

Buckman Direct Diversion

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*A joint regional project of the City of Santa Fe and Santa Fe County to build a reliable and sustainable water supply.*

## Memorandum

**Date:** May 5, 2016  
**To:** Buckman Direct Diversion Board  
**From:** Matthew Sandoval, Interim Operations Superintendent *MS*  
**Subject:** Update on BDD Operations for the Month of April 2016

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### ITEM:

1. This memorandum is to update the Buckman Direct Diversion (BDD) Board on BDD operations during the month of April 2016. The BDD diversions and deliveries have averaged, in Million Gallons Daily (MGD) as follows:
  - a. Raw water diversions: 6.68 MGD Average
  - b. Finished Drinking water deliveries through Booster Station 4A: 4.53 MGD Average
  - c. Finished Drinking water deliveries through Booster Station 5A: 2.763 MGD Average
  - d. Raw water delivery to Las Campanas at BS2A: 17.78 MG Total.
2. The BDD is providing approximately 86 percent of the water supply to the City and County for the month.
3. Please see the following pages from the Monthly report to the Office of the State Engineer (OSE) for accurate information up to April 15, 2016.
4. Please note all prior years are also included for reference.
5. The current Drought Update Summary is attached and reservoir storage status.



**BACKGROUND AND SUMMARY:**

**Buckman Direct Diversion Monthly SJC and Native Diversions**

**Apr-16**

**In Acre-Feet**

Month	Total SJC + Native Rights	SP-4842 RG Native COUNTY	SD-03106 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	378.699	50.475	0.065	328.159	328.159	0.000	3.029
FEB	326.413	66.670	10.811	248.933	248.933	0.000	2.288
MAR	587.864	123.929	4.622	459.312	459.312	0.000	4.264
APR	284.753	46.642	0.000	238.111	238.111	0.000	2.281
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	0.000
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
<b>TOTAL</b>	<b>1,577.729</b>	<b>287.716</b>	<b>15.498</b>	<b>1,274.515</b>	<b>1,274.515</b>	<b>0.000</b>	<b>11.862</b>

**In Acre-Feet**

Month	Native COUNTY	Native Las Campanas	SJC TOTAL	SJC CITY	SJC Las Campanas	All Partners Diversions
JAN	50.475	0.065	325.131	325.131	0.000	375.670
FEB	66.670	10.811	246.645	246.645	0.000	324.125
MAR	123.929	4.622	455.048	455.048	0.000	583.599
APR	46.642	0.000	235.830	235.830	0.000	282.472
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
<b>TOTAL</b>	<b>287.716</b>	<b>15.498</b>	<b>1,262.653</b>	<b>1,262.653</b>	<b>0.000</b>	<b>1,565.867</b>

**Dec-15****In Acre-Feet**

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	312.687	66.122	0.000	246.565	246.565	0.000	2.400
FEB	328.880	49.882	6.848	272.150	272.150	0.000	2.358
MAR	358.212	169.870	8.149	180.193	180.193	0.000	1.602
APR	40.134	40.134	0.000	0.000	0.000	0.000	0.000
MAY	465.403	238.729	0.000	226.674	226.674	0.000	2.145
JUN	692.311	128.544	0.000	563.767	452.444	111.323	5.043
JUL	448.317	148.671	0.000	299.646	237.065	62.581	2.701
AUG	493.158	213.727	0.000	279.430	279.430	0.000	2.538
SEP	683.013	130.850	0.000	552.163	552.163	0.000	4.983
OCT	677.884	80.409	0.000	597.475	597.475	0.000	5.300
NOV	494.573	66.158	0.000	428.415	428.415	0.000	3.893
DEC	308.669	111.017	0.000	197.652	197.652	0.000	1.764
<b>TOTAL</b>	<b>5,303.242</b>	<b>1,444.113</b>	<b>14.997</b>	<b>3,844.131</b>	<b>3,670.227</b>	<b>173.904</b>	<b>34.726</b>

**In Acre-Feet**

Month	Native COUNTY	Native Las Campanas	SJC CITY	SJC Las Campanas	All Partners Diversions BDD
JAN	66.122	0.000	244.165	0.000	310.287
FEB	49.882	6.848	269.792	0.000	326.521
MAR	169.870	8.149	178.592	0.000	356.610
APR	40.134	0.000	0.000	0.000	40.134
MAY	238.729	0.000	224.529	0.000	463.258
JUN	128.544	0.000	448.397	110.327	687.268
JUL	148.671	0.000	234.928	62.017	445.616
AUG	213.727	0.000	276.893	0.000	490.620
SEP	130.850	0.000	547.180	0.000	678.030
OCT	80.409	0.000	592.175	0.000	672.585
NOV	66.158	0.000	424.522	0.000	490.681
DEC	111.017	0.000	195.888	0.000	306.905
<b>TOTAL</b>	<b>1,444.113</b>	<b>14.997</b>	<b>3,637.061</b>	<b>172.344</b>	<b>5,268.515</b>

**Buckman Direct Diversion Monthly SJC and Native Diversions**

**Dec-14**

Month	Total SJC Release (AF)	SJC Conveyance 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
<b>TOTAL</b>	<b>4,926.12</b>	<b>46.93</b>	<b>4,893.03</b>	<b>4,542.84</b>	<b>359.82</b>	<b>1,494.66</b>	<b>0.00</b>	<b>6,387.69</b>	<b>0.00</b>	<b>0.00</b>

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

Month	Total Release (AF)	ABIQUIU		
		City of Santa Fe (AF)	Santa Fe County (AF)	Club at Las Campanas (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
<b>TOTAL</b>	<b>4,926.12</b>	<b>4,573.19</b>	<b>0.00</b>	<b>353.55</b>

**Buckman Direct Diversion Monthly SJC and Native Diversions**

**December 2013**

Month	Total SJC Release (AF)	SJC Conveyance 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
<b>TOTAL</b>	<b>5195.42</b>	<b>49.29</b>	<b>5138.67</b>	<b>4647.73</b>	<b>304.07</b>	<b>705.09</b>	<b>0.00</b>	<b>5656.89</b>	<b>114.64</b>	<b>72.23</b>

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

Month	Total Release (AF)	ABIQUIU		
		City of Santa Fe (AF)	Santa Fe County (AF)	Club at Las Campanas (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
<b>TOTAL</b>	<b>5195.42</b>	<b>4822.62</b>	<b>0.00</b>	<b>372.79</b>

**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
<b>TOTALS</b>	<b>5449.67</b>	<b>51.53</b>	<b>5396.51</b>	<b>5306.90</b>	<b>1112.67</b>	<b>0.00</b>	<b>6419.57</b>	<b>89.61</b>

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

Month	Total Release (AF)	HERON		EL VADO		ABIQUIU	
		CITY	COUNTY	CITY	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
<b>TOTALS</b>	<b>5449.67</b>	<b>0.00</b>	<b>48.63</b>	<b>0.00</b>	<b>0.00</b>	<b>5401.04</b>	<b>0.00</b>

*Note: Grey fields indicate revisions to previous monthly report*

## **Drought, Monsoon/El Nino, and ESA Update**

Drought conditions have eased this past year due to the reappearance of a strong El Nino, although the February/March time period for this year was the driest on record. NOAA's latest update (04/25/16) indicates that El Nino conditions are present, but weakening **with increasing likelihood for La Nina conditions to develop by the fall (hot/dry) conditions.** Dry conditions in 2016 could present significant challenges to all water purveyors, water utilities, and irrigators going forward into the summer/fall if there is not significant filling and carry-over storage in regional reservoirs. Regional reservoir levels on the upper Santa Fe River, Rio Grande, and Chama Rivers are still low but rising slowly due to warmer temperatures and resultant snowmelt runoff. There are no water-related Endangered Species Act (ESA) updates. Updates on ESA issues will be made as needed. Rio Grande Compact Article VII storage restrictions went back into effect 4/22/16, which means the City will not be allowed to impound "native" runoff into Nichols and McClure Reservoirs above the pre-Compact pool of 1,061 AF. Updates to this condition will be made as needed.

City of Santa Fe SJCP Reservoir Storage as of February 16, 2016:

Heron:

5,196 AF (2015 SJCP water must be vacated by September 31, 2016 pursuant to a BoR waiver).

El Vado:

0 AF (Temporary storage, will be moved to Abiquiu as part of environmental winter/spring flow releases)

Abiquiu:

10,163 AF SJCP carry-over from previous years, no time limit to vacate due to storage agreement with ABCWUA

TOTAL:

15,359 AF







*A joint regional project of the City of Santa Fe and Santa Fe County to build a reliable and sustainable water supply.*

## Memorandum

**Date:** May 5, 2016

**To:** Buckman Direct Diversion Board

**From:** Charles Vokes, Facilities Manager  
Kyle Harwood, General Counsel

**Subject:** Amendment 1 for the Memorandum of Understanding between the U.S. Department of Energy and the Buckman Direct Diversion Board Regarding Water Quality Monitoring Executed on January 12, 2015.

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### **ITEM AND ISSUE:**

The DOE Environmental Management Los Alamos Field Office Manager Douglas Hintze has requested an amendment to the January 12, 2015 MOU between US DOE and the BDD Board regarding Water Quality Monitoring.

### **BACKGROUND AND SUMMARY:**

On September 17, 2015 the “Memorandum of Understanding between National Nuclear Security Administration Los Alamos Field Office and Department of Energy Environmental Management Los Alamos Field Office for Transition of Legacy Environmental Cleanup Work at Los Alamos from NNSA to EM” (LANL Internal MOU) was executed.

The LANL Internal MOU states: “EM-LA will be lead for LANL. The current MOA between DOE and the BDD Board will be modified as appropriate to designate EL-LA as DOE’s primary contact for the BDD Board. EM-LA will continue to provide funding determined as appropriate for BDD related efforts.” Page 4 of 5 of the LANL Internal MOU Communications Supplement Attachment 1.

The proposed amendment contains specific changes to sections I, K, L and M consistent with modifications described above.



