

MEMORANDUM

TO: City of Santa Fe Public Utilities Committee
City of Santa Fe Water Conservation Committee
Buckman Direct Diversion Board

FROM: Rick Carpenter, Water Resources and Conservation Manager *RC*

VIA: Nick Schiavo, Acting Public Utilities Department and Water Division *NSA*
Director

DATE: September 20, 2013

SUBJECT: Update on Drought, Monsoon, and Water Resource Management

CURRENT UPDATE – GENERAL WATER RESOURCE MANGEMENT

As the Committee/Board is aware, our region is still suffering through a severe drought. Our region has gone through two consecutive years of record drought and heat. It is now apparent that we are wrapping up a third consecutive year of severe drought and heat which will present significant challenges to all water purveyors, utilities, and irrigators going forward into next year. Even though much of the State and our region have received moderate monsoonal rains overall (July – September), most of the state of New Mexico remains in “extreme” drought conditions. New Mexico appears to be the epicenter of the western U.S. drought. Although, rainfall associated with the September monsoonal flow produced record-breaking rainfall totals across the state, including the Santa Fe area. Weather prediction models indicate that, at least through October of this year, drought conditions in the southwest (especially Arizona and New Mexico) should improve slightly, but that overall drought conditions will still persist. Above average temperatures are also expected. Snowpack accumulation predictions for the coming winter are still somewhat nebulous but may be below normal according to some models.

This current drought is extreme, but what sets it apart from previous extreme droughts is that, absent significant winter snow the rest of this year, the region will enter into next spring and summer without very much carry-over water in regional reservoirs – they are at low levels (except for the local McClure reservoir in Santa Fe). This condition could make next year much more challenging than the current year has been. However, the City of Santa Fe has invested in a robust and diverse portfolio of four distinct water supply sources that allows for flexibility in meeting demand: Buckman well field, City well field, Canyon Road Water Treatment Plant on the Upper Santa Fe River, and the Buckman Direct Diversion on the Rio Grande.

Earlier this year, BoR/USACoE models indicated the probability of critically low flows in the Rio Grande at Otowi Gage, and they were correct - the last few months have seen flows as low as about 350 cubic feet per second (CFS). In a “normal” year flow ought to be around 1,000 cfs or more. However, during the prolonged rains of September 10th – 17th, the record-breaking rains produced flows exceeding 8,000 cfs at times at Otowi Gage.

Since CRWTP and BRWTP have been unable to produce very much water lately, City and Buckman wells are providing most of the water supply to meet demands.

LOCAL CONDITIONS

Source of Supply Utilization Summary

August 2013

City Wells	79.01mg	242.47af
Buckman Wells	208.40mg	639.55af
CRWTP	72.57mg	222.70af
BRWTP	8.18mg	25.10af
<i>Other Wells</i>	<i>0.10mg</i>	<i>0.32af</i>

Upper Santa Fe River/CRWTP

	Reservoir Level	Santa Fe Snow Gage	Reservoir Inflow
September 18, 2013	60.3%	0.0 inches	18.40 MGD
5-Year Average This Date (2008 – 2012)	54.4%	0.0 inches	1.56 MGD

Heading into September, water resource managers for the City were expecting the Canyon Road Water Treatment Plant to experience significant supply shortfalls later this year and into next year – due in part to severely reduced inflows resulting from the drought, but also due to the planned construction projects inside of the reservoir footprints. However, as of September 18th, and due to the recent heavy rains, storage in McClure reservoir is up from 29.0% to 72.8%, and increasing daily (inflow = 18.35 mgd on 9/18/13). Flows into Nichols are being by-passed due to construction. Total combined storage for both reservoirs is therefore at 60.3% of capacity. Inflows are expected to continue for several more days and so McClure could actually reach close to full capacity by the time inflows decrease back down to normal levels for this time of year.

Buckman Regional Water Treatment Plant

The last few months have seen flows as low as about 350 cubic feet per second (CFS). In a “normal” year flow at this time of the year ought to be around 1,000 cfs or more. However, during the prolonged rains of September 10th – 17th, the record-breaking rains produced flows exceeding 8,000 cfs at times at Otowi Gage. Turbidity and suspended sediment has also been very high, especially following intense monsoonal rain storms (as high as 7,020 ntu). For this reason, the BDD Project has been more-or-less shut down during the months of July, August, and most of September.

Rio Grande Basin

Surface flows in the Rio Grande and its tributaries have been well below normal, storage levels in regional reservoirs are very low currently (but rising due to recent storms), and the federal BoR recently stated that if there is no “meaningful moisture” received this winter/spring then this would mark the lowest water levels ever in New Mexico reservoirs prior to entering into a new irrigation season. The recent rains have helped river flows (at least temporarily) and regional reservoirs are receiving needed inflow, but normal to above normal snow pack is still needed this coming winter or reservoir levels will still be critically low heading into next irrigation season. Recent weather forecast models seem to be suggesting that snow pack this coming winter may be disappointing.

