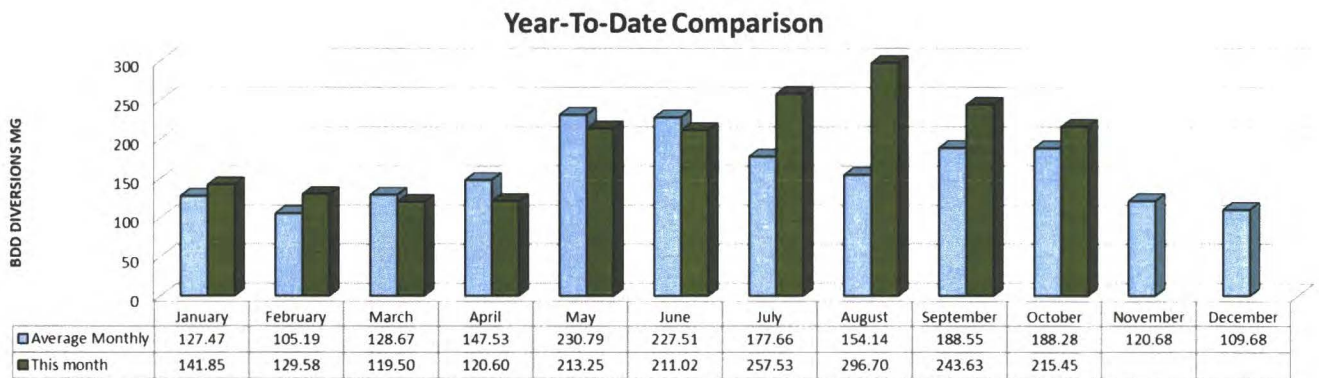




Date: November 5, 2020
To: Buckman Direct Diversion Board
From: Randy Sugrue, BDD Operations Superintendent
Subject: Update on BDD Operations for the Month of October 2020

ITEM:

1. This memorandum is to update the Buckman Direct Diversion Board (BDDDB) on BDD operations during the month of October 2020. The BDD diversions and deliveries have averaged, in Million Gallons Per Day (MGD) as follows:
 - a. Raw water diversions: 6.95 MGD.
 - b. Drinking water deliveries through Booster Station 4A/5A: 6.16 MGD.
 - c. Raw water delivery to Las Campanas at BS2A: 0.59 MGD.
 - d. Onsite treated and non-treated water storage: 0.20 MGD Average.
2. The BDD is providing approximately 57% percent of the water supply to the City and County for the month.
3. Regional Demand/Drought Summary-see page 2.
4. The BDD year-to-date diversions are depicted below:

