



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

Memorandum

Date: February 2, 2017
To: Buckman Direct Diversion Board
From: Erick LaMonda, Interim Operations Superintendent
Subject: Update on BDD Operations for the Month of January 2017

ITEM:

1. This memorandum is to update the Buckman Direct Diversion Board (BDDDB) on BDD operations during the month of January 2017. The BDD diversions and deliveries have averaged, in Million Gallons Daily (MGD) as follows:
 - a. Raw water diversions: 4.45 MGD Average
 - b. Finished Drinking water deliveries through Booster Station 4A: 3.52 MGD Average
 - c. Finished Drinking water deliveries through Booster Station 5A: 0.66 MGD Average
 - d. Raw water delivery to Las Campanas at BS2A: 0 MGD Total.
 - e. 2016 Raw water diversions year to date: 133.65 MGD Total
2015 Raw water diversions for the same time period: 105.34 MGD Total
2. The BDD is providing approximately 54 percent of the water supply to the City and County for the month.
3. The current Drought Update Summary and Reservoir Storage Status are attached.



Drought, Monsoon/El Nino, and ESA Update

NOAA has recently updated (1/12/17) ENSO (El Nino/La Niña) status to: **A transition to ENSO-neutral is expected to occur by February 2017, with ENSO-neutral then continuing through the first half of 2017.** However, Dry conditions in 2017 could present significant challenges to all water purveyors, water utilities, and irrigators if there is not significant filling and carry-over storage in regional reservoirs. Regional reservoir levels on the Rio Grande and Chama Rivers are still low. Upper Santa Fe River reservoirs are very low so City draw down has been reduced accordingly, with a corresponding increase in BDD diversions from the Rio Grande, and moderate increases in groundwater well use. Preliminary estimates for 2017 are for an approximate 95%-100% delivery of full firm-yield of San Juan-Chama Project (SJCP) water. Year-to-date snow pack in the San Juan watershed as well the upper Santa Fe River watershed is very good (above normal) . There are no water-related Endangered Species Act (ESA) updates, except that a draft Biological Opinion was issued by the US Fish and Wildlife Service in late December. Staff is currently evaluating this document. 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 acre-feet (AF) (unless an exchange for water is made with the NMISC). Updates to this condition will be made as needed.

Most current City of Santa Fe SJCP Reservoir Storage:

Heron:

5,029 AF. 2016 deliveries were at about 95% of annual total.

El Vado:

1,236 AF.

Abiquiu:

10,481 AF SJCP carry-over from previous years, no time limit to vacate due to storage agreement with ABCWUA

TOTAL:

16,746 AF



Buckman Direct Diversion

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Memorandum

Date: February 2, 2017
To: Buckman Direct Diversion Board
From: Mackie Romero, BDD Financial Manager
Subject: 2nd Quarter Financial Statements

Purpose:

This memo is intended to update the BDD Board and its partners on our 2nd Quarter Financial position as of December 31, 2016.

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

- Beginning Budget – FY16/17 Adopted Budget
- Expended – Expenses for services and/or goods received as of 12/31/2016
- 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 unexpended budget balance as of 12/31/2016.

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

Fixed & Variable Costs – Pending expenses to be billed to our partners for services and/or goods received as of December 31, 2016. Billing for project wide cost are pending final fiscal year water usage.

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

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

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





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2nd Quarter Financial Statement – Operations (07/01/2016-12/31/2016)

Budget Overview

CATEGORY	BEGINNING BUDGET	EXPENDED 1st Quarter	EXPENDED 2nd Quarter	ENCUMB Thru 12/31/2016	PROJECTED EXPEND	TOTAL	BALANCE AVAILABLE
Salaries & Benefits	3,352,787	644,647	645,892	-	1,513,001	2,803,541	549,246
Electricity	1,318,000	227,055	259,377	831,568	-	1,318,000	-
Chemicals	250,000	73,023	61,362	-	115,616	250,000	-
Solids	120,000	23,733	54,568	-	41,699	120,000	-
Materials & Supplies	726,004	39,505	82,832	224,740	208,847	555,924	170,080
Other Operating Costs	2,025,517	298,895	295,090	1,398,827	10,918	2,003,730	21,787
Fiscal Agent Fees	315,532	-	-	-	315,532	315,532	-
TOTAL	8,107,840	1,306,858	1,399,121	2,455,135	2,205,613	7,366,727	741,113
DOE Federal Grant	96,000	-	22,785	73,215		96,000	-
Total Expenses thru 12/31/2016		<u>2,728,764</u>					

90-Day Cash Reserve Credit

	Balance
City of Santa Fe	1,396,970
Santa Fe County	475,102
Las Campanas - Club	46,047
Las Campanas - Coop	44,087
	1,962,206

Fixed & Variable Cost (Pending Billing) – Operations

July - December	Total	Fixed	Variable
Partner Revenue			
City of Santa Fe	1,258,516	813,113	445,403
Santa Fe County	427,450	279,594	147,856
LC - Club	41,622	14,785	26,837
LC - Coop	19,080	19,080	-
Total	1,746,668	1,126,572	620,096
Project Wide Cost	900,024		
Other Revenue			
PNM Solar Rebate	59,286		
DOE Federal Grant	22,785		
Total	82,071		
Grand Total	2,728,764		





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2nd Quarter Financial Statement – Other Funds (Cumulative)
(07/01/2016-12/31/2016)

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

	Total	City of SF	SF County	Las Campanas Coop	Las Campanas Club
Major Repair Fund	411,812	292,770	102,820	9,132	7,090
	411,812	292,770	102,820	9,132	7,090

Financial Position - Cash

	Emergency Reserve	Major Repair
Balance at 06/30/2016	1,986,760	1,576,074
*Yearly Billings Pending	25,000	411,812
Total	2,011,760	1,987,886
Target Balance	2,000,000	1,987,886

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

* Projected available cash balance, less approved budgeted amount is \$870,101.

Budget Overview – Major Repair and Replacement Fund

CATEGORY	BEGINNING BUDGET	EXPENDED 1st Quarter	EXPENDED 2nd Quarter	ENCUMB Thru 12/31/2016	BALANCE AVAILABLE
Materials & Supplies	1,117,785	-	69,690	1,048,095	-
TOTAL	1,117,785	-	69,690	1,048,095	-





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: February 2, 2017
To: Buckman Direct Diversion Board
From: Mackie Romero, BDD Financial Manager *MR*
Subject: Facility Solutions Group, Inc. Professional Services Agreement

Item and Issue:

Request approval of a Professional Service Agreement with Facility Solutions Group, Inc. (FSG) in the amount of \$58,963.01 inclusive of NMGR for the BDD Lighting upgrade project.

Background and Summary:

The Buckman Direct Diversion facilities have 97 outdoor high pressure sodium lighting fixtures that allow night-time operations and also provide security. In the six years that the BDD has been in operation, approximately one-half of these fixtures have failed requiring bulbs and increasingly, new ballasts. This represents repair costs of over \$7,000 plus the time where lighting is absent from an area until the repair can be made. The BDD has received a proposal which includes an economic analysis from FSG to replace these lights with LED lighting. FSG has a New Mexico State price agreement.

LED lighting has many benefits including:

1. Long life – up to 20 years at 50% use
2. Energy efficiency - of 80 to 90%
3. Ecologically friendly –free of toxic chemicals
4. Durability – can withstand rough conditions and high and low temperatures
5. Less light pollution – better light disbursement by better ability to focus light

The FSG lighting economic analysis projects utility savings of over \$6,000 annually with a payback of approximately four and one-half years (this does not include future lighting failures by the existing lights during this time). This proposal includes a 10 year warranty on the LEDs



and all installation labor has a one year warranty. The projected utility rebate of \$9,067.01 will also reduce the reimbursable amount billed to our partners.

Total Fixtures Upgraded:	97	FSG's INVOICE AMOUNT:	\$58,963.01	
kW Reduced:	14.76	Projected Utility Rebate:	\$9,067.01	<i>Only Utility can Guarantee</i>
Avg kWh Rate:	\$0.105	Contingency Amount⁽¹⁾	\$0.00	
kWh Reduced:	64,666	NET INSTALLED COST:*	\$49,896.00	
Annual Utility Savings:	\$6,789.96	<i>*After Utility Rebate (which is not guaranteed by FSG)</i>		
Annual Maintenance Savings: ⁽¹⁾	\$4,422.23	Net Simple Payback:	4.45	<i>Yrs w/ Maintenance Savings</i>
Inflation Rate: ⁽²⁾	2.0%	Return On Investment:	22.5%	
Est. Discount Rate: (Cost of Capital)	8.0%	Internal Rate of Return: (IRR)	31%	<i>(Hurdle Rate)</i>
Cap Rate Basis:	5.0%	Net Present Value: (NPV)	\$48,597	<i>(Today's value of future savings)</i>
EPA Required Lamp Disposal:	\$73	Added Real Property Value⁽³⁾	\$224,244	
YOUR COST TO WAIT PER DAY:	\$31	<i>(Improved NOI / Cap Rate)</i>		

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6-10
Annual Cash Flow:	\$11,212	\$11,436	\$13,852	\$13,987	\$14,123	\$72,653
Net Cash Flow:	(\$49,896)	\$11,436	\$13,852	\$13,987	\$14,123	\$72,653
Cumulative Cash:	(\$38,684)	(\$27,247)	(\$13,396)	\$591	\$14,715	\$290,173

(1) Maintenance savings is included in the net simple payback and cash flow years 1 & 2

(2) Inflation impacts years 2-10

(3) Real Property Value increases by reducing operating expenses thereby improving Net Operating Income (I Total kWh:

(4) Only actual approved additional costs will be added.

PRESENT SYSTEM

Total kW: 21.87

Total kWh: 95,808

Action Requested:

Staff recommends approval of the Professional Services Agreement with Facility Solutions Group, Inc. in the amount of \$58,963.01 inclusive of NMGR for upgrading our outdoor lighting to a LED-based system. Funding is available in the approved FY 2016/2017 operating budget.

