Albuquerque Bernalillo County Water Utility Authority

Albuquerque/Bernalillo County
Government Center
One Civic Plaza
Albuquerque, NM 87102

Agenda

Councilor Trudy E. Jones, Chair
Commissioner Art De La Cruz, Vice Chair
Mayor Richard J. Berry
Councilor Pat Davis
Commissioner Maggie Hart Stebbins
Commissioner Debbie O' Malley
Councilor Ken Sanchez
Trustee Pablo Rael

Wednesday, September 21, 2016 **5:00 PM** **Vincent E. Griego Chambers**

1. CALL TO ORDER

2. INVOCATION/PLEDGE OF ALLEGIANCE

3. APPROVAL OF MINUTES - August 17, 2016

4. PROCLAMATIONS AND AWARDS

5. PUBLIC COMMENT

6. ANNOUNCEMENTS/COMMUNICATIONS

A. Next Scheduled Meeting – October 19, 2016 at 5:00 PM

7. INTRODUCTION (FIRST READING) OF LEGISLATION

8. CONSENT AGENDA

(Any Board Member may request that a Consent Agenda item be placed under Approvals)

A.	**C-16-19**	Approving Recommendation of Award P2016000003, Caterpillar Engine Major Overhauls and Repairs
B.	**C-16-20**	Authorizing Additional Services from Eaton to Perform Arc Flash & Short Circuit Studies
C.	**C-16-21**	Fourth Quarter Operating Financial Reports
D.	**C-16-22**	State Certification of the Albuquerque Bernalillo County Water Utility Authority FY2017 Budget

E. **C-16-23** Approving Recommendation of Award, P2016000003, GPS Fleet Tracking Solution

9. APPROVALS

A. R-16-10 Authorizing an Agreement with Alta Vista Enterprises Ltd. For the Mikay Lanna Vistas For Water and Sewer Service

B. R-16-11 Authorizing an Agreement with Ceja Vista LLC for the Ceja Vista Phase 1 for Water and Sewer Service

C. R-16-12 Adopting Water 2120 - Securing Our Water Future (2016 Water Resources Management Strategy) As The Water Authority's Water Supply and Demand Policy

D. **C-16-24** Appointment to the Technical Customer Advisory Committee

E. **C-16-25** FY16 4th Quarter Performance Indicator Report

10. OTHER BUSINESS

11. ADJOURNMENT

Visit Our Website at www.abcwua.org

NOTICE TO PERSONS WITH DISABILITIES: If you have a disability and require special assistance to participate in this meeting, please contact the Authority Office as soon as possible before the meeting date at 289-3100 or by the TTY at 1-800-659-8331.

Albuquerque Bernalillo County
Water Utility Authority

Agenda Item No. 8a

Meeting Date: September 21, 2016
Staff Contact: Charles Leder, Manager – Plant Operations Division

TITLE: C-16-19- Approving Recommendation of Award P2016000003, Caterpillar Engine Major Overhauls and Repairs

ACTION: Recommend Approval

SUMMARY:
The Albuquerque Bernalillo County Water Utility Authority (Water Authority) issued the subject Request for Proposals (RFP) to solicit responses from qualified vendors to provide major repair and overhaul services on Caterpillar engines located at the Southside Water Reclamation Plant and at eight remote well and pump station sites.

The Ad Hoc Evaluation Committee made up of Charlie Leder, Manager – Plant Operations Division, Jeff Romanowski SWRP Chief Engineer, Matt C de Baca SWRP Maintenance Superintendent, Trinidad Padilla, SWRP Cogeneration Supervisor, and Larry Lairson, Power Systems Technician reviewed, evaluated, and scored the two responses in accordance with the evaluation criteria published in the RFP.

The Ad Hoc Evaluation Committee recommends the award of a contract to Elite Energy Services, Inc. of Farmington, NM based on the proposal scoring.

FISCAL IMPACT:
None. Funding has been allocated for any required engine overhauls in the FY17 operating budget for the Plant Operations Division.

Albuquerque Bernalillo County
Water Utility Authority

PO Box 568
Albuquerque, NM 87103-0568
505-768-2500
www.abcwua.org

Memo

To: Mark S. Sanchez, Executive Director

From: Charles S. Leder, P.E.; Manager – Plant Operations Division

Date: September 2, 2016

Re: Recommendation of Award, P2016000003, Caterpillar Engine Major Overhauls and Repairs

The Albuquerque Bernalillo County Water Utility Authority issued the referenced Request for Proposals (RFP) to solicit proposals from qualified vendors to provide Caterpillar Engine Major Overhauls and Repair services.

The RFP was posted on the Sicomm website and advertised in the local newspapers. Two (2) responses were received and submitted for evaluation. The ad hoc evaluation committee reviewed, evaluated, and scored the responses in accordance with the evaluation criteria published in the RFP.

Listed are all the respondents' composite scores with small and/or local preferences and the NM Resident Preference applied for the offeror with an asterisk. The largest total composite score possible without preferences applied is 5,000.

Offeror	Total Composite Score
Elite Energy Services Co.	3890.0
Wagner Equipment Co.	2588.0*

The committee recommended the award of contract to Elite Energy Services Co. as that company had the highest composite score and is qualified to perform the work. I concur with the committee's recommendation.

Water Authority Board approval is required for this procurement. Negotiations with the vendor shall begin immediately upon your approval.

Approved:

9/6/16

Mark S. Sanchez
Executive Director
Date

Recommended:

9/7/16

John M. Stomp
Chief Operating Officer
Date

Composite Score Sheet

Attachments:

Original:	Thomas Courtin, Senior Buyer
Copy:	Jonathan Daniels, Purchasing Officer
File:	P2016000005

CATERPILLAR ENGINE OVERHAULS AND MAJOR REPAIRS
P2016000005

EVALUATOR	EVALUATION CRITERIA	EVALUATION FACTORS	OFFERORS	
			Elite Energy	Wagner Equipment
CL	Company Experience, including the Offeror's past performance on projects of similar scope and size	Up to 300	225	10
LL			300	10
JR			275	200
TP			250	10
MC-B			225	175
	SUB TOTAL		**1275**	**405**
CL	Staff Experience, including that of individuals serving in the capacity of Technician, Mechanic, or Service Representative on the major engine overhaul and repair projects listed under Company Experience	Up to 200	150	50
LL			200	25
JR			175	150
TP			195	100
MC-B			150	125
	SUB TOTAL		**520**	**375**
CL	Other Company Information, including the names and experience of the Technician and the alternate Technician that Offeror is designating to lead and manage on-site work efforts, information about Offeror's machine shop capabilities, information about arrangements to procure any required items not available from Caterpillar, and any proposed arrangements for subcontracting portions of the work.	Up to 200	140	70
LL			200	25
JR			150	150
TP			195	100
MC-B			180	100
	SUB TOTAL		**865**	**445**
CL	Clarity, Quality, and Organization of Proposal; A grade that reflects the overall quality of Offeror's proposal based on its organization, clarity, and presentation of information prepared in response to this RFP, and the ease with which members of the Ad-Hoc evaluation committee can retrieve the requested information as they perform evaluations of responses to this RFP	Up to 100	70	50
LL			100	10
JR			75	75
TP			85	75
M C-B			100	30
	SUB TOTAL		**430**	**240**
	SUB TOTAL TECHNICAL SCORE		**3090**	**1465**
CL	Cost Proposal - The costs proposed by the Contractor as described in Section 2.2 of this RFP to perform the tasks listed in Part 3, Scope of Services. The evaluation of this section will occur after the technical evaluation, based on a cost/price analysis.	Up to 200	160	200
LL			160	200
JR			160	200
TP			160	200
MC-B			160	200
	COST PROPOSAL TOTAL		**800**	**1000**
	SUB TOTAL COMPOSITE SCORE	**Up to 5000**	**3890**	**2465**
	5% LOCAL BUSINESS PREFERENCE		0.0	123.3
	5% SMALL BUSINESS PREFERENCE		0.0	0.0
	5% PAY EQUITY PREFERENCE		0.0	0.0
	10% NM RESIDENT VETERAN BUSINESS PREFERENCE		0.0	0.0
	5% NM RESIDENT BUSINESS PREFERENCE		0.0	0.0
	10% NM RESIDENT VETERAN CONTRACTOR PREFERENCE		0.0	0.0
	5% NM RESIDENT CONTRACTOR PREFERENCE		0.0	0.0
	TOTAL COMPOSITE SCORE		**3890.0**	**2588.3**

Albuquerque Bernalillo County
Water Utility Authority

Agenda Item No. 8b

Meeting Date: September 21, 2016
Staff Contact: Mario Martinez, Electrical Engineer, Central Engineering

TITLE: C-16-20 - Authorizing Additional Services from Eaton to Perform Arc Flash & Short Circuit Studies

ACTION: Recommend Approval

SUMMARY:
The fifth supplemental agreement is to add Short-Circuit, Coordination, and Arc Flash Hazard Analysis Studies for the Water Authority Soils Amendment Facility, Chemical Stations, and Lift Stations located throughout the city.

The supplement will include a study of connected utility substations down to and including all major equipment locations such as panelboards, motor control centers (MCCs), switchboards and switchgears.

NFPA 70E-2012, Article 110.3(F) states that an electrical safety program shall include a hazard identification and risk evaluation procedure to be used before work is started within the limited approach boundary or within the arc flash boundary of energized electrical conductors operating at 50 volts or more or where an electrical hazard exists.

Any location where work may be performed on or near energized electrical conductors and circuit parts is subject to the arc flash standards.

FISCAL IMPACT:
The supplemental agreement with Eaton Corporation will add $54,902.89 to the current agreement, contract total is $721,951.59

FIFTH SUPPLEMENTAL AGREEMENT
ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY
AND
EATON CORPORATION

This **FIFTH SUPPLEMENTAL AGREEMENT** is made and entered into on the date of the last signature entered below by and between the Albuquerque Bernalillo County Water Utility Authority, a New Mexico political subdivision, P.O. Box 568, Albuquerque, NM 87103-0568 (hereinafter referred to as the "Water Authority"), and Eaton Corporation, an Ohio corporation, 560 N. 54th St., Ste 3, Chandler, AZ 85226 (hereinafter referred to as the "Contractor").

RECITALS

WHEREAS, the Water Authority and the Contractor entered into an Agreement, dated March 27, 2014, as amended by a First Supplemental Agreement dated June 3, 2014, a Second Supplemental Agreement dated November 24, 2014, a Third Supplemental Agreement dated July 16, 2015 and a Fourth Supplemental Agreement dated October 12, 2015, hereinafter referred to as the "Original Agreement", whereby the Contractor agreed to render certain professional services to the Water Authority; and

WHEREAS, the Contractor currently provides said Arc Flash study services in accordance with GSA Contract No. GS-06F-0023R, which is referenced as Exhibit A to the Original Agreement; and

WHEREAS, the Water Authority wishes to add $54,902.89 to the total compensation of the Agreement; and

WHEREAS, the Contractor is agreeable adding to the total compensation of the Agreement.

NOW THEREFORE, in consideration of the premises and mutual obligations herein, the parties hereto do mutually agree as follows:

1. Section 3.A.of the Original Agreement is hereby amended to read as follows:

   A. **Compensation.** For performing the Services specified in Section 1 hereof, the Water Authority agrees to pay the Contractor up to the amount of **Seven Hundred Twenty-One Thousand Nine Hundred Fifty-One and 59/100 Dollars ($721, 951.59)**, which amount includes any applicable gross receipts taxes and which amount shall constitute full and complete compensation for the Contractor's Services under this Agreement, including all expenditures made and expenses incurred by the Contractor in performing such Services.

2. Except as herein expressly amended, the terms and conditions of the Original Agreement shall remain unchanged and shall continue in full force and effect unless there is a conflict between the terms and conditions of the Original Agreement and this Fifth Supplemental Agreement, in which event, the terms and conditions of this Fifth Supplemental Agreement shall control.

3. This Fifth Supplemental Agreement shall not become effective or binding until approved by the Water Authority's Executive Director.

IN WITNESS WHEREOF, the Water Authority and the Contractor have executed this Fifth Supplemental Agreement as of the date of the last signature entered below.

ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY

Approved By:

_____
Mark S. Sanchez, Executive Director

Date: _____

_____
John M. Stomp III, P.E.
Chief Operating Officer

Date: _____

Reviewed by:

_____
Charles W. Kolberg, General Counsel

Date: _____

CONTRACTOR:
EATON CORPORATION

By: _____

Title: _____

Date: _____

State Taxation and Revenue Tax Identification No.: **01721442004**

Federal Taxpayer Identification No.: **34-0196300**

Albuquerque Bernalillo County
Water Utility Authority

Agenda Item No. 8c

Meeting Date: September 21, 2016
Staff Contact: Stan Allred, Chief Financial Officer

TITLE: C-16-21 - Fourth Quarter Operating Financial Reports

ACTION: Receipt be Noted

SUMMARY:
Submitted to the Board for review and information are the financial reports for the quarter ending June 30, 2016. The reports provide a year to date comparison between the approved FY/16 budget and actual expenditures through June 1st. The reports also include unaudited revenue and expenditures thru June 30, 2016. As with any unaudited figures, this information is subject to change.

The financial reports were reviewed in detail by the Internal Auditor and the Internal Audit Committee.

Fund 21 General Operating Fund

Revenues:
Fourth quarter rate unaudited revenues are $25.1 million above the actuals for the same period in FY/15. This revenue increase includes increased revenue from water sales of $21.0 million, and Sewer revenue $4.1 million. The FY/16 rate revenues are up from the FY/15 revenues for the same time period due to the rate increase approved by the Board for FY16. Total unaudited revenues which include rate, other miscellaneous, and franchise revenue are $8 million above the FY16 projected budgeted amount.

Fourth Quarter unaudited other revenue which includes miscellaneous revenue is $0.77 million above the actuals for the same period in FY/15. Approved budget revenues amounts were derived with the expectation of very limited growth in the service area for the next several years coupled with a GCPD level of 135.

Expenditures:
Fourth Quarter total expenditures are $11.2 million above the actuals for the same period in FY/15. This increase is mainly due to the increase in franchise fees paid based upon the increase in revenue of $0.88 million, increase in the transfer for debt service payments and transfer to capital of $6.7 million and the remaining $3.62 million is due to increases in most operating divisions offset by a $.9 million decrease in power and chemicals. The unaudited expenditure at June 30, 2016, is $0.38 million under the FY/16 budgeted amounts.

Ending FY/16 working capital or fund balance is $11.3 million, compared to a beginning balance in 2016 of ($8.7) million. The fund balance trend has reversed as planned and will eventually meet the target of 1/12 of operating expenditures.

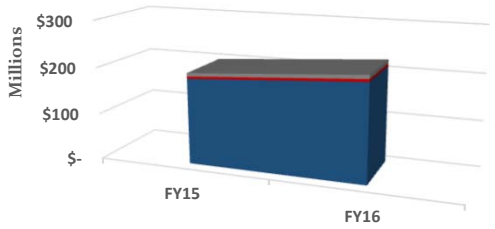
FISCAL IMPACT:
The reduction in consumption is a positive result for conservation goals, however, the costs of maintaining the utility are primarily fixed in nature and the revenue requirements for operating, debt service payments, reserves, and debt service coverage must be met. Consumption levels will continue to be monitored to ensure proper revenue levels are achieved.

The Water Authority will continue to control operating expenditures to offset any reductions in Revenue. The Water Authority also continues to add an additional $2 million a year to the Rate Reserve. The balance at the end of FY/16 is now at $6 million. This extra reserve was established by ordinance to serve as a buffer in the event of an unexpected revenue shortfall due to significant swings in consumption.

FY16 - 4th Quarter Water Authority Financial Dashboard

Albuquerque Bernalillo County Water Utility Authority

YTD General Fund Revenue by Type

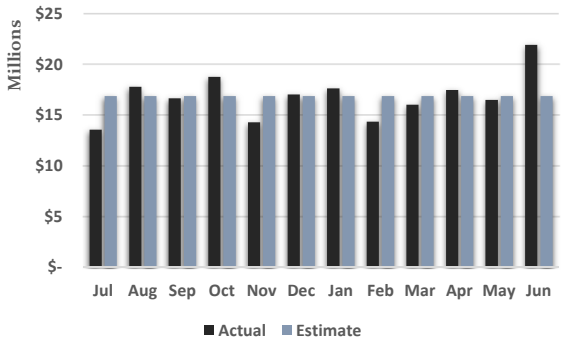


	FY15	FY16
Franchise Fee	7,109,840	8,071,617
Other	4,891,528	5,664,635
Rate Revenue	183,758,529	208,136,136

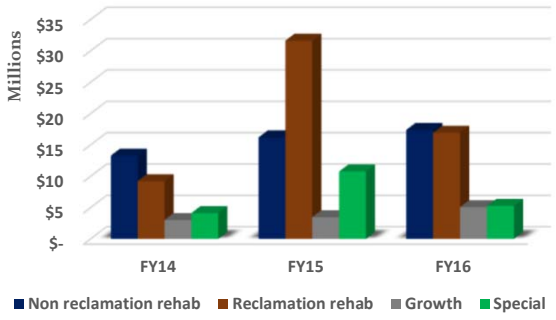
YTD General Fund Expenditures by Type

	General and Administrative	Plant Operations	Field Operations	Transfers
FY16	68,537,878	20,254,811	25,246,477	65,881,500
FY15	66,255,866	19,057,949	24,116,576	61,970,000

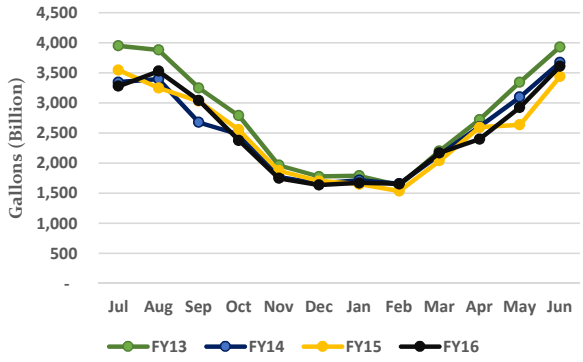
FY16 General Fund Expenditures Compared to Estimate



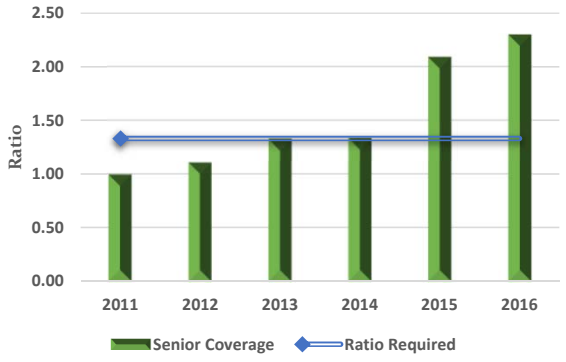
YTD Decade Plan Expenditures by Category



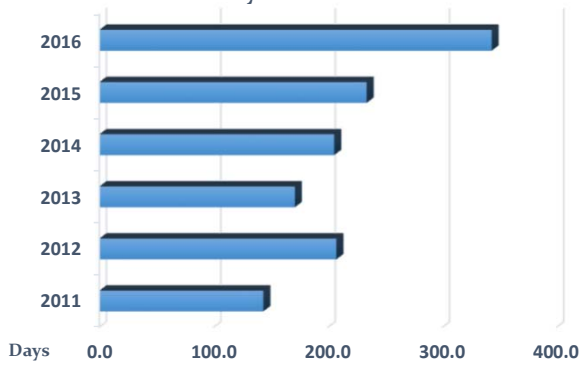
Consumption & Water Use Production



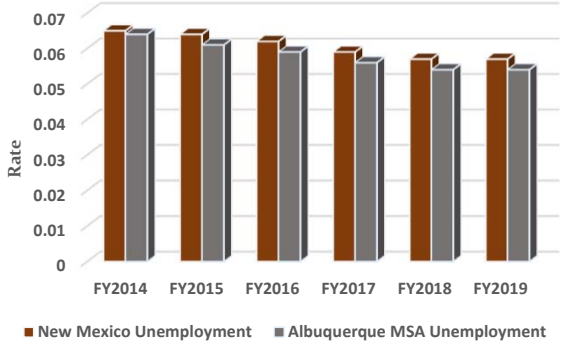
Debt Coverage Ratio



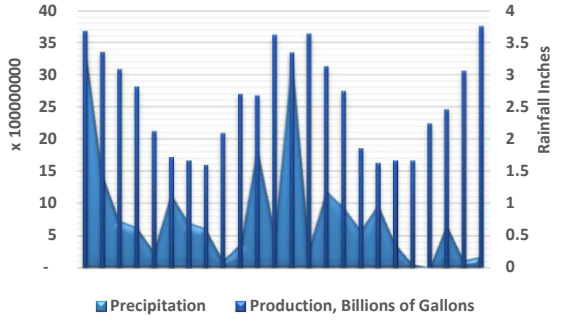
Days Cash on Hand



Unemployment Forecast



Production / Precipitation 2014-2016



Albuquerque Bernalillo County
Water Utility Authority

Agenda Item No. 8d

Meeting Date: September 21, 2016
Staff Contact: Stan Allred, Chief Financial Officer

TITLE: C-19-23 - State Certification of the Albuquerque Bernalillo County Water Utility Authority FY2017 Budget

ACTION: Receipt be Noted

SUMMARY:
The Local Government Division of the State of New Mexico has certified the Albuquerque Bernalillo County Water Utility Authority's FY2017 budget in accordance with Section 6-6-2-(E) NMSA 1978. State statute requires that budgets approved by the Local Government Division be made part of the minutes of the governing board. This item's inclusion on the Consent Agenda for the September meeting satisfies the requirement. The certification letter is attached.

FISCAL IMPACT:
None.

SUSANA MARTINEZ
GOVERNOR

RICK LOPEZ
DIRECTOR

DUFFY RODRIGUEZ
CABINET SECRETARY DESIGNATE

MICHAEL MARIANO
ACTING DEPUTY DIRECTOR

STATE OF NEW MEXICO
DEPARTMENT OF FINANCE AND ADMINISTRATION
LOCAL GOVERNMENT DIVISION
Bataan Memorial Building ♦ 407 Galisteo St. ♦ Suite 202 ♦ Santa Fe, NM 87501
PHONE (505) 827-4950 ♦ FAX (505) 827-4948

September 6, 2016

Mark Sanchez
Executive Director
Albuquerque – Bernalillo County Water Authority
Once Civic Plaza Room 5012
Albuquerque, NM 87102

Dear Mr. Sanchez:

The final budget for your local government entity for Fiscal Year 2017, as approved by your governing body, has been examined and reviewed. The Department of Finance and Administration, Local Government Division (LGD) finds it has been developed in accordance with applicable statutes and budgeting guidelines, and sufficient resources appear to be available to cover budgeted expenditures. In addition, the *Budget Certification of Local Public Bodies* rule, 2.2.3 NMAC, requires that your entity's audit or "Agreed Upon Procedures" (per 2.2.2.16 NMAC) for Fiscal Year 2015 should have been submitted to the Office of the State Auditor as of this time. The LGD's information indicates that you are in compliance with this requirement. Therefore, in accordance with NMSA 1978, Section 6-6-2 (E) (2011), the LGD certifies your entity's final Fiscal Year 2017 budget.

Please take note that state statute requires all revenue sources be expended only for public purposes, and if applicable, in accordance with the Procurement Code, Chapter 13, Article 1, NMSA 1978. Use of public revenue is governed by Article 9, Section 14 of the Constitution of the State of New Mexico, commonly referred to as the anti-donation clause.

Budgets approved by the LGD are required to be made a part of the minutes of your governing body according to NMSA 1978, Section 6-6-5 (1957). In addition, NMSA 1978, Section 6-6-6 (2001) provides that the approved budget is binding on local officials and governing authorities; and any official or governing authority approving claims or paying warrants in excess of the approved budget or available funds will be liable for the excess amounts.

Finally, as required by NMSA 1978, Section 6-6-2 (H) (2011), LGD is required to approve all budget increases and transfers between funds not included in the final approved budget.

If you have questions regarding this matter, please call Anita Medina of my staff at 505-827-8062.

Sincerely,

Rick Lopez, Director
Local Government Division
xc: file

Albuquerque Bernalillo County
Water Utility Authority

Agenda Item No. 8e

Meeting Date: September 21, 2016
Staff Contact: Hobert Warren, Customer Services Division Manager

TITLE: C-16-23 – Approving Recommendation of Award, P2016000003, GPS Fleet Tracking Solution

ACTION: Recommend Approval

SUMMARY:
The Albuquerque Bernalillo County Water Utility Authority (Water Authority) issued the subject Request for Proposals (RFP) to solicit responses from qualified vendors to provide GPS Fleet Tracking Services.

The Ad Hoc Evaluation Committee made up of H Warren, CSD Manager; Cody Stinson, Chief Information Officer; Michael Arellano, Fleet Superintendent, Laurance Armour, GPS Administrator, Paul Davidson, GIS Administrator reviewed, evaluated, and scored the 10 responses in accordance with the evaluation criteria published in the RFP.

The Ad Hoc committee recommends the award of the contract to Clevest based on the initial scoring, second round on site presentation, and best and final offer.

FISCAL IMPACT:
None. Funding has been allocated for this project in the IT FY17 operating budget.