Note: Wild Earth Guardians has recently filed a notice of intent (NOI) to file suit against Middle Rio Grande Collaborative Program signatories, citing violations of the current Biological Opinion under the auspices of the Endangered Species Act. However, the BDD Project is not a signatory to the Collaborative Program so the Project is not currently named. The outcome of the NOI and possible subsequent law suit are uncertain at this time.

San Juan Basin

The streamflow forecast for the San Juan River Basin is 75 percent of the 30 year avg. (1981-2010) for 2013. San Juan-Chama contractors have received full allocation of San Juan-Chama Project water this year (up from a previous forecast of only 80%). However, most of this water has already been used by the larger purveyors and irrigators in the middle Rio Grande, and so they are no longer calling for/releasing their water. The water that is currently in the Rio Grande at Otowi Gage is therefore not so much imported San Juan-Chama water as it is environmental flows and native Rio Grande water. However, when water quality conditions permit, the BDD Project is still able to call for and receive its allocation of San Juan-Chama water.

Albuquerque Bernalillo County Water Utility Authority recently announced at a public meeting that as soon as water quality in the Rio Grande clears up, they intend to start calling for some of their banked San Juan-Chama water from Abiquiu Reservoir (and reduce use of their local groundwater wells).

It should be stressed that, conditions could significantly worsen for San Juan Chama Project deliveries next year if the drought persists (i.e., low snow pack this coming winter in the San Juan Basin), due to a lack of carry-over storage in Heron Reservoir and other reservoirs in the system. If conditions do not change, after deliveries are made out of Heron Reservoir this year, that reservoir will be heading into the next water –year at very low levels.

MEMORANDUM

TO: Buckman Direct Diversion Board

FROM: Nancy R. Long

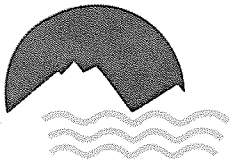
DATE: For Board Meeting of October 3, 2013

RE: **Amendment No. 4 to the PMFSA;
Increase of monetary authority for administrative approval of small
purchase contracts from \$50,000 to \$60,000**

The Project Management and Fiscal Services Agreement ("PMFSA") between the Buckman Direct Diversion Board and the City of Santa Fe has been amended on three previous occasions. In two instances, the amendments were made to increase the Project Manager's monetary authority to enter into contracts to keep pace with the monetary authority amount allowed by the City of Santa Fe (City Manager authority) and the state Procurement Code for small purchase thresholds. In one instance, clarification was made that the monetary authority does not include gross receipts tax. The Project Manager's current monetary authority is \$50,000.

The New Mexico Legislature recently amended the state Procurement Code in Senate Bill 443, which had an effective date of July 1, 2013. Among other actions, Senate Bill 443 increased the small purchase limits for procurement of services, construction, items of tangible personal property, and professional services to \$60,000. The City decided not to increase the City Manager's authority to approve contracts up to the new small purchase limit of \$60,000.00 but SFSWMA has increased its administrative authority to \$60,000.00.

We wanted to bring this issue to the Board's attention. In light of the City's decision not to increase small purchase administrative authority and, because the City serves as the BDDDB's procurement officer, it is recommended that the BDDDB maintain its administrative authority at this time to be consistent with the City.



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: September 23, 2013

To: Buckman Direct Diversion Board

Via: Nick Schiavo, Acting Water Division and PUD Director *NSA*

From: Rick Carpenter, BDD Project Manager *RC*

Subject: **Request Approval of Contract and Award of BID # 14/12/B with File Construction Inc. for Required Habitat Restoration Efforts for the BDD Project, in the amount of \$106,586.53.**

BACKGROUND

The BDD Project is required to perform certain environmental mitigation measures pursuant to the Project's NEPA Environmental Impact Statement. Generally, the BDD is required to remove certain non-native vegetation, re-vegetate the areas with native riparian and upland species, and maintain the newly restored habitat until it becomes naturally self-sufficient. The BDD Project is required to restore approximately 7 acres of habitat adjacent to the Rio Grande and the existing BDD intake/raw water lift station at the terminus of Buckman Road. This work is closely dependent upon the seasons of the year and must be completed in Fall-Winter.

The restoration efforts will consist of implementing forestry treatments to approximately a total of 7 acres of non-native forest dominated by saltcedar, Russian olive and Siberian elm. The purpose of this work is to prepare the site for follow-up seeding and revegetation with native plants. Forestry treatments will be implemented in a manner that minimizes soil disturbance, minimizes damage to existing native plants within the project area, and minimizes the need for follow-up herbicide applications to non-native tree root-sprouts. In addition to the forestry work, the project involves excavating a small backwater channel and floodplain depression that will eventually be planted with native willows and cottonwoods.

RECOMMENDATION

The award of contract is based on a competitive bid process. Staff recommends approval of the contract. Funds for this contact exist in the approved BDD Carve-out Budget, environmental line item.