BU/LI: Remolding/Replacement Inventory Exempt # 7280000.572500.742025

Approved by BDDDB February 2, 2017

Councilor Carmichael Dominquez,
BDDDB Chair

**BUCKMAN DIRECT DIVERSION BOARD
PROFESSIONAL SERVICES AGREEMENT
WITH
FACILITY SOLUTIONS GROUP, INC.**

THIS AGREEMENT is made and entered into by and between the Buckman Direct Diversion Board (“BDDDB”) and Facility Solutions Group, Inc. (“Contractor”). The effective date of this Agreement shall be the date when it is executed by the BDDDB.

1. SCOPE OF SERVICES

Contractor shall provide services for the BDDDB as described:

A. Contractor shall provide all materials, labor and equipment to complete the BDD lighting upgrade project, as follows:

- (1) Replace (34) 250w HPS Pole Lights with (34) new 135 w (480v) LED Fixtures (includes 10 year warranty on Pole Lights, driver and LEDs).
- (2) Replace (63) 150w HPS Wall Packs with (63) new 40w LED wall Packs to include Photocell, and emergency battery backup (includes 10 year warranty on driver and LEDs and the battery backups within these fixtures are warrantied for 5 years).
- (3) All labor has a 1 year warranty.
- (4) Contractor will provide all information needed to the Public Service Company of New Mexico to maximize any utility rebates on behalf of the BDDDB.
- (5) Any applicable lighting waste disposal will follow the Environmental Protection Agency’s regulations.

2. STANDARD OF PERFORMANCE; LICENSES

A. Contractor represents that Contractor possesses the personnel, experience and knowledge necessary to perform the Scope of Services described in this Agreement. Contractor

shall perform its services in accordance with generally accepted standards and practices customarily utilized by competent consulting firms in effect at the time Contractor's services are rendered.

B. Contractor agrees to obtain and maintain throughout the term of this Agreement, all applicable professional and business licenses required by law, for itself, its employees, agents, representatives and subcontractors.

3. COMPENSATION

A. Compensation under this Agreement shall be fifty eight thousand nine hundred sixty three dollars and one cent (\$58,963.01) inclusive of any applicable gross receipts tax.

B. Contractor shall be responsible for payment of gross receipts taxes levied by the State of New Mexico on the sums paid under this Agreement.

C. Payment shall be made upon receipt and approval by the BDDDB of detailed statements containing a report of services completed. Compensation shall be paid only for services actually performed.

4. APPROPRIATIONS

The terms of this Agreement are contingent upon sufficient appropriations and authorization being made by the BDDDB for the performance of this Agreement. If sufficient appropriations and authorization are not made, this Agreement shall terminate upon written notice being given by the BDDDB to Contractor. The BDDDB's decision as to whether sufficient appropriations are available shall be accepted by Contractor and shall be final.

5. TERM AND EFFECTIVE DATE

This Agreement shall be effective when signed by the BDDDB and terminate June 30, 2017.

6. TERMINATION

A. This Agreement may be terminated by the BDDDB upon 30 days written notice to Contractor. In the event of such termination:

(1) Contractor shall render a final report of the services performed up to the date of termination and shall turn over to the BDDDB original copies of all work product, research or papers prepared under this Agreement.

(2) If payment has not already been made, Contractor shall be paid for services rendered and expenses incurred through the date Contractor receives notice of such termination. If full payment has been made, Contractor agrees to prorate for work accomplished and refund all amounts earned.

7. STATUS OF CONTRACTOR; RESPONSIBILITY FOR PAYMENT OF EMPLOYEES AND SUBCONTRACTORS

A. Contractor and its agents and employees are independent contractors performing professional services for the BDDDB and are not employees of the BDDDB. Contractor, and its agents and employees, shall not accrue leave, retirement, insurance, bonding, use of BDDDB vehicles, or any other benefits afforded to employees of the BDDDB as a result of this Agreement.

B. Contractor shall be solely responsible for payment of wages, salaries and benefits to any and all employees or contractors retained by Contractor in the performance of the services under this Agreement.

C. Contractor shall comply with the City of Santa Fe Minimum Wage, Article 28-1-SFCC 1987, as well as any subsequent changes to such article throughout the term of this Agreement.

8. CONFIDENTIALITY

Any confidential information provided to or developed by Contractor in the performance of this Agreement shall be kept confidential and shall not be made available to any individual or organization by Contractor without the prior written approval of the BDDDB.

9. CONFLICT OF INTEREST

Contractor warrants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required under this Agreement. Contractor further agrees that in the performance of this Agreement no persons having any such interests shall be employed.

10. ASSIGNMENT; SUBCONTRACTING

Contractor shall not assign or transfer any rights, privileges, obligations or other interest under this Agreement, including any claims for money due, without the prior written consent of the BDDDB. Contractor shall not subcontract any portion of the services to be performed under this Agreement without the prior written approval of the BDDDB.

11. RELEASE

Contractor, upon acceptance of final payment of the amount due under this Agreement, releases the BDDDB, the City of Santa Fe, Santa Fe County and their officers, officials and employees, from all liabilities, claims and obligations whatsoever arising from or under this Agreement. If not completed at the time of final payment, Contractor shall remain obligated to complete the Scope of Services and other obligations of this Agreement. Contractor agrees not to purport to bind the BDDDB to any obligation not assumed herein by the BDDDB unless Contractor has express written authority to do so, and then only within the strict limits of that authority.

12. INSURANCE

A. Contractor shall not begin the Professional Services required under this Agreement until it has: (i) obtained, and upon the BDDB's request provided to the BDDB, insurance certificates reflecting evidence of all insurance required herein; however, the BDDB reserves the right to request, and Contractor shall submit, copies of any policy upon reasonable request by the BDDB; (ii) obtained BDDB approval of each company or companies as required below; and (iii) confirmed that all policies contain the specific provisions required. Contractor's liabilities, including but not limited to Contractor's indemnity obligations, under this Agreement, shall not be deemed limited in any way to the insurance coverage required herein. Maintenance of specified insurance coverage is a material element of this Agreement and Contractor's failure to maintain or renew coverage or to provide evidence of renewal during the term of this Agreement may be treated as a material breach of Agreement by the BDDB.

B. Further, Contractor shall not modify any policy or endorsement thereto which increases the BDDB's exposure to loss for the duration of this Agreement.

C. **Types of Insurance.** At all times during the term of this Agreement, Contractor shall maintain insurance coverage as follows:

(1) **Commercial General Liability.** Commercial General Liability (CGL) Insurance must be written on an ISO Occurrence form or an equivalent form providing coverage at least as broad which shall cover liability arising from any and all bodily injury, personal injury or property damage providing the following minimum limits of liability.

General Annual Aggregate(other than Products/Completed Operation)	\$1,000,000
Products/Completed Operations Aggregate Limit	\$1,000,000
Personal Injury Limit	\$1,000,000
Each Occurrence	\$1,000.000

(2) **Automobile Liability.** For all of Contractor's automobiles including owned, hired and non-owned automobiles, Contractor shall keep in full force and effect, automobile liability insurance providing coverage at least as broad for bodily injury and property damage with a combined single limit of not less than \$1 million per accident. An insurance certificate shall be submitted to the BDDB that reflects coverage for any automobile [any auto].

(3) **Professional Liability.** For Contractor and all of Contractor's employees who are to perform professional services under this Agreement, Contractor shall keep in full force and effect, Professional Liability insurance for any professional acts, errors or omissions. Such policy shall provide a limit of not less than \$1,000,000 per claim and \$1,000,000 annual aggregate. Contractor shall ensure both that: (i) the policy retroactive date is on or before the date of commencement of the first work performed under this Agreement; and (ii) the policy will be maintained in force for a period of three years after substantial completion of the project or termination of this Agreement whichever occurs last. If professional services rendered under this Agreement include work relating to environmental or pollution hazards, Contractors policy shall not contain exclusions for those activities.

(4) **Workers' Compensation.** For all of Contractor's employees who are subject to this Agreement and to the extent required by any applicable state or federal law, Contractor shall keep in full force and effect, a Workers' Compensation policy & Employers Liability policy. That policy shall provide Employers Liability Limits as follows:

Bodily Injury by Accident	\$500,000	Each Accident
Bodily Injury by Disease	\$500,000	Each Employee
Bodily Injury by Disease	\$500,000	Policy Limit

Contractor shall provide an endorsement that the insurer waives the right of subrogation against the BDDDB, City of Santa Fe, Santa Fe County and their respective elected officials, officers, employees, agents, volunteers and representatives.

D. **Cancellation.** Except as provided for under New Mexico law, all policies of insurance required hereunder must provide that the BDDDB is entitled to thirty (30) days prior written notice (10 days for cancellation due to non-payment of premium) of cancellation or non-renewal of the policy or policies as evidence by an endorsement to the policies which shall be attached to the certificates of insurance. Cancellation provisions in insurance certificates shall not contain the qualifying words "endeavor to" and "but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives". In the event Contractor's insurance carriers will not agree to this notice requirement, Contractor will provide written notice to the BDDDB within four working days of Contractor's receipt of notice from its insurance carrier(s) of any cancellation, nonrenewal or material reduction of the required insurance.

E. **Insurer Requirements.** All insurance required by express provision of this Agreement shall be carried only by responsible insurance companies that have rated "A-" and

“V” or better by the A.M. Best Key Rating Guide, that are authorized to do business in the State of New Mexico, and that have been approved by the BDDDB. The BDDDB will accept insurance provided by non-admitted, “surplus lines” carriers only if the carrier is authorized to do business in the State of New Mexico.

F. **Deductibles.** All deductibles or co-payments on any policy shall be the responsibility of Contractor.

G. **Specific Provisions Required.**

(1) Each policy shall expressly provide, and an endorsement shall be submitted to the BDDDB, that the policy or policies providing coverage for Commercial General Liability must be endorsed to include as an Additional Insured, the BDDDB, City of Santa Fe, Santa Fe County and their respective elected officials, officers, employees, agents, volunteers and representatives.

(2) All policies required herein are primary and non-contributory to any insurance that may be carried by the BDDDB, City of Santa Fe, Santa Fe County and their respective elected officials, officers, employees, agents, volunteers and representatives, as reflected in an endorsement which shall be submitted to the BDDDB.