Albuquerque Bernalillo County
Water Utility Authority

PO Box 568
Albuquerque, NM 87103-0568
505-768-2500
www.abcwua.org

Memo

To: Mark S. Sanchez, Executive Director

From: H. Warren, Customer Services Manager

Date: September 6, 2016

Re: Recommendation of Award, P2016000003, GPS Fleet Tracking Solution

The Albuquerque Bernalillo County Water Utility Authority issued the referenced Request for Proposals (RFP) to solicit proposals from qualified vendors to provide GPS Fleet Tracking Solution services.

The RFP was posted on the Sicomm website and advertised in the local newspapers. Ten (10) responses were received and submitted for evaluation. Two responses were found to be non-responsive, and were disqualified. The ad hoc evaluation committee reviewed, evaluated, and scored the responses in accordance with the evaluation criteria published in the RFP.

The four (4) highest scoring respondents, AT&T, Calamp, Clevest, and Fleet Analytics were invited to provide presentations to offer more insight into their products and services and to answer questions from the Ad Hoc Committee.

From these four respondents, two (2), Clevest and Fleet Analytics were provided to opportunity to submit their best and final offer.

After reviewing the presentations, Clevest and Fleet Analytics were invited to provide their Best and Final Offers (BAFO).

After reviewing and discussing the BAFOs, the committee recommended the contract be awarded to Clevest as that company had the highest recommendation and is qualified to perform the work. I concur with the committee's recommendation.

Water Authority Board approval is required for this procurement. Negotiations with the vendor shall begin immediately upon your approval.

Approved:

9/13/16

Mark S. Sanchez
Executive Director

Date

Recommended:

9/12/16

Stanley Allred
Chief Financial Officer

Date

PURCHASING DIVISION

Vehicle GPS Solution

P2016000003

EVALUATOR	EVALUATION CRITERIA	EVALUATION FACTORS	OFFERORS								
			AT&T	Calamp Radio	Clevest	Digital Ally	Don Chalmers	General Datatech	Network Fleet	Telogis	Fleet Analytics
HW	Acceptance of Terms and Conditions	Up to 50	45	50	50	50	50	50	50	50	50
LA			50	50	50	50	50	50	50	50	50
CS			50	50	50	50	50	50	50	50	50
MA			50	50	50	50	50	50	50	50	50
PD			40	50	50	50	50	50	45	50	50
	SUB TOTAL		235	250	250	250	250	250	245	250	250
HW	System Functionality and Features Hardware Specifications Video Presentation	Up to 300	264	276	279	225	180	195	210	267	265
LA			270	300	240	90	120	60	210	180	280
CS			240	260	250	210	180	200	200	150	280
MA			270	300	270	125	150	150	240	270	300
PD			210	295	290	125	175	170	195	300	180
	SUB TOTAL		1254	1431	1329	775	805	775	1055	1167	1305
HW	Quality of Services Business Continuity Plan Support Staff and Facilities, Support Expectations and Standards Notifications Terms of Service Information Training	Up to 300	265	276	280	225	180	190	200	260	260
LA			270	240	300	60	90	120	180	210	240
CS			230	260	250	225	175	150	225	150	260
MA			240	270	270	125	150	140	210	240	300
PD			255	300	280	200	240	150	290	100	290
	SUB TOTAL		1260	1346	1380	835	835	750	1105	960	1350
HW	Experience/References	Up to 150	75	138	140	113	90	98	105	100	125
LA			75	125	100	125	75	110	125	110	140
CS			75	140	130	75	25	75	75	50	120
MA			90	150	140	100	60	90	130	120	150
PD			75	140	135	100	75	100	105	90	140
	SUB TOTAL		390	693	645	513	325	473	540	470	675
	SUB TOTAL TECHNICAL SCORE		2749	3027	2959	1860	1890	1775	2405	2377	2905
HW	Cost Proposal – The costs proposed by the Contractor as described in Section 2.2 of this RFP to perform the tasks listed in Part 3, Scope of Services. The evaluation of this section will occur after the technical evaluation, based on a cost / price analysis.	Up to 200	116	185	131	116	82	181	105	137	200
LA			116	185	131	116	82	181	105	137	200
CS			116	185	131	116	82	181	105	137	200
MA			116	185	131	116	82	181	105	137	200
PD			116	185	131	116	82	181	105	137	200
	SUB TOTAL		580	925	655	580	410	905	525	685	1000
	SUB TOTAL COMPOSITE SCORE	Up to 5000	3329	3952	3614	2440	2300	2680	2930	3062	3905
	5% LOCAL BUSINESS PREFERENCE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5% ADDITIONAL SMALL BUSINESS PREFERENCE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL COMPOSITE SCORE		3329	3952	3614	2440	2300	2680	2930	3062	3905
	5% NM RESIDENT PREFERENCE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5% SMALL BUSINESS PREFERENCE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL COMPOSITE SCORE		3329	3952	3614	2440	2300	2680	2930	3062	3905

P2016000003, GPS FLEET TRACKING SOLUTION

EVALUATOR	EVALUATION CRITERIA	EVALUATION FACTORS	OFFERORS			
			AT&T	Calamp Radio	Clevest	Fleet Analytics
HW	Acceptance of Terms and Conditions	Up to 50	20	50	50	50
LA			20	50	50	50
CS			20	50	50	50
MA			20	50	50	50
PD			25	50	50	50
	SUB TOTAL		105	250	250	250
HW	System Functionality and Features Hardware Specifications Video Presentation	Up to 300	265	276	290	280
LA			200	220	260	280
CS			220	240	250	270
MA			200	250	285	280
PD			210	250	280	280
	SUB TOTAL		1095	1236	1365	1390
HW	Quality of Services Business Continuity Plan Support Staff and Facilities, Support Expectations and Standards Notifications Terms of Service Information Training Installation and Implementation Data Storage and Access System Availability Warranty	Up to 300	265	276	290	275
LA			230	250	240	240
CS			230	240	250	260
MA			220	235	285	275
PD			235	230	285	275
	SUB TOTAL		1180	1231	1350	1325
HW	Experience/References	Up to 150	100	138	140	125
LA			135	135	130	140
CS			75	140	130	120
MA			100	85	110	135
PD			110	140	135	140
	SUB TOTAL		520	638	645	660
	SUB TOTAL TECHNICAL SCORE		2380	2717	2965	2965
HW	Cost Proposal – The costs proposed by the Contractor as described in Section 2.2 of this RFP to perform the tasks listed in Part 3, Scope of Services. The evaluation of this section will occur after the technical evaluation, based on a cost / price analysis.	Up to 200	116	167	131	200
LA			116	167	131	200
CS			116	167	131	200
MA			116	167	131	200
PD			116	167	131	200
	SUB TOTAL		580	835	655	1000
	SUB TOTAL COMPOSITE SCORE	Up to 5000	2960	3552	3620	3965
	5% LOCAL BUSINESS PREFERENCE		0.0	0.0	0.0	0.0
	5% SMALL BUSINESS PREFERENCE		0.0	0.0	0.0	0.0
	5% PAY EQUITITY PREFERENCE		0.0	0.0	0.0	0.0
	5% RESIDENT BUSINESS PREFERENCE		0.0	0.0	0.0	0.0
	5% RESIDENT CONTRACTOR PREFERENCE		0.0	0.0	0.0	0.0
	10% RESIDENT VETERAN BUSINESS PREFERENCE		0.0	0.0	0.0	0.0
	10% RESIDENT VETERAN CONTRACTOR PREFERENCE		0.0	0.0	0.0	0.0
	TOTAL COMPOSITE SCORE		2960	3552	3620	3965

P2016000003, GPS FLEET TRACKING SOLUTION		FINAL SCORING		
EVALUATOR	EVALUATION CRITERIA	EVALUATION FACTORS	OFFERORS	
			Clevest	Fleet Analytics
HW	Acceptance of Terms and Conditions	Up to 50	50	50
LA			50	50
CS			50	50
MA			50	50
PD			50	50
	SUB TOTAL		**250**	**250**
HW	System Functionality and Features Hardware Specifications Video Presentation	Up to 300	290	265
LA			280	280
CS			250	270
MA			290	280
PD			280	280
	SUB TOTAL		**1390**	**1375**
HW	Quality of Services Business Continuity Plan Support Staff and Facilities, Support Expectations and Standards	Up to 300	290	260
LA			240	280
CS			250	260
MA			285	275
PD			285	275
	SUB TOTAL		**1350**	**1350**
HW	Experience/References	Up to 150	140	125
LA			140	140
CS			130	120
MA			130	135
PD			135	140
	SUB TOTAL		**675**	**660**
SUB TOTAL TECHNICAL SCORE			**3665**	**3635**
HW	Cost Proposal – The costs proposed by the Contractor as described in Section 2.2 of this RFP to perform the tasks listed in Part 3, Scope of	Up to 200	196	200
LA			196	200
CS			196	200
MA			196	200
PD			196	200
	SUB TOTAL		**980**	**1000**
SUB TOTAL COMPOSITE SCORE		**Up to 5000**	**4645**	**4635**
	5% LOCAL BUSINESS PREFERENCE		0.0	0.0
	5% SMALL BUSINESS PREFERENCE		0.0	0.0
	5% PAY EQUITITY PREFERENCE		0.0	0.0
	5% RESIDENT BUSINESS PREFERENCE		0.0	0.0
	5% RESIDENT CONTRACTOR PREFERENCE		0.0	0.0
	10% RESIDENT VETERAN BUSINESS PREFEREI		0.0	0.0
	10% RESIDENT VETERAN CONTRACTOR PREFI		0.0	0.0
	TOTAL COMPOSITE SCORE		**4645**	**4635**

Albuquerque Bernalillo County
Water Utility Authority

Agenda Item No. 9a

Meeting Date: September 21, 2016
Staff Contact: Kristopher Cadena, Principal Engineer, Utility Development

TITLE: R-16-10 - Authorizing an Agreement with Alta Vista Enterprises Ltd for the Mikay Lanna Vistas for Water and Sewer Service

ACTION: Recommend Approval

SUMMARY:
The development is located between Gun Club Rd. and Lisa Rd., just west of Karrol St. within an unincorporated area of Bernalillo County. The project consists of 16 individual building lots.

The property is to be served by Pressure Zone 0W in the Atrisco Trunk.

Water and wastewater service is contingent on the Developer constructing collector lines that tie to the existing infrastructure proximate to the property.

All services provided within the development will be subject to current Utility Expansion and Water Supply Charges.

FISCAL IMPACT:
None.

ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

BILL NO. R-16-10

RESOLUTION

AUTHORIZING AN AGREEMENT WITH ALTA VISTA ENTERPRISES LTD FOR THE MIKAY LANNA VISTAS FOR WATER AND SEWER SERVICE.

WHEREAS, Alta Vista Enterprises Ltd (Alta Vista) is the developer and owner of approximately 16 residential lots located between Gun Club Rd. and Lisa Rd., just west of Karrol St. within an unincorporated area of Bernalillo County; and

WHEREAS, the property which is located outside the service area of the Water Authority will require a development agreement for the extension and/or connection of water and sewer lines to the Water Authority's water and sewer system; and

WHEREAS, the Water Authority's Water and Wastewater System Expansion Ordinance requires that new service developed outside the Water Authority's service area will incur no net expense to the Water Authority and be subject to provisions of relevant updated planning documents as approved by the City and/or County; and

BE IT RESOLVED BY THE WATER AUTHORITY:

Section 1. Alta Vista will obtain all permits, assurances, and approvals from the Water Authority and the Bernalillo County development/design review process. Construction of water and/or sewer lines shall be in conformance with the plans approved by the Water Authority and all applicable plans, specifications, requirements, and standards of the Water Authority.

Section 2. The expansion of the System shall incur no net expense to the Water Authority and be subject to current Utility Expansion and Water Supply Charges.

Section 3. Alta Vista will be responsible for close coordination of the project with the Water Authority during the design and construction phases, including the review of the design details during the design process, and the approval of specifications and contract documents.

Section 4. The Executive Director is authorized to enter into the agreement with Alta Vista for the provision of water and sewer service.

DEVELOPMENT AGREEMENT
MIKAY LANNA VISTAS

Albuquerque Bernalillo County Water Utility Authority, a New Mexico political subdivision, ("Water Authority") and ALTA VISTA ENTERPRISES. LTD. CO., a NEW MEXICO limited liability corporation, ("Developer") (together, "Parties"), agree as follows:

1. **Recitals**

   A. ALTA VISTA ENTERPRISES. LTD. CO. is the "Developer" and owner of certain real property located in MIKAY LANNA VISTAS (collectively, the "Property"). The Property is more particularly described and shown on **Exhibit A** attached hereto and incorporated herein by reference**.** The property will consist of four phases with a total of sixteen lots. The Property is located outside of the Water Authority's currently adopted Water Service Area.

   B. The legal description of the Property is as follows: Tract 13 Row One South Town of Atrisco Grant.

   C. The Property is to be served by Pressure Zone 0W of the Atrisco Trunk.

   D. The Parties desire to agree upon terms and conditions pursuant to which the Water Authority will provide water and sanitary sewer service to the Property. The Developer desires to construct, or cause to be constructed, extensions of existing public water and sanitary sewer lines and appurtenant infrastructure (collectively, "Line Extensions") under all applicable plans, specifications, requirements, and standards of the Water Authority. The Serviceability Statement for the Property reflecting the line extensions and other matters referred to in this Agreement is attached hereto as **Exhibit B** and incorporated herein by reference and made a term of this agreement.

   E. The waterline and sewer line extensions referenced in this Agreement are not considered Master Plan lines by the Water Authority. As such, reimbursement of construction costs associated with these extensions will not be available through water and sewer UEC (defined below in Section 3.B) reimbursements.

2. **Design and Construction of the Waterlines and Sanitary Sewer Line**

   A. The Developer will cause definitive designs and plans of the Line Extensions to be produced which will include estimates of all costs and expenses. The Developer will not connect the extension lines to the existing water and sanitary sewer lines within the Bernalillo County ("County") public right-of-way or within public easements until the Water

Authority has approved the line extensions. The Developer will convey, at no expense to the Water Authority, all Line Extensions that have been approved and accepted by the Water Authority and all necessary easements for the Line Extensions at locations reasonably acceptable to the Developer, free and clear of all liens, claims, and encumbrances for the construction, operation, and maintenance of the line extension. The Developer will obtain all necessary permits, assurances, and approvals from the Water Authority and County, and the Developer will deliver a copy of such permits, assurances, and approvals to the Water Authority prior to the start of construction. Construction will be handled through the Water Authority work order process.

B. The Developer will complete, or cause to be completed, construction of the Line Extensions as approved by the Water Authority and the County, and in conformance with all applicable plans, specifications, and standards of the County and the Water Authority.

C. The Developer will be responsible for close coordination of the project with the Water Authority during the design and construction phases, including review of design details, during the design process, and the approval of specifications and contract documents. The Water Authority will review and approve in a timely manner the design plans for construction and estimated cost, to ensure the designs meet Water Authority standards and follow the guidance provided in the City's Development Process Manual ("DPM") and/or applicable Water Authority Design Manuals.

D. To the extent relevant and applicable and to the extent there is no conflict with the terms of this Agreement, the usual procedures and documentation, including the Procedure "B", as defined in the Subdivision Ordinance and the DPM of the City, will be followed and used for the Line Extensions.

3. Service

A. The Developer shall comply with the Water Authority's Water and Sewer System Expansion Ordinance, as amended from time to time. Connection for water service shall require the concurrent connection of sanitary sewer service to the Water Authority's wastewater system.

B. The Developer or its successor shall pay Utility Expansion Charges (UEC) and the Water Supply Charges (WSCs) at the rates that are imposed at the time of a service connection, as provided in the Water Authority's Water and Sewer Rate Ordinance, as amended from time to time.

C. Pursuant to Water Authority Resolution No. R-05-13, the Developer agrees that it will incorporate water conservation guidelines that will seek

to achieve water usage of no more than 180 gallons per household which is equivalent to seventy-five (75) gallons per capita per day.

4. **Termination.** If construction of the waterline extensions and sanitary sewer extensions by the Developer has not been completed and accepted by the Water Authority within seven years of the effective date of this Agreement, this Agreement shall automatically terminate, and the Water Authority and the Developer shall have no further rights, obligations, or liabilities with respect to this Agreement, unless otherwise agreed in writing.

5. **Water for Construction.** During the construction of the waterline extensions and sanitary sewer line extensions, water for construction may be obtained from a hydrant designated by the Water Authority as set forth on **Exhibit C** attached hereto and incorporated herein by reference. If economically feasible, the Contractor is encouraged to utilize alternative methods for dust abatement and control including compost from the Water Authority.

6. **Indemnification.** The Developer will defend, indemnify and hold harmless the Water Authority and its officials, agents, and employees on demand from any claims, actions, suits, or other proceedings arising from the acts or omissions of the Developer, its agents, representatives, contractors, or subcontractors, or arising from the failure of the Developer, its agents, representatives, contractors, or subcontractors to perform any act or duty required of the Developer in this Agreement. The indemnification by the developer will not extend to the negligent acts of the Water Authority.

7. **Representations and Warranties of Developer.** The Developer represents and warrants that:

   A. Developer is a validly existing limited liability company under the laws of the State of New Mexico.
   B. Developer has all the requisite power and authority to enter into this Agreement and bind the Developer under the terms of the Agreement; and
   C. The undersigned officer of the Developer is fully authorized to execute this Agreement on behalf of the Developer.

8. **Notices.** Any notice to be given under this Agreement will be in writing and will be deemed to have been given when deposited with the United States Postal Service, postage prepaid and addressed as follows:

   If to the Water Authority:

   Mark S. Sanchez
   Executive Director
   Albuquerque Bernalillo County
   Water Utility Authority
   One Civic Plaza, Room 5012
   Albuquerque, New Mexico 87102

If to Developer:

Alta Vista Enterprises, Ltd. Co.
Attn: Tomas A. Zamora/Managing Member
Address: 1122 Central Ave. SW
Albuquerque, New Mexico 87102

9. **Assignment.** This Agreement will not be assigned without the prior written consent of the Water Authority and the Developer.

10. **Miscellaneous.** This Agreement will be governed by and interpreted in accordance with the laws of the State of New Mexico. The headings used in this Agreement are for convenience only and shall be disregarded in interpreting the substantive provisions of the Agreement. This Agreement binds and benefits the Water Authority and their successors, assigns, and transferees and the Developer and their successors, assigns and transferees. Time is of the essence of each term of this Agreement. If any provision of this Agreement is determined by a court of competent jurisdiction to be void, invalid, illegal, or unenforceable, that portion will be severed from this Agreement and the remaining parts will remain in full force as though the invalid, illegal, or unenforceable portion had never been a part of this Agreement.

11. **Integration; Interpretation.** This Agreement contains or expressly incorporates by reference the entire agreement of the parties with respect to the matters contemplated by this Agreement and supersedes all prior negotiations. This Agreement may only be modified in writing executed by both parties.

12. **Approval.** This Agreement is subject to the approval of the Board of Directors of the Water Authority and will not become effective until approved by the Water Authority.

13. **Effective Date.** The effective date of this Agreement is the date last entered below.

In Witness Whereof, the parties hereto have executed this Agreement on the dates entered below.

Albuquerque Bernalillo County Water Utility Authority

By: _____
Mark S. Sanchez
Executive Director

Date: _____

Developer
Alta Vista Enterprises, Ltd. Co, a New Mexico limited liability corporation

By: _____
Tomas A. Zamora
Managing Member

Date: _____

ACKNOWLEDGEMENTS

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

This instrument was acknowledged before me on, _____, 2016
by _Tomas A. Zamora _____, __Managing member _____
of _Alta Vista Ent. Ltd. Co._____ a _____N.M. Ltd Liability Co.
_____, on behalf of said Company.

_____
Notary Public

My Commission Expires:
_____

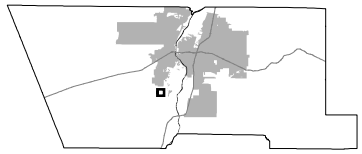
STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

This instrument was acknowledged before me on _____, 20__ by Mark S. Sanchez, Executive Director of the Albuquerque Bernalillo County Water Utility Authority, a New Mexico political subdivision.

_____
Notary Public

My Commission Expires:
_____

Exhibit A



LEGAL DESCRIPTION

T9N

R2E

SEC 16

UNIFORM PROPERTY CODE

1-009-052

250 0 250 500 750 1,000

Feet

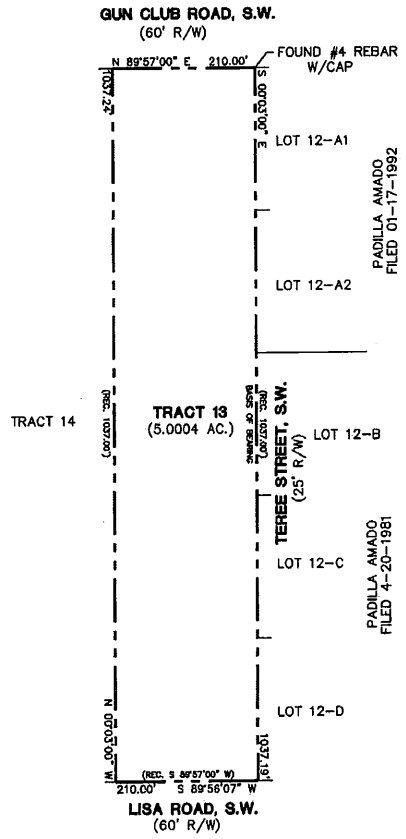
Map amended through January 2016

PUBLIC WORKS DIVISION
GIS PROGRAM

Q-9-Z

SANDIA LAND SURVEYING LLC 15 CASA TERRENOS PLACITAS, N.M. 87043 (505)867-1241	BOUNDARY SURVEY TRACT 13 ROW ONE SOUTH TOWN OF ATRISCO GRANT BERNALILLO COUNTY BERNALILLO COUNTY, NEW MEXICO
JOB NO.: 159-12 DATE: 7-13-2012 SCALE: 1"=200'	

NOTE: 1) BEARING BASE FOR THIS SURVEY IS LEGAL DESCRIPTION OF RECORD.
2) UNLESS OTHERWISE NOTED CORNERS ARE SET #4 REBAR W/CAP "SLS 12649".
3) FT000107181



LEGAL DESCRIPTION
SEE ATTACHED LEGAL

FLOOD CERTIFICATE:
IT IS HEREBY CERTIFIED THAT THE ABOVE DESCRIBED PROPERTY IS NOT LOCATED WITHIN A 100 YEAR FLOOD HAZARD BOUNDARY IN ACCORDANCE WITH HUD FEDERAL ADMINISTRATION FLOOD HAZARD BOUNDARY MAP DATED SEPTEMBER 26, 2008. ZONE "X", COMMUNITY PANEL NO. 350001 0139G.

I, ANDREW S. MEDINA, NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR NUMBER 12649, DO HEREBY CERTIFY THAT THE SURVEY AND PLAT SHOWN HEREON WERE PREFORMED AND EXECUTED UNDER MY SUPERVISION AND MEETS THE "MINIMUN STANDARDS FOR LAND SURVEYS IN NEW MEXICO" AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

IN, WITNESS WHEREOF, this certificate is executed at Albuquerque, New Mexico on this 13TH day of JULY 20 12..

ANDREW S. MEDINA NEW MEXICO 12649 REGISTERED PROFESSIONAL SURVEYOR

Surveyor, Andrew S. Medina
SANDIA LAND SURVEYING

N.M.P.S. No. 12649

A certain tract of land situated on Gun Club Road, S. W., South of Coors Road, S. W., being Tract numbered 13 in Row One South within the Atrisco Grant and Section 16, Township 9 North, Range 2 East, bounded by Gun Club Road on the North, Teree Street on the East and Lisa on the South, Bernalillo County, and being more particularly described as follows:

BEGINNING at the Northeast corner of the land herein described, a point on the South line of Gun Club Road, S.W., a 3/4 " Iron Pipe, and running thence South 0 deg. 03' East, 1037.00 feet to the Southeast Corner, a point on the North line of Lisa Road, S. W., a 3/4 " Iron pipe set;
Thence following said line of Lisa Road, S.W., South 89 deg. 57' West, 210.00 feet to the southwest corner, a 3/4" iron pipe;
Thence North 0 deg. 03' West, 1037.00 feet the Northwest corner, a 3/4" iron pipe, a point on the south line of said Gun Club Road, S.W.;
Thence, following said line North 89 deg. 57' East, 210.00 feet to the Northeast corner, being the point of beginning.

Albuquerque Bernalillo County Water Utility Authority

Exhibit B

PO Box 568
Albuquerque, NM 87103
www.abcwua.org

May 31, 2016

Tomas A. Zamora
Alta Vista Enterprises, LLC.
1122 Central Ave. SW
Albuquerque, NM 87102

RE: Water and Sanitary Sewer Serviceability Statement #160412
Mikay Lanna Vistas - 3410 Gun Club Rd. SW - Zone Atlas Map: Q-9

Dear Mr. Zamora:

Project Information: The subject site is located on Gun Club Rd., two lots west of Ward Rd., in an unincorporated area of Bernalillo County. The property consists of approximately 5.0 acres and is currently zoned R-1 for residential use. The property traditionally lies within the Pressure Zone 1W in the Pajarito trunk but can be served by the Pressure Zone 0W as stated below. The request for information indicates plans to plat the property for residential use.