**ACTION REQUESTED:**

Staff recommends approval of the attached Amendment 1 to Amendment 1 for the Memorandum of Understanding between the U.S. Department of Energy and the Buckman Direct Diversion Board regarding Water Quality Monitoring, executed on January 12, 2015.

**ATTACHMENTS:**

1. Amendment 1 to DOE and BDD MOU
2. Memorandum of Understanding between the U.S. Department of Energy and the Buckman Direct Diversion Board Regarding Water Quality Monitoring executed on January 12, 2015.
3. Memorandum of Understanding between National Nuclear Security Administration Los Alamos Field Office and Department of energy Environmental Management Los Alamos Field Office for Transition of Legacy Environmental Cleanup Work at Los Alamos from NNSA to EM
4. Communications Supplement Attachment 1

1                    *AMENDMENT #1 TO MEMORANDUM OF UNDERSTANDING (MOU) BETWEEN*  
2                    *THE U.S. DEPARTMENT OF ENERGY AND THE BUCKMAN DIRECT DIVERSION BOARD*  
3                    *REGARDING WATER QUALITY MONITORING*  
4

5                    A. Preamble to Amendment  
6

7                    This Amendment is made by the U.S. Department of Energy (DOE) and the Buckman Direct  
8                    Diversion Board (BDD Board), parties to the Memorandum of Understanding between the U.S.  
9                    Department of Energy and the Buckman Direct Diversion Board Regarding Water Quality  
10                    Monitoring, dated January 12, 2015. The original MOU was executed by Ms. Kimberly Davis  
11                    Lebak, Manager, Los Alamos Field Office for the National Nuclear Security Administration (NA-  
12                    LA) and Joseph Maestas, BDD Board Chair.  
13

14                    On September 17, 2015, a MOU was executed between NA-LA and DOE, Environmental  
15                    Management, Los Alamos Field Office (EM-LA) for the transition of legacy waste environmental  
16                    cleanup work at the Los Alamos National Laboratory (LANL). As part of that MOU, EM-LA was  
17                    designated as DOE’s lead point of contact for the Buckman Direct Diversion Project.  
18

19                    B. Deletions and Substitutions Pursuant to this Amendment  
20

21                    Except as set forth in this Amendment, the MOU between DOE and the BDD Board is unaffected  
22                    and shall continue in full force and effect in accordance with its terms.  
23

24                    The MOU between DOE and the BDD Board, dated January 12, 2015 is hereby amended to  
25                    designate EM-LA as DOE’s primary point of contact for the BDD Board:  
26

- 27                    a. On Page 6 of 11, Section I. Contacts at lines 202- 210 (on Page 7 of 11) – replace “Pete  
28                    Maggiore, Assistant Manager, Environmental Projects Office, Los Alamos Field  
29                    Office/NNSA/DOE, 3747 West Jemez Road, MS-A316, Los Alamos, NM 87544, Phone:  
30                    505-655-05925, Cell: 505-695-5109, Email: Peter.Maggiore@nnsa.doe.gov” with  
31                    “Douglas E. Hintze, Manager, Department of Energy, Environmental Management, Los  
32                    Alamos Field Office, 3747 West Jemez Road, NM 87544, Phone: 505-665-5658, Cell: 505-  
33                    695-5103, Email: [Douglas.Hintze@em.doe.gov](mailto:Douglas.Hintze@em.doe.gov).”  
34
- 35                    b. On Page 7 of 11, Section I. Contacts at lines 213 -216 – replace “DOE Counsel, Silas  
36                    Deroma, Phone: 505-667-4668, Email: Silas.Deroma@nnsa.doe.gov” with “DOE Counsel,  
37                    Ben Underwood, Phone 505-667-4995, Email: Ben.underwood@em.doe.gov.”  
38
- 39                    c. On Page 8 of 11, Section K. Dispute Resolution at lines 247-252 – replace “If the Parties  
40                    fail to resolve their differences within 30 days, the BDD Project Facility Manager and the  
41                    Los Alamos Field Office Environmental Projects Office Assistant Manager shall prepare a  
42                    written description of the dispute and the BDD Board Chair and the DOE Los Alamos  
43                    Field Manager shall meet to reconcile the dispute” with “If the Parties fail to resolve

44 their differences within 30 days, the BDD Project Facility Manager and the DOE,  
45 Environmental Management, Los Alamos Field Office (EM-LA) Manager shall prepare a  
46 written description of the dispute and the BDD Board Chair and the DOE EM-LA  
47 Manager shall meet to reconcile the dispute.”

48  
49 d. On Page 8 of 11, Section L. Other Provisions at line 261-264 – replace “Both the BDD  
50 Board and Los Alamos Field Office Environmental Projects Office Assistant Manager shall  
51 make the appropriations of funds for the activities described in this MOU a priority  
52 when seeking regular or project specific funding requests” with “Both the BDD Board  
53 and the DOE, EM-LA Manager shall make the appropriations of funds for the activities in  
54 the MOU a priority when seeking regular or project specific funding requests.”

55  
56 e. On Page 9 of 11, Section M. Signatures at lines 292-296 – replace “DOE, Kimberly Davis  
57 Lebak, Manager, Los Alamos Field Office” with “DOE, Douglas E. Hintze, Manager,  
58 Environmental Management, Los Alamos Field Office.”

59  
60

61 BDD Board:

62

63 \_\_\_\_\_

\_\_\_\_\_

64 Chair Carmichael Dominguez

Date

65

66 DOE, Environmental Management, Los Alamos Field Office

67

68 \_\_\_\_\_

\_\_\_\_\_

69 Douglas E. Hintze, Manager

Date

70

71

1 *MEMORANDUM OF UNDERSTANDING BETWEEN THE*  
2 *U.S. DEPARTMENT OF ENERGY AND THE BUCKMAN DIRECT DIVERSION BOARD*  
3 *REGARDING WATER QUALITY MONITORING*

4 **A. Parties**

5 The Parties to this MOU are the Buckman Direct Diversion Board (BDD Board) and the U.S. Department  
6 of Energy (DOE).

7 **B. Background**

8 The Buckman Direct Diversion (BDD) is designed to divert water from the Rio Grande for use by the City  
9 and County of Santa Fe water utilities in the Santa Fe area and to provide a source for the water supply  
10 systems of Santa Fe County, the City of Santa Fe, Las Campanas Club, and Las Campanas Cooperative.  
11 The water to be diverted is San Juan-Chama Project water (a U.S. Bureau of reclamation interbasin  
12 water transfer project) and native New Mexico state waters regulated by the State of New Mexico.

13 The point of diversion for the BDD is on the east bank of the Rio Grande in northern New Mexico, near  
14 the historic Buckman townsite. The point of diversion is approximately 15 miles northwest of the City of  
15 Santa Fe and is located about three miles downstream from the confluence of the Rio Grande and Los  
16 Alamos Canyon (where Route 502 crosses the Rio Grande at Otowi Bridge).

17 LANL is located on the Pajarito Plateau above the Los Alamos/Pueblo Canyon watershed. The Los  
18 Alamos/Pueblo Canyon system intermittently and infrequently flows to the Rio Grande just below the  
19 Otowi Bridge and upstream of the BDD Project point of diversion. The Los Alamos/Pueblo Canyon  
20 watershed contains sediments with LANL-origin contamination from historic releases from LANL. Rain  
21 events may cause the transport of sediments, and these sediments have in the past and may in the  
22 future be transported to the Rio Grande and then to the BDD intake. The Los Alamos/Pueblo system has  
23 been investigated under the Compliance Order on Consent between LANL and the State of New Mexico  
24 Environment Department, and measures (including infrastructure) to reduce the transport of  
25 contaminated sediment have been implemented.

26 The New Mexico legislature encouraged the BDD Board and DOE to memorialize their agreement to  
27 certain activities relating to the mitigation and monitoring of LANL-origin water quality contaminants.  
28 The BDD Board requested a written agreement with LANL and DOE in 2007 and the New Mexico  
29 legislature passed resolutions in 2009 and 2010 that ultimately resulted in the Memorandum of  
30 Understanding that was executed on May 13, 2010 (the 2010 MOU). The 2010 MOU represented an  
31 agreement between the Parties that water quality management and monitoring are mutual priorities  
32 and that the activities described were consistent with, and would be carried out subject to, the policies,  
33 regulations, and applicable laws that pertain to the Parties.

34 This MOU will be utilized by the public and the BDD Board to inform the operations of the BDD Project,  
35 and will provide information that will guide the future water quality policies and priorities of the Parties.

36 Upon the execution of this MOU, the 2010 MOU will be terminated in accordance with Section G.3 of  
37 that 2010 MOU and this MOU shall evidence the consent of the Parties to the termination.

### 38 **C. Objective**

39 This MOU establishes roles and responsibilities with regard to coordination of monitoring activities by  
40 the Los Alamos National Laboratory (LANL) and the Department of Energy (DOE) in Los Alamos and  
41 Pueblo Canyons in relation to operation of the BDD Project. The primary objectives of this MOU include  
42 the following:

- 43 1. To continue the relationship developed between DOE and the BDD, and
- 44 2. To determine whether LANL legacy contaminants from Los Alamos and Pueblo Canyons into the  
45 Rio Grande warrants operational constraints for diversion at the BDD intake. This determination  
46 will be made relative to regional storm water events and/or to base flow in the Rio Grande, with  
47 the goal of reducing the long-term need for the Early Notification System (ENS).

### 48 **D. Authorities**

49 The Parties represent that they have the authority to enter into this MOU and are able to meet the  
50 respective commitments herein to the extent permitted by law.

- 51 1. Department of Energy. The U.S. Department of Energy is authorized to enter into this MOU  
52 pursuant to the Atomic Energy Act, as amended (Title 42 U.S.C. 2011, et seq.).
- 53 2. BDD Board. The BDD Board is authorized to enter into this MOU pursuant to the March 7, 2005,  
54 Joint Powers Agreement between Santa Fe County and the City of Santa Fe and associated state,  
55 county, and municipal laws related thereto.