(a) Contractor agrees that for the time period defined above, there will be no changes or endorsements to the policy that increase the BDDDB’s exposure to loss. Before performing any Professional Services, Contractor shall provide the BDDDB with all Certificates of Insurance accompanied with all endorsements.

(b) The BDDDB reserves the right, from time to time, to review Contractor’s insurance coverage, limits, and deductible and self-insured retentions to determine if they are acceptable to the BDDDB. The BDDDB will reimburse Contractor for the

cost of the additional premium for any coverage requested by the BDDDB in excess of that required by this Agreement without overhead, profit, or any other markup.

(c) Contractor may obtain additional insurance not required by this Agreement.

13. INDEMNIFICATION

General Indemnification. To the greatest extent permitted by law, Contractor shall indemnify, hold harmless and defend the BDDDB, City of Santa Fe, Santa Fe County and their respective elected officials, officers, employees, agents, volunteers and representatives from all losses, damages, claims or judgments, including payments of all attorneys' fees and costs on account of any suit, judgment, execution, claim, action or demand whatsoever arising from Contractor's performance or non-performance under this Agreement as well as the performance or non-performance of Contractor's employees, agents, representatives and subcontractors or any tier.

Indemnification for Professional Acts, Errors or Omissions. Except for professional acts, error or omissions that are the result of established gross negligence or willful misconduct on the part of Contractor, or its employees, agents, representatives or sub-consultants, the General Indemnification shall not apply to professional acts, errors or omissions unless covered by Professional Liability insurance required in this Agreement.

14. NEW MEXICO TORT CLAIMS ACT

Any liability incurred by the BDDDB in connection with this Agreement is subject to the immunities and limitations of the New Mexico Tort Claims Act, NMSA 1978, § 41-4-1, *et seq.*, as amended. The BDDDB and their "public employees" as defined in the New Mexico Tort Claims Act, do not waive sovereign immunity, do not waive any defense and do not waive any

limitation of liability pursuant to law. No provision in this Agreement modifies or waives any provision of the New Mexico Tort Claims Act.

15. THIRD PARTY BENEFICIARIES

By entering into this Agreement, the parties do not intend to create any right, title or interest in or for the benefit of any person other than the BDDDB and Contractor. No person shall claim any right, title or interest under this Agreement or seek to enforce this Agreement as a third party beneficiary of this Agreement.

16. RECORDS, DOCUMENT CONTROL AND AUDIT

A. Contractor shall conform with and participate in the Document Control policies of the BDDDB or the City of Santa Fe. Contractor shall maintain, throughout the term of this Agreement and for a period of three years thereafter, all records that relate to the scope of services provided under this Agreement.

B. Detailed records that indicate the date, time and nature of services rendered shall also be retained for a period of three years after the term of this agreement expires. These records shall be subject to inspection by the City of Santa Fe, the Department of Finance and Administration, the State Auditor. The BDDDB and the City of Santa Fe shall have the right to audit the billing both before and after payment to Contractor. Payment under this Agreement shall not foreclose the right of the BDDDB or the City of Santa Fe to recover excessive or illegal payments.

17. APPLICABLE LAW; CHOICE OF LAW; VENUE

Contractor shall abide by all applicable federal and state laws and regulations, and all ordinances, rules and regulations of the BDDDB. In any action, suit or legal dispute arising from this Agreement, Contractor agrees that the laws of the State of New Mexico shall govern. Any

action or suit commenced in the courts of the State of New Mexico shall be brought in the First Judicial District Court.

18. AMENDMENT

This Agreement shall not be altered, changed or modified except by an amendment in writing executed by the parties hereto.

19. SCOPE OF AGREEMENT

This Agreement incorporates all the agreements, covenants, and understandings between the parties hereto concerning the services to be performed hereunder, and all such agreements, covenants and understandings have been merged into this Agreement. This Agreement expresses the entire Agreement and understanding between the parties with respect to said services. No prior agreement or understanding, verbal or otherwise, of the parties or their agents shall be valid or enforceable unless embodied in this Agreement.

20. NON-DISCRIMINATION

During the term of this Agreement, Contractor shall not discriminate against any employee or applicant for an employment position to be used in the performance of services by Contractor hereunder, on the basis of ethnicity, race, age, religion, creed, color, national origin, ancestry, sex, gender, sexual orientation, physical or mental disability, medical condition, or citizenship status.

21. SEVERABILITY

In case any one or more of the provisions contained in this Agreement or any application thereof shall be invalid, illegal or unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions contained herein and any other application thereof shall not in any way be affected or impaired thereby.

22. NOTICES

Any notices requests, demands, waivers and other communications given as provided in this Agreement will be in writing and will be deemed to have been given if delivered in person (including by Federal Express or other personal delivery service), or mailed by certified or registered mail, postage prepaid, and addressed to Seller or Buyer at the following addresses:

BDDDB: Charles Vokes
Facilities Manager
Buckman Direct Diversion
341 Caja Del Rio Road
Santa Fe, NM 87506
Email: cmvokes@ci.santa-fe.nm.us

With a copy to: Nancy R. Long, Esq.
BDDDB Independent Counsel
Long, Komer & Associates, P.A.
2200 Brothers Road
P. O. Box 5098
Santa Fe, NM 87502-5098
Email: nancy@longkomer.com

CONTRACTOR: Facility Solutions Group, Inc.
7209 Jefferson ST NE
Albuquerque, NM 87109
Email:Gabriel.marquez@fsgi.com

Any such notice sent by registered or certified mail, return receipt, shall be deemed to have been duly given and received seventy-two (72) hours after the same is so addressed and mailed with postage prepaid. Notice sent by recognized overnight delivery service shall be effective only upon actual receipt thereof at the office of the addressee set forth above, and any such notice delivered at a time outside of normal business hours shall be deemed effective at the opening of business on the next business day. Notice sent by email shall be effective only upon actual receipt of the original unless written confirmation is sent by the recipient of the email stating that the notice has been received, in which case the notice shall be deemed effective as of

the date specified in the confirmation. Any party may change its address for purposes of this paragraph by giving notice to the other party as herein provided. Delivery of any copies as provided herein shall not constitute delivery of notice hereunder.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date set forth below.

***/BALANCE OF PAGE INTENTIONALLY LEFT BLANK;
SIGNATURE PAGE FOLLOWS/***

BUCKMAN DIRECT DIVERSION BDDB

By: _____
Carmichael Dominguez, BDDDB Chair

Date: _____

APPROVED AS TO FORM



Nancy R. Long, BDDDB Counsel

APPROVED

Adam K. Johnson, City Finance Director

7280000.572500.742025

ATTEST

Yolanda Y. Vigil, City Clerk

File Date: _____

CONTRACTOR:
Facility Solutions Group, Inc.

Signature: _____

Printed Name: _____

Title: _____

Date: _____

NM Taxation & Revenue
CRS # _____

City of Santa Fe Business
Registration # _____



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

12/05/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER IBTX 6363 N. State Highway 161 Irving TX 75038	CONTACT NAME: Tonya Ragsdale PHONE (A/C, No, Ext): (214) 989-7100 FAX (A/C, No): (214) 596-9030 E-MAIL ADDRESS: tragsdale@ib-tx.com														
INSURED Facility Solutions Group, Inc. 4401 Westgate Blvd. Ste 310 Austin TX 78745	<table><tr><th>INSURER(S) AFFORDING COVERAGE</th><th>NAIC #</th></tr><tr><td>INSURER A: Travelers Indemnity Co</td><td>25658</td></tr><tr><td>INSURER B: Charter Oaks Fire Insurance Co.</td><td>25615</td></tr><tr><td>INSURER C: Lexington Insurance Company</td><td>19437</td></tr><tr><td>INSURER D: Aspen American Insurance Co.</td><td>43460</td></tr><tr><td>INSURER E: Travelers Cas & Surety of Americ</td><td>31194</td></tr><tr><td>INSURER F: Allied World Assurance Company U</td><td>19489</td></tr></table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Travelers Indemnity Co	25658	INSURER B: Charter Oaks Fire Insurance Co.	25615	INSURER C: Lexington Insurance Company	19437	INSURER D: Aspen American Insurance Co.	43460	INSURER E: Travelers Cas & Surety of Americ	31194	INSURER F: Allied World Assurance Company U	19489
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COVERAGES

CERTIFICATE NUMBER: Cert ID 22539

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Contractual Liabilit <input checked="" type="checkbox"/> No XCU Eclu GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			VTC2K-CO-5803B046-IN	10/01/2016	10/01/2017	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 2,000,000 MED EXP (Any one person) \$ 1,000,000 PERSONAL & ADV INJURY \$ 10,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COM/OP AGG \$ 4,000,000 \$
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY			VTC20-5468B565-COF16	10/01/2016	10/01/2017	COMBINED SINGLE LIMIT (Ea accident) \$ 2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
CD	<input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED \$ RETENTION \$			015681526 CX004QG16	10/01/2016 10/01/2016	10/01/2017 10/01/2017	EACH OCCURRENCE \$ 4,000,000 AGGREGATE \$ 4,000,000 XS of \$4M Primary \$ 6,000,000
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	VTC2K-UB-5803B034-16 VTRK-UB-5803B022-16	10/01/2016 10/01/2016	10/01/2017 10/01/2017	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
E	Third Party Crime			105910238	10/01/2016	10/01/2017	Occ/Agg \$ 2,500,000
F	Pollution/Environmental			03096332	06/06/2016	10/01/2017	Occ/Agg \$ 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Named Scheduled: FSG Electric; FSG Lighting; FSG, Inc.; GB Realty Management, LLC; 801 Richfield Partnership, LLC; Sign Tech International; Design Electric, Inc.; FSG Signs;

The General Liability and Automobile policies include a blanket additional insured endorsement [CGD316 11/11, CGD604 08/13 & CAT353 02/15] as required by a written contract with the named insured. The General Liability, Automobile and Workers' Compensation policies includes a blanket waiver of subrogation endorsement [CGD316 11/11, CAT353 02/15 & WC 42 03 04 & WC 00 03 13] as required by a written contract with the named insured. Primary & Non-Contributory wording per endorsement [CGD604 08/13 CGD604 08/13 & CAT414 02/15 & LX4305 06/14]. Cancellation see attached