Development Agreement: Pursuant to the System Expansion Ordinance, this property is outside of the Water Authority service area and the Water Authority Board must approve a Development Agreement to serve this property and establish requirements as a condition of service. Contact Utility Development in regards to Development Agreements.

Water Supply Charge: All developments located outside of the Water Authority's service area will be assessed a Water Supply Charge (WSC) as provided in the Water Authority's Water and Sewer Rate Ordinance for the development of new water resources, rights and supplies necessary to serve the development. The WSC shall not be used for reimbursement of master planned facilities.

Existing Conditions: Water infrastructure in the area consists of the following:

- Six inch PVC distribution main (Pressure Zone 0W) (project #26-6402.06-01) along Teree St.

Sanitary sewer infrastructure in the area consists of the following:

- Eight inch PVC collector line (project #26-4686.91-96) along Teree St.

Water and Sewer Service: New metered water service to the property can be provided via routine connection to the existing six inch distribution main (Pressure Zone 0W) along Teree St. The maximum elevation that can be served on the property is 5,000 feet (NAV 27/29). The aforementioned waterline provides Pressure Zone 0W pressure which is supplied from Leavitt Reservoir (overflow elevation of 5,115 feet NAV 27/29). Properties that do not have direct frontage to Teree St. shall obtain service via private water service easements across properties with property frontage. Further extension of Pressure Zone 0W waterlines along the property frontage are not needed and all properties west of the subject property will be required to install infrastructure to support Pressure Zone 1W service. Service is also contingent upon compliance with

the Fire Marshal's instantaneous fire flow requirements. Water service will not be sold without adequate fire protection. Water service will only be sold in conjunction with sanitary sewer service.

Sanitary sewer service can be provided contingent upon a developer funded project to extend the existing 12 inch collector line west along Gun Club Rd. to cover the north property frontage. Upon completion, the property can connect via routine connection to the existing eight inch collector line along Teree St., eight inch collector line along Lisa Rd., or the newly proposed collector line along Gun Club Rd.

Cross Connection Prevention: Approved dual check valves shall be installed on all water services within pressure zones 0W, 1W and 1E. Any residential premises having existing private wells and who desire to connect to the public water system shall have two options as follows: 1) Customers shall permanently abandon the use of private wells by plugging the wells as accepted by the Water Authority prior to connecting to the public water system; or 2) Customers who choose to maintain their private wells shall completely sever the private well from the premises' potable plumbing system and shall install a reduced pressure principle backflow prevention assembly approved by the Water Authority at the terminal end of the water service from the public water system (e.g., service connection). Any multi-family dwelling including a clubhouse and/or office is required to have a reduced pressure backflow prevention device for containment. If metered separately, the building that includes a clubhouse and/or office shall have a reduced pressure backflow prevention device.

Fire Protection: All new required hydrants as well as their exact locations must be determined through Bernalillo County Fire Marshal's Office and verified through the Utility Development Office prior to sale of service.

Easements: Exclusive public water and sanitary sewer easements are required for all public lines that are to be constructed outside of any dedicated rights-of-way. A minimum width easement of 20 feet is required for a single utility and 25 feet for water and sewer both within the same easement. Easements for water meters need to be five feet by five feet and include the length of the water service if located on private property. Actual easement widths may vary depending on the depth of the lines to be installed. Side yard easements are not acceptable for either water or sanitary sewer. Acceptable easements must be documented prior to approval of service.

Pro Rata: As described in this statement, the extension of public water and sanitary sewer lines may be eligible for partial reimbursement through the Pro Rata process as detailed in the Water Authority Water and Wastewater System Expansion Ordinance. Pro Rata is not owed and the property can utilize the services available upon completion of the requirements of this statement to connect to water and sanitary sewer.

Design and Construction of all required improvements will be at the developer / property owner's expense. Improvements must be coordinated through the Bernalillo County Department of Public Works and Water Authority Work Order process. Designs must be by a licensed, New Mexico registered professional engineer. Construction must be by a licensed, bonded, public utility contractor.

Costs and Fees: In addition to installation and construction costs, any new metered water services will be subject to both water and sanitary sewer Utility Expansion Charges (UEC) payable at the time of service application. All charges and rates collected will be based on the ordinances and policies in effect at the time service is actually requested and authorized.

Water Use: When metered water service becomes available to this site, the Water Authority is ready, willing, and able to provide the maximum annual requirement for the subject subdivision/project for a period of at least 70 years as required by the Bernalillo County Subdivision Ordinance. However, the Water Authority is also committed to meeting water conservation goals and requirements. Accordingly, all new development utilizing Water Authority services are subject to the requirements for water usage and water conservation requirements as defined by the Water Authority. Where available, outdoor water usage shall utilize reclaimed water. All new residential development outside of the Water Authority water service should be designed to meet the standard water usage of 180 gallons per day per household which is equivalent to 75 gallons per capita per day. Indoor water use shall consist of 70% of total use with outdoor limited to 30%. Where available, outdoor water usage shall utilize reclaimed water.

Closure: This statement only provides details of infrastructure that is available and potential precursors to development for the proposed development. For service to be provided, a Board approved development agreement must supplement this serviceability, therefore causing this serviceability to be in effect for a period of one year upon approval of the development agreement. Under no circumstances does this serviceability commit to service without the above mentioned conditions. Changes in the proposed development may require reevaluation and should be brought to the attention of the Utility Development Section of the Water Authority as soon as possible.

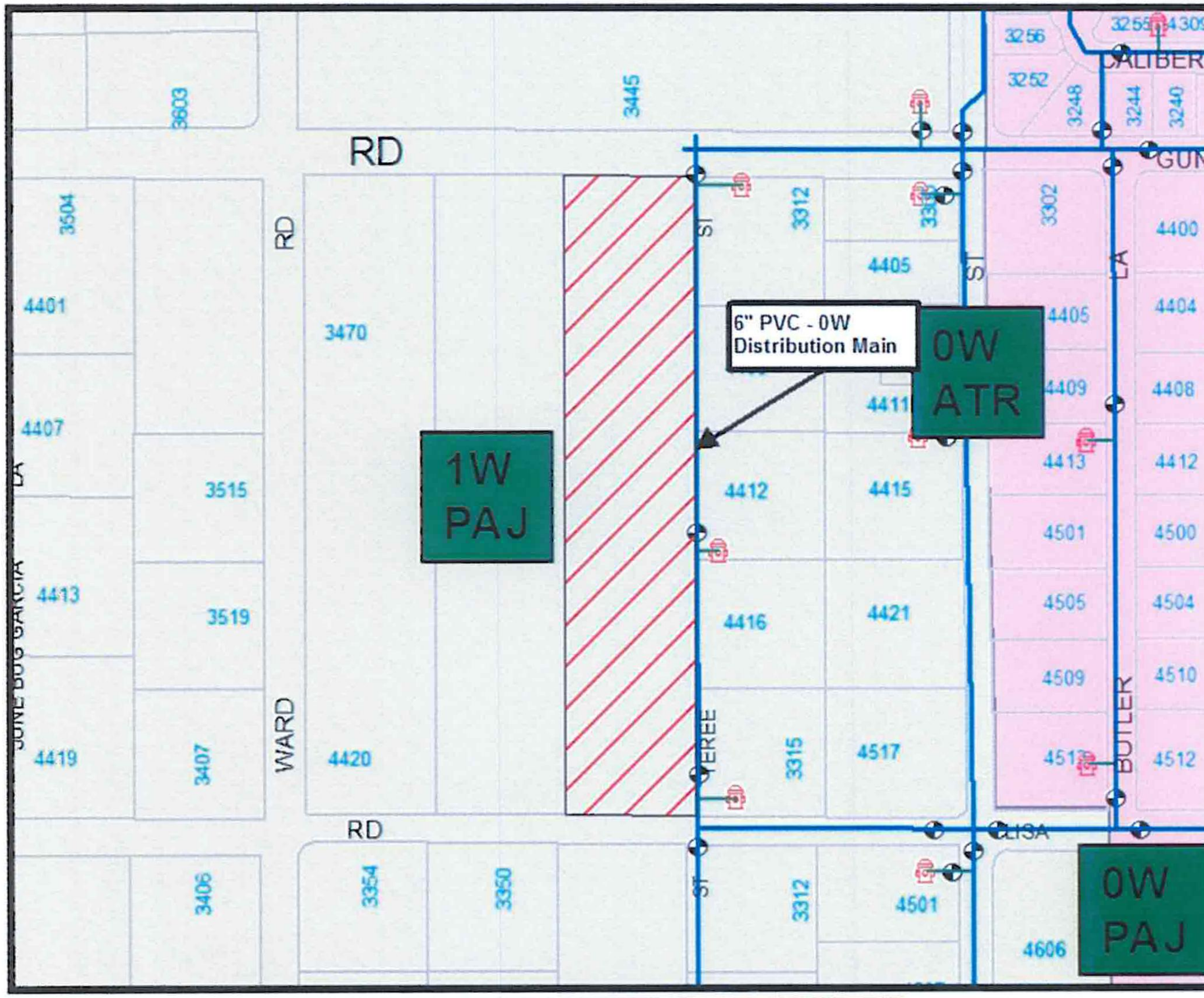
Please feel free to contact the Mr. Kristopher Cadena in our Utility Development Section at (505) 289-3301 or email at kcadena@abcwua.org if you have questions regarding the information presented herein or need additional information.

Sincerely,

Mark S. Sanchez
Executive Director

Enclosures: Infrastructure Maps (2)

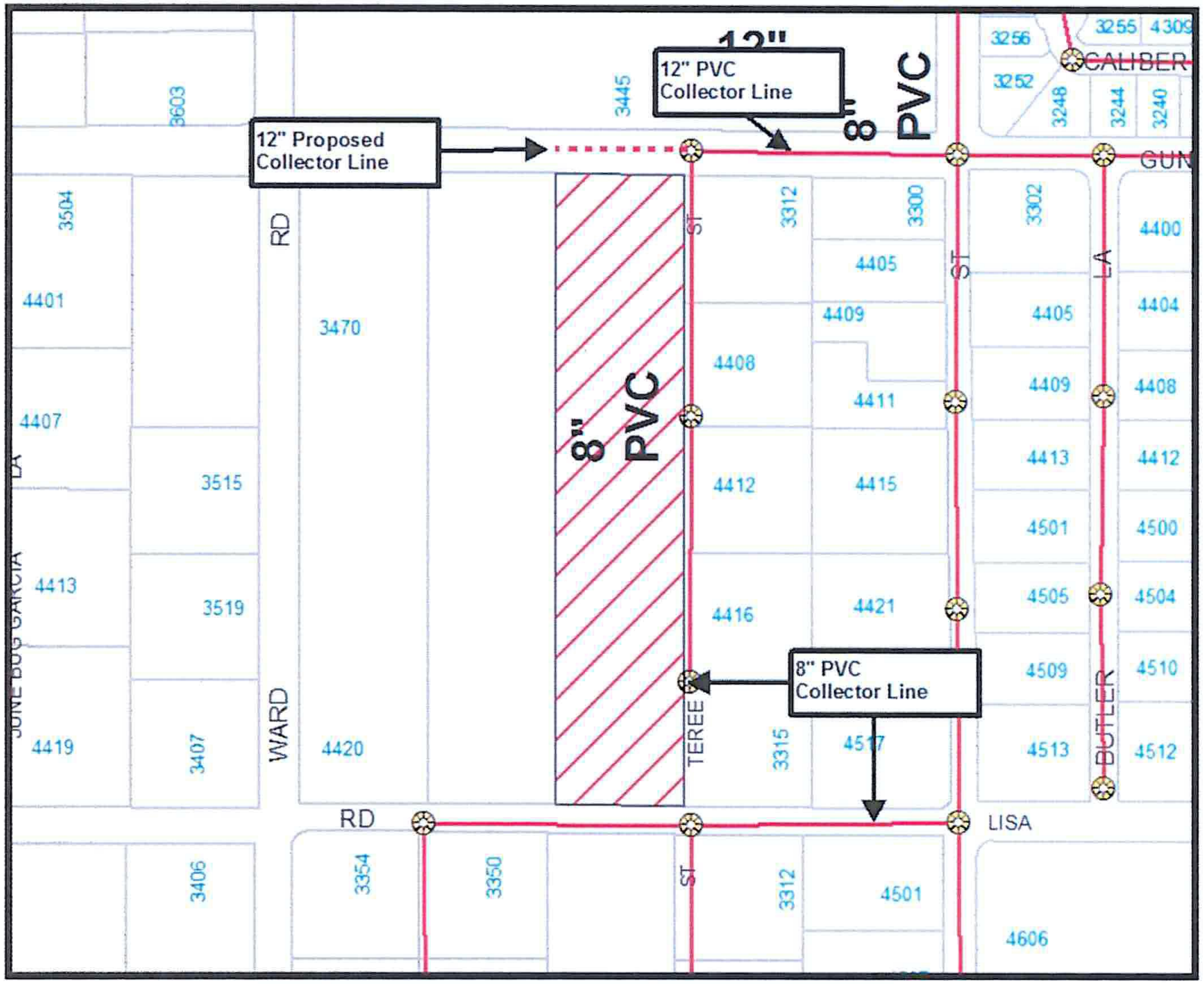
f/ Serviceability 160412



Statement # 160412
Water Infrastructure

190 95 0 190 Feet

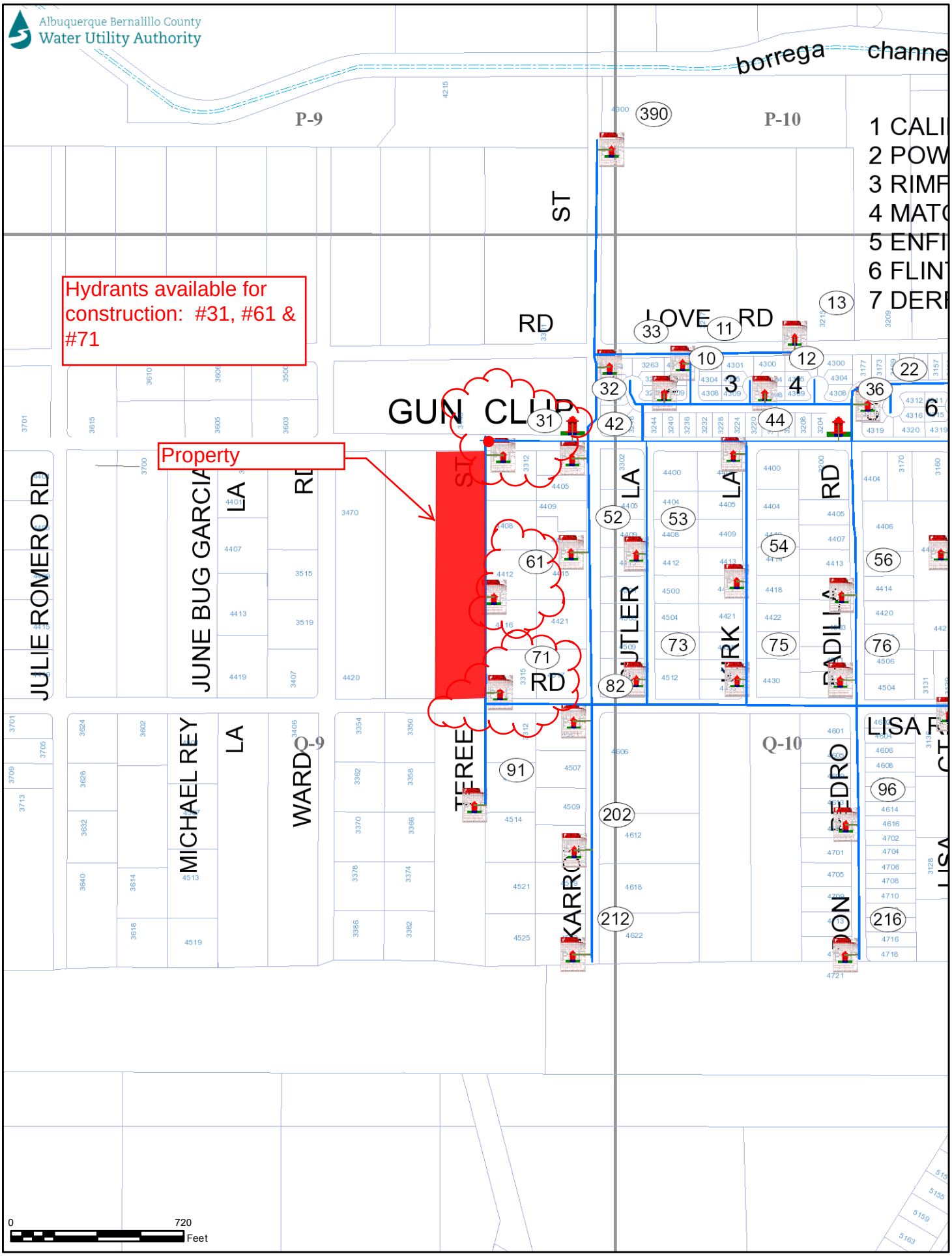
Water Utility Authority



Statement # 160412
Sanitary Sewer Infrastructure

Water Utility Authority

Exhibit C - Hydrants Available for Construction Water



Albuquerque Bernalillo County
Water Utility Authority

Agenda Item No. 9b

Meeting Date: September 21, 2016
Staff Contact: Kristopher Cadena, Principal Engineer, Utility Development

TITLE: R-16-11- Authorizing an Agreement with Ceja Vista, LLC. for Ceja Vista Phase 1 for Water and Sewer Service

ACTION: Recommend Approval

SUMMARY:
The development is located along the south side of Dennis Chavez Blvd. between 118th St. and Grace Vigil Rd., within the City limits, but outside of the Adopted Service Area. The project consists of approximately 403 residential lots in addition to commercial development/multi-family development.

The property is to be from Pressure Zones 2WR and 1W of the Pajarito Trunk.

Water and wastewater service is contingent on the Developer constructing collector lines that tie to the existing infrastructure proximate to the property.

All services provided within the development will be subject to current Utility Expansion and Water Supply Charges.

FISCAL IMPACT:
None.

ALBUQUERQUE BERNALILLO COUNTY
WATER UTILITY AUTHORITY

BILL NO. R-16-11

RESOLUTION

AUTHORIZING AN AGREEMENT WITH CEJA VISTA LLC FOR THE CEJA VISTA PHASE 1 FOR WATER AND SEWER SERVICE.

WHEREAS, Ceja Vista, LLC. (Ceja Vista) is the developer and owner of approximately 403 residential lots in addition to commercial/multi-family development located along the south side of Dennis Chavez Blvd., between 118th St. and Grace Vigil Rd.; and

WHEREAS, the property which is located outside the service area of the Water Authority will require a development agreement for the extension and/or connection of water and sewer lines to the Water Authority's water and sewer system; and

WHEREAS, the Water Authority's Water and Wastewater System Expansion Ordinance requires that new service developed outside the Water Authority's service area will incur no net expense to the Water Authority and be subject to provisions of relevant updated planning documents as approved by the City and/or County; and

BE IT RESOLVED BY THE WATER AUTHORITY:

Section 1. Ceja Vista will obtain all permits, assurances, and approvals from the Water Authority and the City of Albuquerque development/design review process. Construction of water and/or sewer lines shall be in conformance with the plans approved by the Water Authority and all applicable plans, specifications, requirements, and standards of the Water Authority.

Section 2. The expansion of the System shall incur no net expense to the Water Authority and be subject to current Utility Expansion and Water Supply Charges.

Section 3. Ceja Vista will be responsible for close coordination of the project with the Water Authority during the design and construction phases, including the review of the design details during the design process, and the approval of specifications and contract documents.

Section 4. The Executive Director is authorized to enter into the agreement with Ceja Vista for the provision of water and sewer service.

DEVELOPMENT AGREEMENT
Ceja Vista Phase 1

Albuquerque Bernalillo County Water Utility Authority, a New Mexico political subdivision, ("Water Authority") and Ceja Vista LLC an Arizona limited liability corporation, ("Developer") (together, "Parties"), agree as follows:

1. Recitals

A. Ceja Vista LLC is the "Developer" and owner of certain real property located in Westland South Tracts RR-3-A through RR-3-E (collectively, the "Property"). The Property is more particularly described and shown on **Exhibit A** attached hereto and incorporated herein by reference**.** The Property is planned to be developed as a subdivision consisting of 403 single family units, in addition to commercial development. If future zone changes occur within the Property to allow for the development of multi-family housing, the total number of units, including equivalent units for multi-family, shall be no greater than 403 dwelling units. The Property is located outside of the Water Authority's currently adopted Water Service Area.

B. The legal description of the Property is as follows: Bulk Land Plat, Westland South Tracts RR-3-A, RR-3-B, RR-3-C, RR-3-D and RR-3-E.

C. The Property is located in Pressure Zones 2WR and 1W of the Parajito Trunk.

D. The Parties desire to agree upon terms and conditions pursuant to which the Water Authority will provide water and sanitary sewer service to the Property. The Developer desires to construct, or cause to be constructed, extensions of existing public water and sanitary sewer lines and appurtenant infrastructure (collectively, "Line Extensions") under all applicable plans, specifications, requirements, and standards of the Water Authority. The Serviceability Statement for the Property reflecting the line extensions and other matters referred to in this Agreement is attached hereto as **Exhibit B** and incorporated herein by reference and made a term of this agreement.

E. The waterline and sewer line extensions referenced in this Agreement are not considered Master Plan lines by the Water Authority. As such, reimbursement of construction costs associated with these extensions will not be available through water and sewer UEC (defined below in Section 3.B) reimbursements.

2. Design and Construction of the Waterlines and Sanitary Sewer Line

A. The Developer will cause definitive designs and plans of the Line Extensions to be produced which will include estimates of all costs and expenses. The Developer will not connect the extension lines to the existing water and sanitary sewer lines within the City of Albuquerque ("City") public right-of-way or within public easements until the Water Authority has approved the line extensions. The Developer will convey, at no expense to the Water Authority, all Line Extensions that have been approved and accepted by the Water Authority and all necessary easements for the Line Extensions at locations reasonably acceptable to the Developer, free and clear of all liens, claims, and encumbrances for the construction, operation, and maintenance of the line extension. The Developer will obtain all necessary permits, assurances, and approvals from the Water Authority and City, and the Developer will deliver a copy of such permits, assurances, and approvals to the Water Authority prior to the start of construction. Construction will be handled through the City work order process.

B. The Developer will complete, or cause to be completed, construction of the Line Extensions as approved by the City of Albuquerque Design Review Committee and the Water Authority, and in conformance with all applicable plans, specifications, and standards of the City and the Water Authority.

C. The Developer will be responsible for close coordination of the project with the Water Authority during the design and construction phases, including review of design details, during the design process, and the approval of specifications and contract documents. The Water Authority will review and approve in a timely manner the design plans for construction and estimated cost, to ensure the designs meet Water Authority standards and follow the guidance provided in the City's Development Process Manual ("DPM") and/or applicable Water Authority Design Manuals.

D. To the extent relevant and applicable and to the extent there is no conflict with the terms of this Agreement, the usual procedures and documentation, including the Procedure "B", as defined in the Subdivision Ordinance and the DPM of the City, will be followed and used for the Line Extensions.

3. Service

A. The Developer shall comply with the Water Authority's Water and Sewer System Expansion Ordinance, as amended from time to time. Connection for water service shall require the concurrent connection of sanitary sewer service to the Water Authority's wastewater system.

B. The Developer or its successor shall pay Utility Expansion Charges (UEC) and the Water Supply Charges (WSCs) at the rates that are imposed at the

time of a service connection, as provided in the Water Authority's Water and Sewer Rate Ordinance, as amended from time to time.

C. Pursuant to Water Authority Resolution No. R-05-13, the Developer agrees that it will incorporate water conservation guidelines that will seek to achieve water usage of no more than 180 gallons per household which is equivalent to seventy-five (75) gallons per capita per day.

4. Termination. If construction of the waterline extensions and sanitary sewer extensions by the Developer has not been completed and accepted by the Water Authority within seven years of the effective date of this Agreement, this Agreement shall automatically terminate, and the Water Authority and the Developer shall have no further rights, obligations, or liabilities with respect to this Agreement, unless otherwise agreed in writing.

5. Water for Construction. During the construction of the waterline extensions and sanitary sewer line extensions, water for construction may be obtained from a hydrant designated by the Water Authority as set forth on **Exhibit C** attached hereto and incorporated herein by reference. If economically feasible, the Contractor is encouraged to utilize alternative methods for dust abatement and control including compost from the Water Authority.

6. Indemnification. The Developer will defend, indemnify and hold harmless the Water Authority and its officials, agents, and employees on demand from any claims, actions, suits, or other proceedings arising from the acts or omissions of the Developer, its agents, representatives, contractors, or subcontractors, or arising from the failure of the Developer, its agents, representatives, contractors, or subcontractors to perform any act or duty required of the Developer in this Agreement. The indemnification by the developer will not extend to the negligent acts of the Water Authority.

7. Representations and Warranties of Developer. The Developer represents and warrants that:

A. Developer is a validly existing limited liability company under the laws of the State of Arizona.
B. Developer has all the requisite power and authority to enter into this Agreement and bind the Developer under the terms of the Agreement; and
C. The undersigned officer of the Developer is fully authorized to execute this Agreement on behalf of the Developer.