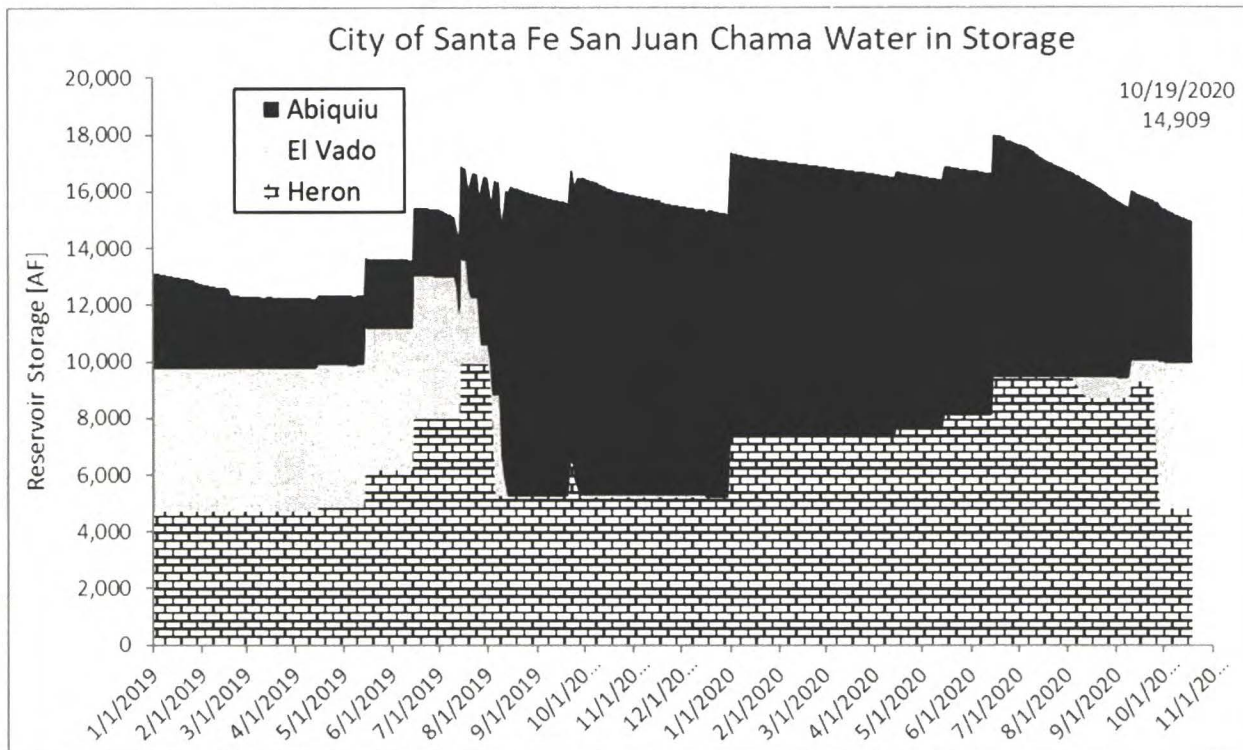




Regional Water Overview

Daily metered regional water demand for the month of October 2020 is approximately 10.8 MGD for the city and 1.6 MGD for the county.

Rio Grande flows for October 2020 averaged approximately 300 CFS (cubic feet per second.)



ENSO Summary

October 19, 2020

ENSO Alert System Status: La Niña Advisory La Niña conditions are present. *Equatorial sea surface temperatures (SSTs) are below average from the west-central to eastern Pacific Ocean. The tropical atmospheric circulation is consistent with La Niña. La Niña is likely to continue through the Northern Hemisphere winter 2020-21 (~85% chance) and into spring 2021 (~60% chance during February-April).*



Buckman Direct Diversion Monthly SJC and Native Diversions

Oct-20

In Acre-Feet

Month	Total SJC + Native Rights	SP-4842 RG Native COUNTY	SD-03418 RG Native LAS CAMPANAS	SJC Call Total	SP-2847-E SJC Call CITY	SP-2847-N-A SJC Call LAS CAMPANAS	All Partners Conveyance Losses
JAN	438.797	134.433	0.000	304.364	298.249	6.115	2.759
FEB	385.360	207.046	0.000	178.314	178.314	0.000	1.679
MAR	364.592	192.426	0.000	172.165	172.165	0.000	1.621
APR	362.944	178.481	0.000	184.463	125.850	58.613	1.737
MAY	635.468	523.991	0.000	111.477	109.015	2.463	0.889
JUN	650.009	522.607	0.000	127.402	3.256	124.146	1.017
JUL	784.520	0.000	0.000	784.520	780.957	3.564	3.663
AUG	874.354	0.000	0.000	874.354	854.602	19.752	4.214
SEP	762.357	0.000	0.000	762.357	682.372	79.985	3.556
OCT	661.430	0.000	0.000	661.430	605.280	56.150	4.307
NOV	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	5,919.830	1,758.984	0.000	4,160.846	3,810.059	350.787	25.442

In Million Gallons

Month	Native COUNTY	Native Las Campanas	SJC TOTAL	SJC CITY	SJC Las Campanas	All Partners Diversions
JAN	43.789	0.000	98.103	96.304	1.975	141.892
FEB	67.442	0.000	57.454	57.454	0.000	124.896
MAR	62.680	0.000	55.473	55.473	0.000	118.152
APR	58.137	0.000	59.435	40.622	18.919	117.572
MAY	170.681	0.000	35.812	33.143	0.749	206.493
JUN	170.230	0.000	40.927	1.046	39.881	211.158
JUL	0.000	0.000	252.754	252.056	1.148	252.754
AUG	0.000	0.000	281.681	275.811	6.375	281.681
SEP	0.000	0.000	245.686	219.863	25.823	245.686
OCT	0.000	0.000	215.450	197.160	18.290	215.450
NOV	0.000	0.000	0.000	0.000	0.000	0.000
DEC	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	572.959	0.000	1,342.775	1,228.931	113.159	1,915.734