CERTIFICATE HOLDER

City of Santa Fe
Buckman City & County Water Treatment Plant
341 Caja Del Rio Rd

Santa Fe NM 87506

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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Buckman Direct Diversion Board
Summary of Contracts, Agreements, & Amendments

Section to be completed by department for each contract or contract amendment

1 **FOR: ORIGINAL CONTRACT** ☒ or **CONTRACT AMENDMENT** ☐

2 Name of Contractor Facility Solutions Group, Inc.

3 Complete information requested

☐ Plus GRT

☒ Inclusive of GRT

Original Contract Amount: \$58,963.01

Termination Date: June 30, 2017

☒ Approved by BDDB Date: pending

☐ or by Project Manager Date: _____

Contract is for: To upgrade outdoor lighting to LED-based system

Amendment # _____ to the Original Contract# _____

Increase/(Decrease) Amount \$ _____

Extend Termination Date to: _____

☐ Approved by BDDB Date: _____

☐ or by Facilities Manager Date: _____

Amendment is for: _____

4 **History of Contract & Amendments:** (option: attach spreadsheet if multiple amendments)

☐ Plus GRT

☒ Inclusive of GRT

Amount \$ 58,063.01 of original Contract# _____ Termination Date: 06/30/2017

Reason: To upgrade outdoor lighting to LED-based system

Amount \$ _____ amendment # 1 Termination Date: _____

Reason: _____

Amount \$ _____ amendment # _____ Termination Date: _____

Reason: _____

Amount \$ _____ amendment # _____ Termination Date: _____

Reason: _____

Total of Original Contract plus all amendments: \$ _____



Buckman Direct Diversion Board
Summary of Contracts, Agreements, & Amendments

5 Procurement Method of Original Contract: (complete one of the lines)

RFP# _____ Date: _____

RFQ ☐ _____ Date: _____

Sole Source ☐ _____ Date: _____

Other SPA #60-000-15-0034

6 Procurement History: _____
example: (First year of 4 year contract)

7 Funding Source: BDD Operating **BU/Line Item:** 7280000.572500.742020

8 Any out-of-the ordinary or unusual issues or concerns:
none
(Memo may be attached to explain detail.)

9 Staff Contact who completed this form: Mackie Romero
Phone # 955-4506

10 Certificate of Insurance attached. (if original Contract) ☐

Submit to City Attorney for review/signature

Forward to Finance Director for review/signature

Return to originating Department for Committee(s) review or forward to City Manager for review and approval (depending on dollar level).

To be recorded by City Clerk:

Contract # _____

Date of contract Executed (i.e., signed by all parties): _____

Note: If further information needs to be included, attach a separate memo.

Comments:



Buckman Direct Diversion Project

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

Memorandum

DATE: January 24, 2017
TO: BDD Board
THROUGH: Charles Vokes, BDD Facilities Manager
FROM: Nancy R. Long

ITEM AND ISSUE:

Revision of the Board's Rules of Order to address the addition of the Las Campanas non-voting members to the Board and other miscellaneous issues in the Rules.

BACKGROUND AND SUMMARY:

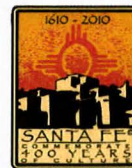
With the addition of the Las Campanas regular and alternate non-voting members to the Board pursuant to JPA Amendment Number Two, it is timely to amend the Board's Rules of Order to address the role of these new members. The proposed revisions to the Rules of Order:

- Defines a quorum as including voting members only;
- Provides for seating arrangements for the alternate and non-voting members;
- Qualifies, where applicable, the differences between a voting and non-voting member as to certain matters;
- Provides a definition of conflict of interest; and
- Provides a general clean-up of the Rules

The proposed modifications to the Board's existing Rules of Order are shown in redline format for ease in reviewing the revisions.

RECOMMENDATION

If the revised Rules of Order are acceptable to the Board, approval is recommended.



1 **BUCKMAN DIRECT DIVERSION BOARD**

2 **RESOLUTION NO. ~~2015-2017-02~~**

3
4 **A RESOLUTION**

5 **ESTABLISHING RULES OF ORDER FOR THE BUCKMAN DIRECT DIVERSION**

6 **BOARD; RESCINDING RESOLUTION NO. ~~2008-03~~2015-02**

7
8 **WHEREAS**, ~~the Board of County Commissioners of~~ Santa Fe County and the
9 City of Santa Fe, are parties to that certain Joint Powers Agreement between the City of
10 Santa Fe and the County of Santa Fe Governing the Buckman Direct Diversion Project,
11 dated March 7, 2005, as amended ("JPA");

12 **WHEREAS**, pursuant to Section 5 of the JPA, the Buckman Direct Diversion
13 Board (hereinafter referred to as "the Board") may ~~create-adopt~~ rules ~~of order~~ to govern
14 the conduct of its meetings;

15 **WHEREAS**, the Board last enacted rules of order on ~~January 17, 2008~~February
16 5, 2015, and desires to amend such rules of order to govern proceedings of the Board
17 to address the role of non-voting members of the Board and to ensure that meetings are
18 well structured, efficient, and fair.

19 **NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE BUCKMAN DIRECT**
20 **DIVERSION BOARD** to adopt the following Rules of Order to govern its meetings and
21 to rescind Resolution No. ~~2008-03~~2015-02:

22 **1. Quorum and Seating of Board Members**. A majority of the voting members
23 of the Board is necessary to constitute a quorum and additionally a quorum must be
24 constituted of at least one member from the City and one member from the County.
25 Alternate voting members and both Las Campanas members (regular and alternate)

1 shall be seated separately from the voting members so as to lessen confusion during
2 voting and provide for organized and workable Board meetings. An alternate member
3 may be recognized during ~~the~~ Roll Call to serve on behalf of an absent, regular member
4 during the meeting and shall possess the same duties and privileges as the absent
5 board member. If, during the course of the meeting, the regular voting member joins
6 the meeting, the alternate for that voting member, if any, shall take their seat at the table
7 reserved for alternates. may not vote on any matter appearing on the agenda, but may
8 continue to participate in the meeting, including in the discussion of action and other
9 agenda items. Alternate members are permitted to attend and participate in any
10 meeting of the Board but shall have no voting power unless the alternate is attending for
11 an absent voting member. If, during the course of the meeting, a regular voting member
12 is excused for the rest of the meeting, the alternate may be recognized by the Chair to
13 serve on behalf of the regular voting member until the conclusion of the meeting and
14 shall assume their seat with the voting members. If, during the course of the meeting, a
15 regular voting member is excused from the meeting by recusal for an item, the alternate
16 shall not be recognized by the Chair and the recusal shall not impact quorum.

17 **2. Loss of Quorum.** No action may be taken without a quorum except actions
18 determined necessary to obtain a quorum, adjournment or recess. If a quorum is lost
19 during any part of a meeting, no action may be taken in the absence of a quorum except
20 actions necessary to obtain a quorum, adjournment or recess.

21 **3. Chair and Vice-Chair.**

22 **a. Duties.** Each meeting of the Board shall be under the direction of a
23 Chair. The Chair shall open and close meetings, announce the business before the
24 Board and manage the agenda, manage the meeting, stating and calling for a vote on
25 all motions properly made, announcing the results of all votes, enforcing order and

1 decorum, and ensuring that members of the Board, staff and members of the public
2 conduct themselves in a respectful and appropriate manner.

3 **b. Duties/Vice-Chair.** Whenever the Chair is not present or is unable to
4 participate in the discussion of a matter before the Board, the Vice-Chair shall serve as
5 the Chair. If the Chair of the Board is not present when a meeting begins but arrives
6 during the course of a meeting, the Vice-Chair shall continue to act as Chair for the
7 duration of the specific matter under consideration and thereafter shall relinquish the
8 Chair to the elected Chair. Whenever the Chair and Vice-Chair are not present, the
9 voting members may appoint a temporary chair to conduct the meeting.

10 **c. Chair/Vice-Chair, Election.** During the April meeting of each year, a
11 Chair and Vice-Chair of the Board shall be elected. The Chair position shall rotate
12 between a City and County member each year. The Vice-Chair shall be elected from
13 the opposite entity. Elections shall also be held when required to fill any vacancy that
14 occurs in the Chair or Vice-Chair position.

15 **d. Voting/Chair.** The Chair has all rights as any other voting member for
16 purposes of voting and making and seconding motions.

17 **e. Discussions/Chair.** The Chair may take part in any discussion of any
18 matter before the Board.

19 **4. Agenda.** The agenda shall be prepared under the direction of the Chair, and
20 shall include an item for approval of the minutes of the previous meeting, approval of
21 the agenda, matters from the Board members, matters from the public, action items to
22 be considered during the meeting, report by the Fiscal Services Audit Committee and
23 matters from the City and County staff Executive Director. The agenda may include a
24 consent calendar containing matters that will be considered and voted upon as a group,
25 presentations, or a closed executive session. The Board may only act on those items

1 listed on the agenda.

2 **5. Presentations.** The Chair may permit staff to present a report on a given
3 item and to answer questions from the members of the Board. Only Board members
4 shall be permitted to address questions to staff. Members of the public or interested
5 persons may be permitted to address the Board ~~on a given item~~ during the agenda item
6 designated for such purpose. The Chair may impose reasonable restrictions on such
7 presentations, including time restrictions as necessary. If such a presentation is made,
8 members of the Board may be permitted to question the person.

9 **6. Motions**

10 **a. Requirement of Motion.** Before any action may be taken by the
11 Board, a motion must be made by a voting member who has obtained the floor.

12 **b. Motions/How Made.** A voting member obtains the floor by addressing
13 the Chair and asking to be recognized. After the Chair has recognized the voting
14 member, the voting member may state any request for action in the form of a motion.

15 After a motion is made, the Chair shall call for a second. A motion may be seconded by
16 a voting member saying, "I second the motion." A motion must be seconded before any
17 further action may take place. A motion that is not seconded cannot be discussed or
18 voted upon and fails. If a motion is not seconded, the Chair shall state that the motion
19 has failed for lack of a second. After a motion has been seconded, the Chair shall
20 restate the motion or refer to the motion as stated by the voting member and ask for
21 debate on the motion. Debate shall be limited to the motion on the floor. If a member
22 wishes to debate the motion, the member shall ask to be recognized by the Chair.