8. Notices. Any notice to be given under this Agreement will be in writing and will be deemed to have been given when deposited with the United States Postal Service, postage prepaid and addressed as follows:

If to the Water Authority:

Mark S. Sanchez
Executive Director
Albuquerque Bernalillo County
Water Utility Authority
One Civic Plaza, Room 5012
Albuquerque, New Mexico 87102

If to Developer:

Ceja Vista LLC
Attn: Mark Pananides
C/o WestPac Investments
503 Bath Street, Santa Barbara, CA 93101-3403

9. **Assignment.** This Agreement will not be assigned without the prior written consent of the Water Authority and the Developer.

10. **Miscellaneous.** This Agreement will be governed by and interpreted in accordance with the laws of the State of New Mexico. The headings used in this Agreement are for convenience only and shall be disregarded in interpreting the substantive provisions of the Agreement. This Agreement binds and benefits the Water Authority and their successors, assigns, and transferees and the Developer and their successors, assigns and transferees. Time is of the essence of each term of this Agreement. If any provision of this Agreement is determined by a court of competent jurisdiction to be void, invalid, illegal, or unenforceable, that portion will be severed from this Agreement and the remaining parts will remain in full force as though the invalid, illegal, or unenforceable portion had never been a part of this Agreement.

11. **Integration; Interpretation.** This Agreement contains or expressly incorporates by reference the entire agreement of the parties with respect to the matters contemplated by this Agreement and supersedes all prior negotiations. This Agreement may only be modified in writing executed by both parties.

12. **Approval.** This Agreement is subject to the approval of the Board of Directors of the Water Authority and will not become effective until approved by the Water Authority.

13. **Effective Date.** The effective date of this Agreement is the date last entered below.

In Witness Whereof, the parties hereto have executed this Agreement on the dates entered below.

Albuquerque Bernalillo County Water Utility Authority	**Developer Ceja Vista LLC An Arizona Limited Liability**

Company

By: _____
Mark S. Sanchez
Executive Director
Date: _____

By: _____
Mark Pananides
Partner
Date: _____

ACKNOWLEDGEMENTS

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

This instrument was acknowledged before me on, _____, 20_____ by _____, _____ of _____ a _____, on behalf of said Company.

_____
Notary Public

My Commission Expires:
_____

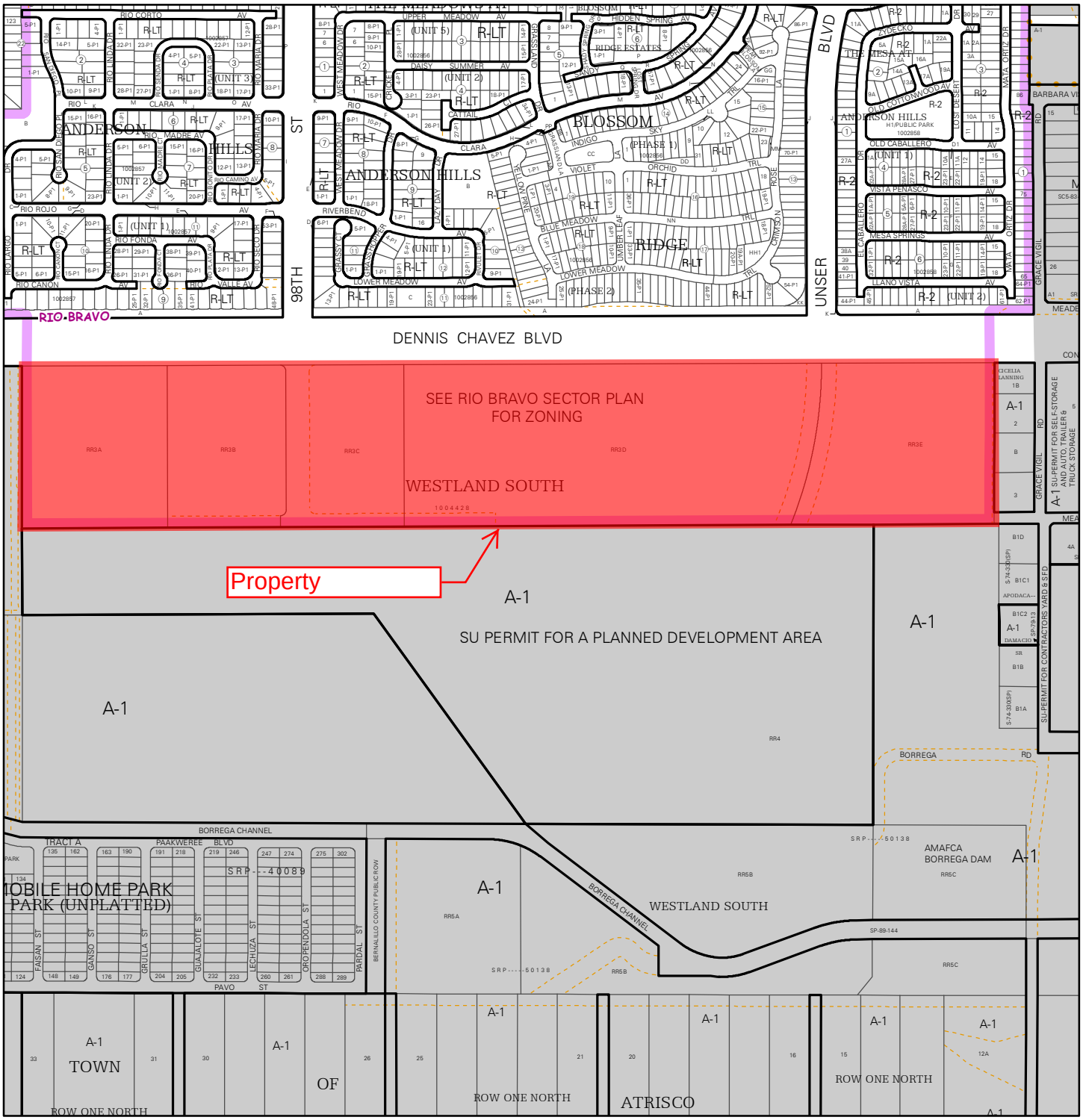
STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

This instrument was acknowledged before me on _____, 20__ by Mark S. Sanchez, Executive Director of the Albuquerque Bernalillo County Water Utility Authority, a New Mexico political subdivision.

_____
Notary Public

My Commission Expires:
_____

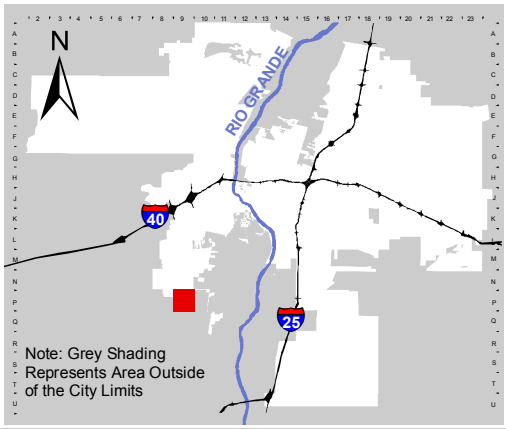
Exhibit A



For more current information and details visit: http://www.cabq.gov/gis

Albuquerque Geographic Information System

Map amended through: 1/28/2016



Zone Atlas Page:

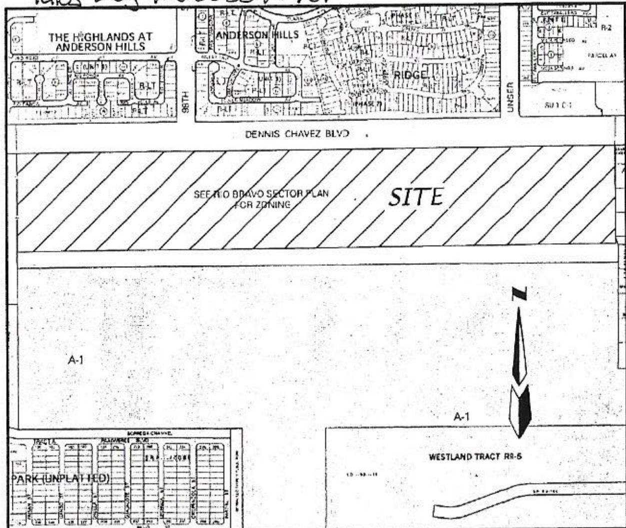
P-09-Z

Selected Symbols

- SECTOR PLANS
- Design Overlay Zones
- City Historic Zones
- H-1 Buffer Zone
- Petroglyph Mon.
- Escarpment
- 2 Mile Airport Zone
- Airport Noise Contours
- Wall Overlay Zone

0 750 1,500 Feet

Talos Log #2005381481



VICINITY MAP

ZONE ATLAS P-9-Z SCALE: 1"=750'

SUBDIVISION DATA

GROSS ACREAGE	98.9070 AC
ZONE ATLAS NO.	P-9-Z
NO. OF EXISTING TRACTS/LOTS	1 TRACT
NO. OF TRACTS/LOTS CREATED	5 TRACTS
NO. OF TRACTS/LOTS ELIMINATED	1 TRACT
MILES OF FULL WIDTH STREETS CREATED	0.0 MILES
AREA DEDICATED TO CITY OF ALBUQUERQUE	0.0 ACRES
DATE OF SURVEY	November, 2004
ZONING	SU-1/C-1 & R-LT

FREE CONSENT AND DEDICATION

The subdivision hereon described is with the free consent and in accordance with the desires of the undersigned owner(s) and/or proprietor(s) thereof and said owner(s) and/or proprietor(s) do hereby grant: all access, utility and drainage easements shown hereon including the right to construct, operate, inspect, and maintain facilities therein; and all public utility easements shown hereon for the common and joint use of gas, electrical power, water, sewer and communication services for buried distribution lines, conduits, and pipes for underground utilities where shown or indicated, and including the right of ingress and egress for construction and maintenance, and the right to trim interfering trees and shrubs. Said owner(s) and/or proprietor(s) do hereby consent to all of the foregoing and do hereby certify that this subdivision is their free act and deed. Said owners(s) warrant that they hold among them complete and indefeasible title in fee simple to the land subdivided.

OWNER: Albuquerque Rio Bravo Partners LLC 8/29/05

By: Patrick Smith, Managing Member DATE

OWNER'S ACKNOWLEDGMENT

STATE OF NEW MEXICO
SS
COUNTY OF BERNALILLO

This instrument was acknowledged before me on August 24, 2005 By Patrick Smith, Managing Member, Albuquerque Rio Bravo Partners LLC, a New Mexico Corporation on behalf of said corporation

Susan Pasinski 9.10.2008

NOTARY PUBLIC MY COMMISSION EXPIRES

SUSAN PASINSKI
NOTARY PUBLIC-STATE OF NEW MEXICO
My commission expires: ______

LEGAL DESCRIPTION

A tract of land within the Town of Atrisco Grant, projected Section 9, Township 9 North, Range 2 East, New Mexico Principal Meridian, City of Albuquerque, Bernalillo County, New Mexico being all of TRACTS RR-3-A, WESTLAND SOUTH as the same is shown and designated on said special warranty deed filed for record in the office of the County Clerk of Bernalillo County, New Mexico on April 25, 1991 Bk. 91-7, Pg. 830-831 and containing 98.9070 acres more or less.

NOTES

1. Bearings are New Mexico State Plane Grid Bearings (Central Zone).
2. Distances are ground distances.
3. Bearings and Distances in Parenthesis are record.
4. Basis of boundary are the following plats and documents of record entitled:
   "LANDS OF CECELIA LANNING", (10-24-79, B17-42)
   "LAND OF DAMACIO APODACA", (11-08-74, A5-116)
   "LAND OF DAMACIO APODACA", (01-08-79, A7-6) QUITCLAIM DEED (01-08-79, A7-6)
   "WESTLAND, TRACT RR-5", (03-04-93, 93C-58)
   "LANDS OF WESTLAND DEV. CO. INC, SOUTH TRACT", (02-10-77, CASE 8-76-03865)
   "PAKKREWEE", (01-29-01, 01C-38)
   "RIGHT OF WAY MAP (SD-4008 (206)", (05-09-94)
   Records of Bernalillo County, New Mexico.
5. Date of Survey: November, 2004.
6. Title Report: Fidelity National Title Insurance Company Commitment No.04-1048776-B-VG (Effective Date: October 7, 2004.)
7. Address of Property: None provided.
8. City of Albuquerque, New Mexico Zone: A-1 AND R-LT 9. This property lies within Zone (AO) and (A) Special Flood Hazard Areas Inundated by 100-Year Flood and Zone (X) as shown on Panel 338 of 825, Flood Insurance Rate Map, City of Albuquerque, Bernalillo County New Mexico, dated September 20, 1996.
10. These tracts are affected by a RIGHT-OF-WAY EASEMENT to American Telephone and Telegraph Company, filed May 17, 1930 recorded in Book 112, Page 290, said easement amended by a MODIFICATION EASEMENT, filed February 13, 1973 recorded in Book Misc. 298, Page 635, said easement assigned to the Mountain States Telephone and Telegraph Company by ASSIGNMENT filed December 19, 1977, recorded in Book Misc. 575, Page 928 all being records of Bernalillo County, New Mexico.

PURPOSE OF PLAT

1. SUBDIVIDE A SINGLE TRACT INTO 7 TRACTS
2. GRANT EASEMENTS SHOWN HEREON

THIS IS TO CERTIFY THAT TAXES ARE CURRENT AND PAID ON UPC #: 100905325431320401
PROPERTY OWNER OF RECORD: Alb Rio Bravo Partner
BERNALILLO COUNTY TREASURER'S OFFICE: 11-10-05

"NOTICE OF SUBDIVISION PLAT VARIANCE"
Tracts RR-3-A, RR-3-B, RR-3-C, RR-3-D, and RR-3-E,
Westland South
Albuquerque, Bernalillo County, New Mexico

The plat for Tracts "RR-3-A, RR-3-B, RR-3-C, RR-3-D, and RR-3-E, Westland South, Town of Atrisco Grant, Albuquerque, Bernalillo County, New Mexico, has been granted a variance or waiver from certain subdivision requirements pursuant to Section 7 of the City of Albuquerque Subdivision Ordinance.

Future subdivision of lands within this plat, zoning site development plan approvals, and development permits may be conditioned upon dedication of rights-of-way and easements, and/or upon infrastructure improvements by the owner of water, sanitary sewer, streets, drainage, grading and parks in accordance with current resolutions, ordinances and policies in effect at the time for any specific proposal.

The City and AMAFCA (with reference to drainage) may require and/or permit easements to be added, modified or removed when future plats and/or site development plans are approved.

By its approval of this subdivision, the City makes no representation or warranties as to availability of utilities, or final approval of all requirements including (but not limited to) the following items: water and sanitary sewer availability; future street dedications and/or improvements; and excavation, filling or grading requirements. Any person intending development of lands within this subdivision is cautioned to investigate the status of these items.

At such time as all such conditions have been satisfactorily met, the City Engineer shall approve a recordable document, removing such conditions from all or from a portion of the area within the subject subdivision.

ALDRICH LAND SURVEYING
P.O. BOX 30701, ALBQ., N.M. 87190
505-884-1990

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6364578
Page: 1 of 5
11/14/2005 10:55A
Mary Herrera Bern. Co. PLAT R 27.00 Bk-2005C Pg-365

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BULK LAND PLAT

WESTLAND SOUTH
TRACTS RR-3-A THROUGH RR-3-E

WITHIN THE
TOWN OF ATRISCO GRANT
PROJECTED SECTION 9
TOWNSHIP 9 NORTH, RANGE 2 EAST, NMPM
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
AUGUST, 2005

APPROVED AND ACCEPTED BY:

APPROVAL AND CONDITIONAL ACCEPTANCE as specified by the Albuquerque subdivision Ordinance, Chapter 14 Article 14 of the Revised Ordinances of Albuquerque, New Mexico, 1994.

Project Number: 1004428

Application Number: 05DRB-01461

PLAT APPROVAL

Utility Approvals:

Approval	Date
PNM Electric Services	9-13-05
PNM Gas Services	9-13-05
Qwest	09-13-05
Comcast	9.13.05

City Approvals:

Approval	Date
City Surveyor	9-13-05
N/A Real Property Division	10/28/05
Traffic Engineering, Transportation Division	10-12-05
Water Utility Department	10.12.05
Parks and Recreation Department	10/12/05
AMAFCA	10/12/05
City Engineer	10/12/05
DRB Chairperson, Planning Department	10/28/05

SURVEYOR'S CERTIFICATION

"I, Timothy Aldrich, a duly qualified Registered Professional Land Surveyor under the laws of the State of New Mexico, do hereby certify that this plat and description were prepared by me or under my supervision, shows all easements as shown on the plat of record or made known to me by the owners and/or proprietors of the subdivision shown hereon, utility companies and other parties expressing an interest and meets the minimum requirements for monumentation and surveys of the Albuquerque Subdivision Ordinance, and further meets the Minimum Standards for Land Surveying in the State of New Mexico, and is true and correct to the best of my knowledge and belief."

Timothy Aldrich P.S. No. 7719 09-12-05 Date

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Scale: 1" = 300'	Date: 08/24/05	Job: A04095	

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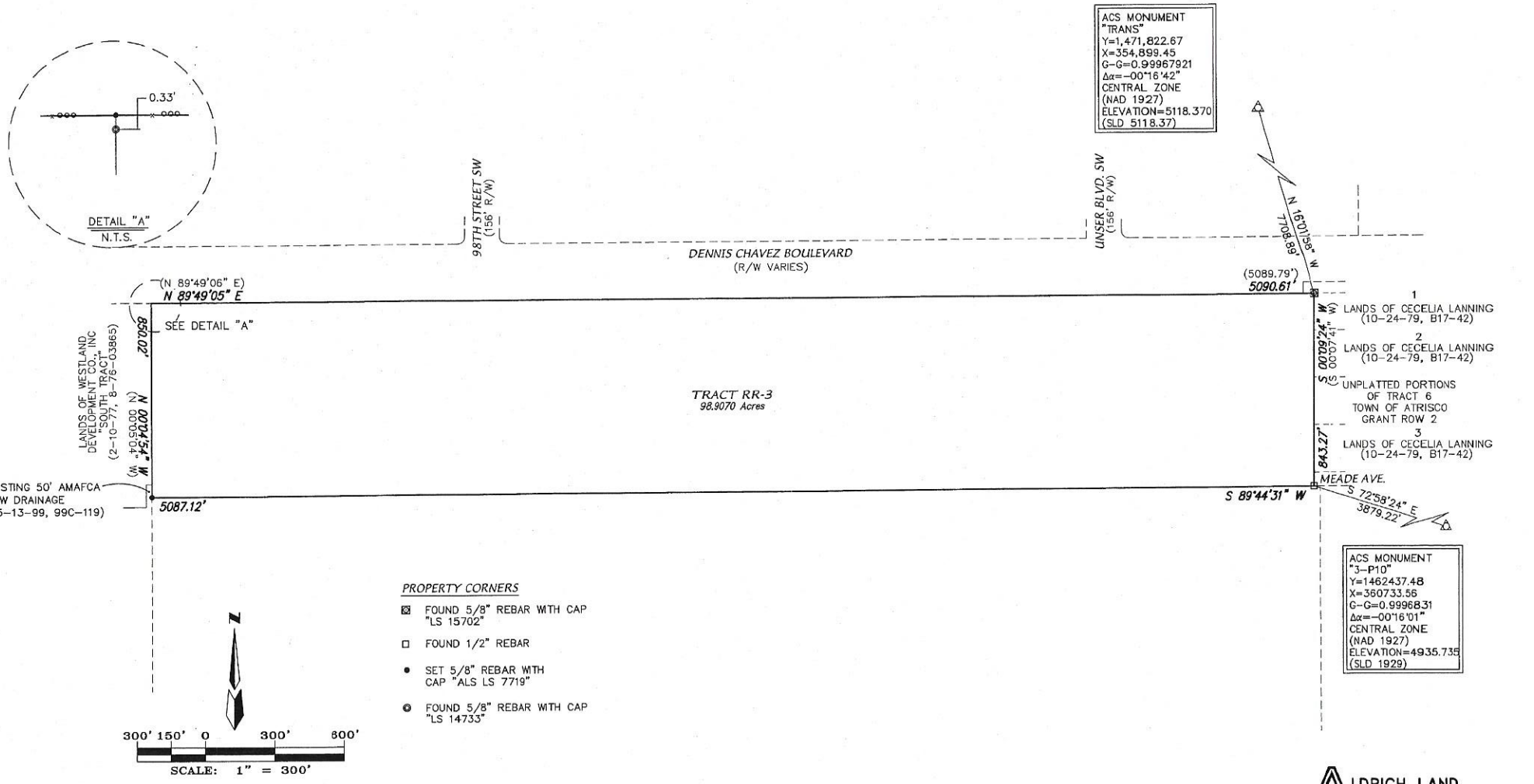
BULK LAND PLAT

WESTLAND SOUTH
TRACTS RR-3-A THROUGH RR-3-E

WITHIN THE
TOWN OF ATRISCO GRANT
PROJECTED SECTION 9
TOWNSHIP 9 NORTH, RANGE 2 EAST, NMPM
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
AUGUST, 2005



PROPERTY CORNERS

- ⊠ FOUND 5/8" REBAR WITH CAP "LS 15702"
- □ FOUND 1/2" REBAR
- • SET 5/8" REBAR WITH CAP "ALS LS 7719"
- ⊙ FOUND 5/8" REBAR WITH CAP "LS 14733"

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Page: 2 of 5
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Mary Herrera Bern. Co. PLAT R 27.00

ALDRICH LAND SURVEYING
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505-884-1990

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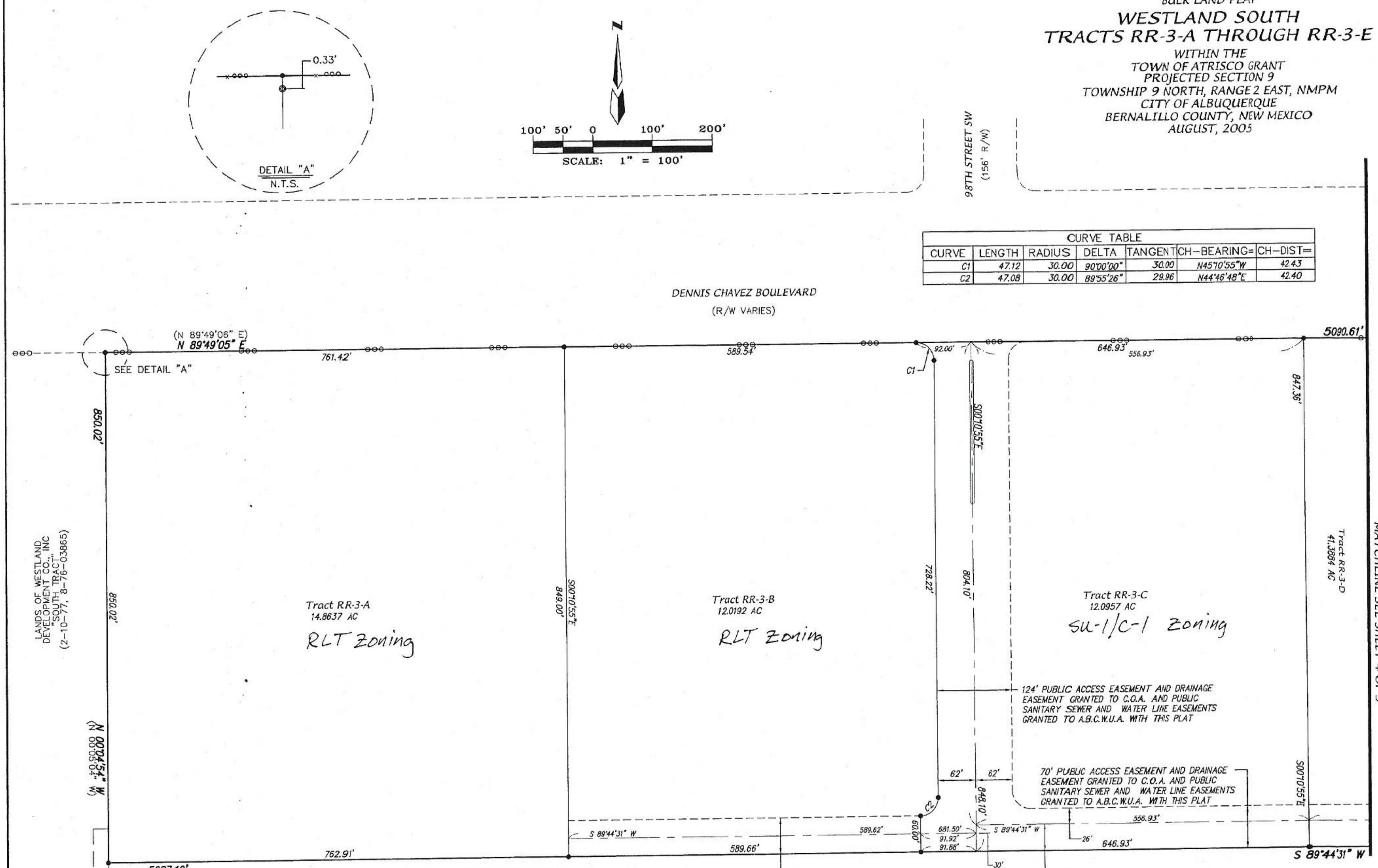
BULK LAND PLAT