**BUCKMAN DIRECT DIVERSION BOARD
PROFESSIONAL SERVICES AGREEMENT
FOR
FILE CONSTRUCTION, LLC**

THIS AGREEMENT is made and entered into by and between the BUCKMAN DIRECT DIVERSION BOARD (the "BDDDB" or "Board") and File Construction, LLC ("Contractor"). The 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 in Exhibit A hereto.

2. STANDARD OF PERFORMANCE; LICENSES

A. Contractor represents that it possesses the experience and knowledge necessary to perform the services described under this Agreement.

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. The BDDDB shall pay to the Contractor in full payment for services rendered, a sum not to exceed \$98,520.19, plus applicable gross receipts taxes of \$8,066.34.

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. Invoices for services will be made on a monthly basis. Payment shall be made upon receipt and approval by the BDDB 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 BDDB for the performance of this Agreement. If sufficient appropriations and authorization are not made by the BDDB, this Agreement shall terminate upon written notice being given by the BDDB to the Contractor. The BDDB'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 BDDB and terminate on December 31, 2014, unless terminated sooner pursuant to Article 6 below.

6. **TERMINATION**

A. This Agreement may be terminated by the BDDB upon 10 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 BDDB original copies of all work product, research or papers prepared under this Agreement.

(2) If compensation is not based upon hourly rates for services rendered, the BDDB shall pay Contractor for the reasonable value of

services satisfactorily performed through the date Contractor receives notice of such termination, and for which compensation has not already been paid.

(3) If compensation is based upon hourly rates and expenses, then Contractor shall be paid for services rendered and expenses incurred through the date Contractor receives notice of such termination.

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 BDDB and are not employees of the BDDB. Contractor, and its agents and employees, shall not accrue leave, retirement, insurance, bonding, use of BDDB vehicles, or any other benefits afforded to employees of the BDDB 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 subcontractors retained by Contractor in the performance of the services under 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 the Contractor without the prior written approval of the BDDB.

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

The 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 BDDB. Contractor shall not subcontract any portion of the services to be performed under this Agreement without the prior written approval of the BDDB.

11. RELEASE

Contractor, upon acceptance of final payment of the amount due under this Agreement, releases the BDDB, the City of Santa Fe and Santa Fe County, their officers, officials and employees, from all liabilities, claims and obligations whatsoever arising from or under this Agreement. Contractor agrees not to purport to bind the BDDB to any obligation not assumed herein by the BDDB 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: (a) obtained, and upon the Board's request provided to the Board, insurance certificates reflecting evidence of all insurance required herein; however, the Board reserves the right to request, and Contractor shall submit, copies of any policy upon reasonable request by the Board; (b) obtained Board approval of each company or companies as required below; and (c) 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 Board.

B. Further, Contractor shall not modify any policy or endorsement thereto which increases the Board'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)	\$2,000,000
Products/Completed Operations Aggregate Limit	\$2,000,000
Personal Injury Limit	\$2,000,000
Each Occurrence	\$1,000,000

(2) Automobile Liability. For all of the 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 Board 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: (1) the policy retroactive date is on or before the date of commencement of the first work performed under this Agreement; and (2) 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, Contractor's 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 \$1,000,000 Each Accident

Bodily Injury by Disease \$1,000,000 Each Employee

Bodily Injury by Disease \$1,000,000 Policy Limit

Contractor shall provide an endorsement that the insurer waives the right of subrogation against the Board, the 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 Board 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. 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 Board within four working days of Contractors 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 "VII" 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 Board. The Board 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 Board, that the policy or policies providing coverage for Commercial General Liability must be endorsed to include as an Additional Insured, the Board, the City of Santa Fe and 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 Board, the City of Santa Fe and 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 Board.

(3) Contractor agrees that for the time period defined above, there will be no changes or endorsements to the policy that increase the Board's exposure to loss.

(4) Before performing any Professional Services, Contractor shall provide the Board with all Certificates of Insurance accompanied with all endorsements.

(5) The Board 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 Board. The Board will reimburse Contractor for the cost of the additional premium for any coverage requested by the Board in excess of that required by this Agreement without overhead, profit, or any other markup.

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

13. INDEMNIFICATION

A. GENERAL INDEMNIFICATION: To the greatest extent permitted by law, Contractor shall indemnify, hold harmless and defend the Board, 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 Contractors 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.

B. INDEMNIFICATION FOR PROFESSIONAL ACTS, ERRORS OR OMISSIONS. Except for professional acts, errors or omissions that are the result of established gross negligence or willful or wanton conduct on the part of Contractor or its employees, agents, representatives or sub-consultants, the General Indemnification shall not apply to professional acts, errors or omission unless covered by Professional Liability insurance required in this Agreement.