Dec-19

In Acre-Feet

Month	Total SJC + Native Rights	SP-4842 RG Native COUNTY	SD-03418 RG Native LAS CAMPANAS	SJC Call Total	SP-2847-E SJC Call CITY	SP-2847-N-A SJC Call LAS CAMPANAS	All Partners Conveyance Losses
JAN	327.677	56.671	0.000	271.007	271.007	0.000	2.483
FEB	278.357	71.266	0.000	207.090	207.090	0.000	1.908
MAR	134.335	88.610	0.000	45.725	45.725	0.000	3.498
APR	126.924	114.750	0.000	12.175	12.175	0.000	0.110
MAY	550.285	550.285	0.000	0.000	0.000	0.000	0.000
JUN	546.222	546.222	0.000	0.000	0.000	0.000	0.000
JUL	649.014	23.285	0.000	625.729	519.383	106.345	2.907
AUG	422.340	17.075	0.000	405.265	318.606	86.659	1.912
SEP	518.606	169.956	0.000	348.650	261.901	86.749	1.564
OCT	531.254	15.373	0.000	515.881	477.452	38.429	4.676
NOV	325.023	42.180	0.000	282.843	280.865	1.978	2.936
DEC	334.880	48.808	0.000	286.071	286.071	0.000	2.893
TOTAL	4,744.916	1,744.482	0.000	3,000.434	2,680.275	320.160	24.886

In Million Gallons

Month	Native COUNTY	Native Las Campanas	SJC TOTAL	SJC CITY	SJC Las Campanas	All Partners Diversions
JAN	18.460	0.000	87.342	87.342	0.000	105.802
FEB	23.214	0.000	66.739	66.739	0.000	89.953
MAR	28.863	0.000	13.735	13.735	0.000	42.598
APR	37.378	0.000	3.924	3.924	0.000	41.302
MAY	179.246	0.000	0.000	0.000	0.000	179.246
JUN	177.923	0.000	0.000	0.000	0.000	177.923
JUL	7.585	0.000	201.598	167.635	34.262	209.183
AUG	5.562	0.000	130.586	102.846	27.974	136.148
SEP	55.360	0.000	112.401	84.384	28.017	167.762
OCT	5.008	0.000	166.279	154.168	12.409	171.287
NOV	13.739	0.000	91.045	90.407	0.638	104.785
DEC	15.899	0.000	92.109	92.109	0.000	108.008
TOTAL	568.235	0.000	965.760	863.292	103.299	1,533.995



Buckman Direct Diversion Monthly SJC and Native Diversions
Dec-18 In Acre-Feet

Month	Total SJC + Native Rights	SP-4842 RG Native COUNTY	SD-03418 RG Native LAS CAMPANAS	SJC Call Total	SP-2847-E SJC Call CITY	SP-2847-N-A SJC Call LAS CAMPANAS	All Partners Conveyance Losses
JAN	383.578	77.954	0.000	305.624	305.624	0.000	2.708
FEB	343.467	75.227	0.000	268.240	268.240	0.000	2.415
MAR	363.780	267.512	0.000	96.268	96.268	0.000	4.036
APR	662.407	569.253	0.000	93.154	93.154	0.000	3.898
MAY	941.240	209.538	0.000	731.702	615.366	116.336	8.171
JUN	912.903	30.894	0.000	882.009	740.070	141.939	8.707
JUL	905.897	0.000	0.000	905.897	816.188	89.709	4.255
AUG	678.383	1.466	0.000	676.917	676.917	0.000	6.087
SEP	694.411	0.000	0.000	694.411	694.411	0.000	6.404
OCT	608.789	0.000	0.000	608.789	599.228	9.560	5.805
NOV	404.616	82.390	0.000	322.226	316.641	5.585	3.196
DEC	369.186	2.966	0.000	366.220	366.220	0.000	3.392
TOTAL	7,268.656	1,317.200	0.000	5,951.456	5,588.327	363.129	59.073

