring predictability barrier" continues to make it difficult to anticipate how seasonal changes will help or hinder El Niño.

El Niño designation), with warming in the tropical Pacific, weak trade winds, and projected additional ocean warming listed as contributing Climate Prediction Center (CPC) issued an El Niño advisory with a 70 percent chance that El Niño will continue through summer 2015 and more and Society (IRI) and CPC forecasts highlighted increasingly favorable The most recent forecasts continue to offer mixed signals regarding El Niño, but are more bullish this spring than last year. On April 9, the NOAAthan a 60 percent chance the event would last through fall. They pointed with current conditions being ENSO-neutral, but also projected El Niño conditions could return by summer. On April 14, the Australian Bureau of Meteorology upgraded their tracker to "alert" status (one below an official actors. On April 16, the International Research Institute for Climate oceanic and atmospheric conditions, with an 80 percent probability of El Niño extending into next winter (Fig. 3). The North American multi-model to the large Kelvin wave, along with ongoing ocean-atmospheric coupling, as an indication a weak El Niño event would linger, with potential for further development in the long term. On April 10, the Japan Meteorological Niño extending from summer into fall, and a 70 percent probability of El ensemble shows a weak event extending through the spring, with potential Agency declared the El Niño event likely to have ended in winter 2015, for a moderate or even strong event by summer or early fall (Fig. 4).

This El Niño event continues to defy expectations, with some models indicating conditions are strengthening rather than weakening during the spring transition. Forecasting or characterizing this event remains difficult given the lack of analog events in the historical record, and the complexity of this El Niño guarantees it will be of interest to climatologists for years to come. Seasonal forecasts continue to indicate an increased chance of above-average precipitation through much of the Southwest, likely tied to the presence of El Niño favorable conditions. Perhaps more interesting is the possibility of a repeat of 2014's tropical storm season, when conditions favorable to El Niño were thought to have been driving increased storm activity in the Southwest.







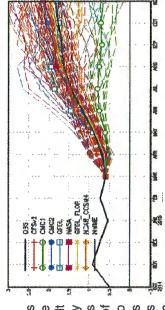


Figure 4: North American Multi-Model Ensemble Forecast for Niño 3.4

SOUTHWEST CLIMATE OUTLOOK APRIL 2015



Memorandum

Date:

May 7, 2015

To:

BDD Board of Directors

From:

Bernardine R. Padilla

Subject:

BDD Quarterly Update on Public Relations and Marketing

ITEM AND ISSUE: Quarterly Update on Public Relations efforts and opportunities

BACKGROUND AND SUMMARY:

This public relations and outreach report shows events, tours, education and key meetings from January to May 2015.

Several scheduled tours were canceled due to bad weather and snowy days.

Key Events included:

- Participation in the Sustainable Santa Fe Awards as a city leader by example in environmental sustainability for the Habitat Restoration project, and the Booster Station 2A Solar Array. New posters were created on the habitat restoration project for this event and use at future events.
- 3 General Facility Tours
- ♦ 8 Educational Outreach offerings Tours or student education
- ♦ 7 Public Relations or Marketing Outreach efforts
- ♦ 1 news article specific to BDD in the The Santa Fe Reporter, and many other local and national news stories with mentions of BDD, City of Santa Fe, utilities, Conservation or Santa Fe County water mentions.
- 1 NY Times story and interview with Rick Carpenter containing BDD, City of Santa Fe conservation efforts, and drought effects in states from California to the East coast.







May 7, 2015

Public Relations and Marketing Events Q3 2015

January

Virtual Tour Filming:

River Diversion and facilities with Joe Abeyta

PR Outreach:

City Hall Live interview on the BDD Virtual Tour - Joe Abeyta, Randy Sugrue

Tours: Homewise staff tour of BDD plant

Las Campanas Realtor tour of BDD plant

Marketing Outreach: Legislator gift bag through City of SF-BDD Water Bottles

Education Outreach: SF High School Career Day, Charles and Berni

February

Education Outreach: SFPS Sustainability Class Tour of BS1A/BS2A, Diversion, with River Source

Children Youth Services After School kids Plant lab testing and BDD tour

Journey Montessori Elementary School plant tour

Meeting: Joe Abeyta, Rick Carpenter for tour script re-reads

Marketing Outreach: NM Municipal League conference gift bags-BDD pens
Media: SF Reporter Article, "Buckman Diversion Difficulties"

March

Educational Outreach: SFPS Sustainability Class BDD plant tour canceled due to snow

PR Outreach: City Hall Live interview, Joe Abeyta on the BDD Virtual Tour – Randy Sugrue

Meeting: Paragon Electric

April

Education Outreach: Kids Water Fiesta 2 day event, "From the River to the Bottle" Filtration experiment

UNM Sustainability Class BDD plant tour

PR Event: Sustainability SF Awards participation; Leader by example in sustainability

BS2A Solar Array poster display

Habitat Restoration poster display; new poster created

Staff Wellness: Naprapathy Stress Relief Day mini treatments, over 50% staff participation

Education Outreach: Chuck presents at Rocky Mountain Am. Water Works Assoc. workshop in Albq.

on, "Modifications to Improve Water Quality in Arlington, TX"

May

PR Event: Community Days, Reuse & Refill - Free water bottle refills with City water

buffalo tank

SF Century Bike Ride water bottle refills; 2 water

buffalo tanks on Century bike route

Tour: Northern Operators School Espanola operators

training to BDD plant & diversion tour

Media: NY Times article, interview Rick Carpenter BDD

mention