### 56 **E. Agreement Principles**

#### 57 **E.1 Memorandum of Agreement and Protocols between DOE and the Pueblo** 58 **de San Ildefonso**

59 The Parties recognize that DOE must comply with the requirements of the 2014 Memorandum  
60 of Agreement between DOE and the Pueblo, and the associated *Protocols for Access to Pueblo Lands*  
61 *and for Protecting Confidential Pueblo Information* pertaining to activities on, and information gathered  
62 by, DOE on Pueblo de San Ildefonso property. DOE will consult with the Pueblo as necessary regarding  
63 the use of information gathered pursuant to this MOU.

#### 64 **E.2 Los Alamos / Pueblo Canyons Early Notification System**

65 The Early Notification System is to provide real time stream flow data to the BDD at the following  
66 locations to enable the BDD staff to make decisions regarding facility operations, including temporarily  
67 ceasing diversion of water from the Rio Grande. The system includes the following parts:

- 68 • LANL Gage Station E050.1 in Los Alamos Canyon above the Pueblo Canyon confluence,
- 69 • LANL Gage Station E060.1 in Pueblo Canyon above the Los Alamos Canyon confluence,
- 70 • Station E062.1 in the narrow canyon below the confluence of Los Alamos and Pueblo Canyons,
- 71 and
- 72 • Station E099 in Guaje Canyon.

73 LANL ENS stations E050.1 and E060.1 will be equipped with gaging (flow measurement) capabilities,  
74 real-time conveyance of stream-flow data (telemetry), camera capability to act as a backup for the  
75 gaging capabilities, and automated storm water samplers. Flows at the LANL gaging stations E060.1 and  
76 E050.1 shall be measured within a trapezoidal supercritical-flow flume design as reported in  
77 "Techniques of Water-resources Investigations of the United States Geological Survey, Chapter A14, Use  
78 of Flumes in Measuring Discharge" (F.A. Kilpatrick and V.R. Snyder, 1983), and between approximately 1  
79 and 350 cubic feet per second (cfs). The system shall be capable of a low flow trigger stage of 5 cfs  
80 (adjustable).

81 Flow indication at all stations will consist of either a visual (camera) or transducer signal as confirmation  
82 of storm water flows at the locations to provide for better time studies on storm water flow travel from  
83 gage stations to the Rio Grande and to the point of diversion at the BDD. Maintenance of the flow  
84 indication equipment shall be the responsibility of DOE.

85 The BDD Board will, at its discretion, consult with the Pueblo de San Ildefonso regarding the installation  
86 of a real-time flow indicator(s) at the lower Los Alamos Canyon and the Rio Grande.

### 87 **E.3 Los Alamos / Pueblo Canyons Storm Water Quality Sampling System**

88 The sample collection system will provide water quality contaminant sampling data from storm water  
89 flow events at the LANL ENS gage stations to characterize and quantify the relationship of LANL  
90 contaminants in Los Alamos/Pueblo Canyon storm water flows into the Rio Grande in relation to the  
91 base flows and regional storm water flows. Gage stations E050.1 and E060.1 shall be equipped with  
92 automated samplers that will be triggered by the occurrence of runoff at these stations. DOE funds all  
93 sampling activities for this water quality system as part of monitoring pursuant to Section VII of the  
94 Compliance Order on Consent to evaluate contaminant transport mitigation measures within the LA/P  
95 watershed.

96 The samplers shall be capable of collecting samples from flow events greater than 5 cfs such that  
97 samples can be correlated with samples collected at the BDD intake through hydrograph comparison.  
98 The analyte list for these samplers is contained in Appendix A of this MOU and is generally consistent  
99 with, but contains negotiated changes to, the NMED-approved Los Alamos and Pueblo Canyon Sediment  
100 Transport Monitoring Plan for storm water monitoring in Los Alamos and Pueblo Canyons. Sampling  
101 shall be conducted from June through October of each year.

102 The Parties will review the available data, the analyte list, and the sampling protocols (e.g., trigger stage,  
103 sample collection process, etc.) during the Biannual Review. DOE will notify the BDD Board of any



104 changes in the NMED-approved workplan. The collection and processing of samples will be in  
105 accordance with the LANL standard operating procedures (SOP) listed in Appendix A. The analytical  
106 methods are listed in Appendix A and will follow EPA guidelines and methods.

107 DOE shall maintain the sampling system as necessary, with samplers to be inspected weekly from June  
108 through October and after each flow event, in accordance with LANL SOPs listed in Appendix A. Samples  
109 will be collected after each flow event or within 72 hours of the event. In the event any station is not  
110 functioning, DOE shall notify the BDD and repair the station so the time period of inoperability is as  
111 short as possible. Inspection and repair schedules will be contingent on safe working conditions. If the  
112 period of operability is expected to exceed 48 hours, the DOE will communicate as quickly as practicable  
113 with the BDD staff via telephone call and/or email.

114 The Parties acknowledge that the inoperability of any ENS station during subsequent flow events and  
115 the inability to collect another set of samples is not an invalidation of the sampling program. Every  
116 event is not necessary to be sampled to contribute to the contaminant fate analysis and the evaluation  
117 of LANL contaminant contributions to the samples collected at the BDD intake location.

#### 118 E.4 Rio Grande at BDD Project Location Sampling Program

119 The purpose is to provide both base-flow and event-based sampling of the Rio Grande when triggered  
120 by notification of flows in Los Alamos and/or Pueblo Canyons or as determined by the BDD Board for the  
121 purpose of water quality sampling at the Rio Grande at BDD in the search for operational criteria for  
122 ceasing diversion.

123 The sampling system includes a dedicated sampling station equipped with automated samplers that can  
124 be triggered by notification of Los Alamos and Pueblo Canyons' flows from the ENS gage stations, or by  
125 the BDD staff. The BDD Board shall retain title to the sampling equipment and shall own and operate  
126 the equipment at the BDD intake.

127 DOE shall pay up to \$96,000 in sampling and analytical costs per year for each of the three (3) years  
128 under this MOU (2015, 2016, and 2017). The BDD Board shall be responsible for any additional sampling  
129 costs, and the BDD Board is responsible for all maintenance, inspection and repair of the sampling  
130 station located at the BDD intake. DOE will seek funding via a grant to the BDD Board for the sampling  
131 and analytical costs. If such a grant is not available by March 31, 2015, DOE will be directly responsible  
132 for all sampling and analytical costs until an alternative funding mechanism is implemented.

133 The analyte list for these samplers is contained in Appendix A of this MOU. Sampling shall be conducted  
134 from June through October of each year. The Parties will review the available data, the analyte list, and  
135 the sampling protocols (e.g., trigger stage, sample collection process, etc.) during the Biannual Review.  
136 The collection and processing of samples will be in accordance with BDD sampling procedures listed in  
137 Appendix A of this MOU and that are consistent with the LANL standard operating procedures (SOP)  
138 listed in Appendix A. The analytical methods are listed in Appendix A and will follow EPA guidelines and  
139 methods.

140 The BDD Board shall fund the maintenance, inspection, and repair of the BDD intake sampling system as  
141 necessary effective July 1, 2015. Samplers shall be inspected weekly from June through October and  
142 after each flow event. Samples will be collected after each flow event or within 72 hours of the event.  
143 In the event the station is not functioning, BDD staff shall notify DOE and repair the station so the time  
144 period of inoperability is as short as possible. Inspection and repair schedules will be contingent on safe  
145 working conditions. If the period of operability is expected to exceed 48 hours, BDD staff will  
146 communicate as quickly as practicable with the DOE via telephone call and/or email.

147 The Parties acknowledge that the inoperability of the BDD intake station during subsequent flow events  
148 and the inability to collect another set of samples is not an invalidation of the sampling program. It is  
149 not necessary that every event be sampled to contribute to the contaminant fate analysis and the  
150 evaluation of LANL contaminant contributions to the samples collected at the BDD Project location.

### 151 **E.5 TREAT Study**

152 BDD Board will fund a continuation of the Contaminant Fate Analysis that was started under the 2010  
153 MOU under "The Removal Efficiency and Assessment of Treatments" (TREAT) Study. The TREAT Study  
154 will examine the treatment efficiency of the conventional and advanced treatments at the BDD with  
155 respect to contaminants in order to help determine the BDD operational criteria for diversion from the  
156 Rio Grande. The TREAT Study will focus on the capabilities of the BDD with respect to removal of  
157 contaminants as they are found to occur in the Rio Grande at BDD intake.

### 158 **E.6 Analysis**

159 The BDD Board will fund and BDD staff will be the lead on an annual report on the analysis of the data  
160 collected under this MOU. DOE will provide input and comments to the BDD report. Each annual report  
161 will be updated with the data from the latest monitoring period. The objective of the report is to  
162 summarize and present the collected data in the search for BDD operational criteria that determines the  
163 operational criteria for diversions from the Rio Grande. The report shall be reviewed and comments  
164 provided by DOE by May 31 of each year with the goal of revising the Appendix A sampling plan before  
165 the next storm season.

166 The BDD Board will conduct an evaluation of the water quality monitoring results and TREAT data and  
167 make a determination on operational parameters or criteria on whether or when to cease diverting  
168 from the Rio Grande. DOE will provide technical input on the report and shall be afforded an  
169 opportunity to review and comment on the report.

## 170 **F. BDD Project Data Sharing**

171 DOE shall be responsible for the costs associated with the sampling and analyses from the primary ENS  
172 components listed in Section E.2 in Los Alamos and Pueblo Canyons. Analytical results from E060.1 and  
173 E050.1 sampling will be made available to the BDD staff via the Intellus database within 30-60 calendar  
174 days after DOE receives sampling results from the analytical laboratory. Paper copies of the results will

175 not be provided. Flow results from the secondary locations listed in Section E.1 shall be transmitted to  
176 the BDD staff no later than concurrently with the primary sample results.

177 DOE will, on at least an annual basis, update the transit time for storm water flows (from meteorological  
178 tower reports, the E050.1 and E060.1 gage stations, E062.1, and E099 flow indicators) between Lower  
179 Los Alamos Canyon at Rio Grande flow indication location and the BDD intake to determine transit time  
180 for various storm intensities and flows. BDD staff will provide technical input on the report and shall be  
181 afforded an opportunity to review and comment on the information.

182 Analytical results from the BDD intake will be made available to both the BDD Board and DOE via the  
183 Intellus database as soon as they are available.