23 During such debate, the Chair or a member may question staff, ~~the applicant, witness or~~
24 ~~member of the public~~ other meeting attendee for information. Unless specifically

1 requested by a member and approved by the Chair, public input from the floor shall not
2 be permitted.

3 **c. Parliamentary Motions.** While a motion is on the floor, the Chair may
4 entertain a secondary motion to amend the pending motion ~~or a procedural motion.~~

5 There are two methods to amend a motion on the floor:

6 **i. Friendly Amendment.** A friendly amendment may be made if
7 the maker and the second of ~~the a~~ motion consents to a change to the motion. If the
8 maker and the second of the motion both agrees, the motion is amended as requested,
9 without a separate -vote on the amendment, and the Chair shall restate the amended
10 motion.

11 **ii. Unfriendly Amendment.** If the maker of the motion does not
12 consent to adopt a suggested change to the motion, the amendment is deemed
13 unfriendly or hostile. The Chair shall hold a vote to adopt the unfriendly amendment if
14 seconded. If the vote is successful, the main motion has changed and the Chair shall
15 restate the amended motion.

16 **iii. Procedural Motion.** A procedural motion must be resolved by
17 vote before the primary motion may be considered. A procedural motion is non-
18 debatable, and is a motion to adjourn, a motion to table, a motion to limit, extend or end
19 debate, or a motion to call the question. The Chair has discretion to permit or disallow a
20 motion to call the question.

21 **d. Ending Debate and Voting.** When debate has ended, the Chair or a
22 voting member shall restate the motion, as amended. The Chair shall then call for the
23 affirmative and then the negative votes and, if applicable, any abstentions. An
24 abstention, recusal or disqualification for conflict of interest, by of a voting member
25 ~~otherwise qualified to vote~~ is a non-vote, having neither an affirmative or negative effect.

1 Each voting member's vote shall be recorded. The Chair shall then announce the vote.
2 A simple majority of the voting members present shall be necessary to pass a motion,
3 unless a given matter requires the affirmative votes of a specified number of voting
4 members. If a vote results in a tie, the motion is defeated.

5 **e. Motions to Reconsider.** A motion to reconsider may be made to
6 reconsider any matter on which the Board has previously taken formal action. A motion
7 to reconsider formal action taken during a meeting shall be in order only when it is made
8 no later than the next meeting. A motion to reconsider shall be in order only when it is
9 made by a voting member who voted with the prevailing side on the matter proposed for
10 reconsideration; however, in the case of a tie vote resulting in a defeated motion, any
11 voting member who voted may propose the matter for reconsideration. A vote on a
12 motion to reconsider shall only be made when the matter is placed on the agenda for
13 reconsideration. A motion to reconsider is not in order on any question that has been
14 reconsidered previously. Votes on the following matters may not be reconsidered: a
15 Motions to Adjourn, a Motion to Table, a Motion to Take a Recess, a Motion to
16 Reconsider, a Motion to Approve the Agenda, a Motion to Amend the Rules of Order,
17 and a Motion to Approve membership on any committee.

18 **f. Improper Motion.** The Chair cannot permit a motion that conflicts with
19 these Rules. A motion to suspend these Rules shall be out of order.

20 **g. Question of Order.** A member of the Board may raise a question of
21 order. A question of order may be invoked for the purpose of calling to the attention of
22 the Chair that a rule of procedure is being violated. A question of order shall take
23 precedence over any pending matter, even interrupting a speaker. The question of
24 order, once raised, must be ruled upon by the Chair, who may seek the advice of others
25 before rendering a decision. The ruling of the Chair on a question of order may be

reversed only upon the affirmative vote of a majority of voting members present.

h. Interpretation of Rules. If there is a question raised concerning the meaning or proper interpretation of these rules or if a matter arises that is not addressed by these rules, the Chair shall rule on the issue and may seek the advice of others before rendering a decision.

7. Adjournment. A meeting of the Board shall continue until terminated by motion and order of adjournment. The Chair shall not arbitrarily adjourn a meeting. If adjournment is moved and ordered, further business shall not be transacted.

8. Conflict of Interest. No member may take part in any deliberation or vote on any matter in which such member or an immediate family member has a financial interest, either direct or indirect, in the outcome of a matter.

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9. Definitions. For purposes of this Resolution, the term "member," when not otherwise specified as a "voting member," shall mean both the voting and non-voting members of the Board.

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PASSED, APPROVED AND ADOPTED this _____ day of _____,

20175.

BUCKMAN DIRECT DIVERSION BOARD:

CARMICHAEL DOMINGUEZ, CHAIRMAN

ATTEST:

YOLANDA Y. VIGIL, CITY CLERK

APPROVED AS TO FORM:

NANCY R. LONG, BOARD COUNSEL

1 **BUCKMAN DIRECT DIVERSION BOARD**

2 **RESOLUTION NO. 2017-02**

3
4 **A RESOLUTION**

5 **ESTABLISHING RULES OF ORDER FOR THE BUCKMAN DIRECT DIVERSION BOARD;**
6 **RESCINDING RESOLUTION NO. 2015-02**

7
8 **WHEREAS**, Santa Fe County and the City of Santa Fe are parties to that certain Joint
9 Powers Agreement between the City of Santa Fe and the County of Santa Fe Governing the
10 Buckman Direct Diversion Project, dated March 7, 2005, as amended ("JPA");

11 **WHEREAS**, pursuant to Section 5 of the JPA, the Buckman Direct Diversion Board
12 (hereinafter referred to as "the Board") may adopt rules to govern the conduct of its meetings;

13 **WHEREAS**, the Board last enacted rules of order on February 5, 2015, and desires to
14 amend such rules of order to govern proceedings of the Board to address the role of non-voting
15 members of the Board and to ensure that meetings are well structured, efficient, and fair.

16 **NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE BUCKMAN DIRECT**
17 **DIVERSION BOARD** to adopt the following Rules of Order to govern its meetings and to
18 rescind Resolution No. 2015-02:

19 **1. Quorum and Seating of Board Members.** A majority of the voting members of the
20 Board is necessary to constitute a quorum and additionally a quorum must be constituted of at
21 least one member from the City and one member from the County. Alternate voting members
22 and both Las Campanas members (regular and alternate) shall be seated separately from the
23 voting members so as to lessen confusion during voting and provide for organized and workable
24 Board meetings. An alternate member may be recognized during Roll Call to serve on behalf of
25 an absent, regular member during the meeting and shall possess the same duties and privileges as

1 the absent board member. If, during the course of the meeting, the regular voting member joins
2 the meeting, the alternate for that voting member, if any, shall take their seat at the table reserved
3 for alternates, may not vote on any matter appearing on the agenda, but may continue to
4 participate in the meeting, including in the discussion of action and other agenda items.

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10 course of the meeting, a regular voting member is excused from the meeting by recusal for an
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18 Chair shall open and close meetings, announce the business before the Board and manage the
19 agenda, manage the meeting, stating and calling for a vote on all motions properly made,
20 announcing the results of all votes, enforcing order and decorum, and ensuring that members of
21 the Board, staff and members of the public conduct themselves in a respectful and appropriate
22 manner.

23 **b. Duties/Vice-Chair.** Whenever the Chair is not present or is unable to
24 participate in the discussion of a matter before the Board, the Vice-Chair shall serve as the Chair.
25 If the Chair of the Board is not present when a meeting begins but arrives during the course of a

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3 Chair and Vice-Chair are not present, the voting members may appoint a temporary chair to
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5 **c. Chair/Vice-Chair, Election.** During the April meeting of each year, a Chair
6 and Vice-Chair of the Board shall be elected. The Chair position shall rotate between a City and
7 County member each year. The Vice-Chair shall be elected from the opposite entity. Elections
8 shall also be held when required to fill any vacancy that occurs in the Chair or Vice-Chair
9 position.

10 **d. Voting/Chair.** The Chair has all rights as any other voting member for
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12 **e. Discussions/Chair.** The Chair may take part in any discussion of any matter
13 before the Board.

14 **4. Agenda.** The agenda shall be prepared under the direction of the Chair, and shall
15 include an item for approval of the minutes of the previous meeting, approval of the agenda,
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18 Director. The agenda may include a consent calendar containing matters that will be considered
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20 on those items listed on the agenda.

21 **5. Presentations.** The Chair may permit staff to present a report on a given item and to
22 answer questions from the members of the Board. Only Board members shall be permitted to
23 address questions to staff. Members of the public or interested persons may be permitted to
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14 member wishes to debate the motion, the member shall ask to be recognized by the Chair.
15 During such debate, the Chair or a member may question staff, or other meeting attendee for
16 information. Unless specifically requested by a member and approved by the Chair, public input
17 from the floor shall not be permitted.

18 **c. Parliamentary Motions.** While a motion is on the floor, the Chair may
19 entertain a secondary motion to amend the pending motion. There are two methods to amend a
20 motion on the floor:

21 **i. Friendly Amendment.** A friendly amendment may be made if the
22 maker and the second of a motion consent to a change to the motion. If the maker and the second
23 of the motion both agree, the motion is amended as requested, without a separate vote on the
24 amendment, and the Chair shall restate the amended motion.

1 **ii. Unfriendly Amendment.** If the maker of the motion does not consent
2 to adopt a suggested change to the motion, the amendment is deemed unfriendly or hostile. The
3 Chair shall hold a vote to adopt the unfriendly amendment if seconded. If the vote is successful,
4 the main motion has changed and the Chair shall restate the amended motion.

5 **iii. Procedural Motion.** A procedural motion must be resolved by vote
6 before the primary motion may be considered. A procedural motion is non-debatable, and is a
7 motion to adjourn, a motion to table, a motion to limit, extend or end debate, or a motion to call
8 the question. The Chair has discretion to permit or disallow a motion to call the question.