14. NEW MEXICO TORT CLAIMS ACT

Any liability incurred by the BDDB in connection with this Agreement is subject to the immunities and limitations of the New Mexico Tort Claims Act, Section 41-4-1, et. seq. NMSA 1978, as amended. The BDDB and its "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 BDDB 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 BDDB 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 and the State Auditor. The BDDB 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 BDDB 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 BDDB. In any action, suit or legal dispute arising from this Agreement, Contractor agrees that the laws of the State of New Mexico shall govern. The parties agree that any action or suit arising from this Agreement shall be commenced in a federal or state court of competent jurisdiction in New Mexico. 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 required to be given under this Agreement shall be in writing and served by personal delivery or by mail, postage prepaid, to the parties at the following addresses:

**BUCKMAN DIRECT DIVERSION
BOARD:**

Buckman Direct Diversion Project
341 Caja del Rio,
Santa Fe, New Mexico 87506
Attn: Shannon Jones,
Facilities Manager

CONTRACTOR:

File Construction, LLC
116 Industrial Ave., NE
Albuquerque, NM 87107

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BUCKMAN DIRECT DIVERSION BOARD

By: _____
Kathleen S. Holian, BDD Board Chair
Date: _____

ATTEST:

Geraldine Salazar, County Clerk

CONTRACTOR:

File Construction, LLC
116 Industrial Ave., NE
Albuquerque, NM 87107

Name: _____
Signature: _____
Title: _____
Date: _____

APPROVED AS TO FORM:



Nancy R. Long, BDDB Counsel

NM Taxation & Revenue CRS #
City of Santa Fe Business
Registration #

APPROVED:

Marcos A. Tapia, City Finance Director

728000
Business Unit/Line Item

ATTEST:

Yolanda Y. Vigil, City Clerk
File Date: _____

EXHIBIT A

Scope of Services

This scope of services is for removing non-native vegetation and planting native plant species to a 7-acre area along the Rio Grande. The project also involves herbicide applications to root-sprouts of non-native plants in an additional 8-acre area immediately north (upstream) of the 7-acre treatment area. The overall purpose of this work is to restore native vegetation and improve habitat for a variety of wildlife species and to meet mitigation obligations associated with construction of the Buckman Direct Water Diversion Project. **Maps 1, 2, and 3 (attached)** display aerial views and provide supporting information of the project area and locations of the different project treatment zones. This work will be performed as part of the overall Buckman Direct Diversion (BDD) Project, as part of the Project's required mitigation requirements pursuant to the environmental impact statement under the auspices of NEPA.

Cost proposals are requested for implementing forestry treatments to non-native forest dominated by saltcedar, Russian olive and Siberian elm. The purpose of this work is to prepare the site for follow-up revegetation with native plants. Forestry treatments need to be implemented in a manner that minimizes soil disturbance, minimizes damage to existing native plants within the project area, and minimizes the need for follow-up herbicide applications to non-native tree root-sprouts. In addition to the forestry work, the project involves excavating a small backwater channel and floodplain depression, planting native vegetation, and applying herbicide to non-native plants.

This work will be performed in a riparian forest setting, near the existing Buckman Direct Diversion intake structure and raw water lift station, adjacent to the Rio Grande (east bank), and near the terminus of Buckman Road at the river's edge.

The following detailed treatment specifications will be provided in order to meet the aforementioned project objectives:

Forestry Tasks Forestry Treatments to Non-Native Vegetation

The project includes treating 7-acres of non-native forest dominated by Saltcedar, Russian olive and Siberian elm. These treatments will be implemented in **Zones 2 through 13 shown in Map 2**. Forestry work specifications described below assume use of small (150 HP or smaller) loader type tractor(s) with masticating head(s); however, all work could potentially be implemented without these tractors as long as project objectives and completion schedule are met. The forestry treatments must comply with the specifications described as follows:

Saltcedar and Russian Olive Trees

- All Saltcedar and Russian olive plants, regardless of stem size, shall be cut evenly near ground level with chainsaws.
- The freshly cut stumps will be sprayed immediately with a 50% solution of Garlon 3A herbicide (approved for use in aquatic environments) using a backpack sprayer and appropriate nozzle to minimize spraying or drift onto soil surface (refer to Herbicide Section below for details).
- Treated stump heights shall not exceed 3 inches above ground.

- Saltcedar and Russian stems, limbs and branches less than 4 inches in diameter can be masticated in place or pulverized using a tub-grinder/chipper. The contractor's decision whether to use masticating tractors for pulverizing these limbs and branches should be informed by the need to avoid damage to adjacent native vegetation and to minimize ground disturbance.
- If mastication tractors are used, limbs and branches sizes may not exceed approximately 3 inches in length and ½ inch in diameter. Mulch generated from mastication equipment shall not exceed a depth of 1 inch.
- All Saltcedar and Russian olive stems and limbs greater than 4 inches in diameter must be fed into a tub-grinder/chipper and pulverized into wood chips. The chipper will be staged along a dirt road that parallels the work area.
- All wood chips generated with the tub-grinder/chipper must not exceed 3 inches in length or 1/2 inch in diameter. These wood chips will be spread evenly across the dirt road surface to a depth not to exceed approximately six inches.
- Russian olive trees with basal stem diameters greater than 15 inches will be left in-tact (untreated).