184 The BDD Board will make records available to the DOE consistent with this MOU and that are generally  
185 available to the public, and this information shall be used in the Biannual Review process.

## 186 **G. Coordination**

187 DOE and the BDD Board will coordinate as necessary with the Pueblo de San Ildefonso and the New  
188 Mexico Environment Department on any issues related to the implementation of this MOU, and will  
189 engage in any consultation required to accomplish the purposes of this MOU.

190 Coordination between the Parties shall be to the mutual benefit of both parties and shall include data  
191 sharing (as above), technical assistance, and data and analysis reviews. Both parties should allow at  
192 least one week for response when requesting technical assistance or data and for analysis reviews, and  
193 should strive for more time to meet needs.

## 194 **H. Biannual Review**

195 The Parties shall meet twice annually to discuss issues related to this MOU. The meeting target months  
196 shall be October and April each year.

## 197 **I. Contacts**

198 All notices, correspondence, and communications arising under this MOU shall be provided to the  
199 representatives listed below, and any notice, demand, request, or information authorized of related to  
200 this MOU shall be deemed to have been given if mailed (return receipt requested), hand-delivered, or  
201 faxed (with confirmation of transmission) as follows:

- 202 • **DOE**
- 203 Peter Maggiore
- 204 Assistant Manager, Environmental Projects Office
- 205 Los Alamos Field Office / NNSA / DOE
- 206 3747 West Jemez Road, MS-A316

207 Los Alamos, NM 87544  
208 Phone: 505-665-05925  
209 Cell: 505-695-5109  
210 Email: [Peter.Maggiore@nnsa.doe.gov](mailto:Peter.Maggiore@nnsa.doe.gov)

211  
212 With copy to:  
213 DOE Counsel  
214 Silas Deroma  
215 Phone: 505-667-4668  
216 Email: [Silas.Deroma@nnsa.doe.gov](mailto:Silas.Deroma@nnsa.doe.gov)

217  
218 • **BDD Board**  
219 Charles Vokes  
220 BDD Facility Manager  
221 Buckman Direct Diversion  
222 341 Caja De Rio Road  
223 Santa Fe, NM 87506  
224 Phone: 505-955-4507  
225 Email: [cmvokes@ci.santa-fe.nm.us](mailto:cmvokes@ci.santa-fe.nm.us)

226  
227 With copy to:  
228 BDD Board Counsel  
229 Nancy Long  
230 Long and Komer  
231 2200 Brothers Road  
232 P.O. Box 5098  
233 Santa Fe, NM 87502  
234 Cell: 505-470-2158  
235 Email: [nlong@nm.net](mailto:nlong@nm.net)

## 236 **J. Period of Agreement, Modification, or Termination**

237 This MOU is effective upon the signature of the BDD Board and DOE as shown below. This agreement is  
238 intended to address 2015, 2016 and 2017 and shall expire on December 1, 2017, UNLESS both Parties  
239 agree to extend this MOU for an optional three (3) year period. This optional extension may be  
240 executed by a re-signed copy of the signature page by the respective authorized parties to this MOU.

241 The Parties may modify this MOU by written amendment and in the same manner as this MOU was  
242 executed. Either Party may unilaterally terminate this MOU before the date of expiration, provided the  
243 party seeking termination provides written notice to the other party's representative 90 days before the  
244 intended termination date.

245 **K. Dispute Resolution**

246 If the Parties disagree over how to interpret this MOU, representatives of the Parties shall present their  
247 differences in writing to the Points of Contact for the other Party. If the Parties fail to resolve their  
248 differences within 30 days, the BDD Project Facility Manager and the Los Alamos Field Office  
249 Environmental Projects Office Assistant Manager shall prepare a written description of the dispute and  
250 the BDD Board Chair and the DOE Los Alamos Field Office Manager shall meet to reconcile the dispute.  
251 These representatives shall use efforts such as negotiation, facilitation, and mediation to resolve the  
252 dispute.

253 **L. Other Provisions**

254 Nothing in this MOU is intended to conflict with requirements of the Parties or applicable laws. Any  
255 such conflicting terms shall be invalid, but the remainder of this MOU shall remain in effect. If a term is  
256 deemed invalid, the Parties shall take appropriate action, including amendment or termination. The  
257 activities described in this MOU are consistent with, and will be carried out subject to, all known  
258 policies, regulations, and applicable laws that pertain to the parties.

259 This MOU in no way restricts the Parties from participating in any activity with other public or private  
260 agencies, organizations, or individuals.

261 Activities described in this MOU are subject to the availability of appropriated fund. Both the BDD Board  
262 and Los Alamos Field Office Environmental Projects Office Assistant Manager shall make the  
263 appropriations of funds for the activities described in this MOU a priority when seeking regular or  
264 project specific funding requests.

265 This MOU describes the basis on which the parties will cooperate on the topics described herein. This  
266 MOU is NOT a financial obligation that serves as a basis for expenditures, and any financial obligations  
267 necessary to carry out the activities described herein shall be addressed in other documents internal to  
268 each party. Expenditure of funds, human resources, equipment, supplies, facilities, training, public  
269 information, and technical expertise will be provided by each party as necessary to fulfill its obligations  
270 under this MOU.

271 This MOU is neither a fiscal nor a funds obligation document. Nothing in this MOU authorizes or is  
272 intended to obligate the parties to expend, exchange, or reimburse funds, services, or supplies, or  
273 transfer or receive anything of value. Any requirement for the payment or obligation of funds by DOE  
274 established by the terms of this MOU shall be subject to availability of funds and Secretarial discretion,  
275 and no provision herein shall be interpreted to require obligation or payment of funds in violation of the  
276 Anti-Deficiency Act, 31 U.S.C. §1341.

277 This MOU is not legally enforceable and shall not be construed to create any legal obligation n the part  
278 of either party. This MOU shall not be construed to provide a private right, or cause of action, for or by  
279 any person or entity.

**M. Signatures**

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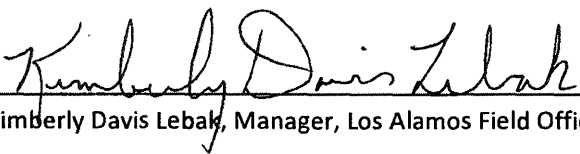
NOW, each of the BDD Board and DOE has caused this MOU to be executed and delivered by its duly authorized representatives as of the last date shown below,

BDD Board

  
\_\_\_\_\_  
Joseph Maestas, BDD Board Chair

1-8-15  
Date

DOE

  
\_\_\_\_\_  
Kimberly Davis Lebak, Manager, Los Alamos Field Office

1/12/15  
Date

This Memorandum of Understanding is valid for three years from the date of the last signature.

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## *Appendix A*

### *Sampling and Analysis Plan*

The tables that follow the text below contain the analytes for the water quality sampling in accordance with this Memorandum.

#### **Regarding LA/Pueblo Canyon Telemetry:**

1. Telemetry used to communicate flow data from the gaging stations to the BDD shall provide a received signal level at each receiver with a fade margin of no less than 25 dBm above the equipment receiver threshold. Telemetry equipment shall include battery backup sized to provide a minimum 12 hour operation after failure of primary power. Battery run time shall be calculated in a mode of operation consistent with frequent data transmission during a slow event.
2. The amount of time between a station trigger and when notification is available to the BDD will be as short as is practical, with a goal not to exceed 1minute.

#### **Regarding LA/Pueblo Canyon Water Quality Sampling:**

1. The goals of the sampling strategy are to collect data that represent variations in contaminant concentrations and suspended sediment concentration (SSC) within runoff events across a typical hydrograph for each location (Monitoring Plan for LA/P Canyon Sediment Transport Mitigation Project (LA-UR-09-6563)).
2. Each of the gages will be monitored continuously for stage. Samples at E050 and E060 will be triggered by 5-cfs flows to ensure sampling at flows that may extend to the Rio Grande (Monitoring Plan for LA/P Canyon Sediment Transport Mitigation Project (LA-UR-09-6563)).
3. Prioritization of analytes if water volume is insufficient to fulfill suite is unfiltered, then filtered, and by constituents: SSC, Isotopic Plutonium, Am-241 (HASL-300), Sr-90, Isotopic Uranium, Radium-226/228, Gross alpha/beta, radionuclides by gamma spec, target analyte list metals, PCBs, dioxin/furans, perchlorates, cyanide, TOC.
4. All events exceeding 5cfs at E050.1 and E060.1 will be analyzed for the parameters in Table 2.

#### **Regarding Detection Limits in the Analyte Tables:**

Method reporting limits for sample analyses for each medium shall be established at the lowest level practicable for the method and analyte concentrations and shall not exceed soil, groundwater, surface water, or vapor emissions background levels, cleanup standards, and screening levels. The preferred method detection limits are a maximum of 20 percent of the background, screening, or cleanup levels. Detection limits that exceed established soil, groundwater, surface water, or air emissions cleanup standards, screening levels, or background levels and are reported as "not detected" shall be considered data quality exceptions and an explanation for the exceedance and its acceptability for use shall be provided. (Section IX.C.3.c Method Reporting Limits from the Consent Order).



## **Regarding BDD Intake Water Quality Sampling:**

The sampler set up at the BDD intake contains 4 autosamplers. The samplers installed at the BDD intake are ISCO Model 3700. The BDD staff maintains the equipment of these samplers.

The samplers can communicate remotely with the BDD Treatment Plant. The samplers can be started or stopped at any time during storm events, and can be programmed to sample at any frequency and order. Sample collection timing and bottle fill sequence for each sampler can be programmed as well.

## **Sampling Strategy at BDD Intake**

The early notification for BDD to stop diverting and start sampling is a 5 cfs flow in the LA/P canyon system. Consequently, the time for this flow's arrival at the BDD is programmed into the software program or estimated the BDD operators, and at that time the "storm event" procedure is triggered: stop diversion, start sampling. The sampling sequence may be triggered by change in stage of the Rio Grande as well.