9 **d. Ending Debate and Voting.** When debate has ended, the Chair or a voting
10 member shall restate the motion, as amended. The Chair shall then call for the affirmative and
11 then the negative votes and, if applicable, any abstentions. An abstention, recusal or
12 disqualification for conflict of interest, of a voting member is a non-vote, having neither an
13 affirmative or negative effect. Each voting member's vote shall be recorded. The Chair shall
14 then announce the vote. A simple majority of the voting members present shall be necessary to
15 pass a motion, unless a given matter requires the affirmative votes of a specified number of
16 voting members. If a vote results in a tie, the motion is defeated.

17 **e. Motions to Reconsider.** A motion to reconsider may be made to reconsider
18 any matter on which the Board has previously taken formal action. A motion to reconsider
19 formal action taken during a meeting shall be in order only when it is made no later than the next
20 meeting. A motion to reconsider shall be in order only when it is made by a voting member who
21 voted with the prevailing side on the matter proposed for reconsideration; however, in the case of
22 a tie vote resulting in a defeated motion, any voting member who voted may propose the matter
23 for reconsideration. A vote on a motion to reconsider shall only be made when the matter is
24 placed on the agenda for reconsideration. A motion to reconsider is not in order on any question
25 that has been reconsidered previously. Votes on the following matters may not be reconsidered:

1 a Motion to Adjourn, a Motion to Table, a Motion to Take a Recess, a Motion to Reconsider, a
2 Motion to Approve the Agenda, a Motion to Amend the Rules of Order, and a Motion to
3 Approve membership on any committee.

4 **f. Improper Motion.** The Chair cannot permit a motion that conflicts with these
5 Rules. A motion to suspend these Rules shall be out of order.

6 **g. Question of Order.** A member of the Board may raise a question of order. A
7 question of order may be invoked for the purpose of calling to the attention of the Chair that a
8 rule of procedure is being violated. A question of order shall take precedence over any pending
9 matter, even interrupting a speaker. The question of order, once raised, must be ruled upon by
10 the Chair, who may seek the advice of others before rendering a decision. The ruling of the
11 Chair on a question of order may be reversed only upon the affirmative vote of a majority of
12 voting members present.

13 **h. Interpretation of Rules.** If there is a question raised concerning the meaning or
14 proper interpretation of these rules or if a matter arises that is not addressed by these rules, the
15 Chair shall rule on the issue and may seek the advice of others before rendering a decision.

16 **7. Adjournment.** A meeting of the Board shall continue until terminated by motion and
17 order of adjournment. The Chair shall not arbitrarily adjourn a meeting. If adjournment is
18 moved and ordered, further business shall not be transacted.

19 **8. Conflict of Interest.** No member may take part in any deliberation or vote on any
20 matter in which such member or an immediate family member has a financial interest, either
21 direct or indirect, in the outcome of a matter.

22 **9. Definitions.** For purposes of this Resolution, the term "member," when not otherwise
23 specified as a "voting member," shall mean both the voting and non-voting members of the
24 Board.

1 **PASSED, APPROVED AND ADOPTED this** _____ **day of** _____, 2017.

2

3 **BUCKMAN DIRECT DIVERSION BOARD:**

4

5

6 _____
CARMICHAEL DOMINGUEZ, CHAIRMAN

7

8 **ATTEST:**

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11 _____
YOLANDA Y. VIGIL, CITY CLERK

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15 **APPROVED AS TO FORM:**

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19 _____

NANCY R. LONG, BOARD COUNSEL



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

Memorandum

DATE: January 24, 2017

TO: BDD Board

THROUGH: Charles Vokes, BDD Facilities Manager
Rick Carpenter, Acting Water Division Director

FROM: Kyle Harwood, Board Counsel

ITEM AND ISSUE

2015 Memorandum of Understanding Between the US Department of Energy and the Buckman Direct Diversion Board Regarding Water Quality Monitoring.

BACKGROUND AND SUMMARY

On May 13, 2010, the Buckman Direct Diversion Board (BDDDB) and the United States Department of Energy (DOE) entered into a five (5) year Memorandum of Understanding (MOU) regarding Water Quality Monitoring. The purpose of the MOU was “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 Buckman Direct Diversion Project (BDD Project).”

On January 12, 2015 the Buckman Direct Diversion Board (BDDDB) and the United States Department of Energy (DOE) entered into a three (3) year Memorandum of Understanding (MOU) regarding Water Quality Monitoring. The 2015 MOU was a replacement agreement that added three (3) years of coordination, sampling and review (2015, 2016, and 2017). The new replacement agreement had the DOE directly fund the BDDDB's expenses for sample analysis, it explicitly integrated the new relationship between the BDDDB and the Pueblo de San Ildefonso for access and information sharing, and made technical changes to the Appendix A Sampling and Analysis Plan.



The current 2015 MOU expires on December 1, 2017, and contains provisions for renewal (Section J on pg. 7) or may be replaced with a new agreement.

RECOMMENDED ACTION

The Board direct staff to meet with LANL staff to determine which goals have been accomplished since the inception of the MOUs, and which priorities require attention going forward.

Staff proposes to report to the Board at the May meeting the results of that analysis, and to provide a framework for a successor agreement.

Staff further recommends that a renewal or successor agreement be scheduled for consideration by the Board no later than the October Board meeting to take effect before the expiration of the current 2015 MOU on December 1, 2017.

Appendix A: 2015 MOU

Appendix B: 2010 MOU

Appendix A

**January 12, 2015 Memorandum of Understanding
Between the U.S. Department of Energy
and the Buckman Direct Diversion Board
Regarding Water Quality Monitoring**

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.

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

C. Objective

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

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

D. Authorities

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

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

E. Agreement Principles

E.1 Memorandum of Agreement and Protocols between DOE and the Pueblo de San Ildefonso

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

E.2 Los Alamos / Pueblo Canyons Early Notification System

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

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

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

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

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

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

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

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

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

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

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

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

E.4 Rio Grande at BDD Project Location Sampling Program

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

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

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

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

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

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

E.5 TREAT Study

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

E.6 Analysis

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

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

F. BDD Project Data Sharing

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

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

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

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

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

G. Coordination

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

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

H. Biannual Review

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

I. Contacts

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

- **DOE**
Peter Maggiore
Assistant Manager, Environmental Projects Office
Los Alamos Field Office / NNSA / DOE
3747 West Jemez Road, MS-A316

Los Alamos, NM 87544
Phone: 505-665-05925
Cell: 505-695-5109
Email: Peter.Maggiore@nnsa.doe.gov

With copy to:
DOE Counsel
Silas Deroma
Phone: 505-667-4668
Email: Silas.Deroma@nnsa.doe.gov

- **BDD Board**
Charles Vokes
BDD Facility Manager
Buckman Direct Diversion
341 Caja De Rio Road
Santa Fe, NM 87506
Phone: 505-955-4507
Email: cmvokes@ci.santa-fe.nm.us

With copy to:
BDD Board Counsel
Nancy Long
Long and Komer
2200 Brothers Road
P.O. Box 5098
Santa Fe, NM 87502
Cell: 505-470-2158
Email: nlong@nm.net

J. Period of Agreement, Modification, or Termination

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

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

K. Dispute Resolution

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

L. Other Provisions

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

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

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

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

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

This MOU 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.

M. Signatures

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			
	Stream Gage/Sampler Maintenance	LA/P Canyon Storm Water Quality Data	Rio Grande above Otowi Location	Rio Grande at BDD Diversion Location
LANL Procedures				
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	✕	✕	✕	
BDD Procedures				
BDD SOP				✕

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

Analytes	Method	Detection Limit	Field Prep Code
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

Analytes	Method	Detection Limit	Field Prep Code
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

Appendix B

**May 12, 2010 Memorandum of Understanding
Between the U.S. Department of Energy
and the Buckman Direct Diversion Board
Regarding Water Quality Monitoring**

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

A. PURPOSE

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 Buckman Direct Diversion Project ('BDD Project').

B. PARTIES

The parties to this Memorandum are the Buckman Direct Diversion Board ('BDD Board') and the U.S. Department of Energy ('DOE').

C. AUTHORITIES

1. Both parties represent that they have the authority to enter into this Memorandum and are able to meet the respective commitments herein to the extent permitted by law.

2. Department of Energy. The U.S. Department of Energy is authorized to enter into this Memorandum pursuant to the Atomic Energy Act, as amended (Title 42 U.S.C. 2011, et seq.).

3. BDD Board. The BDD Board is authorized to enter into this Memorandum pursuant to the March 7, 2005, Joint Powers Agreement between Santa Fe County and the City of Santa Fe and associated state, county and municipal laws related thereto.

D. BACKGROUND

1. The BDD Project is designed to divert water from the Rio Grande for use by the City and County of Santa Fe water utilities in the Santa Fe area and will provide a source for the water supply systems of Santa Fe County, the City of Santa Fe and Las Campanas, LLP ('BDD Project partners'). The water to be diverted is comprised of San Juan-Chama Project water (a U.S. Bureau of Reclamation interbasin water transfer project) and native New Mexico state waters regulated by the State of New Mexico.

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

3. LANL is located on the Pajarito Plateau above the Los Alamos/Pueblo Canyon (LA/P Canyon) system. The LA/P Canyon system intermittently and infrequently flows to the Rio Grande just below the Otowi Bridge and upstream of the BDD Project planned point of diversion. The LA/P

1 watershed contains sediments with LANL-origin contamination from historic releases from LANL.
2 These sediments could transport to the Rio Grande during infrequent intermittent flows. The LA/P
3 Canyon watershed has been investigated under the Compliance Order on Consent with the New
4 Mexico Environment Department, and measures (including infrastructure) to reduce the transport
5 of contaminated sediments have been implemented.

6 4. The New Mexico legislature encouraged the BDD Board and DOE to memorialize their
7 agreement to certain activities relating to the mitigation and monitoring of LANL origin water quality
8 contaminants. The New Mexico legislature passed resolutions in 2009 and 2010, and this
9 Memorandum will address the issues contained in those memorials.

10 5. In 2007, the BDD Board requested a written agreement with LANL and DOE, and this
11 Memorandum represents a resolution of the surface water issues requested by the BDD Board.
12 This Memorandum represents an agreement between the parties that water quality management
13 and monitoring are mutual priorities and the activities described in this Memorandum are consistent
14 with, and will be carried out subject to, the policies, regulations, and applicable laws that pertain to
15 the parties.