In Acre-Feet

Month	Native COUNTY	Native Las Campanas	SJC TOTAL	SJC CITY	SJC Las Campanas	All Partners Diversions
JAN	77.954	0.000	302.916	302.916	0.000	380.870
FEB	75.227	0.000	265.825	265.825	0.000	341.052
MAR	267.512	0.000	92.231	92.231	0.000	359.744
APR	569.253	0.000	89.256	89.256	0.000	658.509
MAY	209.538	0.000	723.531	608.494	115.037	933.069
JUN	30.894	0.000	873.302	732.764	140.538	904.196
JUL	0.000	0.000	900.737	811.539	89.198	900.737
AUG	1.466	0.000	670.830	670.830	0.000	672.295
SEP	0.000	0.000	688.007	688.007	0.000	688.007
OCT	0.000	0.000	602.984	593.515	9.469	602.984
NOV	82.390	0.000	319.030	313.500	5.530	401.420
DEC	2.966	0.000	362.829	362.829	0.000	365.794
TOTAL	1,317.200	0.000	5,891.477	5,531.706	359.772	7,208.677



Dec-17

In Acre-Feet

Month	Total SJC + Native Rights	SP-4842 RG Native COUNTY	SD-03418 RG Native LAS CAMPANAS	SJC Call Total	SP-2847-E SJC Call CITY	SP-2847-N-A SJC Call LAS CAMPANAS	All Partners Conveyance Losses
JAN	395.248	84.736	0.000	310.512	310.512	0.000	2.717
FEB	383.179	26.107	3.426	353.646	353.646	0.000	3.087
MAR	547.849	17.804	11.643	518.402	518.402	0.000	4.564
APR	592.385	381.170	0.000	211.216	211.216	0.000	1.821
MAY	488.240	478.925	0.000	9.315	9.315	0.000	0.072
JUN	616.871	12.970	0.000	603.900	477.780	126.121	5.517
JUL	626.113	23.719	0.000	602.394	484.406	117.988	5.429
AUG	557.303	17.073	0.000	540.230	540.230	0.000	4.871
SEP	637.339	230.584	0.000	406.755	395.200	11.555	3.873
OCT	444.333	127.611	0.000	316.723	316.723	0.000	2.938
NOV	356.536	107.143	0.000	249.394	203.128	46.266	1.658
DEC	360.218	73.071	0.000	287.147	287.147	0.000	2.321
TOTAL	6,005.614	1,580.910	15.069	4,409.635	4,107.705	301.930	38.868

In Acre-Feet

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



Date: October 28, 2020

To: Buckman Direct Diversion Board

From: Rick Carpenter, BDD Facility Manager

Kyle Harwood, BDD Legal Counsel

Re: Update on BDD Board LANL MOU

Item and Issue:

The current BDD Board LANL MOU expires December 1, 2020 and negotiations with LANL are ongoing to establish a new MOU based upon the principles and framework agreed upon by the Board.

Background:

The background regarding the series of BDD Board - LANL MOUs (2010-2018) and issues addressed by the MOU are the subject of previous memos to the Board.

The MOU is intended to "... establish roles and responsibilities with regard to coordination of monitoring activities by Los Alamos National Laboratory (LANL) and the Department of Energy (DOE) in Los Alamos Canyon, Pueblo Canyon, and the Rio Grande in relation to operation of the [BDD] Project."

Primary topics of the MOU:

- Continuation of the relationship developed between DOE and BDD Board
- Operation and maintenance of the Early Notification System (ENS) to enable BDD staff to make decisions regarding facility operations
- Funding and support for water quality surveillance monitoring at the BDD Project location as part of its sampling program

The current 2018 BDD Board – LANL MOU expires December 1, 2020 and there is a provision for extension of the current MOU.

The status of negotiations regarding a new replacement MOU:

- BDD staff and consultants have been meeting with DOE/NNSA since January 2020 to negotiate the terms of a new MOU
- BDD Board approved the proposed framework and principles for a new MOU ("Term Sheet") at the May 2020 Board meeting.