## **Automated Storm Event Sample Collection at BDD Intake**

When a flow greater than 5 cfs is detected by a sensor at E050.1 and/or E060.1, a signal is automatically transmitted electronically to the BDD's Supervisory Control and Data Acquisition system (SCADA). Usually, 75 minutes (or as determined by the BDD operator) after the transmission of the signal from either E050.1 or E060.1, SCADA will automatically transmit a start signal to autosamplers located near the BDD's diversion structure, and it would fill out the pre-loaded collection containers at programmed intervals. Signals are automatically transmitted electronically to the BDD's Supervisory Control and Data Acquisition system (SCADA). When a flow greater than 5 cfs is detected by the SCADA at E050.1 and/or E060.1 or a combined flow of the two stations is greater than 5 cfs, the ENS sequencing will begin. After time calculated delays have expired (or as determined by the BDD operator), SCADA will automatically transmit a start signal to autosamplers located near the BDD's diversion structure, and it would fill out the pre-loaded collection containers at programmed intervals.

## **Deviations from Pre-Programmed Sample Collection**

The LANL gauging stations are equipped with cameras which may help in estimating the LA/P canyon flow arrival or whether to determine if any false alarm is triggered. The BDD operators do not rely exclusively on the early 5cfs notification. After the notification is received at the BDD, the storm event is verified by the video cameras at the gauging stations, or evaluated from weather point of view and/or timing in the season, in order to correct the flow arrival in determining the best time to stop diversion and start sampling. The BDD operator may correct or change the pre-programmed trigger times listed earlier. Sometimes, equipment may be malfunctioning, or in case of very strong flash floods, sensors

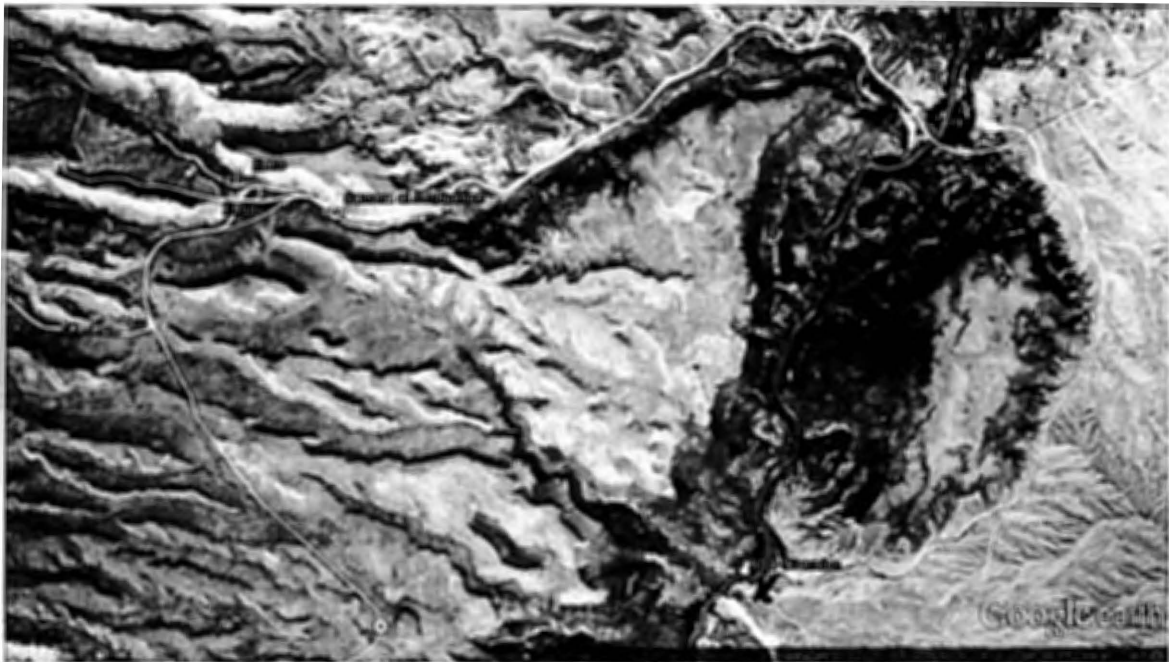
may be out of service. At such times the cameras become the sole tool for estimating flow arrival, or verification of a storm event.

### **Notification to Partners**

Storm events and sampling during events is communicated to the BDD partners via email.

### **Analytes and Methods**

Samples collected during stormwater sampling will be screened at BDD in order to determine the best representatives of before, during, and after the event. Then, the samples will be sent to a lab and analyzed for the following analytes using the methods listed in Table 3.



**Table 1: Standard Operating Procedures**

SOP Number/Title	Application			
LANL Procedures	Stream Gage/Sampler Maintenance	LA/P Canyon Storm Water Quality Data	Rio Grande above Otowi Location	Rio Grande at BDD Diversion Location
SOP-5213 Collecting Storm Water Runoff Samples and Inspecting Samplers	✘	✘	✘	
SOP-5214 Installation, Setup and Maintenance of ISCO Samplers		✘	✘	
SOP-5215 Processing Storm Water Samples		✘	✘	
EP-ERSS-SOP-5057 Handling, Packaging and Transporting Field Samples		✘	✘	
SOP-5255 Shipping of Environmental Samples by the WES Sample Management Office (SMO)		✘	✘	
ENV-WQH-SOP-009.3 Operation and Maintenance of Stream Gaging Stations	✘	✘	✘	
<b>BDD Procedures</b>				
BDD SOP				✘

**Table 2: Los Alamos/Pueblo Canyon Storm Water Quality Sampling**

<b>Analytes</b>	<b>Method</b>	<b>Detection Limit</b>	<b>Field Prep Code</b>
Suspended Sediment Concentration	ASTM:D3977-97	3 mg/L	UF
TAL metals (23) plus Hg	EPA:200.7, EPA: 200.8, EPA:245.2	0.2-300 mg/L	UF
Hardness	SM:A2340B	2 mg/l	UF
Gross alpha	EPA:900	3 pCi/L	F, UF
Gross beta	EPA:900	3 pCi/L	F, UF
Strontium-90	EPA:905.0	0.5 pCi/L	UF
Americium-241	HASL-300:AM-241	0.05 pCi/L	UF
Gross gamma	EPA:901.1	15 pCi/L	UF
Cesium-137	EPA:901.1	5 pCi/L	UF
Cobalt-60	EPA:901.1	5 pCi/L	UF
Sodium-22	EPA:901.1	10 pCi/L	UF
Neptunium-237	EPA:901.1	40 pCi/L	UF
Potassium-40	EPA:901.1	75 pCi/L	UF
Radionuclides by gamma spec	EPA:901.1	varies	UF
Plutonium (isotopic)	HASL-300:ISOPU	0.05 pCi/L	UF
Uranium (isotopic)	HASL-300:ISOU	0.05 pCi/L	UF
Dioxin/Furans	SW-846:8290	0.2-0.5 pCi/L	UF
PCBs	EPA 1668A	20-150 pCi/L	UF
Radium-226 & 228	EPA:903.1 & EPA:904.4	1 pCi/L	UF

**Table 3: Rio Grande at BDD Diversion Sampling Program**

<b>Analytes</b>	<b>Method</b>	<b>Detection Limit</b>	<b>Field Prep Code</b>
Suspended Sediment Concentration	ASTM:D3977-97	3 mg/L	UF
TAL metal (23) plus Hg	EPA:200.7, EPA: 200.8, EPA:245.2	0.2-300 mg/L	F, UF
Hardness	SM:A2340B	2 mg/l	UF
Gross alpha	EPA:900	3 pCi/L	F, UF
Gross beta	EPA:900	3 pCi/L	F, UF
Strontium-90	EPA:905.0	0.5 pCi/L	F, UF
Americium-241	HASL-300:AM-241	0.05 pCi/L	F, UF
Gross gamma	EPA:901.1	15 pCi/L	UF
Cesium-137	EPA:901.1	5 pCi/L	F, UF
Cobalt-60	EPA:901.1	5 pCi/L	F, UF
Sodium-22	EPA:901.1	10 pCi/L	F, UF
Neptunium-237	EPA:901.1	40 pCi/L	F, UF
Potassium-40	EPA:901.1	75 pCi/L	F, UF
Radionuclides by gamma spec	EPA:901.1	varies	UF
Plutonium (isotopic)	HASL-300:ISOPU	0.05 pCi/L	F, UF
Uranium (isotopic)	HASL-300:ISOU	0.05 pCi/L	F, UF
Dioxin/Furans	SW-846:8290	0.2-0.5 pCi/L	UF
PCBs	EPA 1668A	20-150 pCi/L	UF
Radium-226 & 228	EPA:903.1 & EPA:904.4	1 pCi/L	F, UF
TDS	EPA:160.1	10 pCi/L	F
TOC	SW-846:9060	1 mg/L	UF
PADS-particle size analysis	ASTM C-1070-01	0.1 %	UF
Perchlorate	SW846 6850 Modified	0.02 mg/l	UF



**MEMORANDUM OF UNDERSTANDING**

between

**National Nuclear Security Administration Los Alamos Field Office**

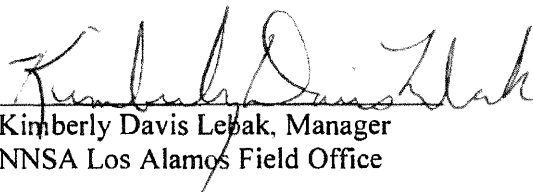
and

**Department of Energy Environmental Management Los Alamos Field Office**

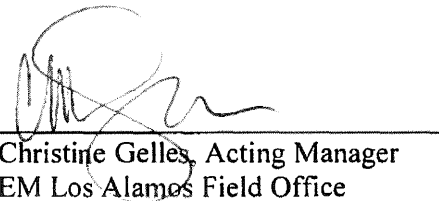
for

**Transition of Legacy Environmental Cleanup Work at Los Alamos**

**from NNSA to EM**

Approval:   
Kimberly Davis Lebak, Manager  
NNSA Los Alamos Field Office

9/17/15  
Date

Approval:   
Christine Gelles, Acting Manager  
EM Los Alamos Field Office

9/17/2015  
Date

## REVISION LOG

Number	Date	Changes
0	09/17/15	Original Issue

## **MEMORANDUM OF UNDERSTANDING**

**between**

**National Nuclear Security Administration (NNSA) Los Alamos Field Office (NA-LA)**

**and**

**Department of Energy Environmental Management Los Alamos Field Office (EM-LA)**

**for**

**Transition of Legacy Environmental Cleanup Work at Los Alamos from NNSA to EM**

This Memorandum of Understanding (MOU) will be effective on the date of the last signature, by and between NA- LA and EM-LA (collectively referred to as the Parties).