Siberian Elm

- Siberian elm trees with stem diameters (at breast height – DBH) less than 15 inches shall be cut evenly near ground level with chainsaws.
- The freshly cut stumps will be sprayed immediately with a 50% solution of Garlon 3A herbicide (approved for use in aquatic environments) using a backpack sprayer and appropriate nozzle to minimize spraying or drift onto soil surface (refer to Herbicide Section below for details).
- Treated stump heights shall not exceed 3 inches above ground.
- Siberian elm stems, limbs and branches less than 4 inches in diameter can be masticated in place or pulverized using a tub-grinder/chipper. The contractor's decision whether to use masticating tractors for pulverizing these limbs and branches should be informed by need to avoid damage to adjacent native vegetation and to minimize ground disturbance.
- If mastication tractors are used, limbs and branches sizes may not exceed approximately 3 inches in length and ½ inch in diameter. Mulch generated from mastication equipment shall not exceed a depth of 1 inch.
- Siberian elm stems and limbs greater than 4 inches in diameter must be fed into a tub-grinder/chipper and pulverized into wood chips. The chipper will be staged along a dirt road that parallels the work area.
- All wood chips generated with the tub-grinder/chipper must not exceed 3 inches in length or 1/2 inch in diameter. These wood chips will be spread evenly across the dirt road surface to a depth not to exceed approximately six inches.
- Siberian elm trees greater than 15 inches DBH will be girdled and the exposed wood will be immediately sprayed with Garlon 3A herbicide. Tree girdling will be implemented as follows:
 - Use an ax, hatchet, chainsaw or hand saw to make an incision all the way around the trunk of the tree within 3 feet of the base. The cut should go through

the bark and the cambium (a spongy layer just under the bark), but should not penetrate much into the heart wood of the tree.

- Make a similar incision 6-8 inches above or below the first cut.
 - Peel off the section bark and cambium layer between the two cuts with a pry bar.
 - Apply Garlon 3A to the entire girdled portion of the stem (all the way around the tree).
- All Siberian elm trees targeted for girdling treatment will be pre-marked by the BDD's Field Representative with tape flagging.

Herbicide Applications

- The contractor is responsible for obtaining any National Pollutant Discharge Elimination System (NPDES) or other permits required by the Environmental Protection Agency or the New Mexico Department of Agriculture for applying herbicides near waters of the United States.
- Herbicides shall be applied by a NMDA Certified Herbicide Applicator.
- The Certified Applicator shall wear clothing and personal protective equipment as specified on the herbicide label.
- The contractor must prevent herbicide containers and equipment (mixing tanks, backpack sprayers, etc.) from spilling or overflowing. The contractor is responsible for daily inspections of herbicide mixing procedures by personnel, and of mixing and application equipment to make sure there are no leaks, clogging, significant wear or damage.
- Herbicide formulations shall be mixed or poured into spray equipment within designated staging areas. These staging areas must be located away from the river floodplain.
- Herbicide treatments to cut-stump surfaces and girdled Siberian elm trees will utilize aquatic approved formulations of triclopyr (Garlon 3A) herbicide mixed as a 50% solution. This herbicide formulation will be used in **Zones 2 through 13 (see Map 2)**.
- Water used for formulating shall only come from locations deemed appropriate by the BDD's Field Representative.
- Herbicide treatments to root-sprouts of non-native trees will utilize a 25% solution of Garlon 4 Ultra herbicide (or equivalent) applied as basal bark treatments. This treatment will be applied only to non-native root sprouts in **Zones 14, 15 and 17 (see Map 2)**. These basal bark treatments will be applied in October 2013.
- All herbicide treatments will be applied using backpack type spray units with appropriately outfitted wands and nozzles to assure direct contact with the target area of the plant to avoid herbicide drift.
- Herbicide must be applied in a manner that avoids spraying the soil surface as much as possible and in a manner that minimizes herbicide drift.
- Under no circumstance should herbicide be applied to non-target vegetation.
- Herbicide mixtures must contain a blue pigment dye (or other visible color) to allow inspectors to verify that all target plants have been treated as required. If the blue pigment dye is not apparent on the stump or girdled bark up to 72 hours following

application, then inspectors will ask the contractor to apply a fresh saw cut (or stem girdle) and re-apply herbicide.

- Herbicides will not be applied when winds exceed 15 miles per hour, when rain is forecasted for the local area within 24 hours of application, or when ambient air temperatures exceed 85°F.
- For non-native species receiving cut-stump and/or girdle treatments, herbicide must be applied to the freshly cut/exposed surfaces within 5 minutes after cutting/girdling. In situations where the stump herbicide application cannot be applied within the required 5 minutes, individual and/or groups of stumps can be left "high-stumped" (2-3 feet above the ground) and then re-cut and sprayed later when treatment conditions more favorable. However, all high-stumped stems must be subsequently cut to within 3 inches of the ground surface, and wood must be pulverized into chips as described above.