- Several virtual and telephonic meetings over the summer
- DOE reviewed the framework, and provided their response late September, 2020.
- Negotiations are focused on the following issues:
 - **ENS: DOE agrees to continue operation and maintenance of ENS; DOE does not yet agree to reinstallation of E109.9 or stormwater sampling program**
 - **Sediment Evaluations: DOE does not yet agree to conducting any studies/mitigations beyond those required by NMED through the Consent Order**
 - **BDD Project Location Studies: DOE agrees to continue funding of Rio Grande sampling at intake location; DOE does not yet agree to funding TREAT 5**
 - **Data Sharing: DOE generally agree to data sharing, but does not yet agree to early notification to BDD of actions taken in LA/Pueblo Canyons, or submittals of documents to NMED**
 - **Coordination with San Ildefonso Pueblo: DOE generally agrees to meet with BDD and Pueblo staff, but not on a regular schedule.**

Recommendations:

BDD staff and consultants will continue to discuss with DOE/NNSA staff the Board's Term Sheet requests and narrow the difference in issues.

BDD staff and consultants recommend exercising the option to extend the current 2018 MOU for one year to allow for continued negotiation and in order to receive the \$96,000 grant for water quality sampling for the 2020 calendar year. BDD staff and consultants are working on the extension template and hope to have it available for review at the Board meeting on November 5th.

BDD staff and consultants recommend the Board vote to authorize the Chair to execute a one year extension to the 2018 MOU.



The following text is the Board's Term Sheet followed in blue by DOE/NNSA response:

Early Notification System in Los Alamos/Pueblo Canyon

[section E.2 2017 MOU]

1. Continue to maintain the design and functionality of the ENS system in LA/Pueblo Canyon in order to provide the BDD Project real time notification of surface water flows in this tributary of the Rio Grande upstream of the BDD Project intake. Continue to identify stations by name in the MOU, and continue to operate E050.1, E060.1, E062 and E099 as components of the ENS.

As noted in our existing MOU, DOE EM-LA recognizes that water quality management and monitoring are mutual priorities and looks forward to continuing our relationship with the Buckman Direct Diversion Board (BDDDB). DOE EM-LA will continue to operate the BDD ENS, including E050.1, E060.1, E062, and E099, to provide BDD real-time stream flows data in Los Alamos and Pueblo Canyons. The DOE team will review the description of the ENS system in the existing MOU to ensure it is up-to-date.

2. Identify a schedule, budget and required approvals for the re-installation of E109.9 as a placeholder (subject to change of location or configuration depending on current condition and access agreement(s) with San Ildefonso Pueblo)

Streamflow gaging station E109.9 cannot be re-installed at the previous location because the channel significantly changed during September 2013, such that an accurate discharge estimation cannot be obtained at that location. Any consideration of a replacement would require a better understanding of the BDD Project's current need for such a facility. Should the parties mutually agree that a replacement is needed, a more detailed understanding of the BDD Project's needs for such a facility would allow for a more accurate assessment of the technical capabilities required, a budget and schedule. Of course, any discussion of location for such a facility on the property of the Pueblo de San Ildefonso would require consultation with and approval by the Pueblo de San Ildefonso.

3. Evaluate and re-initiate the E110 station, and continue coordination with NMED on co-located samplers (note: which does not include the Guaje Canyon tributary)

E110 is currently not a co-located sampler. E110 was a streamflow gaging station that DOE's Maintenance and Operations contractor installed and historically operated; however, it has been retired. The New Mexico Environment Department (NMED) Oversight Bureau (OB) operates a sampler at the former location of E110 and it is fully functional and collecting storm water samples on a regular basis each year. DOE would like to understand BDD's rationale for recommending the re-initiation a previously retired streamflow gaging station.

4. Board staff, counsel and consultants, in conjunction with LANL staff, conduct a site visit of each station upon execution of the new MOU (subject to work and distance restrictions) and prepare a joint report of current conditions of each gage, control measures and changes in aggradation/incision of stream bed over time.



Site visits are entirely welcome with advanced notice in order to make proper arrangements and adjust schedules. For site visits to E099, BDD staff, counsel and consultants would need to obtain an access permit from the Pueblo de San Ildefonso under their Memorandum of Agreement with the Pueblo de San Ildefonso. The current conditions of each gaging station, control measures and changes to channel systems are included within the annual Monitoring Report for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project submitted to NMED annually by April 30th. DOE will ensure BDD continues to receive this Report.