WESTLAND SOUTH
TRACTS RR-3-A THROUGH RR-3-E

WITHIN THE
TOWN OF ATRISCO GRANT
PROJECTED SECTION 9
TOWNSHIP 9 NORTH, RANGE 2 EAST, NMPM
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
AUGUST, 2005



CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CH-BEARING=	CH-DIST=
C1	47.12	30.00	90°00'00"	30.00	N45°10'55"W	42.43
C2	47.08	30.00	89°55'26"	29.96	N44°46'48"E	42.40

PROPERTY CORNERS

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Page: 3 of 5
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Mary Herrera Bern. Co. PLAT R 27.00 Bk-2005C Pg-365

ALDRICH LAND SURVEYING
P.O. BOX 30701, ALBQ., N.M. 87190
505-884-1990

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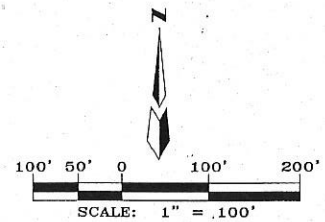
Scale: AS SHOWN	Date: 10/12/05	Job: A04095	

BULK LAND PLAT

WESTLAND SOUTH
TRACTS RR-3-A THROUGH RR-3-E

WITHIN THE
TOWN OF ATRISCO GRANT
PROJECTED SECTION 9
TOWNSHIP 9 NORTH, RANGE 2 EAST, NMPM
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
AUGUST, 2005



UNSER BLVD. SW
(156' R/W)

DENNIS CHAVEZ BOULEVARD
(R/W VARIES)

N 89°49'05" E
2185.23'
5090.61'
905.48'

R=2250.00'
L=865.88'
D=22°02'58"
T=438.37'
CH=N10°50'34"E, 860.55'

Tract RR-3-D
41.3884 AC
RLT Zoning

156' PUBLIC ACCESS EASEMENT AND DRAINAGE EASEMENT GRANTED TO C.O.A. AND PUBLIC SANITARY SEWER AND WATER LINE EASEMENTS GRANTED TO A.B.C.W.U.A. WITH THIS PLAT

Tract RR-3-G
18.5401 AC

476.17'
1033.10'
26'
5087.12'
44'
2020.67'
1065.07'
S 89°44'31" W

70' PUBLIC ACCESS EASEMENT AND DRAINAGE EASEMENT GRANTED TO C.O.A. AND PUBLIC SANITARY SEWER AND WATER LINE EASEMENTS GRANTED TO A.B.C.W.U.A. WITH THIS PLAT

MATCHLINE SEE SHEET 3 OF 5

MATCHLINE SEE SHEET 5 OF 5

PROPERTY CORNERS

- ⊠ FOUND 5/8" REBAR WITH CAP "LS 15702"
- □ FOUND 1/2" REBAR
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- ◎ FOUND 5/8" REBAR WITH CAP "LS 14733"

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Mary Herrera Bern. Co. PLAT R 27.00

ALDRICH LAND SURVEYING
P.O. BOX 30701, ALBQ., N.M. 87190
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BULK LAND PLAT

WESTLAND SOUTH
TRACTS RR-3-A THROUGH RR-3-E

WITHIN THE
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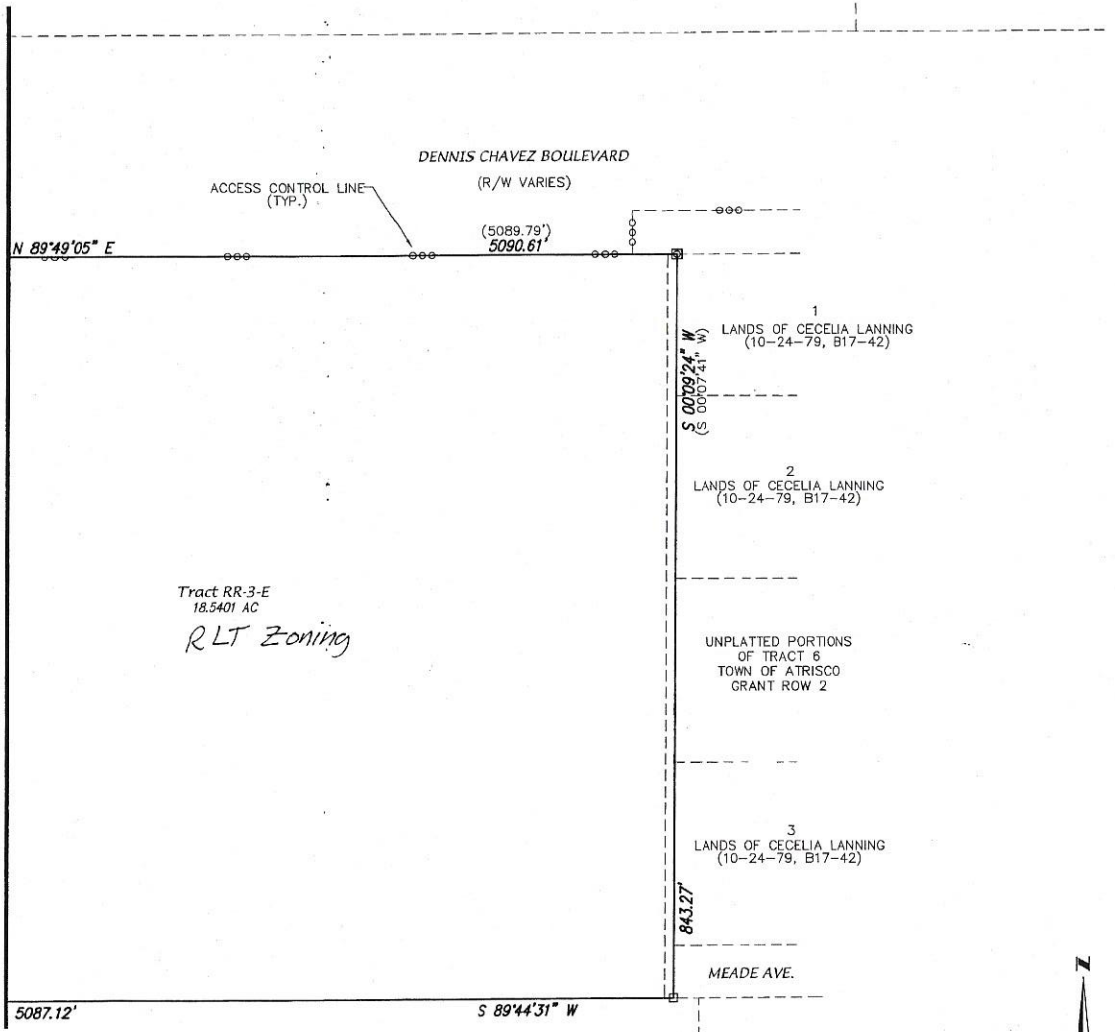
AUGUST, 2005



MATCHLINE SEE SHEET 4 OF 5

PROPERTY CORNERS

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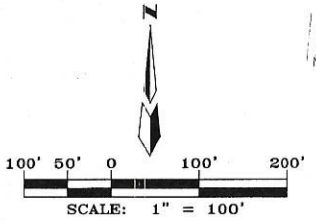

ALDRICH LAND SURVEYING
P.O. BOX 30701, ALBQ., N.M. 87190
505-884-1990

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Scale:	AS SHOWN	Date:	10/11/05	Job:	A04095		

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Exhibit B

Albuquerque Bernalillo County
Water Utility Authority

PO Box 568
Albuquerque, NM 87103
www.abcwua.org

May 23, 2016

Mark Goodwin
Mark Goodwin & Associates, PA
P.O. Box 90606
Albuquerque, NM 87199

RE: Water and Sanitary Sewer Serviceability Statement #160313
Ceja Vista Unit 1, 2, & 3 - Dennis Chavez Blvd - Zone Atlas Map: P-9

Dear Mr. Goodwin:

Project Information: The subject site is located on Dennis Chavez Blvd. between Grace Vigil Rd. and 118th St. within the City. The property consists of approximately 99 acres and is currently zoned for residential use. The property lies within the Pressure Zone 2WR and 1W in the Pajarito trunk. The request for information indicates plans to develop the property to include a 403 lot residential subdivision for single family detached dwelling units.

Development Agreement: Pursuant to the System Expansion Ordinance, this property is outside of the Water Authority service area and the Water Authority Board must approve a Development Agreement to serve this property and establish requirements as a condition of service. The previous development agreement (R-07-19) with Albuquerque Rio Bravo Partners, LLC for Ceja Vista has since expired. Contact Utility Development in regards to Development Agreements.

Water Supply Charge: All developments located outside of the Water Authority's service area will be assessed a Water Supply Charge (WSC) as provided in the Water Authority's Water and Sewer Rate Ordinance for the development of new water resources, rights and supplies necessary to serve the development. The WSC shall not be used for reimbursement of master planned facilities.

Existing Conditions: Water infrastructure in the area consists of the following:

- Pressure zone 2W infrastructure
- 12 inch PVC distribution main (project #26-7539.89-09) along the west of the project location.
- Pressure zone 2WR infrastructure
- 12 inch PVC distribution main (project #26-7081.81-06) along 98th St.
- 12 inch PVC distribution main (project #26-6795.82-06) along Unser Blvd.
- Pressure zone 1W infrastructure
- 12 inch PVC distribution main (project #26-6795.81-06) along Unser Blvd.

Sanitary sewer infrastructure in the area consists of the following:

- 15 inch PVC interceptor line (project #26-6141.91-97) along Dennis Chavez Blvd.
- 10 inch PVC collector line stub (project #26-6141.91-97) into the project location at the west portion of the proposed project and one closer to the middle of the proposed project.

Water and Sewer Service: New metered water service to the property can be provided contingent upon a developer funded project to extend an internally looped distribution system for both Pressure Zones 2WR and 1W to serve only phase one of the Ceja Vista development. The entire Ceja Vista development is anticipated to be approximately 430

acres. The future phases of the Ceja Vista development will require a Master Plan Study to determine the master plan infrastructure required to serve the area, which may include but is not limited to a pump station near the Pajarito Reservoir and a transmission line which ultimately serves the area.

The Pressure Zone 2WR water distribution system shall connect to the existing 12 inch distribution main (2WR) along 98th St., the existing 12 inch distribution main (2WR) along Unser Blvd. and the existing 12 inch distribution main (2W) located at the northwest corner of the subject property via a pressure reducing valve at a location approved by the Water Authority. A 12 inch top of zone distribution main shall be constructed such that it aligns along the top of 2WR pressure zone internal to the development. A 12 inch bottom of zone distribution main shall be constructed such that it aligns along the bottom of 2WR pressure zone internal to the development. The proposed 2WR distribution system shall provide the ability to connect to the future 2WR system as determined by the Master Plan Study. The Pressure Zone 2WR system shall only provide service to lots with finished floor elevations between 5063ft and 5140ft (NAV27/29).

The Pressure Zone 1W water distribution system shall connect to the existing 12 inch distribution main (1W) along Unser Blvd. and extend into the development. For purposes of redundancy and a looped connection, a pressure reducing valve shall be installed downstream of the proposed 2WR distribution system at a location approved by the Water Authority. Based on the timing of the Master Plan Study for the remaining phases of the Ceja Vista development, the proposed pressure reducing valve that supplies service to 1W may be located elsewhere within the overall development. The proposed 1W distribution system shall provide the ability to connect to the future 1W system as determined by the Master Plan Study. The Pressure Zone 1W system shall provide service to lots with finished floor elevations less than 5,063 feet (NAV27/29).

Service is also contingent upon compliance with the Fire Marshal's instantaneous fire flow requirements. Water service will not be sold without adequate fire protection. Water service will only be sold in conjunction with sanitary sewer service

Sanitary sewer service can be provided contingent upon a developer funded project to extend a public collection system along corridors designated as right-of-way adequate to service each proposed residence.

Cross Connection Prevention: Approved dual check valves shall be installed on all water services within pressure zones 0W, 1W and 1E. Any multi-family dwelling including a clubhouse and/or office is required to have a reduced pressure backflow prevention device for containment. If metered separately, the building that includes a clubhouse and/or office shall have a reduced pressure backflow prevention device.

Fire Protection: All new required hydrants as well as their exact locations must be determined through City of Albuquerque Fire Marshal's Office and verified through the Utility Development Office prior to sale of service.

Easements: Exclusive public water and sanitary sewer easements are required for all public lines that are to be constructed outside of any dedicated rights-of-way. A minimum width easement of 20 feet is required for a single utility and 25 feet for water and sewer both within the same easement. Easements for water meters need to be five feet by five feet and include the length of the water service if located on private property. Actual easement widths may vary depending on the depth of the lines to be installed. Side yard

easements are not acceptable for either water or sanitary sewer. Acceptable easements must be documented prior to approval of service.

Pro Rata: As described in this statement, the extension of public water and sanitary sewer lines may be eligible for partial reimbursement through the Pro Rata process as detailed in the Water Authority Water and Wastewater System Expansion Ordinance. Pro Rata is not owed and the property can utilize the services available upon completion of the requirements of this statement to connect to water and sanitary sewer.

Design and Construction of all required improvements will be at the developer / property owner's expense. Improvements must be coordinated through the City of Albuquerque via the Work Order process. Designs must be by a licensed, New Mexico registered professional engineer. Construction must be by a licensed, bonded, public utility contractor.

Costs and Fees: In addition to installation and construction costs, any new metered water services will be subject to both water and sanitary sewer Utility Expansion Charges (UEC) payable at the time of service application. All charges and rates collected will be based on the ordinances and policies in effect at the time service is actually requested and authorized.

Water Use: All new development shall be required to meet the standard water usage of 180 gallons per household per day which is equivalent to 75 gallons per capita per day. Indoor water use shall consist of 70% of total use with outdoor limited to 30%. Where available, outdoor water usage shall utilize reclaimed water.

Closure: This statement only provides details of infrastructure that is available and potential precursors to development for the proposed development. For service to be provided, a Board approved development agreement must supplement this serviceability, therefore causing this serviceability to be in effect for a period of one (1) year upon approval of the development agreement. Under no circumstances does this serviceability commit to service without the above mentioned conditions. Changes in the proposed development may require reevaluation and should be brought to the attention of the Utility Development Section of the Water Authority as soon as possible.

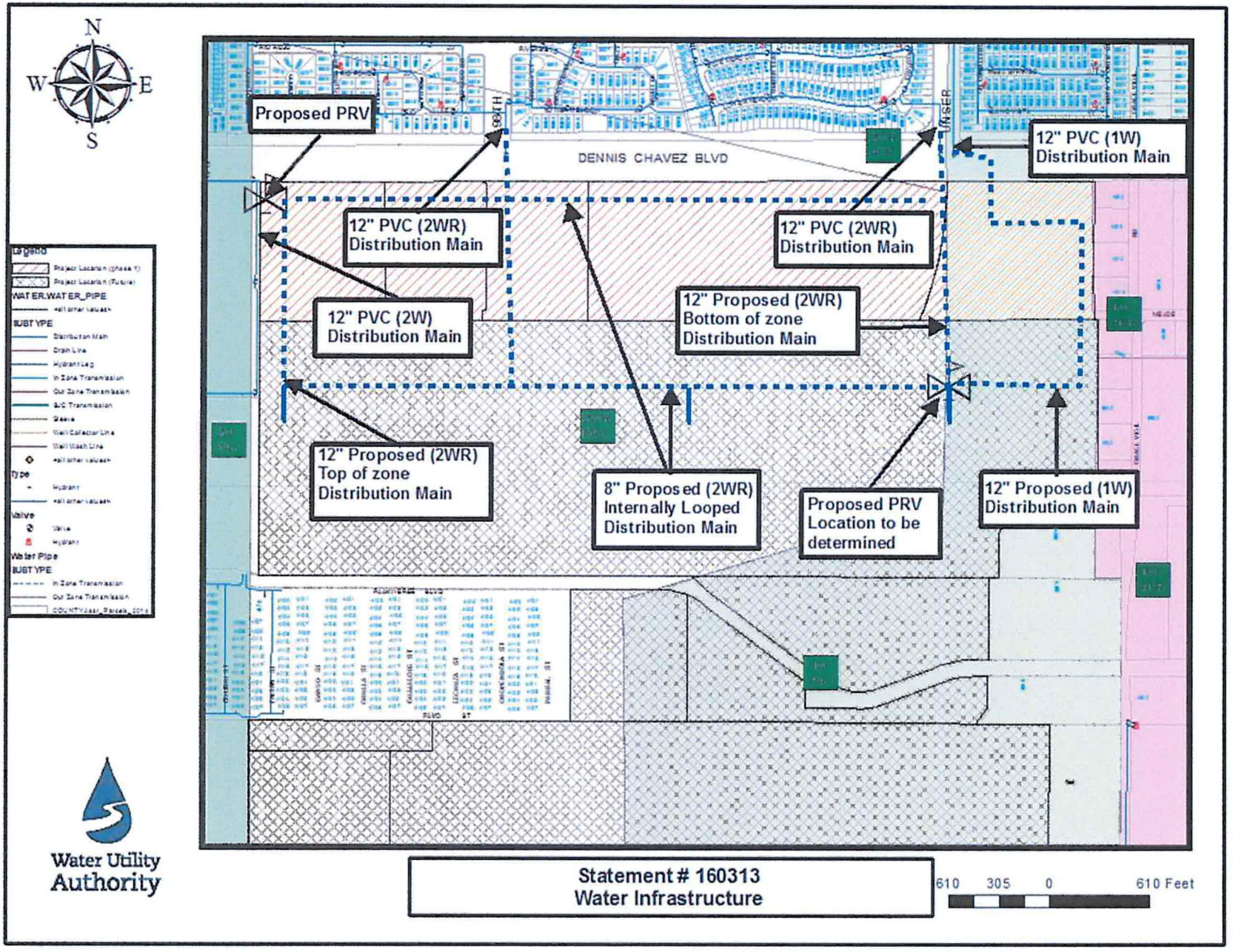
Please feel free to contact the Mr. Kristopher Cadena in our Utility Development Section at (505) 289-3301 or email at kcadena@abcwua.org if you have questions regarding the information presented herein or need additional information.

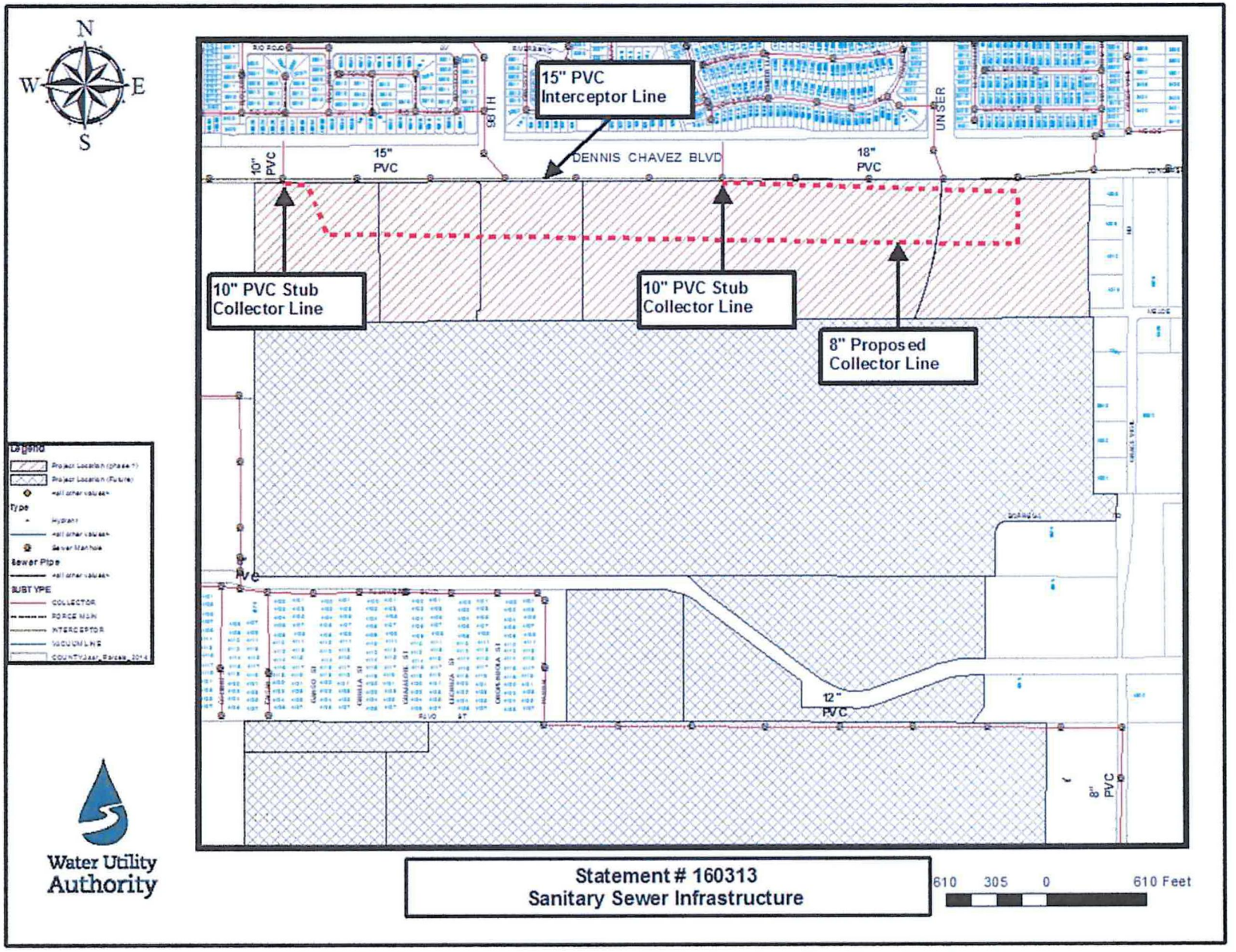
Sincerely,

Mark S. Sanchez
Executive Director

Enclosures: Infrastructure Maps (2)

f/ Serviceability 160313


N
W
E
S
Proposed PRV
DENNIS CHAVEZ BLVD
12" PVC (2WR) Distribution Main
12" PVC (2WR) Distribution Main
12" PVC (1W) Distribution Main
12" PVC (2W) Distribution Main
12" Proposed (2WR) Bottom of zone Distribution Main
12" Proposed (2WR) Top of zone Distribution Main
8" Proposed (2WR) Internally Looped Distribution Main
Proposed PRV Location to be determined
12" Proposed (1W) Distribution Main
Legend
WATER.WATER_PIPE
SUBTYPE
Type
Valve
Water Pipe
SUBTYPE
Water Utility Authority
Statement # 160313
Water Infrastructure
610 305 0 610 Feet


N
W
E
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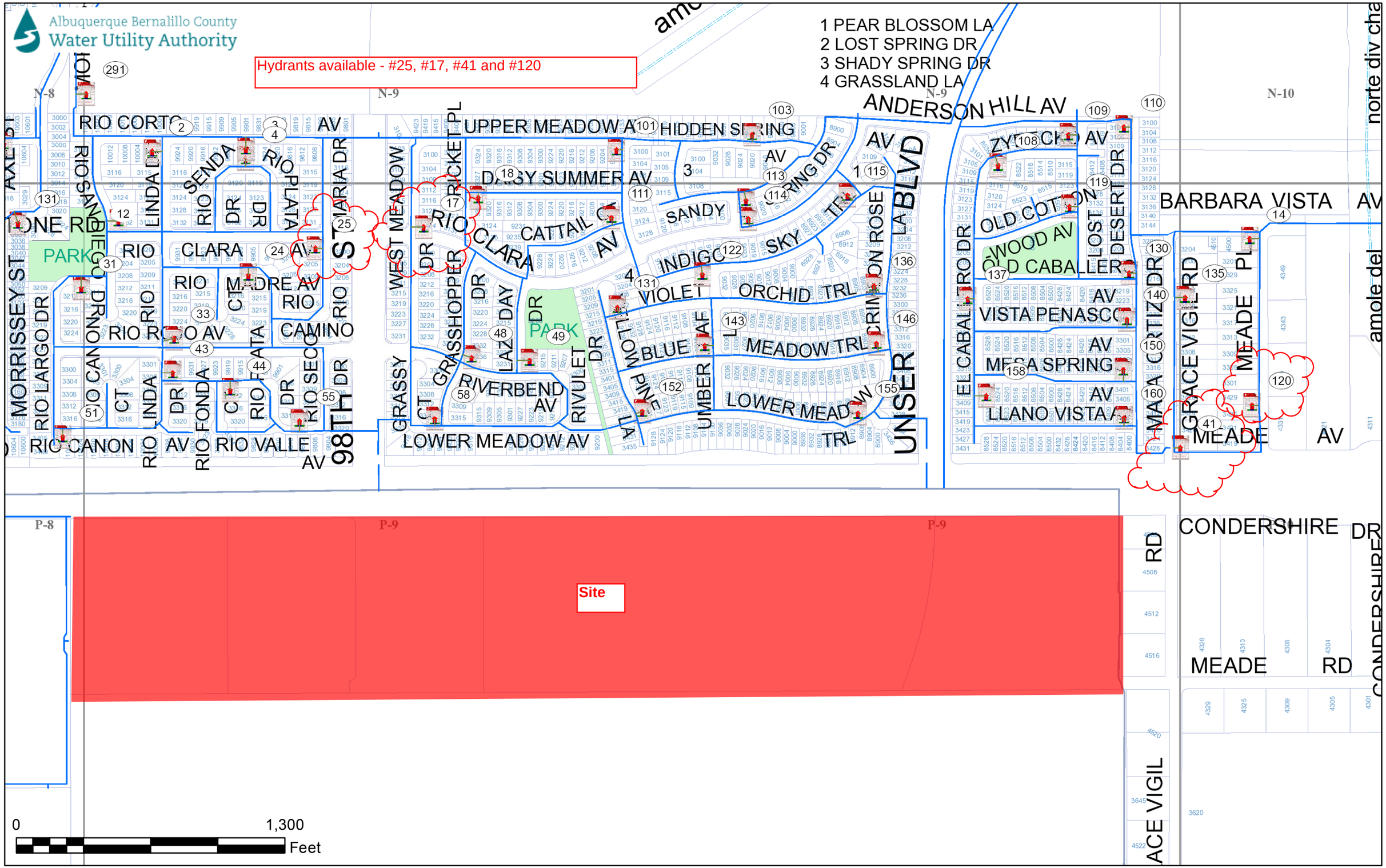
15" PVC
Interceptor Line
DENNIS CHAVEZ BLVD
98TH
UNSER
10" PVC
15" PVC
18" PVC
10" PVC Stub
Collector Line
10" PVC Stub
Collector Line
8" Proposed
Collector Line
12" PVC
8" PVC
Legend
Project Location (phase 1)
Project Location (Future)
Type
Hydrant
Sewer Manhole
Sewer Pipe
SUBTYPE
COLLECTOR
FORCE MAIN
INTERCEPTOR
VACUUM LINE
Water Utility
Authority
Statement # 160313
Sanitary Sewer Infrastructure
610 305 0 610 Feet

Exhibit C - Hydrants Available for Construction Water



Albuquerque Bernalillo County
Water Utility Authority

Agenda Item No. 9c

Meeting Date: September 21, 2016
Staff Contact: Mark S. Sanchez, Executive Director

TITLE: R-16-12 - Water 2120: Securing Our Water Future

ACTION: Recommend Approval

SUMMARY:
Water Authority staff are introducing the second decade update to the Water Resources Management Strategy entitled, "Water 2120: Securing Our Water Future," which outlines a plan to provide its ratepayers a resilient and sustainable water supply for the next century.