Protect Native Vegetation

- Damage to native woody vegetation during forestry operations should be avoided or minimized. The native species of primary interest for protection from damage include Rio Grande cottonwood, coyote willow, New Mexico olive, skunkbush sumac and mountain mahogany.
- The BDD's field representative can flag as individual native shrubs and trees to be preserved, if necessary, to assist the contractor with avoiding damage during non-native vegetation treatments. However, it is possible that not all individual native shrubs and trees will be marked, and the contractor must be familiar with identifying these species and avoiding damage whenever practicable.
- If significant damage during forestry operations to native shrubs and trees is deemed unavoidable by the contractor, the contractor must discuss the situation with the BDD's Field Representative before moving forward.

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Down Wood Placement

- The BDD mitigation project requires that some down wood be left on the ground for wildlife habitat. The requirement calls for approximately 15% ground-cover by Saltcedar and Siberian elm stems and branches.
- In no place will ground cover by these stems and branches exceed 15%.
- Saltcedar and Siberian elm branches and stems remaining on the ground should be variable in size, but shall not exceed approximately 4 inches in diameter or 8 feet in length. Any stacks of branches shall not exceed 2 feet above the ground surface.
- Russian olive trees are not included in this down-wood requirement, and all Russian olive stems, limbs and branches must be masticated or chipped to sizes not to exceed approximately 3 inches in length and ½ inch in diameter.

Treatment Exceptions

- Treatment Zones 9 and 10 (combined acreage equals 0.35 acres) are slated for excavation treatments (**see Maps 2 and 3**), so all standing vegetation, regardless of size class or species (with the exception of cottonwood), will be removed/masticated. No herbicide treatments or down wood requirements will be applied to this area. The perimeter of this 0.35 acre area will be staked by the BDD's Field Representative as clearly as possible, although the contractor must seek clarification of the area perimeter, as needed.

Earth Moving Tasks

A small (0.35 acres) portion of the project area will require earth moving tasks for creating a backwater channel and a floodplain depression. The purpose of these earth moving tasks is to lower the floodplain elevation to allow Rio Grande water to flow into these areas when the surface water elevation of the river rises during late spring snowmelt runoff. The floodplain depression is approximately 0.32 acres and is identified as Zone 10 in **Maps 2 and 3**. The acreage of the backwater channel is approximately 0.03 acres in total size, and is identified in the same maps as Zone 9.

As previously stated in the Forestry Task section above, all above-ground woody vegetation in Zones 9 and 10 will be removed and chipped, or masticated to ground-level. No cut-stump herbicide applications will occur in these locations.

Following mastication and/or tree removal and chipping, all stumps and large "near-surface" root material should be separated from the soil, masticated or chipped, and spread along the skid roads with other chipped material. "Near-surface" root material includes both tap roots and lateral tree roots greater than 1-inch in diameter within the top 15-inches of soil.

Once the stumps and near-surface root material have been removed from both Zones, Zone 10 should be lowered approximately 3 feet, so that the depth to groundwater does not exceed 3 feet (approximate final bottom elevation of 5,463 feet). The approximate excavation area dimensions for Zone 10 are L = 200 ft. x W = 85 ft. x D = 3 ft. Zone 9 should be lowered approximately 2 feet, so the depth to groundwater does not exceed 2 feet (approximate final bottom elevation of 5,462 feet). The approximate excavation dimensions for Zone 9 are L = 80 ft. x W 18 ft. x D = 2 ft. Side slopes around the perimeter of both Zones shall be no steeper than 3H:1V.

Spoils removed from Zones 9 and 10 will be deposited and spread evenly in pre-designated areas within the project site. **A spoil disposal area is shown in Map 3.** If additional spoil disposal areas are needed, another on-site location will be identified. No spoil or grub material will be hauled or disposed of off-site.

Revegetation Tasks

All plant material required for site revegetation has already been ordered, and will be paid for by the BDD. The contractor, however, will be responsible for pick-up, delivery, short-term plant maintenance (between pick up and installation), installing the native plant material within pre-designated planting locations within the 7-acre treatment area, and watering the plant materials during installation. Proper handling of plant material during transport and delivery is critical to ensuring revegetation success. The contractor must take appropriate measures to ensure that

plant poles, cuttings, and potted plant material is protected from desiccation, as this can strongly influence plant survival. The contractor must also ensure that all plant material is planted firmly into the water table. Plant material handling, transport and installation will be closely monitored by the BDD, and the contractor will be held responsible for costs associated with replacing and planting any plants damaged due to poor handling procedures between pick up and installation.