5. LANL/DOE will conduct inspection and maintenance of ENS components in April and October of each year with written inspection reports provided to BDD staff. Other inspections as needed if ENS is damaged.

DOE EM-LA conducts inspections weekly at streamflow gaging stations E050.1, E060.1, and E099, and visual verification at E062 year-round. Maintenance of these facilities is performed, as necessary. In addition, E050.1, E060.1, E062, and E099 are monitored remotely on a daily basis to ensure operability. In addition, information relevant to this request can be found in the annual Monitoring Report for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project.

6. Board staff, counsel and consultants will conduct independent assessment or co-inspections of ENS components as needed.

DOE EM-LA acknowledges that BDD staff, counsel and consultants will prepare this assessment; however, DOE reserves the right to review, comment and respectfully disagree with any conclusions or recommendations, as appropriate.

7. Board staff, counsel and consultants provide the BDD Board an annual report summarizing Los Alamos/Pueblo and Guaje Canyons flow events, whether or not detected by ENS stations. The summary will include a correlation with shut-off events at BDD and detection of flow at ENS locations.

DOE EM-LA acknowledges that BDD staff, counsel and consultants will prepare this report; however, DOE reserves the right to review, comment and respectfully disagree with any conclusions or recommendations, as appropriate.

8. Board staff, counsel and consultants will establish a renewed effort to document a Storm Water Quality Sampling Program and Report using DOE "Annual Surveillance Report" and NMED data.

DOE EM-LA acknowledges that BDD staff, counsel and consultants will prepare this report; however, DOE reserves the right to review, comment and respectfully disagree with any conclusions or recommendations, as appropriate.

9. LANL/DOE will provide funding for all inspections and identified improvements of \$XXX,000 (dependent on assessment of current condition of ENS stations and locations). Unexpended funds do not revert to DOE and instead may be carried over to future years for use on these issues.

In the current MOU with the BDD, DOE EM-LA provides funding in the annual amount of \$96,000, for various sampling and analytical costs toward the BDD Project Location Sampling Program at the BDD intake. Under the existing MOU, BDD is responsible for various maintenance, inspection, and repair costs of sampling stations at the BDD intake. DOE believes the existing annual funding for sampling and analytical costs toward the BDD Project Sampling Program is adequate. DOE will modify the grant language to allow for any remaining funds each year to be used toward other identified maintenance, inspections and repairs that BDD has documented are needed.

Sediment Evaluations in Los Alamos/Pueblo Canyon

10. DOE will provide an annual report on sediment sampling/mapping and monitoring to BDD (including all submittals to regulatory agencies, such as DOE and NMED).

Information and an evaluation of sediment data already exists in the Los Alamos National Laboratory Annual Site Environmental Report (ASER), and in the annual Monitoring Report for Los Alamos/Pueblo Watershed Sediment



Transport Mitigation Project. Further, all sediment sampling results are available on Intellus New Mexico, which is a publicly accessible database. DOE currently copies BDD on the annual Monitoring Report for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project and the associated annual Monitoring Plan for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project. All other official regulatory submittals related to LANL environmental cleanup can be found at the Los Alamos National Laboratory Electronic Public Reading Room (EPRR) (<https://epr.lanl.gov/>) for environmental cleanup documents through April 2018; Los Alamos Legacy Waste Cleanup EPRR (<https://ext.em-la.doe.gov/EPRR/>) for environmental cleanup documents post April 2018; NMED's website; or the National Pollutant Discharge Elimination System Individual Permit Public Website (<https://ext.em-la.doe.gov/ips>).

11. DOE will provide an initial summary of current and prior 5-year work effort regarding sediment sampling/mapping program, including technical details, regulatory notifications and approvals, and monitoring results of sediment control structures (including all submittals to regulatory agencies, such as DOE and NMED).

This information can be found in annual Monitoring Report for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project, which details the monitoring of sediment control structures in the Los Alamos/Pueblo Canyons and in the ASER. DOE EM-LA currently copies BDD on the annual Monitoring Report for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project and the associated annual Monitoring Plan for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project. All other official regulatory submittals related to LANL environmental cleanup can be found at the Los Alamos National Laboratory Electronic Public Reading Room (EPRR) (<https://epr.lanl.gov/>) for environmental cleanup documents through April 2018; Los Alamos Legacy Waste Cleanup EPRR (<https://ext.em-la.doe.gov/EPRR/>) for environmental cleanup documents post April 2018; NMED's website; or the National Pollutant Discharge Elimination System Individual Permit Public Website (<https://ext.em-la.doe.gov/ips>).