16 6. This Memorandum describes sampling and reporting activities relating to LANL-origin water
17 quality contaminants that will be performed in support of the BDD Project and the diversion of
18 drinking water from the Rio Grande.

19 7. The Agreement Principles outlined in this Memorandum will be utilized by the public and the
20 BDD Board to inform the operation of the BDD Project, and will provide information that will guide
21 the future water quality policies and priorities of the parties.

22 **E. AGREEMENT PRINCIPLES**

23 **1. LA/P Canyon Early Notification Gaging System**

24 Purpose: The purpose of the early notification system is to provide real time streamflow data to the
25 BDD Project at the following locations:

- 26 • Station E060 in Pueblo Canyon above the Los Alamos Canyon confluence,
- 27 • Station E050 in Los Alamos Canyon above the Pueblo Canyon confluence, and
- 28 • Station E110 in lower Los Alamos Canyon above its confluence with the Rio Grande.

29 Real-time stream flow data from these stations will enable the BDD Project to make decisions
30 regarding facility operations, including temporarily ceasing diversion of water from the Rio Grande.

31 Description: The components of the early notification system include three stations each equipped
32 with gaging (flow measurement) capabilities, real-time conveyance of stream-flow data, and
33 automated stormwater samplers. Station E110 will also be equipped with camera capabilities or
34 some other means of confirming real-time flow events, as permitted by the Pueblo of San Ildefonso.
35 The early notification system also includes DOE transmittal to the BDD Project any rain gage data
36 that DOE and/or LANL have available for DOE property in the Los Alamos Canyon watershed, as

soon as practical. The BDD Project will provide DOE a list of recipients to receive this notification electronically.

System Design/Performance Standards: Flow measurements at the gaging stations shall be measured within a trapezoidal supercritical-flow flume design as reported in "Techniques of Water-resources Investigations of the United States Geological Survey, Chapter A14, Use of Flumes in Measuring Discharge" (F.A. Kilpatrick and V.R. Snyder, 1983). This flume is designed to accurately measure stream flows between approximately 1 and 350 cubic feet per second (cfs). The system shall be capable of a low flow trigger stage of 5 cfs (and will be capable of being programmed later to a different trigger level, as agreed to by BDD and DOE in the Biannual Review Process described below). The amount of time from when a station triggers to when the notification is available to the BDD Project will be as quickly as is practical (see Appendix A for specifications).

Telemetry Performance Standard: See Appendix A.

Maintenance, Inspection, Repair and Replacement: DOE shall maintain the early notification system as necessary to support the purpose and performance standards described above. The gaging stations shall be inspected once per month and after each flow event throughout the year. Maintenance activities will be performed in accordance with LANL standard operating procedures listed in Appendix A, and includes: ensuring data logger is powered up and operational, manual data retrieval is functioning, load testing of battery and replacement of battery if needed, removing snow from solar panel in winter months if needed, removing debris from stream channel if needed, performing discharge measurement direct or indirect or ice measurement if required, checking datum and reference point levels when required. In the event that any station is not functioning, DOE shall immediately notify the BDD Project and repair the station so the time period of inoperability shall be as short as possible. The inspections and repair schedule will be contingent on safe working conditions. If the period of inoperability has exceeded or is expected to exceed 72 hours for flow measurement equipment, or exceeded or will exceed 48 hours for telemetry equipment, DOE will communicate as quickly as practical via e-mail a written description of the station's inoperability to the BDD Project, including a description of the activities and the schedule necessary to restore operability based on best estimate of availability of equipment and personnel. DOE is responsible for all equipment necessary to measure and transmit the flow information, and the BDD Board is responsible for all equipment necessary to receive the flow information.

2. LA/P Canyon Storm Water Quality Sampling System

Purpose: To provide water-quality contaminant sampling data from flow events at the stations described above in order to characterize contaminants in LA/P Canyon flows.

Description: The components of the event sampling system include three stations each equipped with automated samplers that will be triggered by the occurrence of runoff at these stations as described below. DOE will fund all sampling activities for this water quality system.

System Design/Performance Standards: The samplers shall be capable of collecting samples from flows greater than 5 cfs. The analyte list for the samplers is contained in Appendix A of this Memorandum and is generally consistent with, but contains negotiated changes to, the NMED-approved Los Alamos and Pueblo Canyons Sediment Transport Monitoring Plan for storm-water

1 monitoring in LA/P Canyon. Consistent with the NMED approved workplan, sampling will be
2 conducted from June to October of each year at each of the three gages. The parties will review
3 the available data, the analyte list and the sampling protocols (e.g. trigger stage, sample collection
4 process, etc.) during the Biannual Review process and can consider changes in accordance with
5 the Memorandum amendment provision and Biannual Review process described below. DOE will
6 notify BDD of any changes to the NMED-approved workplan. The collection and processing of
7 samples will be conducted in accordance with LANL standard operating procedures (SOPs) listed
8 in Appendix A.. The analytical methods are established by contract with DOE's analytical service
9 providers and will follow EPA guidelines and methods.

10 Maintenance, Inspection, Repair and Replacement: DOE shall maintain the event sampling
11 system as necessary to support the purpose and performance standards described above. The
12 samplers shall be inspected no less than weekly from June to October of each year, and after each
13 flow event and/or 72 hours between flow events to collect samples. General maintenance will be
14 performed in accordance with LANL SOPs listed in Appendix A, and will include ensuring sampler
15 is powered up and operational, load testing of battery and replacement of battery, inspection of
16 sampler pump tubing, line, and intake to ensure no air leaks, cracks or plugs, and test sample
17 collection cycle to ensure correct programming, tripping and volumes are correct. In the event that
18 any station is not functioning, DOE shall immediately notify the BDD project and repair the station
19 so the time period of inoperability shall be as short as possible. The inspections and repair
20 schedule will be contingent on safe working conditions. If the period of sampler inoperability has
21 exceeded or is expect to exceed 48 hours, DOE will communicate as quickly as practical via email
22 a written description of the station's inoperability to the BDD Project, including a description of the
23 activities and the schedule necessary to restore operability based on a best estimate of availability
24 of equipment and personnel.

25 **3. Rio Grande at BDD Project location Sampling Program**

26 Purpose: To provide event-based sampling of change in stage in the Rio Grande or when triggered
27 by notification of flows in Los Alamos Canyon at the E110 Gaging Station.

28 Description: The components of the sampling system include a dedicated sampling station
29 equipped with an automated sampler that can be triggered on a regular schedule, and that can
30 also be triggered by notification of Los Alamos Canyon flows at the E110 Gaging Station. DOE will
31 fund the installation of a sampler as described in Appendix A which will be capable of sampling
32 E110 gage triggered events, stage actuated events and other sampling schedules. Irrespective of
33 the procurement process used to acquire and install the sampler (see Appendix A), the BDD Board
34 shall take title to the sampling system at no cost, and shall thereby own and operate the sampling
35 system. DOE will fund up to 30 sampling events in the 5 year term of this Memorandum, as
36 determined by the BDD Board, and for those analytes described in Appendix A.

37 System Design/Performance Standards: The analyte list for this location is contained in Appendix
38 A of this Memorandum. The parties will review the analyte list and sampling protocol during the
39 Biannual Review process and will make changes in accordance with the Memorandum amendment
40 provision and Biannual Review process described below. The parties will exchange information
41 and seek to keep the Appendix A analyte list generally consistent with, but containing negotiated
42 changes to, the NMED sampling programs on the Rio Grande, however such changes will require

the consent of both parties. The BDD Board will be responsible for the collection of samples in accordance with standard operating procedures to be developed with DOE and NMED.

Maintenance, Inspection, Repair and Replacement: DOE will fund the maintenance, inspection, repair and replacement of the sampler as described in Appendix A. The BDD Board shall own and operate the sampling system, and thereby be responsible for the maintenance, inspection, repair and replacement of the system and its components.

4. Rio Grande Contaminant Fate Analysis

DOE will fund for a one year period the analytes listed in Appendix A for: 1. the raw Rio Grande water at the BDD Project location, 2. the sediment return line of the BDD Project and, 3. the finished water produced by the BDD Project Water Treatment Plant. These samples will be monthly composites of flow weighted daily sampling. The BDD Board will be responsible for the collection of samples in accordance with standard operating procedures to be developed with DOE and NMED.

5. Data Sharing

DOE shall be responsible for all costs associated with sampling analyses described in this Memorandum.

Analytical results of E050 and E060 sampling will be made available to the BDD Project via the RACER database (the Risk Analysis, Communication, Evaluation, and Reduction project is managed by the NM Community Foundation) within 30-60 calendar days after DOE receives sampling results from the analytical laboratory. Analytical results for E110 sampling will be made available as soon as practicable within the constraints of the agreement between DOE and Pueblo de San Ildefonso governing the collection and reporting of such data. Paper copies of the data will also be transmitted to the BDD Project within 90 days after DOE receives sampling results and validation from the analytical laboratory.

Analytical results of Rio Grande at BDD Project location and Rio Grande Contaminant Fate sampling programs will be provided directly to the BDD Project and DOE as soon as they are available.

6. Coordination

DOE and the BDD Project Manager will coordinate with Pueblo de San Ildefonso and the New Mexico Environment Department on any issues related to the implementation of this Memorandum, and will engage in any consultation required to accomplish the purposes of this Memorandum.

7. BDD Project Rio Grande Diversion Records

The BDD Project will make records available to the DOE when diversions have ceased, and this information shall be used in the Biannual Review process to identify changes to Appendix A, however such changes will require the consent of both parties.

8. Biannual Review

The BDD Project Manager and DOE staff shall meet twice annually to review the functioning of the early notification system and sampling programs, in March and September of each year. During this Biannual Review process, changes can be made only to Appendix A (with a presumption that such changes will be consistent with changes to the NMED approved sampling plan for LAMP Canyons), provided however that such changes will require the consent of both parties. The parties shall endeavor to keep the sampling conducted pursuant to this Memorandum consistent with changes to NMED sampling programs, subject to the provisions that govern changes to Appendix of this Memorandum. The Los Alamos Site Office Environmental Program Manager and BDD Project Manager are authorized to make such changes, provided a written Appendix A amendment is approved and executed by the authorized representatives of the parties. Any changes to this Memorandum outside of the scope of Appendix A must be made through an amendment to this Memorandum as described below and executed in the same manner as this Memorandum.