Plant types and numbers along with their pre-designated planting locations are described in **Table 1 and displayed in Map 2**. As specified in **Table 1**, the contractor must have a water wagon on-site during planting to help ensure that auger holes do not collapse when planting pole cuttings and long-stem tall pots. Augering must result in establishing an open hole to the water table before installing pole cuttings and long-stem tall pot plant material! Soils in Zones 4, 6, 7 and 11 are particularly sandy, so having a water wagon available is considered essential for moistening the auger holes during drilling to ensure they do not collapse prior to planting.

The City of Santa Fe will obtain all necessary permits to allow contractor to pump water from the river to fill water trucks / water wagons.

Table 1. Plant material information including planting location zones and equipment.

Plant Material	Installation Timing	Equipment Needed
980 coyote willow whips (6-8 ft lengths)	Winter 2014	To be planted in Zones 9 and 10. Need trackhoe type tractor for planting Zone 10 because willows will be installed in linear trenches about 3 feet to expose groundwater. Hammer drill with 4 ft bit can be used to plant willows in Zone 9 as long as the whips are in clear contact with the groundwater table.
431 cottonwood poles (10-12 ft lengths)	Winter 2014	Planted in Zones 2 through 13. Requires using tracked skid steer with rock auger bit. Auger should be 8' x 8". Will need water wagon to support augering to prevent sand collapses. Also will need to use trackhoe in Zone 12 because lots of cobbles will prevent successful augering. About 0.71 acres (44 cottonwood poles).
3150 long-stem (5-6 ft tall) rooted shrubs (known as "long-stem tall pots")	Winter 2014	Planted in Zones 3, 5, 8 & 12. Same equipment/planting techniques as for cottonwood poles. About 900 long-stem tall pots will need to be planted with a trackhoe in Zone 12.
1000 one-gallon shrubs	Winter 2014.	Planted in Zone 7 only. Soils very dry/sandy. Plants root systems about 14" long, so need a shovel to open hole. Watering schedule should assume 3x months btw. March and September.

Maintenance Watering of Potted Shrubs in Zone 7

Note in Table 1 that 1-gallon shrubs planted in Zone 7 will need to be watered throughout the 2014 plant growing season. As stated in the table, it is anticipated that these plants (1000 one-gallon) will need to be watered weekly in the first 3 months after initial planting. It is also anticipated that the watering can be scaled back to 2-3 times/month in the latter part of the season, depending upon local rainfall. While this is difficult to predict with certainty, the contractor should assume an average of three (3) watering events per month between March and August 2014 (18 watering events, total). To reiterate, only the 1000 shrubs planted in Zone 7 will require this maintenance watering.

Maintenance watering to shrubs in Zone 7 will be applied using a water wand / injection method. The water wand should be injected into the soil at approximately 18 inches below the soil surface. The insertion hole should be backfilled with soil and tamped closed with a boot. Damage to root materials should also be minimized during insertion of the wand. Photographs of the water wand / injection method are provided in **Figure 1**. The objective will be to apply 3-gallons of water to each shrub during each watering event. The City of Santa Fe will obtain all necessary permits to allow contractor to pump water from the river to fill water trucks / water wagons.