12. For actions taken in Los Alamos/Pueblo and Guaje Canyons, the BDD is copied on all correspondence between NMED/DOE and LANL, and is provided copies of all reports and workplans submitted to regulatory agencies (including DOE for monitoring, remediation and reporting of actions relations to radionuclides).

DOE EM-LA will continue to copy BDD on the annual Monitoring Report for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project and the associated annual Monitoring Plan for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project. All other official regulatory submittals related to LANL environmental cleanup can be found at the Los Alamos National Laboratory Electronic Public Reading Room (EPRR) (<https://epr.lanl.gov/>) for environmental cleanup documents through April 2018; Los Alamos Legacy Waste Cleanup EPRR (<https://ext.em-la.doe.gov/EPRR/>) for environmental cleanup documents post April 2018; NMED's website; or the National Pollutant Discharge Elimination System Individual Permit Public Website (<https://ext.em-la.doe.gov/ips>).

13. Board staff, counsel and consultants will conduct assessment of the Contaminant Inventory in the Los Alamos/Pueblo and Guaje Canyons to evaluate and update appropriate protections to LANL-derived pollutants.

DOE EM-LA acknowledges that BDD staff, counsel and consultants will conduct this assessment; however, DOE reserves the right to review, comment and respectfully disagree with any conclusions or recommendations, as appropriate.

14. DOE responded on March 31, 2020 to BDD's initial request for technical information on contaminated sites in Los Alamos/Pueblo Canyon, and DOE will provide updates annually to those requests for technical information as the issues



are updated. Reconnaissance level review conducted by Board staff, counsel and consultants in conjunction with ENS "current state" assessment if significant data gaps are revealed.

Each year, DOE EM-LA will copy BDD on the annual Monitoring Report for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project and the associated annual Monitoring Plan for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project, which contains some of the information BDD has requested above. Further, all substantive documents similar to what was provided on March 31, 2020 and documents created since March 31, 2020, can be found at the Los Alamos National Laboratory Electronic Public Reading Room (EPRR) (<https://epr.lanl.gov/>) for environmental cleanup documents through April 2018; Los Alamos Legacy Waste Cleanup EPRR (<https://ext.em-la.doe.gov/EPRR/>) for environmental cleanup documents post April 2018; NMED's website; or the National Pollutant Discharge Elimination System Individual Permit Public Website (<https://ext.em-la.doe.gov/ips>).

BOD Project Location Sampling in Rio Grande

[section E.3 2017 MOU]

15. Board staff, counsel and consultants will conduct Rio Grande base-flow and event water sampling in Rio Grande at the BDD Project intake.

Although DOE EM-LA would benefit from an understanding as to how such data is used to support operational decisions at the diversion, DOE EM-LA acknowledges that BDD staff, counsel and consultants will conduct base-flow and water sampling at the BDD Project intake.

16. Board staff, counsel and consultants to conduct sediment sampling on floodplain/slough/low water sediment exposure sites upstream of BDD and downstream of Los Alamos Canyon and at intake structure.

Although DOE EM-LA would benefit from an understanding as to how such data is used to support operational decisions at the diversion, EM-LA acknowledges that BDD staff, counsel and consultants will conduct such sampling.

17. Board staff, counsel and consultants review and assess previous work to determine sampling locations, extent, and need for additional information.

DOE EM-LA acknowledges that BDD staff, counsel and consultants will assess sampling locations, extent and need for additional information; however, DOE reserves the right to review, comment and respectfully disagree with any conclusions or recommendations, as appropriate.

18. DOE will provide new funding for Rio Grande sediment mapping sampling -- \$XXX,000 / year (tbd after assessment described above).

DOE EM-LA currently performs Rio Grande sediment sampling as part of the monitoring efforts associated with the ASER. As such, DOE EM-LA does not agree to provide new funding for an activity DOE EM-LA is already funding under its cleanup contract. The ASER and the Rio Grande sampling data can be found in the Los Alamos National Laboratory Electronic Public Reading Room (<https://epr.lanl.gov/>).