### **1. INTRODUCTION**

The Secretary of Energy has directed NNSA and EM to transition the acquisition and management of EM funded legacy cleanup work at Los Alamos National Laboratory (LANL) from NNSA to EM. He accepted the jointly developed and recommended transition plan submitted to him on November 17, 2014. This direction included the development of an MOU between NNSA and EM that addresses the MOU purpose (stated below) and documents programmatic responsibilities and funding shares of site services and indirect costs among NNSA and EM.

### **2. PURPOSE**

This MOU outlines and documents a mutually agreed to understanding of: accountabilities and authorities; infrastructure ownership; nuclear safety oversight; and, landlord functions related to the transition that will allow EM to assume direct management of prime contracts established for EM-funded work at Los Alamos National Laboratory (LANL), and associated regulatory agreements and requirements. This scope transferred from NNSA to EM is referred to as the EM Los Alamos Legacy Cleanup Completion Project (LCCP).

### **3. BACKGROUND**

#### **3.1 LANL Cleanup Mission**

Since its inception in 1943 as part of the Manhattan Project, LANL's primary mission has been nuclear weapons research and development. In executing this mission, LANL released hazardous and radioactive materials to the environment through outfalls, stack releases, and material disposal areas (MDAs). Mixed low-level waste (MLLW) and transuranic (TRU) waste generated prior to 1999 and recognized as legacy waste, have been staged to prepare for off-site disposition.

The EM mission at Los Alamos is to safely clean up and reduce risks to the public, workers and the environment associated with legacy material, facilities and waste sites. Since October 1, 1988, the work performed to characterize and remediate contaminants in the environment, decontaminate and decommission (D&D) process-contaminated facilities, and manage and dispose of legacy TRU waste have been funded by EM.



The specific objectives for the Los Alamos LCCP include the following:

- Protect, characterize, remediate (as necessary), and monitor the regional aquifer.
- Clean up legacy contaminated media and legacy waste sites at LANL and surrounding private and government-owned lands, including groundwater and surface water, to levels appropriate for the intended land use and in accordance with regulatory requirements.
- D&D inactive, process-contaminated, and non-contaminated facilities at TA-21 and TA-54 that impede the progress of the execution of environmental restoration (ER) activities.
- Retrieve, characterize, and prepare legacy MLLW and TRU waste for shipment off-site (the LANL EM Program manages the disposition of legacy waste generated between 1970 and 1998 and NNSA is responsible for newly generated waste (waste generated after FY1998)).
- Transfer remediated sites to NNSA for long-term surveillance and monitoring as needed, to provide necessary safeguards and protection of workers, the public, and the environment. All required post-remediation monitoring and maintenance activities will be transitioned from EM to NNSA.

### **3.2 Regulatory Requirements**

The Environmental Management program at LANL is governed by numerous regulatory requirements. Since 1989, the Resource Conservation and Recovery Act (RCRA) has been the main regulatory driver with the Environmental Protection Agency granting primacy to the State of New Mexico for corrective actions in 1996. In March of 2005 the New Mexico Environment Department, New Mexico Attorney General, University of California, and DOE signed a Compliance Order on Consent (CO) pursuant to the New Mexico Hazardous Waste Act. The CO is a comprehensive and enforceable Order that is grounded in RCRA and set a completion date of December 2015. Upon award of the LANL Prime Contract to Los Alamos National Security, LLC (LANS), the CO obligations were imposed on LANS.

In FY 2012 the Department initiated discussions with the State of New Mexico to reprioritize the near term scheduled activities within the CO based on a risk-based approach. This reprioritization is documented in the Framework Agreement of January 2012. The Framework Agreement is a shared commitment between DOE and the State of New Mexico but, unlike the CO, it is not an enforceable agreement. Inherent in reaching this agreement was the acknowledgement by DOE that the CO current completion date of 2015 would not be met. The Framework Agreement contains a milestone to complete disposition of 3,706 cubic meters of above-ground TRU waste by June 30, 2014. The milestone was missed due to the pause in operations at the Waste Isolation Pilot Plant (WIPP) and the pause in shipments of TRU waste for temporary storage at a commercial storage facility. Significant progress was made however and only 10% of the 3,706 cubic meters of above-ground TRU waste remains at LANL.

While the CO is the main regulatory driver, there are other regulatory requirements that must be followed to ensure compliance is attained in completing the legacy cleanup work at LANL (such as DOE nuclear, radiological and worker safety rules, Clean Water Act, Clean Air Act, and National Environmental Policy Act, to name a few).

## 4. RESPONSIBILITIES

### 4.1 General Points of Agreement

This MOU, and all supplements developed pursuant to it, apply to all offices, personnel, agents, consultants and contractors of NA-LA and EM-LA. It is the intent of this MOU to set a framework of cooperation and coordination of federal and contractor organizations to meet program requirements while serving the public in a cost effective and professional manner.

- Our highest priority is always the safety, health and protection of workers, the public, and the environment - no transition activity shall jeopardize this highest priority.
- NA-LA and EM-LA agree to work collaboratively to accomplish the transition of EM funded work in such a way as to avoid gaps in responsibilities and minimize, to the greatest extent possible, duplication of effort or overlapping responsibilities.
- NNSA and EM agree EM will not fund LDRD.
- Additionally, this MOU and its attendant supplements are not intended to alter the scope of the EM funded cleanup work.

### 4.2 Secretarial Level Guidance

During review meetings and discussions resulting in the Secretary's approval of the Transition Plan, certain items related to the transition were discussed and agreed upon. Those items will be included in their respective Supplements; however, they are also listed below to ensure clear dissemination to all MOU Parties:

- EM funded legacy cleanup scope performed at LANL is to be transferred from NNSA to EM.
- A Transition Plan was accepted, which includes:
  - Standing up an EM Los Alamos Field Office with additional key personnel (Phase 1 of reorganization effort).
  - Transfer EM funded work scope from the LANL M&O contract to a separate EM contract with the M&O contractor – referred to as a “bridge” contract pending subsequent EM acquisition of a competitive follow on contract(s) for the remaining EM funded work scope.
  - Establish organizational responsibilities, interface agreements and integration protocols between NA-LA and EM-LA to facilitate effective colocation at Los Alamos.
  - Determine funding shares of site services and indirect costs among NNSA and EM.
- NNSA commits to provide EM with the same level of site resources at no new cost to EM. (This is not to be construed in a way where NNSA would be subsidizing EM legacy cleanup work. Cost of doing business will be worked through this MOU).
- The Transition Plan and this MOU do not address or directly affect NNSA funded and managed activities related to newly generated TRU waste, the new TRU Waste Facility, or the Radioactive Liquid Waste Treatment Facility and upgrade projects. However, NA-LA is responsible for the “stored new gen waste” at TA-54 and will coordinate with EM-LA for final disposition.
- Unless specifically addressed in the Facilities & Infrastructure Supplement, the Transition Plan and this MOU do not address the transfer of additional facilities at LANL that are excess to NNSA's mission that have been identified for future transfer to the EM program when funds are available. Transfer of excess facility liabilities will be handled in accord with the DOE

established policy and guidance developed by DOE's Laboratory Operations Board Excess Contaminated Facilities Working Group that was established in 2015.

- EM and NNSA will work jointly to ensure alignment between the WIPP M&O and the LANL M&O contracts regarding certification and disposition of EM legacy and NNSA newly generated TRU wastes.
- The Repository Sciences Organization (RSO) and its scope of work and resources will be retained within the LANL M&O contract and accessed by DOE programs and funded by EM via tasks issued under the M&O contract.

### 4.3 MOU Supplements

The Transition Plan chartered Transition Working Groups for different functional areas involved with the transition. The MOU, by necessity, will be a "living document" and to better facilitate the ability to evolve and refine the MOU, the MOU Supplements to this MOU are aligned to each of the below functional areas / Transition Working Groups and are utilized to implement the purpose of this MOU.

The supplements will contain a greater level of detail on planned actions and/or processes that will lead to agreements on such things as: "programmatic responsibilities and funding shares", "shared resources", and "contractor supported activities".

These supplements are briefly highlighted below and provide additional detail on the points of agreement.

- Communications: This Supplement identifies key areas of interface with various external organizations such as stakeholders, tribal governments, general public, media, etc., and describes expectations for NA-LA and EM-LA to ensure communications are coordinated and vetted to represent intended and unified messaging.
- Acquisition: This Supplement identifies acquisition related areas where NA-LA and EM-LA agree to coordinate on activities that might impact their respective contractor(s), such as contractor capacity, site closures, workforce impacts, contractual and subcontractor interfaces, etc.
- Environmental Permits/Regulatory/Legal Framework: This Supplement highlights key areas of shared interest between NA-LA and EM-LA regarding environmental permitting, regulatory responsibilities, and certain formal agreements and establishes agreement for either NA-LA or EM-LA to have the lead role for each of those areas during the transition period.
- Safety: This Supplement requires a shared and coordinated approach to roles, responsibilities, and authorities for federal safety oversight and to ensure formality of operations is in place for safe operations of nuclear facilities.
- Financial: This Supplement delineates agreements between NA-LA and EM-LA regarding responsibilities, funding shares of site services, indirect costs and allocation process related to EM funded legacy cleanup work.
- Workforce: This Supplement describes the roles and responsibilities between NA-LA and EM-LA and identifies the importance of coordinating and mutually prioritizing resource issues for both organizations to meet mission requirements.