Implementation of the first two water resource management strategies, adopted in 1997 and 2007, respectively, have been quite successful. The Water Authority's accomplishments include the reduction in water use measured in gallons per capita per day from 251 gallons in 1995 to 127 gallons per day in 2015, and the recovery of the regional aquifer water-table by at least 15 ft. with continued rising projected for another decade or beyond. Despite six consecutive years of drought, the aquifer is rising which is clearly evident in the network of monitoring wells that were installed in cooperation with the U.S. Geologic Survey (USGS).

In addition, about seventy percent of water demand in 2016 has been provided from the San Juan – Chama Drinking Water Project (DWP). The non-potable projects on the Northside and Southside of Albuquerque continue to provide non-potable water for many of the green spaces in Albuquerque. These projects combined with the implementation of the Water Authority's first aquifer storage and recovery facility in Bear Canyon Arroyo have reduced groundwater usage causing the rising levels in the aquifer.

As proposed, "Water 2120" is building on the successes of the previous two strategies, by incorporating an adaptive management approach considering potential climate change impacts to the surface water supply, protecting the watershed by participating in established forest restoration projects, using fully the existing water resources currently available, increasing the use of non-potable reuse of wastewater supplies, and increasing the storage capacity of the aquifer with potentially construction of off-channel storage facilities.

Features of the new strategy will allow the Water Authority to move conservation above and beyond currently levels, while maintaining the quality of life we expect in our

community. Water 2120 calls for managing the aquifer more conservatively than has been done in the past by the establishment of a groundwater reserve and management level, and decreases the long-term impacts on the Rio Grande by implementing an environmental and Rio Grande Compact pools, and keeping the Water Authority from actively participating in any additional pre-1907 water rights transfers.

Water 2120 includes an overview section, a policy document, and a report.

The policies, listed below, have been taken from the previous water resources strategies and maintained in their original structure with one additional policy and some additional sub-policies incorporated to allow for the implementation of new water resource development plans, such as watershed restoration.

Water 2120 Policies:

- Policy A - Water Budget Planning and Reporting
- Policy B - Fully Utilize and Protect Existing Water Rights and Water Resources
- Policy C - Establish and Maintain a Groundwater Reserve
- Policy D - Update and Maintain the Water Conservation Strategy
- Policy E - Support Regional Water Resources Planning and Management
- Policy F - Utilize Conjunctive Management and Diversify Water Resources Portfolio
- Policy G - Develop and Implement Long-Term Water Resources Acquisition Plan
- Policy H - Implement the Water Quality Protection Policy and Action Plan
- Policy I - Protect and Enhance Storage of Native, San Juan-Chama Water and other water resources
- Policy J - Protect Valued Environmental and Cultural Resources
- Policy K - Preserve and Enhance the Quality of Life in the Region
- Policy L - Link Land Use Planning with Water Management
- Policy M - Encourage and Facilitate Public Involvement

There are more than 60 sub-policies that provide guidance and direction regarding implementation of the plan along with technical studies that need to be completed as part of the next steps of the plan.

<u>Public Involvement Process</u>

There was extensive public involvement as part of the development of Water 2120 including the following:

- Water Authority Board Updates – September 2015 to May 2016
- Technical Customer Advisory Committee Meetings – 14 Meetings over 2 Years
- Two Initial Public Meetings – February 2016
- Five Technical Reports
- Four Customer Conversations – May/June 2016

- Town Hall – July 2016
- Westside and Eastside Neighborhood Coalition Meetings – July/August 2016

Water Authority Board Updates

Public presentations were made to the Water Authority Board during their regular meetings in September 2015, January 2016, March 2016 and May 2016. The Water 2120 Plan was introduced to the Water Authority Board in August 2016. The presentations to the Board including demand, supply, climate change, groundwater reserve management plan, alternatives, range of potential supply gaps, and supply portfolios to fill the medium demand/medium supply gap.

Technical Customer Advisory Committee (TCAC) Meetings

The Water Authority Board established a citizen board consisting of nine members of the public to meet and discuss important water policy and other important matters of the Water Authority. There were fourteen meetings over two years working collaboratively with the TCAC on the update to the 2007 Water Resources Management Strategy (WRMS). Extensive presentations were provided and five technical documents were produced for review and comment. The documents produced were as follows:

- Chapter 2 – Water Demand
- Chapter 3 – Supply
- Chapter 4 – Groundwater Management
- Chapter 5 – Alternatives
- Chapter 6 – Filling in Future Gaps in Supply

The reports documented the evaluation of historical and projected supplies and demands, forecasted impacts of climate change to surface water supplies, and the evaluation of supply gaps and proposed alternatives to meet future demand scenarios as predicted by integrated model simulations run using the Office of the State Engineer's Administrative model (based on MODFLOW) and the Upper Rio Grande Simulation Model, or URGSIM.

There were more than 1,300 comments received and addressed from the TCAC on the documents which were posted and available to the public on the Water Authority's website starting in June 2016 with Chapter 6 posted prior to the Town Hall meeting.

The TCAC recommended adoption by the Water Authority Board of the new policies at the August 1, 2016 meeting.

Two Initial Public Meetings

The Water Authority hosted two public meetings (around 40 participants) in February 2016 to provide the public with the opportunity to discuss the need for a new 100-year water supply plan and to provide feedback on the plan prior to the plan elements and

alternatives established. The meetings went very well and overall there was very positive feedback on discussing what the new plan might consist of.

Four Customer Conversations

There were four customer conversations held in May and June 2016 (about 200 customers). These meetings were held over a two hour period and provided our customers the opportunity to provide feedback on a number of topics related to the new water supply plan. The meetings included a presentation on the update and status of the development of the plan, followed by two exercises examining several alternatives in an effort to afford our customers the opportunity to experience what it was like trying to fill the supply gaps.

The customers were separated into groups at tables where they were provided three different supply scenarios (historical, central tendency climate change, and hot-dry climate change along with a water conservation alternative. Given the gaps presented to them, they worked together to select alternatives based on a variety of criteria including the amount of water they would provide, environmental and financial impact to name a few. The selected alternatives provided an opportunity to obtain productive feedback about customer choices. For example, the customers really liked the idea of capturing and using storm water as a future alternative water supply. Based on that feedback, we added storm water as a component of Portfolio 1.

Town Hall

The purpose of the Town Hall was to obtain community input on the revised policies to ensure a safe and sustainable water supply into the future. The Water Authority seeks to reach its water resources management decisions through a public process so that they may reflect community values. The Town Hall brought significant input regarding community values and priorities and how they can be reflected in water resources activities.

The Town Hall was held July 22nd and over 200 customers attended the four hour meeting. The morning was spent in informational plenary sessions where customers learned about different elements of the proposed strategy and were able to ask questions of the presenters. The afternoon was spent in small groups discussions led by individual facilitators and recorders to gather input on customer preference on supply alternatives and proposed policies. Water Authority staff were also circulating through the small group sessions to address questions on the strategy as they arose. The close of the meeting brought all the participants back together for a report out on the results of their small group discussions. Customer preferences for supply alternatives were very similar to the preferences expressed in the Customer Conversations. Results of the Town Hall meeting are in the appendix.

FISCAL IMPACT: None

ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY

BILL NO. R-16-12

RESOLUTION

ADOPTING WATER 2120 – SECURING OUR WATER FUTURE (2016 WATER RESOURCES MANAGEMENT STRATEGY) AS THE WATER AUTHORITY'S WATER SUPPLY AND DEMAND POLICY.

WHEREAS, the Albuquerque/Bernalillo County Comprehensive Plan requires the water resources in the metropolitan area to be managed to provide a permanent, adequate water supply; and

WHEREAS, a water resources management policy is needed to help guide and plan for water resources and to meet the Comprehensive Plan directive; and

WHEREAS, the Albuquerque Water Resources Management Strategy was adopted in 1997 as the City of Albuquerque's water supply policy; and

WHEREAS, the Water Authority adopted the 2007 Water Resources Management Strategy as the water supply policy; and

WHEREAS, the Water Authority has successfully implemented the majority of the policies and projects described in the 2007 Strategy; and

WHEREAS, the Water Authority established a Technical Customer Advisory Committee (TCAC), whose purpose was to provide input on the Authority's policies, plans and programs. The TCAC reviewed the technical documents and worked on revising the policies of the current Strategy over the last two years; and

WHEREAS, the Water Authority had an extensive public process for the community to provide input on the plan including selection of the name for the Strategy (Water 2120 – Securing our Water Future); and

WHEREAS, there were two public meetings early during the process, four Customer Conversations and a Water Resources Town Hall in July 2016 where the community provided input on the policies and assisted with selection of the various water supply alternatives; and

WHEREAS, a large majority of the participants of the Town Hall felt that there time was well spent and that the Water Authority really cared about their input; and

WHEREAS, the new 100-year plan was presented to a variety of entities including Federal, State and regional water management entities; and

WHEREAS, the TCAC has endorsed the revised policies of the 2016 Water Resources Management Strategy.

BE IT RESOLVED BY THE WATER AUTHORITY:

Section 1. The 2016 Water Resources Management Strategy entitled Water 2120 – Securing Our Water Future, attached as “Exhibit A”, is hereby adopted as the Water Authority’s water supply and demand policy.

Section 2. The Executive Director is directed to implement the policies, technical studies and projects identified in the Strategy.

Section 3. The Executive Director is directed to report to the Water Authority Board on an annual basis regarding the progress on the implementation of the Strategy.

Albuquerque Bernalillo County
Water Utility Authority

WATER 2120
SECURING OUR WATER FUTURE

Water 2120: Securing Our Water Future

ABCWUA BOARD MEETING
SEPTEMBER 21, 2016

Key Elements of the Plan

Albuquerque Bernalillo County Water Utility Authority

- Based on the same policies implemented in the 1997 and 2007 WRMS
- Uses existing resources
- Implements additional conservation
- No purchase of pre-1907 water rights
- Data-driven and based on the best available science
- Considers climate change
- Adaptive Management Approach provides flexibility for the future
- Extensive two-year public process
- Significant technical documentation
- Significant support from the stakeholder community
- No rate increases needed to implement the Plan
- Implementing the Plan would exceed financial rating agencies' best practices

Stakeholder Support

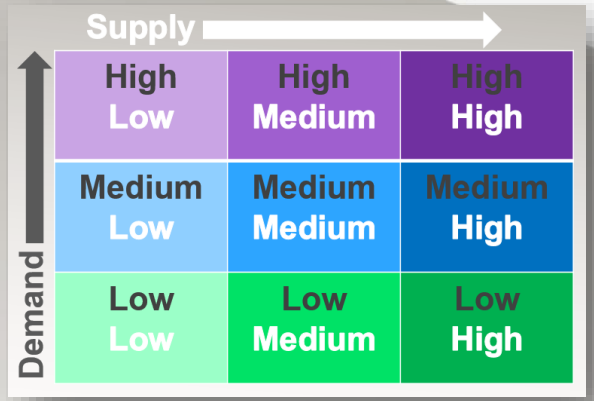
- Congresswoman Michelle Lujan-Grisham
- Technical Customer Advisory Committee (TCAC)
- Bureau of Reclamation
- Corps of Engineers
- The Nature Conservancy
- Rio Grande Water Fund
- NM Interstate Stream Commission
- Business Water Task Force
- MRGCD
- NAIOP
- Albuquerque Economic Development
- NM Home Builders Association
- Albuquerque Economic Forum
- Albuquerque Chamber of Commerce
- New Mexico Water Collaborative
- US Fish & Wildlife Service

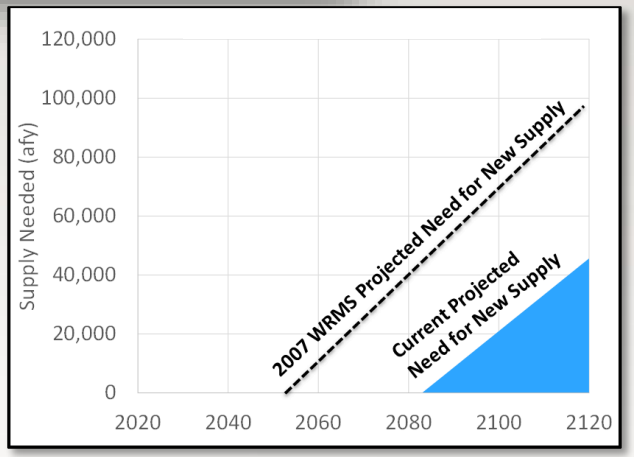
Albuquerque Bernalillo County
Water Utility Authority

How was the Plan Developed?

Albuquerque Bernalillo County Water Utility Authority

- Demand – How much water do we need?
- Supply – How much water do we have?
- Gaps – Do we need additional supply?
- Filling the Gaps – What will the new supplies be?





Meeting the Demand

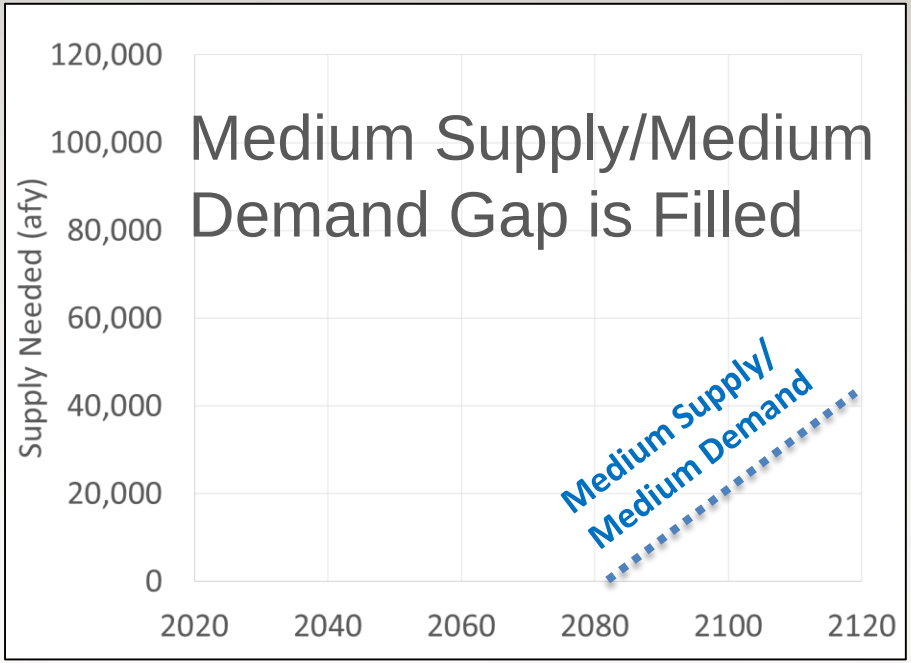
Portfolio 1

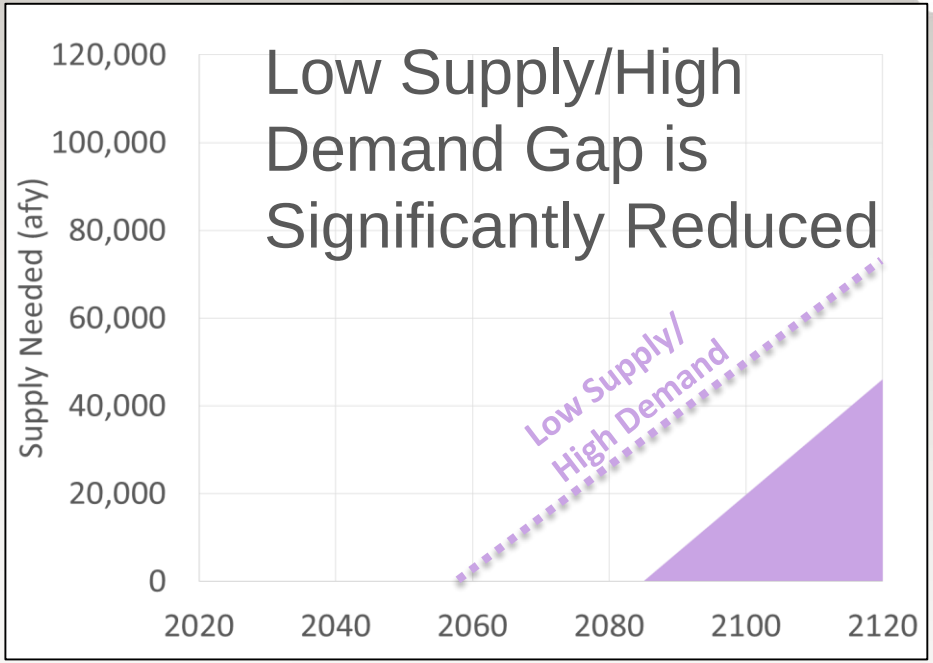
Albuquerque Bernalillo County Water Utility Authority

- Existing supplies (groundwater and surface water)
- Conservation – 110 GPCD in 20 years
- Reuse – includes ASR and/or new storage
- Connect North I-25 Nonpotable to Southside Reuse
- Storm water capture
- Indirect potable reuse (IDPR)
- Watershed management

Supply Gap is Filled by Portfolio 1

Albuquerque Bernalillo County Water Utility Authority





Projected Timeline of Projects and Estimated Costs

Albuquerque Bernalillo County Water Utility Authority

2020

ASR

$10M

2035

Connect Northside I-25 to Southside (Reuse)

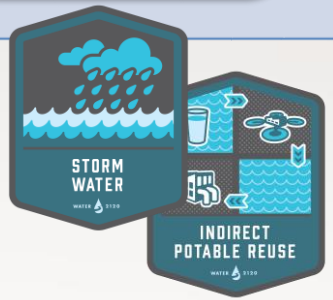
$23M

2045

IDPR Phase I

Storm Water Capture

$47M



2055

Westside Reuse

Off-Channel Storage

IDPR Phase II

$216M

2065

Eastside Reuse

IDPR Phase III

$127M

Education, Outreach and Monitoring

Albuquerque Bernalillo County Water Utility Authority

Albuquerque Bernalillo County Water Utility Authority

Return to Welcome Page

Inputs

Select Demand, Supply, and Portfolio

Change Demand — Demand: ***Low***

Change Supply — Supply: ***Medium (climate change = central tendency)***

Change Portfolio — Portfolio: ***Portfolio 3 (10 gpcd reduction, outdoor only)***

Viewer Controls

View Simulation

Simulation Time

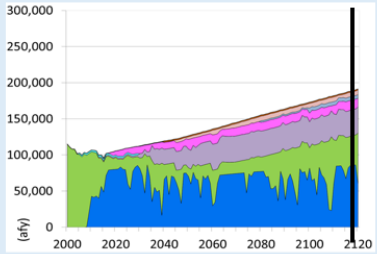
2015 — 2120

Enter Year for Results (5-year increments): **2120**

Results

Supplies Meeting Demand

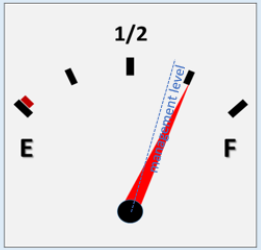
click on image to enlarge



- Stormwater
- Brackish Groundwater
- New Storage - ASR
- Wastewater Reuse
- Groundwater
- New Storage - Reservoir
- Interbasin Transfer
- Non-Potable Project
- Groundwater in Excess of Permit
- DWP

Aquifer Drawdown

click on image for details



Based on inputs above, aquifer drawdown is estimated to be 99 ft in year 2120, without new supplies. Compare to 125 ft in 'comparison' run specified to right.

Supply Gaps

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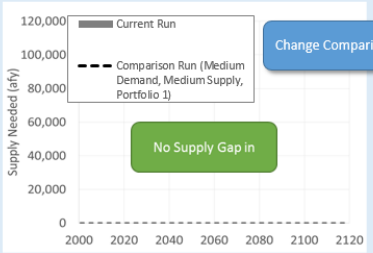


Based on inputs above, no new supplies needed by 2120. Compare to year 2118 in 'comparison' run specified above.

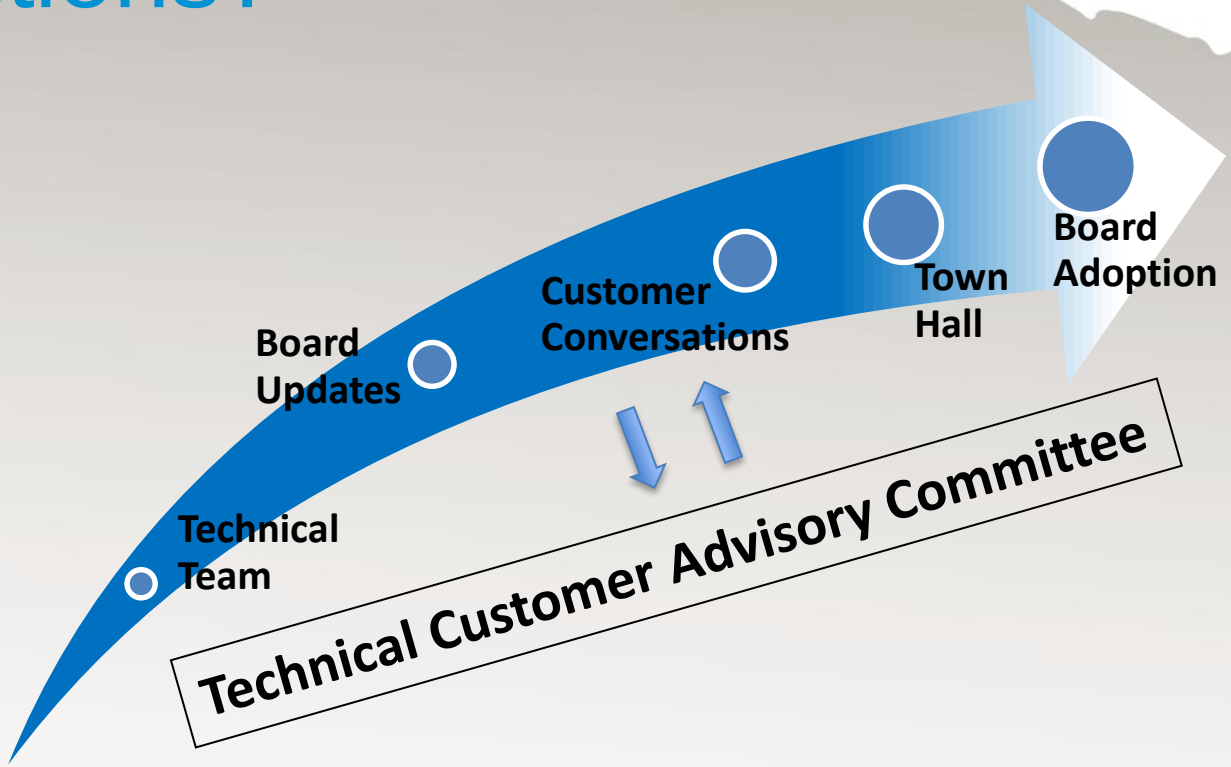
What's Next?

Albuquerque Bernalillo County Water Utility Authority

- Groundwater Management Plan development
- Reuse and Recycling Plan development
- Conservation Plan development
- Adaptive Management Approach Plan development
- Storage Plan
- Environmental Plan
- Public model development and education program for high-school and college students

Questions?