19. DOE will provide continued funding for Rio Grande water quality sampling -- \$96,000 / year

In the current MOU with the BDDDB, DOE EM-LA provides funding through a grant in the annual amount of \$96,000, for various sampling and analytical costs toward the BDD Project Location Sampling Program at the BDD intake. DOE will continue to fund this grant for the duration of the MOU.

20. DOE will provide new funding for TREAT 5 -- \$70,000 project estimate cost



In the original MOU (2010-2015), DOE funded the initial Rio Grande Contaminant Fate Analysis (predecessor to the "The Removal Efficiency and Assessment of Treatments" (TREAT) Study). In the existing MOU and in the 2015-2017 MOU, the BDDB funded the TREAT study. DOE would like to better understand the rationale for performing a new TREAT study as well as an explanation for shifting the funding for such a study to DOE.

Data Sharing

[section F. 2017 MOU]

21. DOE will continue to collect ENS data, and report to BDD.

DOE EM-LA will continue to collect and provide validated and verified streamflow data from ENS locations on an annual frequency, as described in the existing MOU. The DOE team will review the description of the ENS system in the existing MOU to ensure it is up-to-date.

22. DOE will continue to monitor or increase sediment sampling/mapping in response to results from 11-14 above, and report to BDD.

DOE EM-LA will continue to execute sediment monitoring, sampling, and mapping as detailed in the annual Monitoring Plan for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project, the annual Monitoring Report for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project and the ASER. DOE EM-LA will continue to copy the BDD on the annual Monitoring Report and Monitoring Plan for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project. All other official regulatory submittals related to LANL environmental cleanup can be found at the Los Alamos National Laboratory Electronic Public Reading Room (EPRR) (<https://eprr.lanl.gov/>) for environmental cleanup documents through April 2018; Los Alamos Legacy Waste Cleanup EPRR (<https://ext.em-la.doe.gov/EPRR/>) for environmental cleanup documents post April 2018; NMED's website; or the National Pollutant Discharge Elimination System Individual Permit Public Website (<https://ext.em-la.doe.gov/ips>). With respect to any assessment or report produced by the BDDB staff, counsel and consultants, DOE reserves the right to review, comment, and respectfully disagree with any conclusions or recommendations, as appropriate.

23. DOE will continue monitor and maintain sediment control structures, and report to BDD.

DOE EM-LA will continue to collect data and to maintain sediment control structures as required by NMED. The results will be summarized in the annual Monitoring Report for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project which will be provided to BDD.

24. DOE will continue to monitor or increase storm water sampling and analysis at ENS sites in response to the results from 1-9 above, and report to BDD.

DOE EM-LA will continue to monitor and collect storm water samples at the ENS Sites as required by NMED in the annual Monitoring Plan for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project. The results will be summarized in the annual Monitoring Report for Los Alamos/Pueblo Watershed Sediment Transport Mitigation Project. With respect to any assessment or report produced by BDDB staff, counsel and consultants, DOE reserves the right to review, comment, and respectfully disagree with any conclusions or recommendations, as appropriate.



25. BDD will conduct project location sampling in Rio Grande and within treatment works (e.g., TREAT), and will provide to BDD and post verified/validated data on the BDD Project website.

DOE EM-LA acknowledges that BDD will conduct project sampling in the Rio Grande and within treatment works (i.e., TREAT) and posts such data to the BDD website. DOE EM-LA requests that such data be shared with DOE EM-LA.

Coordination with DOE/LANL and San Ildefonso Pueblo

[section E.12017 MOU]

26. Recognize the importance and role of San Ildefonso Pueblo under DOE/San Ildefonso MOU, BDD/San Ildefonso MOU, conduct biannual MOU review meetings with all stakeholders and quarterly technical meetings regarding the new technical initiatives described above, annual schedule to be modified after initiatives are established.

DOE EM-LA's MOA with the Pueblo de San Ildefonso addresses access, collection and use of data. There are no provisions regarding an annual or bi-annual meeting between the parties. Any such provision would need to be negotiated between the parties. DOE EM-LA welcomes the opportunity to schedule technical meetings between DOE and BDD to discuss ongoing initiatives.