- Logistics and IT: This Supplement describes the roles and responsibilities for NA-LA and EM-LA and the importance for continued support in areas such as; Information Technology, office space, records management, phones, etc., which are all very critical to running an organization in a landlord/tenant structure.
- Facilities & Infrastructure: This Supplement identifies facilities to be either jointly or exclusively used by EM-LA in order to execute the EM funded legacy cleanup mission and reflects agreement between NA-LA and EM-LA for transfer of operational control of certain facilities or Technical Areas from NNSA to EM.

The terms and conditions of the MOU are controlling, and may not be modified or expanded except in writing signed by the Parties. In the event of any expressed conflict between the provisions of the MOU and the provisions of the Supplements, the provisions of the MOU will govern and control with respect to the interpretation of this Supplement. In the event of any conflict between the provisions of any Supplement made under the MOU, the Supplement directly addressing the conflicting subject matter shall govern and control the interpretation of the disparity.

## **5. IMPLEMENTATION AND EXPIRATION**

This MOU is strictly for internal management purposes for each of the parties. It is not legally enforceable and shall not be construed to create any legal obligation on the part of either party. This MOU shall not be construed to provide a private right or cause of action for or by any person or entity and is not a funding document and subject to appropriations.

This MOU may be modified, revised, updated, amended, or terminated by agreement of both Parties. This MOA is effective when signed by all parties and will remain in effect until terminated as described herein.

## **6. AGREEMENT TO TERMS**

By their signatures on the title page of this MOU, the Parties hereto agree to the terms of this MOU, and have executed this MOU as of the latest date signed.

## **7. ATTACHMENTS**


1. Communications Supplement
2. Acquisition Supplement
3. Environmental Permits/Regulatory/Legal Framework Supplement
4. Safety Supplement
5. Financial Supplement
6. Workforce Supplement
7. Logistics and IT Supplement
8. Facilities & Infrastructure Supplement

Note: Specific items included in the individual supplements are listed in Appendices A and B to this MOU and cross walked between each item and its respective Supplement(s). Appendix A is sorted alphabetically by Supplement and Appendix B is sorted alphabetically by Item.



**COMMUNICATIONS**  
**Supplement**  
**to**  
**Memorandum of Understanding between**  
**NA-LA and EM-LA**  
**for**  
**Transition of Legacy Environmental Cleanup Work at Los Alamos**  
**from NNSA to EM**


Approval:

  
Kimberly Davis Lebak, Manager  
NNSA Los Alamos Field Office

Date

9/17/15

Approval:

  
Christine Gelles, Acting Manager  
EM Los Alamos Field Office

Date

9/17/2015

## REVISION LOG

Number	Date	Changes
0	09/17/15	Original Issue

### 1. PURPOSE

This Communications Supplement to the MOU between NA-LA and EM-LA effective September 17, 2015, delineates Communications, Public Affairs, and Intergovernmental/Community Activities areas of shared interest between NA-LA and EM-LA and reflects respective agreements, responsibilities and authorities related to the transition of EM funded legacy cleanup work at LANL.

### 2. RELATIONSHIP WITH THE MOU AND OTHER SUPPLEMENTS: ORDER OF PRECEDENCE

The terms and conditions of the MOU are controlling, and may not be modified or expanded except in writing signed by the Parties. In the event of any expressed conflict between the provisions of the MOU and the provisions of this Supplement, the provisions of the MOU will govern and control with respect to the interpretation of this Supplement. In the event of any conflict between the provisions of this Communications Supplement and any other Supplement made under the MOU, the Supplement directly addressing the conflicting subject matter shall govern and control the interpretation of the disparity.

### 3. AMENDMENTS

This Supplement may be amended, revised or augmented without amending the MOU. Amendments, revisions, or augments to this Supplement may only be made in a written document signed by both Parties.

### 4. AGREEMENT TO TERMS

By their signatures, the Parties hereto agree to the terms of this Communications Supplement.

## **5. SCOPE**

### **5.1 Background**

Federal oversight of the EM Legacy Cleanup Work at Los Alamos was previously provided by the NA-LA Environmental Projects Office (EPO) staff. EM activities related to communications, public affairs, and intergovernmental/community activities were worked "hand in glove" between EPO staff and NA-LA's designees for those functional areas. The NA-LA designees were the responsible leads for DOE at Los Alamos to coordinate with LANS, external stakeholders, and both EM and NNSA headquarters counterparts. EM-LA is now responsible for the EM Legacy Cleanup Work at Los Alamos and related communications, public affairs (PA), and intergovernmental/community activities. EM-LA will continue to closely coordinate these activities with NA-LA.

EM funding has been made available to support certain functions/activities that facilitate better communication between DOE and external stakeholders regarding the EM cleanup work at Los Alamos. Although not all inclusive, some examples of this include the Northern New Mexico Citizens' Advisory Board, the Regional Coalition of LANL Communities, and the Los Alamos Pueblo Project.

While transition makes EM directly responsible for the organizational and acquisition management of legacy environmental cleanup scope at LANL, EM and NA must continue to coordinate on communication matters impacting shared LANL stakeholders, including regulators, Pueblos and the public. This Communications Supplement intends to define roles and responsibilities between NA-LA and EM-LA associated with reasonably anticipated communications matters. The parties agree to make best efforts to ensure full and timely coordination, review and concurrence on external communication materials. These efforts include collaboratively sharing information with the respective NA and EM Headquarters communication offices, as well as DOE Public Affairs and Congressional and Intergovernmental Affairs offices.

### **5.2 Shared Areas of Interest**

- Buckman Direct Diversion Project
- Congressional Inquiries
- LANL Communications
- Los Alamos County
- Media Monitoring & News Releases
- Non-Governmental Organizations
- Northern New Mexico Citizens Advisory Board
- Photography
- Public Meeting Attendance
- Regulatory Agencies
- Tribal Government Relationships
- Visitors & Tours

### **5.3 Roles and Responsibilities**

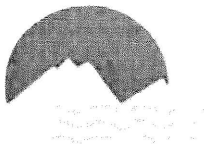
- General
  - NA-LA and EM-LA recognize there is a shared responsibility to be coordinated in their respective and joint communications with LANL's numerous and varied stakeholders. While shared areas of interest will normally have either an NA-LA or EM-LA lead for communications, NA-LA and EM-LA are committed to close coordination with each other

- to minimize, to the greatest extent practicable, communications that convey disconnected LANL based positions.
- NA-LA and EM-LA will coordinate on activities related to shared processes or procedures and work to mutually resolve any priority or resource conflicts, or other issues that might hinder the effective accomplishment of their respective missions.
  - In general, written external communications to elected officials and community organizations will be formally reviewed and concurred on by NA-LA and EM-LA when addressing site-wide activities. When correspondence is limited to EM responsibilities, EM will provide NA-LA with courtesy copies. When correspondence is limited to NA responsibilities, NA-LA will provide EM with courtesy copies.
  - Buckman Direct Diversion (BDD) Project
    - EM-LA will be lead for LANL. The current MOA between DOE and the BDD Board will be modified as appropriate to designate EM-LA as DOE's primary contact for BDD Board.
    - EM-LA will continue to provide funding determined as appropriate for BDD related efforts.
  - Congressional Inquiries
    - EM-LA will coordinate with NA-LA on any Congressional Inquiries it receives.
    - NA-LA will coordinate with EM-LA on any Congressional Inquiries it receives regarding environmental related matters at LANL, or any other matter that may have some bearing on EM responsibilities at LANL.
  - LANL Communications
    - To ensure DOE "One Voice" at Los Alamos, NA-LA will continue to be lead for Site communications and coordinate with EM-LA's designated POC(s) for any EM related PA type communications.
  - Los Alamos County
    - NA-LA will continue it its lead role for maintaining open communications with Los Alamos County officials.
    - EM-LA will coordinate with NA-LA on interface activities with Los Alamos County and provide SME and administrative support for all EM related activities.
  - Media Monitoring & News Releases
    - NA-LA will continue it its lead role for monitoring media outlets and ensure EM-LA is immediately appraised of LANL or EM items of interest.
    - NA-LA and EM-LA will be responsible for coordinating with each other prior to distributing their media news releases, fact sheets, Q&As, and LANL based statements related to their respective mission areas.
  - Non-Governmental Organizations (NGOs)
    - NA-LA and EM-LA will be responsible for their own interactions and communications with LANL related NGOs involved in either NA or EM mission areas.
    - NA-LA and EM-LA will continue to coordinate with each other on interface activities with NGOs.
  - Northern New Mexico Citizens Advisory Board (NNMCAB)
    - EM-LA will continue to be lead in all interactions with the NNMCAB and coordinate with NA-LA for assistance as it arises. EM-LA will ensure responses to NNMCAB recommendations are coordinated with NA-LA where site implications arise.



- **Photography**
  - EM-LA will follow NA-LA and LANS procedures for taking photographs at LANL. For specific EM-LA requests, NA-LA will support EM-LA for event photography.
- **Public Meeting Attendance**
  - NA-LA and EM-LA will coordinate on attendance of public events related to EM efforts at Los Alamos. EM-LA will normally have lead for events that are predominantly EM oriented; however, upon mutual agreement, NA-LA may attend in lieu of EM-LA.
  - After public events, the NA-LA or EM-LA attendee will ensure their respective counterpart is apprised of any item of interest that might pertain to their mission area.
- **Regulatory Agencies**
  - For areas related predominantly to EM cleanup work, or where EM is the sole permittee, EM-LA will have the lead role at LANL for contact/communications with regulatory agencies. For areas related predominantly to NA-LA or NA is sole permittee, then NA-LA will maintain a lead role. However, EM and NA should minimize, when possible, duplicating efforts with the regulatory agencies by having one program (EM) take lead on communications.
  - After contacts with the regulatory agencies, NA-LA or EM-LA will ensure their respective counterpart is apprised of any item of interest that might pertain to their mission area. These inter program coordination efforts include both verbal and electronic communication, with courtesy copies to cognizant and involved Headquarters organizations.
- **Tribal Government Relationships**
  - EM-LA will have the lead role for interactions with neighboring Pueblos related predominantly to EM cleanup work. NA-LA will continue its Government to Government relationship with the Pueblos for those areas and issues unrelated to EM's cleanup work.
  - After contacts with Pueblos, NA-LA or EM-LA will ensure their respective counterpart is apprised of any item of interest that might pertain to their mission area.
  - Management of the Los Alamos Pueblo Project (LAPP) will transfer from NA-LA to EM-LA. NA-LA and EM-LA will continue to provide LAPP funding commensurate with their current funding shares (subject to future adjustment as warranted by future LAPP activities). The Pueblo Accords will be revised to reflect this change of organizational responsibility.
  - NA-LA will continue to participate in LAPP activities that are not exclusive to the EM cleanup mission at Los Alamos.
  - The MOA between NA-LA and Pueblo de San Ildefonso regarding access to the Pueblo Lands has been revised to include EM-LA as a third party. This MOA has been established due to the close proximity of San Ildefonso and the need to access utilities, wells, gages, etc. EM-LA will be LANL's lead for access related to EM Cleanup work; NA-LA will remain lead for other related access.
- **Visitors & Tours**
  - NA-LA and EM-LA will prepare for and host their respective visitors and make tour arrangements as necessary. For joint NA-LA and EM-LA events, the Field Office most aligned with the visitor will have lead unless specifically determined otherwise between the Field Office Managers.
  - EM-LA will continue to review, and provide input into, the NA-LA Calendar of Events to ensure NA-LA and EM-LA awareness of relevant LANL events.