Albuquerque Bernalillo County
Water Utility Authority



Policy Comparison

Albuquerque Bernalillo County Water Utility Authority

2007 WRMS Policy	2017 WRMS Policy
A. Update and Maintain a Water Budget	**A.** Implement a Long-term Adaptive Management Water Budget Planning Framework
B. Balance Demand with Renewable Supply by Using San Juan-Chama Water as the Primary Source of Supply	**B.** Fully Utilize and Protect Existing Water Rights and Resources
C. Establish and Maintain a Groundwater Drought Reserve	**C.** Establish and Maintain a Groundwater Reserve
D. Update and Maintain the Water Conservation Strategy	**D**. Update and Maintain the Water Conservation Strategy
E. Support Regional Water Resources Planning and Management	**E.** Support Regional Water Resources Planning and Management
F. Pursue the Conjunctive Management of Available Water Resources	**F.** Utilize Conjunctive Management and Diversify the Water Resources Portfolio
G. Develop and Implement Long-Term Water Acquisition Plan	**G.** Develop and Implement Long-Term Water Acquisition Plan
H. Implement the Water Quality Protection Policy and Action Plan	**H.** Implement the Water Quality Protection Policy and Action Plan
I. Equitably Incorporate the Costs of Providing a Safe and Sustainable Water Supply Into Rates	Completed and Codified in the Rate Ordinance (1-1-3 F, 1-1-1 H, 1-1-8 C)
NEW POLICY	**I.** Protect and Enhance Storage of Native and San Juan-Chama Water
J. Protect Valued Environmental and Cultural Resources in the Region	**J**. Protect Valued Environmental and Cultural Resources
K. Preserve and Enhance the Quality of Life in the Region	**K.** Preserve and Enhance the Quality of Life in the Region
L. Link Land Use Planning with Water Management	**L**. Link Land Use Planning with Water Management
M. Encourage and Facilitate Public Involvement and Support	**M.** Encourage and Facilitate Public Involvement and Support

- No change
- Identical policy with broadened language
- New policy
- Removed and moved to rate ordinance

A. Water Budget Planning and Reporting

POLICY A. The Authority shall utilize an adaptive management approach to water resources planning and reporting. The water budget established shall be reported annually to the Authority Board and updated no less than every five years.

RATIONALE: The Adaptive Management Approach (AMA) adopted as part of the 2017 WRMS is intended to provide an iterative process by which supply and demand can be re-evaluated as needed in the future. The intent of AMA is to provide an iterative process for robust decision-making in the face of uncertainty, with the aim or reducing uncertainty over time via monitoring. Since both supply and demand projections are uncertain and may be revised in the future, AMA allows for re-evaluation of currently-identified predicted supply gaps, and subsequent revision of these gaps, if necessary. Future revisions to the supply and demand analyses may be made based on new technical understanding, availability of new technical tools, and/or revisions to current predictions of supply and/or demand. A key aspect of the Authority's AMA will be monitoring groundwater levels in the Groundwater Reserve.

SUB-POLICIES:

1. The Authority should update the Water Resources Management Strategy using the best available science following the Adaptive Management Approach (AMA) every ten years or more frequently as requested by the Authority Board.
2. The Authority shall report on an annual basis to the Authority Board to provide a water budget for the upcoming year which includes estimated groundwater and surface water use along with estimated non-potable water reuse.
3. The Authority shall report to the Authority Board every five years regarding the aquifer level and the projected level for the next five years as compared to the groundwater management level established in Policy C.

Albuquerque Bernalillo County
Water Utility Authority

B. Fully Utilize and Protect Existing Water Rights and Water Resources

POLICY B. The Authority shall protect its right to fully use its San Juan-Chama and Rio Grande surface water as a direct water supply and transition to other renewable supplies when available and appropriate. The Authority shall limit the use of groundwater except when exercising wells, providing supply during peak demand periods or when surface water supplies are not available (e.g., droughts).

RATIONALE: The Water Authority holds the rights to about 26,396 acre-feet of vested and acquired Rio Grande water rights and 48,200 acre-feet of San Juan-Chama water. Meeting future water demands will require full utilization of these water rights and resources, including the increasing volume of excess wastewater which will be available for reuse. A safe and sustainable water supply for the Authority is based on using the existing water rights and resources which will reduce the long-term acquisition of additional water supplies. This involves using groundwater and limiting the long-term use of the aquifer to preserve a portion for future generations while preserving the right to fully utilize our groundwater permits during droughts and when surface water supplies are unavailable.

SUB-POLICIES:

1. The Authority shall take all the necessary steps to protect its existing water rights and water resources.
2. The Authority should utilize a combination of renewable supplies including the groundwater reserve, direct diversion of San Juan-Chama and native surface water, industrial and municipal effluent, impaired groundwater and recycled water.
3. The Authority should utilize all available excess return flows as part of a reuse and recycling plan that consists of aquifer storage and recovery, indirect potable and non-potable reuse.
4. The Authority should prepare for a basin adjudication or seek alternative legal strategies (negotiated settlements) in addition to the traditional adjudication process.

Albuquerque Bernalillo County Water Utility Authority

C. Establish and Maintain a Groundwater Reserve

POLICY C: The Authority shall establish a groundwater reserve that maintains sufficient water in aquifer storage to provide water supply during catastrophic drought or other unforeseen, largely unquantifiable events. The groundwater reserve shall be accessible without causing adverse impacts to the aquifer and shall be partitioned into a safety reserve and a working reserve. The safety reserve is that portion of the groundwater reserve prudently maintained for emergency use only, while the working reserve is the balance of the groundwater reserve above the safety reserve. A management level goal of aquifer drawdown shall be set within the working reserve. The management level provides explicit operational guidance to the implementation of Policy B in that it balances full utilization of the Authority's existing water rights with no long-term change in groundwater storage.

RATIONALE: The aquifer is generally rising throughout the Middle Rio Grande. This began in 2008 with the implementation of the Drinking Water Project. The water levels are expected to rise for more than a decade longer and it is important to develop and implement an explicit policy for managing the aquifer in the future to prevent a return to pre-1997 practice under which continuing drawdown was unsustainable. This augmented Policy C makes minimal nomenclature changes to the 2007 Policy C and adds specific language to guide management of the aquifer itself.

SUB-POLICIES:

1. The reserve terminology should be implemented by reference to average level of drawdown in Authority wells from pre-development conditions as defined by the Office of the State Engineer's Administrative model. Accordingly, the initial 2017 reserve settings should be:
    a. Groundwater Reserve. This reserve extends from fifty feet of drawdown to three hundred feet of drawdown, the latter constituting the threshold of irreversible subsidence.
    b. Safety Reserve. That portion of the Groundwater Reserve extending from two hundred and fifty feet of drawdown to three hundred feet of drawdown.
    c. Working Reserve. The residual portion of the Groundwater Reserve extending from fifty feet of drawdown to two hundred and fifty feet of drawdown.
    d. Management Level. This is set at one hundred and ten feet of drawdown which would maintain seventy percent of the Working Reserve.
2. If drawdown in the Working Reserve should fall below the Management Level, then projects should be implemented to add supply to the Authority portfolio to restore it to the Management Level.

Albuquerque Bernalillo County
Water Utility Authority

D. Update and Maintain the Water Conservation Strategy

POLICY D. Implementation of the Water Conservation Plan has been a key aspect of the success of the 2007 Water Resources Management Strategy. Continued progress in conservation to achieve a gallons per capita per day (GPCD) water usage of 110 will further extend our water supplies even in the face of climate change. The Authority shall utilize the conservation program to reduce GPCD to 110 by 2037.

RATIONALE: Water conservation has proven to be a powerful tool for managing water resources over the past twenty years. GPCD has been reduced from 250 in 1995 to 127 in 2015. This has led to an overall reduction in production from approximately 125,000 acre-feet in 1995 to approximately 98,000 acre-feet in 2015. Further water conservation efforts over the 100-year planning period are a key element to secure a resilient, affordable water supply for the Water Authority's service area. In addition to representing wise stewardship and management of our water resources, successful implementation of an effective conservation plan is required by the State for obtaining future permits and funding water projects.

SUB-POLICIES:

1. Conservation is the primary way in which customers participate in extending the need for additional water resources. The Authority shall continue its public outreach efforts to involve all customer classes in water conservation efforts.
2. The Authority shall update the Water Conservation Plan consistent with the 110 GPCD goal.
3. The Water Conservation Plan shall be updated at least every ten years and shall be reviewed annually so that updates to incentive, education and deterrent programs can be kept current with program needs.
4. The Authority shall work with the City and County to foster the efficient management and use of water in development and infrastructure.

Albuquerque Bernalillo County Water Utility Authority

E. Support Regional Water Resources Planning and Management

POLICY E. The Authority shall pursue efforts to enhance regional water resources planning and management activities within the Middle Rio Grande Valley. The Authority shall work cooperatively with its neighbors—the Pueblos, the Middle Rio Grande Conservancy District, Middle Rio Grande Valley cities and counties, and involved state and federal agencies. The Authority shall continue to be involved in and monitor the progress of regional and interstate water management initiatives that may affect the Authority and the region.

RATIONALE: The Authority recognizes the need to work in cooperation with other entities that share use of the Middle Rio Grande Valley's water resources. Regional water resources planning needs to address uses for public and domestic water supply, irrigated agriculture, livestock, commerce, industry, fish, wildlife and recreation. The Authority, neighboring jurisdictions, and other water users need to work with State, regional, and federal agencies with water management responsibilities.

SUB-POLICIES:

1. The Authority shall continue its proactive role to ensure that the necessary technical investigations with U.S. Geological Survey and others are completed efficiently and expeditiously and that they result in an improved understanding of surface and groundwater.
2. The Authority is committed to seek common solutions within a regional context. The Authority shall work with others in the Middle Rio Grande Valley on updates and implementation of the Regional Water Plan.
3. When appropriate, the Authority should share their experience in groundwater management to assist other planning efforts in transitioning to renewable supplies and to limit long-term groundwater usage.
4. The Authority shall work with federal and state agencies including the U.S. Bureau of Reclamation, U.S. Army Corps of Engineers and U.S. Bureau of Land Management, the New Mexico Office of the State Engineer and the Interstate Stream Commission to continue to find common solutions for water management on the Rio Chama and the Rio Grande.
5. The Authority shall collaborate with the Middle Rio Grande Conservancy District (MRGCD) to develop and implement a plan to support and promote agriculture in the Middle Rio Grande.
6. The Authority shall promote and develop green infrastructure including storm water infrastructure to promote efficient water resources management and aquifer storage.

Albuquerque Bernalillo County Water Utility Authority

F. Utilize Conjunctive Management and Diversify Water Resources Portfolio

POLICY F. The Authority shall enhance the resiliency and sustainability of the water supply by effectively combining the use of surface water, recycled and reclaimed water, the shallow and deep aquifer, and other supplies as needed to meet current and future demand.

RATIONALE: Enhancing the efficiency of the Authority's water use, requires conjunctive management and use of all available resources: surface water for municipal and industrial supply and for irrigation, groundwater for exercising wells, peaking, and when surface water supplies are not available (e.g., drought), ASR for municipal and industrial supply, and other supplies as available.

Reclamation and reuse of existing water supplies, where economically feasible and protective of human health and the environment, represents a method of maximizing and increasing the usefulness of a limited water supply. Consideration must also be given to satisfying the return flow needs of the Rio Grande from water-rights-permitting, Rio Grande Compact Compliance and environmental standpoints.

The use of groundwater will always be a key component of the Authority's supply portfolio. Following a conservative Groundwater Management Plan that limits long-term groundwater production and establishes a Safety Reserve positions the Authority for indefinite use of the aquifer while maintaining a significant volume of water for unforeseen events. Using the Authority's surface water and other sources for municipal and industrial supply will protect the aquifer so that it is available to meet seasonal peak demands and when surface water is not available (e.g., drought). Without a groundwater component of supply, the Authority would need to abandon use of significant investment in groundwater assets and transition to expensive additional surface water storage facilities adding larger and more costly treatment facilities to meet seasonal peak demands.

Aquifer storage and recovery is a key component of balancing groundwater use during times when surface water is not available (e.g., droughts). Using stored surface water during these times will reduce overall long-term use of groundwater during the planning period. In Albuquerque, this requires artificial recharge of the aquifer with deep recharge wells. It is essential that this capability be expanded. Stored surface water will not increase overall groundwater use because there will always be a need to utilize groundwater to exercise wells or to meet seasonal peak demands which will provide the native water component needed to facilitate use of imported San Juan-Chama water.

In addition, the Authority should be opportunistic in utilizing other sources to extend supply that may not always be available. These sources could include relinquishment credit water, contaminated groundwater, excess San Juan-Chama water and native flood flows in addition to leased San Juan-Chama water. Each of these sources has been available for use in the Middle Rio Grande in the past and may be available for limited use in the future. Utilizing these sources extends supply by saving other resources for future use.

(Subpolicies for POLICY F listed on next slide)

Albuquerque Bernalillo County
Water Utility Authority

POLICY F - SUB-POLICIES:

1. The Authority shall use various sources of supply (potable and contaminated groundwater, surface water, reuse water, etc.) to meet demand over the planning period. The quality of the water supplied will be matched to its use to reduce treatment costs and to optimize available excess supplies when available.
2. The Authority shall prepare and implement plans to utilize water sources that are typically only available sporadically (excess San Juan-Chama water, relinquishment credit water, etc.).
3. The Authority should investigate and enter into agreements for short-term leases in times when wet water is available to be stored and used during times of drought and for aquifer recharge.
4. The Authority shall develop a reuse and recycling master plan to address current and future reuse demand, excess available wastewater supplies and the associated infrastructure needs over the planning period.
5. The Authority shall use pumping from the aquifer to meet seasonal demands, well exercising and when surface water is not available (e.g., droughts).
6. The Authority shall continue to develop and implement methods to store available surface water and other reuse supplies in the aquifer and to recover it from storage as needed to meet current and future demands.
7. The Authority should develop and implement the use of storm water and native water flood flows when supplies are available considering permitting and environmental criteria along with Rio Grande Compact Compliance.

Albuquerque Bernalillo County
Water Utility Authority

G. Develop and Implement Long-Term Water Resources Acquisition Plan

POLICY G. The Authority shall pursue a portfolio of potential additional sources of supply.

RATIONALE: Establishing and maintaining a groundwater reserve (Policy C) will require the Water Authority to rely less on the local aquifer and to secure additional sources of supply to meet future demands. A more diversified water supply portfolio that includes more renewable sources is essential to provide a resilient and sustainable water supply that can meet customer demands in perpetuity.

While this Water Resources Management Strategy does not contemplate the need for acquisition of additional supplies, the Authority should continue to pursue these additional supply sources over the long-term which will allow the Authority to be ready when those supplies become available. Full consideration will be given to the financial implications in addition to the regional context including agricultural and environmental issues.

SUB-POLICIES:

1. The Authority should seek legislation to allow for water leasing and banking on a local, regional and interstate basis.
2. The Authority should continue to develop the potential for use of brackish groundwater as a future supply considering financial, environmental and carbon footprint criteria.
3. The Authority should stay active in evaluating other water rights transfers in the Middle Rio Grande and should take proactive stances when necessary.
4. The Authority should investigate the opportunity to import water supplies outside of the Middle Rio Grande when available considering financial, environmental and other criteria.
5. The Authority shall discontinue acquisition of native pre-1907 water rights.

H. Implement the Water Quality Protection Policy and Action Plan

Albuquerque Bernalillo County Water Utility Authority

POLICY H. The Authority shall take steps to fully implement the Water Quality Protection Policy and Action Plan.

RATIONALE: The Albuquerque/Bernalillo County Water Quality Protection Policy and Action Plan (County Resolution No. AR 121-93 and City Enactment No. 81-1994) is another cornerstone of this Water Resources Management Strategy. The Authority revised the Groundwater Protection Policy and Action Plan in 2009 to add surface water protection measures, recognizing the use of San Juan-Chama water as a primary drinking water source. Protection of both groundwater and surface resources from known or potential sources of contamination is essential for maintaining a safe drinking water supply and aquifer storage and recovery program. Their protection from contamination is of paramount importance.

SUB-POLICIES:

1. The Authority should continue to be proactive in identifying potential water quality threats to surface and groundwater resources and should implement programs to the extent possible to protect the water resources in the MRG.
2. The Water Protection Advisory Board (WPAB) shall provide annual updates on the implementation of the Water Quality Protection Policy and Action Plan (WQPPAP) to the Authority Board through submission of the Annual WPAB Reports and presentations at regular WPAB meetings.
3. The Authority shall provide pertinent information regarding updates to the water resource management strategy activities to the WPAB during its triennial review of the WQPPAP implementation activities.
4. The Authority should consider the occurrence, fate and potential treatment of emerging contaminants in current and future water supplies and should actively participate in research which will become more important as the availability of water resources becomes more constrained.
5. The Authority should coordinate with the City, County and State to maintain the quality of groundwater and surface waters.

Albuquerque Bernalillo County
Water Utility Authority

I. Protect and Enhance Storage of Native, San Juan-Chama Water and other water resources.

POLICY I. The Authority shall protect the rights to store native, San Juan-Chama and other water resources including reuse and recycled water in a variety of storage facilities including Heron, Abiquiu and Elephant Butte Reservoirs. The Authority should seek additional off-channel storage capacity locally or within the Middle Rio Grande as needed to maximize the use of excess wastewater or other water resources in the future.

SUB-POLICIES:

1. The Authority should protect and enhance its storage rights in Abiquiu Reservoir for native and San Juan-Chama water which will provide opportunities to continue to cooperate with environmental, local, state and federal entities to maximize the benefit for the MRG.
2. The Authority should examine the need for additional short and long-term off-channel storage locally and within the MRG to be prepared when excess San Juan-Chama water, native flood flows, or other water resources are available.
3. The Authority should consider the aquifer as a reservoir to be used conjunctively with above ground storage to optimize the use of current and future water supplies.
4. The Authority should develop and implement a Rio Grande Compact pool within the Authority storage space working with the Interstate Stream Commission (ISC) and the Office of the State Engineer (OSE).
5. The Authority should continue providing space in Abiquiu Reservoir for environmental purposes.
6. The Authority should seek long-term storage of San Juan-Chama water in Elephant Butte Reservoir.

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Water Utility Authority

J. Protect Valued Environmental and Cultural Resources

POLICY J. The Authority shall identify and provide resources to preserve and protect valued environmental resources of the region. The Authority shall work independently and in partnerships to ensure that its activities do not irreparably harm the aquifer, river, Bosque, source watersheds and the cultural resources.

RATIONALE: The regional aquifer, Bosque and Rio Grande are exceptional resources of great economic, ecological, aesthetic and cultural value. The Authority should cooperate to develop and implement environmentally conscious water resource development activities that protect the environmental and cultural values of our community.

SUB-POLICIES:

1. The Authority should continue to participate in the Endangered Species Collaborative Program and Recovery Implementation Efforts for multiple species in the MRG.
2. The Authority should encourage the State to recognize instream flows as a beneficial use.
3. The Authority should consider the impacts on environmental and cultural resources when implementing new water resources projects and take appropriate steps to mitigate unavoidable effects.
4. The Authority should work collaboratively and provide funding to protect and restore watersheds of the San Juan-Chama and Rio Grande.
5. The Authority should work with the City, Middle Rio Grande Conservancy District and others to protect and enhance the Rio Grande State Park and the Bosque.
6. The Authority should work with the City and County to provide incentives to increase beneficial tree canopy coverage within Bernalillo County and the MRG.

Albuquerque Bernalillo County
Water Utility Authority

K. Preserve and Enhance the Quality of Life in the Region

POLICY K. The Authority seeks a Water Resources Management Strategy that will preserve and enhance the quality of life within the region. The implementation of the Authority's water resources strategy will take advantage of opportunities to enhance the quality of life in the region whenever possible.

RATIONALE: As the largest water utility in New Mexico, the Water Authority recognizes its obligation to protect and enhance the quality of life within the region. Factors influencing quality of life include continued socioeconomic growth and development, support of public amenities, healthy ecosystems and green spaces, and minimizing environmental impacts. The Water Authority will provide sustainable water services to meet indoor demands, optimize efficiency of outdoor demands by utilizing recycled, reused and non-potable supplies , and return quality water to the Rio Grande for downstream users in the region.

SUB-POLICIES:

1. The Authority shall work with the City of Albuquerque, Albuquerque Public Schools, Bernalillo County and others to ensure that green spaces (parks, golf courses, athletic fields, etc.) are water efficient and provide incentives where appropriate.
2. The Authority should continue to reduce its carbon footprint by taking advantage of opportunities to reduce the energy usage of current infrastructure and by building new infrastructure with energy efficiency in mind.
3. The Authority shall expand its current green energy projects (solar and biogas) and implement additional green energy projects to reduce its water and energy footprints.

L. Link Land Use Planning with Water Management

POLICY L. The Authority shall coordinate and cooperate with the City, County and all other entities with planning authority to integrate water management policies with land use decisions. The Authority recognizes that managing the use of groundwater while conserving and using existing water resources including maximizing the use of excess resources when available should significantly reduce acquisition of new supplies to serve future customers.

RATIONALE: With the membership of the Water Authority consisting of elected officials from the City of Albuquerque, Bernalillo County and Village of Los Ranchos, future growth and development in the region requires coordination to integrate land use, transportation, infrastructure, economic improvement, urban infill and planning efforts with water resources management.

SUB-POLICIES:

1. The Authority should work with the City and County to update the Albuquerque/Bernalillo County Comprehensive Plan and/or other plans to ensure that system expansion is concurrent with infrastructure service levels and that the extension of facilities and services be phased in an efficient and orderly manner.
2. The Water Authority should ensure that its capital planning process is based on the City and County growth and development master plans so that land use and infrastructure policies are consistent.
3. The Water Authority should support the increase of urban building densities and infill development consistent with adopted land use plans as higher density development uses less water.
4. The Water Authority should encourage the City, County and State to adopt low-water-use Building Codes and low-water-use landscaping standards for all new construction.
5. The Water Authority should continue its review process so that each new residential, commercial, industrial and institutional development will have a resilient, sustainable water supply.

Albuquerque Bernalillo County
Water Utility Authority

M. Encourage and Facilitate Public Involvement

POLICY M. The Authority shall continue its education programs for both children and adults to keep the public informed about the choices and tradeoffs involved in making water management decisions and invite public comment and participation in implementation of these policies.

RATIONALE: When the Water Authority partners with the public, the educated public can help shape the policies that are the foundation of the Water Resources Management Strategy. The public then contributes to the successful implementation of water resource management solutions, because they have been part of their design. Children who attend Water Authority field trips will know the value of water and be wise stewards of our resources for many years to come.

SUB-POLICIES:

1. The Authority shall continue its water resource education programs and field trips to teach children the importance, value and appropriate use of water in the region.
2. The Authority shall continue its interactive public meeting process to give customers information and get their input on upcoming programs, policies and projects.
3. The Authority shall continue its adult education programs so that all customers can participate in a resilient and sustainable water supply.
4. The Authority shall continue to partner with real estate, design, building and construction groups, building managers, etc. to educate their membership concerning water resources.
5. The Authority shall continue its current marketing and public relations campaigns to keep everyone in the service area informed about effective water resource management.
6. The Authority shall continue its process of involving the public in updates to the Water Resources Management Strategy in all future updates to the strategy.

Water 2120: Securing our Water Future

Water Resources
Management Strategy

September 2016

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Albuquerque Bernalillo County Water Utility Authority
Councilor Trudy E. Jones, Chair
Commissioner Art De La Cruz, Vice-Chair
Mayor Richard J. Berry
Councilor Pat Davis
Commissioner Debbie O'Malley
Councilor Ken Sanchez
Commissioner Maggie Hart Stebbins
Trustee Pablo Rael, Ex Officio

Technical Customer Advisory Committee
Laurie Firor, Chair
Amy Ewing, Vice-Chair
David Brookshire
Elaine Hebard
Mike Hightower
Dave Hill
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Overview

A. Introduction

This document sets forth the Albuquerque Bernalillo County Water Utility Authority's (Water Authority) 2017 Water Resources Management Strategy (Strategy) – a 100-year long-range water supply plan for the metropolitan area. The name of the Strategy, Water 2120: Securing our Water Future, was selected by the Water Authority rate payers during a series of public meetings (Customer Conversations) in May and June 2016. The purpose of Water 2120 is to provide a safe, sustainable and resilient water supply for the metropolitan area by (1) Utilize an adaptive management planning approach using the best available science to periodically update this water supply plan; (2) Use the existing water resources and rights already owned by the Water Authority including excess supplies when available; (3) Work proactively with Federal, State, regional and local entities to seek solutions working cooperatively together and (4) Set a management level of the aquifer to manage long-term use leaving water in the aquifer and the opportunities it provides for future generations. The 2017 Strategy is designed to ensure Water Authority customers a safe, sustainable and resilient water supply to the year 2120.