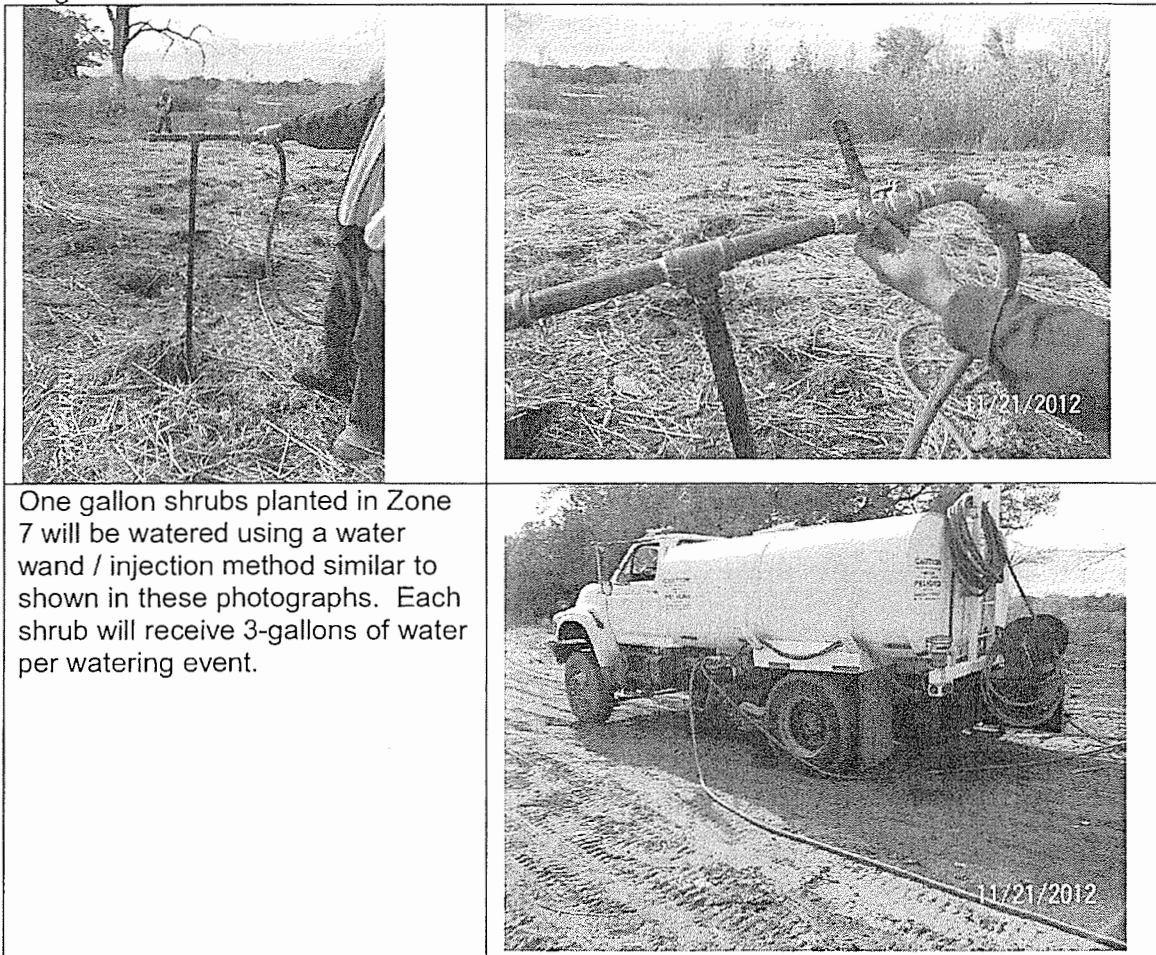


Figure 1. Photographs showing representative example of water wand/injection set-up.

Best Management Practices

This is a habitat restoration project adjacent to a drinking water intake structure along the Rio Grande. The contractor must closely adhere to Best Management Practices (BMP's). More specifically, the contractor will:

- Follow all precautions and BMP's specified in the project Storm Water Pollution Prevention Plan (SWPPP). The SWPPP is provided as Appendix B to this RFP. Some details regarding the SWPPP:
 - The City of Santa Fe has completed a draft SWPPP and a qualified inspector for this project. The contractor shall install BMPs according to the SWPPP or as directed by the Qualified Inspector.
 - Materials the contractor will need to install for SWPPP compliance:
 - Sanitary toilets with bio-tray or equivalent secured to the earth (1 toilet per 10 workers serviced weekly)
 - Covered waste dumpster.
 - Linear BMPs: wattles, silt fence, hay bale walls, etc. The type will be left to the bidder however, placement will need to progress with the disturbance due to difficulty of terrain so that at the end of each day all downslopes of the disturbed area are protected. Estimate 5600 linear feet for bid.
 - Cobble Rip Rap or equivalent. Estimate up to 15 cubic yards.
- Other BMP's include:
 - Avoid or minimize damage to native vegetation. Special care will be taken to avoid damage to Rio Grande cottonwood and coyote willow plants, and to minimize damage to New Mexico olive, skunkbush sumac, and mountain mahogany plants. Contractor MUST become familiar with these plant species before initiating work.
 - Minimize soil compaction and rutting by matching operating techniques, season of operation, and equipment to soils types and moisture levels.
 - Do not contaminate soils with fuels, lubricants, and other chemicals.
 - Heavy equipment transported to the project site should be decontaminated for potential noxious weed seeds. This means that tires, tracks, wheels, wheel wells and under-carriages of heavy equipment should be hosed down to remove any potential weed seeds prior to being transported to the project area.

Warranty regarding plant material handling, transport and planting:

All plant material required for site revegetation has already been ordered, and will be paid for by the BDD. The contractor, however, will be responsible for pick-up, delivery, short-term plant maintenance (between pick up and installation), installing the native plant material within pre-designated planting locations within the 7-acre treatment area, and watering the plant materials during installation. Proper handling of plant material during transport and delivery is critical to ensuring revegetation success. The contractor must take appropriate measures to ensure that plant poles, cuttings, and potted plant material is protected from desiccation, as this can strongly influence plant survival. The contractor must also ensure that all plant material is planted firmly into the water table. Plant material handling, transport and installation will be closely monitored by the BDD, and the contractor will be held responsible for all costs associated with replacing

and planting any plants damaged due to poor handling procedures between pick up and installation, and for tree poles, willow cuttings and long-stem tall pot plant materials that die because they were not planted into the water table.

WARRANTIES

Warranty required for material and workmanship for minimum of one year unless otherwise stated in the bid. All details of warranties are contained in the contractor's bid and incorporated herein.