Buckman Direct Diversion

*A joint regional project of the City of Santa Fe and Santa Fe County to build a reliable and sustainable water supply.*

## Memorandum

**Date:** May 5, 2016  
**To:** Buckman Direct Diversion Board  
**From:** Mackie Romero, BDD Financial Manager  
**Subject:** 3<sup>rd</sup> Quarter Financial Statements

**Purpose:**

This memo is intended to update the BDD Board and its partners on our 3<sup>rd</sup> Quarter Financial position as of March 31, 2016.

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

- Beginning Budget – FY15/16 Adopted Budget.
- Expended – Expenses for services and/or goods received as of 3/31/2016.
- 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 as of 3/31/2016.

**Fixed & Variable Costs** - Expenses billed to partners for services and/or goods received as of September 30, 2015, all other costs are pending the billing process.

**Outstanding Accounts Receivables** - Represents the dollar amount owed by each partner as of March 31, 2016 for the monthly reimbursement bills.

**Other Funds** - Major Repair and Replacement & Emergency Reserve Fund monthly contributions and budget overview for budgeted funds approved by the BDDDB for expenditure.

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

If you feel any additional information should be included in our report, please contact me.





A joint regional project of the City of Santa Fe and Santa Fe County to build a reliable and sustainable water supply.

### 3<sup>rd</sup> Quarter Financial Statement – Operations (Unaudited 07/01/2015-3/31/2016)

#### Budget Overview

CATEGORY	BEGINNING	EXPENDED	EXPENDED	EXPENDED	ENCUMB	PROJECTED		BALANCE
	BUDGET	1st Quarter	2nd Quarter	3rd Quarter	Thru 03/31/2016	EXPEND	TOTAL	AVAILABLE
Salaries & Benefits	3,143,949	733,884	862,403	654,467	-	762,345	3,013,099	130,850
Electricity	1,378,000	227,336	236,187	267,696	606,780	-	1,338,000	40,000
Chemicals	250,000	87,257	63,541	53,087	-	46,115	250,000	-
Solids	171,800	53,240	25,779	26,193	-	65,000	170,213	1,587
Materials & Supplies	608,561	24,343	127,317	180,507	172,894	48,645	553,707	54,854
Other Operating Costs	1,187,690	157,139	186,714	495,991	242,641	94,162	1,176,646	11,044
Fiscal Agent Fees	67,400	16,850	16,850	16,850	-	16,850	67,400	-
<b>TOTAL</b>	<b>6,807,400</b>	<b>1,300,050</b>	<b>1,518,791</b>	<b>1,694,792</b>	<b>1,022,315</b>	<b>1,033,117</b>	<b>6,569,065</b>	<b>238,335</b>
DOE Federal Grant	96,000	-	-	91,237	4,763		96,000	-

#### Fixed Cost (Billed) – Operations

	1st Quarter	July	August	September
City of Santa Fe	653,161	159,103	233,864	260,194
Santa Fe County	219,108	53,232	78,538	87,338
Las Campanas	12,188	2,663	4,557	4,968
	<b>884,457</b>	<b>214,998</b>	<b>316,959</b>	<b>352,500</b>

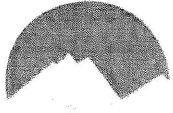
#### Variable Cost (Billed) - Operations

	1st Quarter	July	August	September
City of Santa Fe	284,096	70,182	87,552	126,362
Santa Fe County	118,343	33,375	43,042	41,926
Las Campanas	13,154	12,187	464	503
	<b>415,593</b>	<b>115,744</b>	<b>131,057</b>	<b>168,792</b>

#### Outstanding Accounts Receivable

	Balance
City of Santa Fe	937,257
Santa Fe County	337,451
Las Campanas	25,342
	<b>1,300,050</b>





Buckman Direct Diversion

A joint regional project of the City of Santa Fe and Santa Fe County to build a reliable and sustainable water supply.

### 3<sup>rd</sup> Quarter Financial Statement – Other Funds (Cumulative) (Unaudited 07/01/2015-3/31/2016)

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

	Total	City of SF	SF County	Las Campanas
Major Repair Fund	411,804	292,764	102,818	16,222
	<b>411,804</b>	<b>292,764</b>	<b>102,818</b>	<b>16,222</b>

#### Financial Position

	Emergency Reserve	Major Repair
Balance at 06/30/2015	1,560,121	1,213,936
*Yearly Billings Pending	441,459	411,804
<b>Total</b>	<b>2,001,580</b>	<b>1,625,740</b>
<b>Target Balance</b>	<b>2,000,000</b>	<b>1,625,740</b>

\* Emergency Reserve Fund have reached its funding target, per the established policy.

#### Budget Overview – Major Repair and Replacement Funds

CATEGORY	BEGINNING	EXPENDED	EXPENDED	ENCUMB	PROJECTED	TOTAL	BALANCE
	BUDGET	1st Quarter	2nd & 3rd Quarter	Thru 03/31/2016	EXPEND		AVAILABLE
Materials & Supplies	579,067	27,260	-	51,807	500,000	579,067	-
<b>TOTAL</b>	<b>579,067</b>	<b>27,260</b>	<b>-</b>	<b>1,685,502</b>	<b>500,000</b>	<b>579,067</b>	<b>-</b>

#### Outstanding Accounts Receivable

	Balance
City of Santa Fe	292,764
Santa Fe County	102,818
Las Campanas	16,222
	<b>411,804</b>







Buckman Direct Diversion

*A joint regional project of the City of Santa Fe and Santa Fe County to build a reliable and sustainable water supply.*

## Memorandum

**Date:** May 5, 2016  
**To:** Buckman Direct Diversion Board  
**From:** Mackie Romero, BDD Financial Manager  
**Subject:** Budget Adjustment Request

### **ITEM AND ISSUE:**

Request approval of a Budget Adjustment to the adopted FY15/16 Operating Budget.

### **BACKGROUND AND SUMMARY:**

The Buckman Direct Diversion prepares monthly budget projections which are used to evaluate current and future spending. These projections assist in determining our financial needs by budgeted line item and major category. Our projections indicate a shortfall in the chemicals category.

The BDD uses various chemicals to treat surface water in compliance with State and Federal Drinking Water Standards. The amounts budgeted each fiscal year are based on anticipated flows and estimated dosages as determined by ongoing operations. These chemicals are procured using the City of Santa Fe bid process, which does allow for price escalation due to such factors as fuel increases or other demonstrable circumstances. All these factors were included in our current analysis of future chemical cost, as our current expenses to date are \$203,451. With a current budget of \$250,000 we request an additional \$40,000 to ensure sufficient funds are available shall the need arise through the end of the fiscal year.

Due to current electrical savings from our solar array at booster station 2A, we request to transfer funds from the Electricity category to the Chemicals category. Any unexpended amounts will remain in the fund as uncommitted budget. The following request will not cause an increase to our current operating budget and is in accordance with our BDD Working Capital and Billing Policy.



**ACTION REQUESTED:**

Staff recommends approval of the attached Budget Adjustments Request to our adopted FY15/16 Operating Budget to move funds from Electricity to Chemicals. This request has a zero net effect to our overall operating budget.

<u>Category</u>	<u>Description</u>	<u>Amount</u>
Electricity	7280000.514050.731910	(\$15,000)
	7280000.514055.733510	(\$25,000)
Chemicals	7280000.510810.650210	\$40,000

**FY 2015/2016 Total Budget Net Effect      \$0**

Approved by BDDDB May 5, 2016

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Councilor Carmichael A. Dominguez, BDDDB Chair



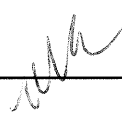
# City of Santa Fe, New Mexico

## BUDGET ADJUSTMENT REQUEST (BAR)

# \_\_\_\_\_

DEPARTMENT / DIVISION / SECTION / UNIT NAME PUBLIC UTILITIES/BUCKMAN DIRECT DIVERSION PROJECT				DATE 05/05/2016		
ITEM DESCRIPTION	BU / LINE ITEM	<--(Finance Dept Use Only)-->		INCREASE	DECREASE	
		SUBLEDGER / SUBSIDIARY	DR / (CR)			
Electric	7280000.514050.731910				(15,000)	
Solar Electric	7280000.514055.733510				(25,000)	
Chemicals Service	7280000.510810.650210			40,000		
<b>JUSTIFICATION:</b> (use additional page if needed) --Attach supporting documentation/memo				<b>TOTAL</b>	\$ 40,000	\$ (40,000)

To move electric savings to chemical line items, to cover projected increase in chemical usage.

Mackie Romero Prepared By	 Date	05/05/2016 Date	<b>CITY COUNCIL APPROVAL</b> City Council Approval Required <input type="checkbox"/>	Budget Officer Date
Division Director Date	Date	City Council Approval Date	<input type="text"/>	Finance Director Date
Department Director Date	Date	Agenda Item #	<input type="text"/>	City Manager Date