F. Contacts

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

DOE

Los Alamos Site Office
George Rael
Manager
Environmental Projects Office
Los Alamos Site Office/NNSA/DOE
phone: 505-606-0397
cell: 505-690-0734
grael@doeal.gov

with a copy to:

DOE Counsel
Silas DeRoma
phone: 505-667-4668
email: sderoma@doeal.gov

BDD Board

BDD Project Manager
Rick Carpenter
Sangre de Cristo Water Division, City of Santa Fe
801 San Mateo Road
Santa Fe, NM 87505
cell: 505-660-5696
email: rrcarpenter@santafenm.gov

1
2 **with a copy to:**
3 BDD Board Counsel
4 Nancy Long
5 Long, Pound and Komer
6 2200 Brothers Road
7 PO Box 5098
8 Santa Fe NM 87502
9 cell: 505-470-2158
10 email: nlong@nm.net
11

12 **G. Period of Agreement, Modification, or Termination**

13 1. This memorandum is effective upon the signature of the BDD Board and DOE as shown below.
14 This agreement shall expire five years from the date of the last signature, or may be terminated
15 earlier as described below.

16 2. The BDD Board and DOE may modify this Memorandum by written amendment and in the
17 same manner as this Memorandum was executed. This Memorandum may not be amended or
18 superceded by other formal agreements without the consent of the parties.

19 3. The BDD Board and DOE may terminate this Memorandum by mutual written consent, and a
20 party's intent to seek termination shall be provided to the representatives listed with 90 days notice.

21 4. If this Memorandum has not been terminated before the date of expiration and the parties agree,
22 this Memorandum shall continue without interruption in full force and effect until amended,
23 superceded or terminated by the parties.

24 **H. Other Provisions**
25

26 1. Nothing in this Memorandum is intended to conflict with current requirements of the parties or
27 applicable laws. Any such conflicting term shall be invalid, but the remainder of the Memorandum
28 shall remain in effect. If a term is deemed invalid, the parties shall immediately review the
29 Memorandum and take appropriate action, including amendment or termination of the
30 Memorandum. The activities described in this Memorandum are consistent with, and will be
31 carried out subject to, all known policies, regulations, and applicable laws that pertain to the parties.
32

33 2. If the parties disagree over how to interpret this Memorandum, representatives of the parties
34 shall notify and present their differences to each other in writing in order to reconcile the dispute. If
35 the parties fail to resolve their differences within 30 days, the BDD Project Manager and Los
36 Alamos Site Office Environmental Projects Office Manager shall prepare a written description of
37 the dispute and the BDD Board Chair and DOE Environmental Programs Manager shall meet to
38 reconcile the dispute. These representatives shall use efforts such as negotiation, facilitation and
39 mediation to resolve the dispute.
40

41 3. This Memorandum in no way restricts the parties from participating in any activity with other
42 public or private agencies, organizations, or individuals.

4. Activities described in this Memorandum are subject to the availability of appropriated funds. The BDD Board and Los Alamos Site Environmental Projects Office Manager shall make the appropriation of funds for the activities described in this Memorandum a priority when seeking regular or project specific funding requests.

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

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

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

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

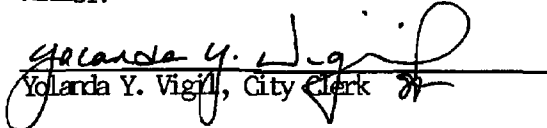
BDD Board


Rebecca Wurzbarger, BDD Board Chair, DATE

DOE


Dr. Ines Triay, Assistant Secretary for Environmental Management, Department of Energy, DATE

ATTEST:


Yolanda Y. Vigil, City Clerk

Appendix A

The tables that follow the text below contain the analytes that will be sampled 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 be designed to provide a received signal level at each receiver with a fade margin of no less than 25 dBm above the equipments 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. LA/P Canyon flow confirmation at the E110 gauging station: [This section contingent on Pueblo de San Ildefonso review and approval]
3. The amount of time between a station trigger and when notification is available to the BDD Project will be as short as is practical, with a goal not to exceed 1 minute.

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, E060, and E110 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: PCBs, gamma spec, iso pu, Sr-90, dioxin/furans, target analyte list metals, gross alpha, iso u, Am-241 (alpha spec), SSC
4. E110 will be analyzed for filtered and unfiltered TAL Metals and radionuclides.
5. All event exceeding 5 cfs at E050, E060 and E110 will be analyzed for the following parameters.

Regarding Rio Grande at Buckman Sampler:

The sampler will have functionality sufficient to receive a telemetry signal from early warning and operator triggered, stage & flow actuator, flowlink software, datalogger, and the ability to integrate a parallel NMED sampler.

The BDD Board and DOE agree to apply for and utilize a DOE grant to fund the maintenance, inspection, repair and replacement of the Rio Grande at Buckman sampler described above in this Appendix and in the Memorandum of Understanding. If such a grant is not available by October 1, 2010 then DOE agrees to install, implement and operate this sampler. Furthermore, and until the Rio Grande at Buckman sampler is operational, DOE agrees to equip the existing NMED sampler located at Buckman with the capability to receive a telemetry signal from the E110 gage as soon as practical following the execution of this MOU. The BDD Board will be responsible for all permit requirements and will provide DOE with a statement of work and a cost estimate for the sampler by June 1, 2010.

Regarding all detection limits in the analyte tables that follow:

Values will be reviewed at the first Biannual Review meeting, using the following principles: 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).

**Table 1: Standard Operating Procedures for the
BDD/DOE Memorandum of Understanding**

SOP Number/Title	Application			
	Stream Gage/Sampler Maintenance	LA/P Canyon Storm Water Quality Sampling	Rio Grande at BDD Project Location Sampling	Rio Grande Contaminant Fate Analysis
LANL Procedures				
SOP-5213 Collecting Storm Water Runoff Samples and Inspecting Samplers ¹	✓	✓		
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	✓			
BDD Procedures				
BDD SOPs			✓	✓

¹Or equivalent SOP used by DOE contracted sampling subcontractors.

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

Analytes	Method	Detection Limit	Field Prep Code
SSC	EPA:160.2	3 mg/L	UF
TAL metals (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
Sr-90	EPA:905.0	0.5 pci/L	F, UF
Am-241	HASL-300:AM-241	0.05 pci/L	F, UF
Gross gamma	EPA:901.1	15 pci/L	F, UF
Cs-137	EPA:901.1	5 pci/L	F, UF
Co-60	EPA:901.1	5 pci/L	F, UF
Na-22	EPA:901.1	10 pci/L	F, UF
Np-237	EPA:901.1	40 pci/L	F, UF
K-40	EPA:901.1	75 pci/L	F, UF
Pu (isotopic)	HASL-300:ISOPU	0.05 pci/L	F, UF
U (isotopic)	HASL-300:ISOU	0.05 pci/L	F, UF
dioxin-furans	SW-846:8290	0.2 – 0.5 pg/L	UF
PCBs	EPA 1668A-Congener Method	20 – 150 pg/L	UF
Ra-226 & -228	EPA:903.1 & EPA:904.4	1 pci/L	F, UF

Table 3: Rio Grande at BDD Project Location Sampling Program

Analytes	Method	Detection Limit	Field Prep Code
Gross alpha	EPA:900	3 pci/L	F, UF
Gross beta	EPA:900	3 pci/L	F, UF
Sr-90	EPA:905.0	0.5 pci/L	F, UF
Am-241	HASL-300:AM-241	0.05 pci/L	F, UF
Gross gamma	EPA:901.1	15 pci/L	
Cs-137	EPA:901.1	5 pci/L	F, UF
Co-60	EPA:901.1	5 pci/L	F, UF
Na-22	EPA:901.1	10 pci/L	F, UF
Np-237	EPA:901.1	40 pci/L	F, UF
K-40	EPA:901.1	75 pci/L	F, UF
Pu (isotopic)	HASL-300:ISOPU	0.05 pci/L	F, UF
U (isotopic)	HASL-300:ISOU	0.05 pci/L	F, UF
Ra-226, -228	903.1, 904	1 pci/L	F, UF
TAL metals (23), plus Hg	EPA:200.7, EPA: 200.8, EPA:245.2	0.2 – 300 mg/L	F, UF
TDS	EPA:160.1	10 pci/L	F
TOC	SW-846:9060	1 mg/L	UF
SSC	EPA:160.2	3 mg/L	UF
dioxin-furans	SW-846:8290	0.2 – 0.5 pg/L	UF
PCBs	SW-846:8082	0.2 ug/L	UF
PCBs	EPA 1668A-Congener Method	20 – 150 pg/L	UF
PADS-particle size analysis	ASTM C-1070-01	0.1 %	UF
perchlorate	SW846 6850 Modified	0.2 mg/L	UF

Table 4: Rio Grande Contaminate Fate Analysis

Analytes	Method	Detection Limit	Field Prep Code
Gross alpha	EPA:900	3 pci/L	F, UF
Gross beta	EPA:900	3 pci/L	F, UF
Sr-90	EPA:905.0	0.5 pci/L	F, UF
Am-241	HASL-300:AM-241	0.05 pci/L	F, UF
Gross gamma	EPA:901.1	15 pci/L	F, UF
Cs-137	EPA:901.1	5 pci/L	F, UF
Co-60	EPA:901.1	5 pci/L	F, UF
Na-22	EPA:901.1	10 pci/L	F, UF
Np-237	EPA:901.1	40 pci/L	F, UF
K-40	EPA:901.1	75 pci/L	F, UF
Pu (isotopic)	HASL-300:ISOPU	0.05 pci/L	F, UF
U (isotopic)	HASL-300:ISOU	0.05 pci/L	F, UF
Ra-226, 228	903.1, 904	1 pci/L	F, UF