The Strategy provides for a continuation of the policies in the original Strategy adopted by the Albuquerque City Council in 1997 and updated and adopted by the Water Authority in 2007. The 2017 Strategy provides policies and sub-policies including a new water conservation goal and projects to be implemented starting in about year 2035. The Water Authority has been a leader in water resources management in the Southwest starting with the implementation of the 1997 Strategy almost twenty years ago. The highlights of our planning efforts include the following:

- Per capita use has dropped almost 50% (251 gallons per person per day to 130 gpcd)
- Overall water use in 2015 as low as water usage in 1983
- Reuse and recycling projects are providing non-potable water to large turf areas in the north and south part of the metropolitan area
- Drinking Water Project (DWP) has been on-line since December 2008
- Aquifer storage and recovery (ASR) projects are operational with large scale program underway

The results have been amazing and tell an incredible story of what happens when you plan for the future:

- Aquifer levels have been and continue to rise when the DWP came on-line
- River depletions are declining due to reduced groundwater usage
- Consumptive use continues to decline (less than 40,000 acre-feet in 2015)
- Overall supply resilience has increased

B. Policies

Water 2120 consists of thirteen policies and more than sixty sub-policies to guide implementation of the plan including programs and projects needed to provide a safe and sustainable water supply for the next 100-years. Many of the policies below are a continuation of the existing policies set forth in the 1997 and 2007 Strategies and are listed in no particular order or priority.

- Policy A - Water Budget Planning and Reporting
- Policy B - Fully Utilize and Protect Existing Water Rights and Water Resources
- Policy C - Establish and Maintain a Groundwater Reserve
- Policy D - Update and Maintain the Water Conservation Strategy
- Policy E - Support Regional Water Resources Planning and Management
- Policy F - Utilize Conjunctive Management and Diversify Water Resources Portfolio
- Policy G - Develop and Implement Long-Term Water Resources Acquisition Plan
- Policy H - Implement the Water Quality Protection Policy and Action Plan
- Policy I - Protect and Enhance Storage of Native, San Juan-Chama Water and other water resources
- Policy J - Protect Valued Environmental and Cultural Resources
- Policy K - Preserve and Enhance the Quality of Life in the Region
- Policy L - Link Land Use Planning with Water Management
- Policy M - Encourage and Facilitate Public Involvement

Some of the highlights of the new sub-policies include the following:

- Policy A–1: The Water Authority should update the Water Resources Management Strategy using the best available science following the Adaptive Management Approach (AMA) every ten years or more frequently as requested by the Water Authority Board.
- Policy B–3: The Water Authority should utilize all available excess return flows as part of a reuse and recycling plan that consists of aquifer storage and recovery, indirect potable and non-potable reuse.
- Policy C–2: If drawdown in the Working Reserve should fall below the Management Level, then projects should be implemented to add supply to the Water Authority portfolio to restore it to the Management Level.
- Policy E-5: The Water Authority shall collaborate with the Middle Rio Grande Conservancy District (MRGCD) to develop and implement a plan to support and promote agriculture in the Middle Rio Grande.
- Policy G-5: The Water Authority shall discontinue acquisition of native pre-1907 water rights.

- Policy I-4: The Water Authority should develop and implement a Rio Grande Compact pool within the Water Authority storage space working with the Interstate Stream Commission (ISC) and the Office of the State Engineer (OSE).
- Policy J-4: The Water Authority should work collaboratively and provide funding to protect and restore watersheds of the San Juan-Chama and Rio Grande.
- Policy J-6: The Water Authority should work with the City and County to provide incentives to increase beneficial tree canopy coverage within Bernalillo County and the MRG.
- Policy K-2: The Water Authority should continue to reduce its carbon footprint by taking advantage of opportunities to reduce the energy usage of current infrastructure and by building new infrastructure with energy efficiency in mind.

C. Projects

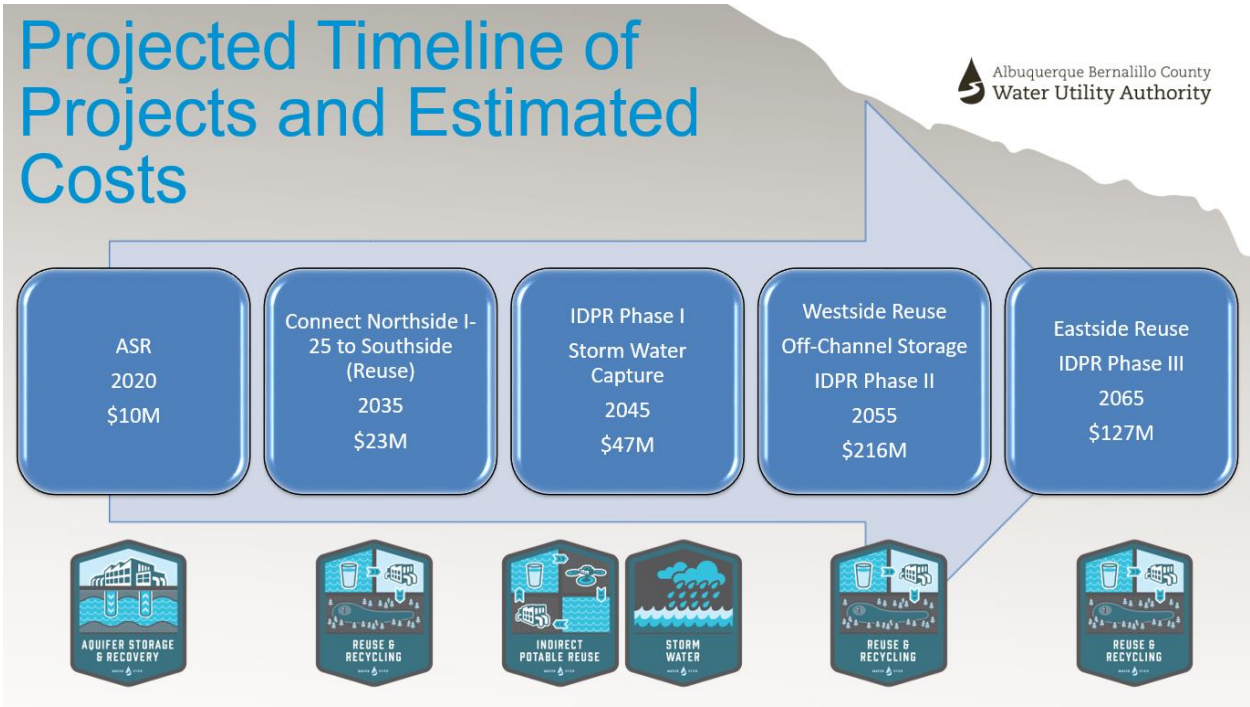
This updated Strategy incorporates the projects previously identified to be implemented in the 2007 Strategy consisting primarily of the first phase of large scale aquifer storage and recovery (ASR), enhanced storage in Abiquiu Reservoir and native flood flows storage in Abiquiu Reservoir.

Water 2120 includes implementation of a new water conservation goal and several additional projects (Portfolio 1) over the 100-year planning period. The implementation dates were determined comparing the medium projected demand and medium projected supply. The actual need and time for implementation of the additional projects will be determined using the adaptive management approach (Policy A) as actual demand and supply data is known which can then be used to update this plan which would be presented to the Water Authority Board.

The combination of these projects over the planning period eliminated the supply gap for the medium demand/medium supply while staying above the groundwater management level (see Chapter 6 – Filling in Future Gaps in Supply). Although the projects are listed in date order, they do not necessarily have to follow the specific order as listed or the date shown as some projects could be implemented earlier depending on water resources availability, permitting and funding.

- Additional Full Scale ASR (2020)
- Connect the Northside I-25 Reuse to the Southside Reuse including additional eastside reuse sites (2035)
- Additional ASR/Indirect Potable Reuse (IDPR) Phase 1 and Stormwater Capture and Use (2045)
- Westside Reuse, Off-Channel Storage and ASR/IDPR Phase II (2055)
- Eastside Reuse and ASR/IDPR Phase III (2065)

Figure 1 – Portfolio 1 with Projected Timeline of Projects and Estimated Costs



Each of the alternatives listed above were analyzed and ranked based on many factors including environmental, financial, permitting, frequency of availability and others (see Chapter 5 – Alternatives). Further detailed analysis will be needed as these projects are developed and implemented.

In addition to the development and implementation of the above listed conceptual projects, several activities must be undertaken, including:

- Reuse and Recycling Plan – utilize excess return flows for aquifer storage and recovery, indirect potable and non-potable use.
- Groundwater Management Plan – develop plan for annual measurement and reporting of aquifer levels, incorporate groundwater quality, location and size of existing groundwater contamination sites and the need for and siting for replacement and aquifer storage and recovery wells.
- Water Conservation Plan – implementation plan for 110 gpcd over the next 20-years including education and rebates.
- Storage Plan – this plan will include existing storage capabilities and the need for future additional off-channel storage sites for excess return flows.
- Environmental Plan – need to assemble overall plan including watershed restoration, endangered species, Bosque restoration and other activities.

D. Public Involvement

There was extensive public involvement as part of the development of Water 2120 including the following:

- Water Authority Board Updates – September 2015 to May 2016
- Technical Customer Advisory Committee Meetings – 14 Meetings over 2 Years
- Two Initial Public Meetings – February 2016
- Five Technical Reports
- Four Customer Conversations – May/June 2016
- Town Hall – July 2016
- Westside and Eastside Neighborhood Coalition Meetings – July/August 2016

Water Authority Board Updates

Public presentations were made to the Water Authority Board during their regular meetings in September 2015, January 2016, March 2016 and May 2016. The Water 2120 Plan was introduced to the Water Authority Board in August 2016. The presentations to the Board including demand, supply, climate change, groundwater reserve management plan, alternatives, range of potential supply gaps, and supply portfolios to fill the medium demand/medium supply gap.

Technical Customer Advisory Committee (TCAC) Meetings

The Water Authority Board established a citizen board consisting of nine members of the public to meet and discuss important water policy and other important matters of the Water Authority. There were fourteen meetings over two years working collaboratively with the TCAC on the update to the 2007 Water Resources Management Strategy (WRMS). Extensive presentations were provided and five technical documents were produced for review and comment. The documents produced were as follows:

- Chapter 2 – Water Demand
- Chapter 3 – Supply
- Chapter 4 – Groundwater Management
- Chapter 5 – Alternatives
- Chapter 6 – Filling in Future Gaps in Supply

There were more than 1,300 comments received and addressed from the TCAC on the documents which were posted and available to the public on the Water Authority's website starting in June 2016 with Chapter 6 posted prior to the Town Hall meeting. The TCAC recommended adoption by the Water Authority Board of the new policies at the August 1, 2016 meeting.

Two Initial Public Meetings

The Water Authority hosted two public meetings (around 40 participants) in February 2016 to provide the public with the opportunity to discuss the need for a new 100-year water supply plan and to provide feedback on the plan prior to the plan elements and alternatives established. The meetings went very well and overall there was very positive feedback on discussing what the new plan might consist of.

Four Customer Conversations

There were four customer conversations held in May and June 2016 (about 200 customers). These meetings were held over a two hour period and provided our customers the opportunity to provide feedback on a number of topics related to the new water supply plan. The meetings included a presentation on the update and status of the development of the plan, followed by two exercises examining several alternatives in an effort to afford our customers the opportunity to experience what it was like trying to fill the supply gaps.

The customers were separated into groups at tables where they were provided three different supply scenarios (historical, central tendency climate change, and hot-dry climate change along with a water conservation alternative. Given the gaps presented to them, they worked together to select alternatives based on a variety of criteria including the amount of water they would provide, environmental and financial impact to name a few. The selected alternatives provided an opportunity to obtain productive feedback about customer choices. For example, the customers really liked the idea of capturing and using stormwater as a future alternative water supply. Based on that feedback, we added stormwater as a component of Portfolio 1.

Town Hall

The purpose of the Town Hall was to obtain community input on the revised policies to ensure a safe and sustainable water supply into the future. The Water Authority seeks to reach its water resources management decisions through a public process so that they may reflect community values. The Town Hall brought significant input regarding community values and priorities and how they can be reflected in water resources activities.

The Town Hall was held July 22nd and over 200 customers attended the four hour meeting. The morning was spent in informational plenary sessions where customers learned about different elements of the proposed strategy and were able to ask questions of the presenters. The afternoon was spent in small groups discussions led by individual facilitators and recorders to gather input on customer preference on supply alternatives and proposed policies. Water Authority staff were also circulating through the small group sessions to address questions on the strategy as they arose. The close

of the meeting brought all the participants back together for a report out on the results of their small group discussions. Customer preferences for supply alternatives were very similar to the preferences expressed in the Customer Conversations. Results of the Town Hall meeting are in the appendix.

Westside and Eastside Neighborhood Coalition Meetings

The Water Authority presented the new 100-year water supply plan to members of five different neighborhood coalitions including the Westside Coalition of Neighborhoods and five Eastside Coalition of Neighborhoods. The plan was presented and questions and answers were provided to give another opportunity for public feedback on the plan.

Policies

A. Water Budget Planning and Reporting

POLICY A. The Water Authority shall utilize an adaptive management approach to water resources planning and reporting. The water budget established shall be reported annually to the Water Authority Board and updated no less than every five years.

RATIONALE: The Adaptive Management Approach (AMA) adopted as part of the 2017 WRMS is intended to provide an iterative process by which supply and demand can be re-evaluated as needed in the future. The intent of AMA is to provide an iterative process for robust decision-making in the face of uncertainty, with the aim or reducing uncertainty over time via monitoring. Since both supply and demand projections are uncertain and may be revised in the future, AMA allows for re-evaluation of currently-identified predicted supply gaps, and subsequent revision of these gaps, if necessary. Future revisions to the supply and demand analyses including continued examinations of climate change may be made based on new technical understanding, availability of new technical tools, and/or revisions to current predictions of supply and/or demand. A key aspect of the Water Authority's AMA will be monitoring groundwater levels in the Groundwater Reserve.

SUB-POLICIES:

1. The Water Authority should update the Water Resources Management Strategy using the best available science following the Adaptive Management Approach (AMA) every ten years or more frequently as requested by the Water Authority Board.

2. The Water Authority shall report on an annual basis to the Water Authority Board to provide a water budget for the upcoming year which includes estimated groundwater and surface water use along with estimated non-potable water reuse.

3. The Water Authority shall report to the Water Authority Board every five years regarding the aquifer level and the projected level for the next five years as compared to the groundwater management level established in Policy C.

B. Fully Utilize and Protect Existing Water Rights and Water Resources

POLICY B. The Water Authority shall protect its right to fully use its San Juan-Chama and Rio Grande surface water as a direct water supply and transition to other renewable supplies when available and appropriate. The Water Authority shall limit the use of groundwater except when exercising wells, providing supply during peak demand periods or when surface water supplies are not available (e.g., droughts).

RATIONALE: The Water Authority holds the rights to about 26,396 acre-feet of vested and acquired Rio Grande water rights and 48,200 acre-feet of San Juan-Chama water. Meeting future water demands will require full utilization of these water rights and resources, including the increasing volume of excess wastewater which will be available for reuse. A safe and sustainable water supply for the Water Authority is based on using the existing water rights and resources which will reduce the need for long-term acquisition of additional water supplies. This involves using groundwater and limiting the long-term use of the aquifer to preserve a portion for future generations while preserving the right to fully utilize our groundwater permits during droughts and when surface water supplies are unavailable.

SUB-POLICIES:

1. The Water Authority shall take all the necessary steps to protect its existing water rights and water resources.

2. The Water Authority should utilize a combination of renewable supplies including the groundwater reserve, direct diversion of San Juan-Chama and native surface water, industrial and municipal effluent, impaired groundwater and recycled water.

3. The Water Authority should utilize all available excess return flows as part of a reuse and recycling plan that consists of aquifer storage and recovery, indirect potable and non-potable reuse.

4. The Water Authority should prepare for a basin adjudication or seek alternative legal strategies (negotiated settlements) in addition to the traditional adjudication process.

C. Establish and Maintain a Groundwater Reserve

POLICY C: The Water Authority shall establish a groundwater reserve that maintains sufficient water in aquifer storage to provide water supply during catastrophic drought or other unforeseen, largely unquantifiable events. The groundwater reserve shall be accessible without causing adverse impacts to the aquifer and shall be partitioned into a safety reserve and a working reserve. The safety reserve is that portion of the groundwater reserve prudently maintained for emergency use only, while the working reserve is the balance of the groundwater reserve above the safety reserve. A management level goal of aquifer drawdown shall be set within the working reserve. The management level provides explicit operational guidance to the implementation of Policy B in that it balances full utilization of the Water Authority's existing water rights with no long-term change in groundwater storage.

RATIONALE: The aquifer is generally rising throughout the Middle Rio Grande. This began in 2008 with the implementation of the Drinking Water Project. The water levels are expected to rise for more than a decade longer and it is important to develop and implement an explicit policy for managing the aquifer in the future to prevent a return to pre-1997 practice under which continuing drawdown was unsustainable. This augmented Policy C makes minimal nomenclature changes to the 2007 Policy C and adds specific language to guide management of the aquifer itself.

SUB-POLICIES:

1. The reserve terminology should be implemented by reference to average level of drawdown in Water Authority wells from pre-development conditions as currently defined by the Office of the State Engineer's Administrative model. Accordingly, the initial 2017 reserve settings should be:

    a. Groundwater Reserve. This reserve extends from fifty feet of drawdown to three hundred feet of drawdown, the latter constituting the threshold of irreversible subsidence.
    b. Safety Reserve. That portion of the Groundwater Reserve extending from two hundred and fifty feet of drawdown to three hundred feet of drawdown.
    c. Working Reserve. The residual portion of the Groundwater Reserve extending from fifty feet of drawdown to two hundred and fifty feet of drawdown.
    d. Management Level. This is set at one hundred and ten feet of drawdown from pre-development conditions as determined by examining a variety of groundwater and monitoring wells. This new management level will maintain seventy percent of the Working Reserve.

2. If drawdown in the Working Reserve should fall below the Management Level, then projects should be implemented to add supply to the Water Authority portfolio to restore it to the Management Level.

D. Update and Maintain the Water Conservation Strategy

POLICY D. Implementation of the Water Conservation Plan has been a key aspect of the success of the 2007 Water Resources Management Strategy. Continued progress in conservation to achieve a gallons per capita per day (GPCD) water usage of 110 will further extend our water supplies even in the face of climate change. The Water Authority shall utilize the conservation program to reduce GPCD to 110 by 2037.

RATIONALE: Water conservation has proven to be a powerful tool for managing water resources over the past twenty years. GPCD has been reduced from 250 in 1995 to 127 in 2015. This has led to an overall reduction in production from approximately 125,000 acre-feet in 1995 to approximately 98,000 acre-feet in 2015. Further water conservation efforts over the 100-year planning period are a key element to secure a resilient, affordable water supply for the Water Authority's service area. In addition to representing wise stewardship and management of our water resources, successful implementation of an effective conservation plan is required by the State for obtaining future permits and funding water projects.

SUB-POLICIES:

1. Conservation is the primary way in which customers participate in extending the need for additional water resources. The Water Authority shall continue its public outreach efforts to involve all customer classes in water conservation efforts.

2. The Water Authority shall update the Water Conservation Plan consistent with the 110 GPCD goal.

3. The Water Conservation Plan shall be updated at least every ten years and shall be reviewed annually so that updates to incentive, education and deterrent programs can be kept current with program needs.

4. The Water Authority shall work with the City and County to foster the efficient management and use of water in development and infrastructure.

E. Support Regional Water Resources Planning and Management

POLICY E. The Water Authority shall pursue efforts to enhance regional water resources planning and management activities within the Middle Rio Grande Valley. The Water Authority shall work cooperatively with its neighbors—the Pueblos, the Middle Rio Grande Conservancy District, Middle Rio Grande Valley cities and counties, and involved state and federal agencies. The Water Authority shall continue to be involved in and monitor the progress of regional and interstate water management initiatives that may affect the Water Authority and the region.

RATIONALE: The Water Authority recognizes the need to work in cooperation with other entities that share use of the Middle Rio Grande Valley's water resources. Regional water resources planning needs to address uses for public and domestic water supply, irrigated agriculture, livestock, commerce, industry, fish, recreation and wildlife. The Water Authority, neighboring jurisdictions, and other water users need to work with State, regional, and federal agencies with water management responsibilities.

SUB-POLICIES:

1. The Water Authority shall continue its proactive role to ensure that the necessary technical investigations with U.S. Geological Survey and others are completed efficiently and expeditiously and that they result in an improved understanding of surface and groundwater.

2. The Water Authority is committed to seek common solutions within a regional context. The Water Authority shall work with others in the Middle Rio Grande Valley on updates and implementation of the Regional Water Plan.

3. When appropriate, the Water Authority should share their experience in groundwater management to assist other planning efforts in transitioning to renewable supplies and to limit long-term groundwater usage.

4. The Water Authority shall work with federal and state agencies including the U.S. Bureau of Reclamation, U.S. Army Corps of Engineers and U.S. Bureau of Land Management, the New Mexico Office of the State Engineer and the Interstate Stream Commission to continue to find common solutions for water management on the Rio Chama and the Rio Grande.

5. The Water Authority shall collaborate with the Middle Rio Grande Conservancy District (MRGCD) to develop and implement a plan to support and promote agriculture in the Middle Rio Grande.

6. The Water Authority shall promote and develop green infrastructure including storm water infrastructure to promote efficient water resources management and aquifer storage.

F. Utilize Conjunctive Management and Diversify Water Resources Portfolio

POLICY F. The Water Authority shall enhance the resiliency and sustainability of the water supply by effectively combining the use of surface water, recycled and reclaimed water, the shallow and deep aquifer, and other supplies as needed to meet current and future demand.

RATIONALE: Enhancing the efficiency of the Water Authority's water use, requires conjunctive management and use of all available resources: surface water for municipal and industrial supply and for irrigation, groundwater for exercising wells, peaking, and when surface water supplies are not available (e.g., drought), ASR for municipal and industrial supply, and other supplies as available.

Reclamation and reuse of existing water supplies, where economically feasible and protective of human health and the environment, represents a method of maximizing and increasing the usefulness of a limited water supply. Consideration must also be given to satisfying the return flow needs of the Rio Grande from water-rights-permitting, Rio Grande Compact Compliance and environmental standpoints.

The use of groundwater will always be a key component of the Water Authority's supply portfolio. Following a conservative Groundwater Management Plan that limits long-term groundwater production and establishes a Safety Reserve positions the Water Authority for indefinite use of the aquifer while maintaining a significant volume of water for unforeseen events. Using the Water Authority's surface water and other sources for municipal and industrial supply will protect the aquifer so that it is available to meet seasonal peak demands and when surface water is not available (e.g., drought). Without a groundwater component of supply, the Water Authority would need to abandon use of significant investment in groundwater assets and transition to expensive additional surface water storage facilities adding larger and more costly treatment facilities to meet seasonal peak demands.

Aquifer storage and recovery is a key component of balancing groundwater use during times when surface water is not available (e.g., droughts). Using stored surface water during these times will reduce overall long-term use of groundwater during the planning period. In Albuquerque, this requires artificial recharge of the aquifer with deep recharge wells. It is essential that this capability be expanded. Stored surface water will not increase overall groundwater use because there will always be a need to utilize groundwater to exercise wells or to meet seasonal peak demands which will provide the native water component needed to facilitate use of imported San Juan-Chama water.

In addition, the Water Authority should be opportunistic in utilizing other sources to extend supply that may not always be available. These sources could include relinquishment credit water, contaminated groundwater, excess San Juan-Chama water and native flood flows in addition to leased San Juan-Chama water. Each of these sources has been available for use in the Middle Rio Grande in the past and may be available for limited use in the future. Utilizing these sources extends supply by saving other resources for future use.

SUB-POLICIES:

1. The Water Authority shall use various sources of supply (potable and contaminated groundwater, surface water, reuse water, etc.) to meet demand over the planning period. The quality of the water supplied will be matched to its use to reduce treatment costs and to optimize available excess supplies when available.

2. The Water Authority shall prepare and implement plans to utilize water sources that are typically only available sporadically (excess San Juan-Chama water, relinquishment credit water, etc.).

3. The Water Authority should investigate and enter into agreements for short-term leases in times when wet water is available to be stored and used during times of drought and for aquifer recharge.

4. The Water Authority shall develop a reuse and recycling master plan to address current and future reuse demand, excess available wastewater supplies and the associated infrastructure needs over the planning period.

5. The Water Authority shall use pumping from the aquifer to meet seasonal demands, well exercising and when surface water is not available (e.g., droughts).

6. The Water Authority shall continue to develop and implement methods to store available surface water and other reuse supplies in the aquifer and to recover it from storage as needed to meet current and future demands.

7. The Water Authority should develop and implement the use of storm water and native water flood flows when supplies are available considering permitting and environmental criteria along with Rio Grande Compact Compliance.

G. Develop and Implement Long-Term Water Resources Acquisition Plan

POLICY G. The Water Authority shall pursue a portfolio of potential additional sources of supply.

RATIONALE: Establishing and maintaining a groundwater reserve (Policy C) will require the Water Authority to rely less on the local aquifer and to secure additional sources of supply to meet future demands. A more diversified water supply portfolio that includes more renewable sources is essential to provide a resilient and sustainable water supply that can meet customer demands in perpetuity.

While this Water Resources Management Strategy does not contemplate the need for acquisition of additional supplies, the Water Authority should continue to pursue these additional supply sources over the long-term which will allow the Water Authority to be ready when those supplies become available. Full consideration will be given to the financial implications in addition to the regional context including agricultural and environmental issues.

SUB-POLICIES:

1. The Water Authority should seek legislation to allow for water leasing and banking on a local, regional and interstate basis.

2. The Water Authority should continue to develop the potential for use of brackish groundwater as a future supply considering financial, environmental and carbon footprint criteria.

3. The Water Authority should stay active in evaluating other water rights transfers in the Middle Rio Grande and should take proactive stances when necessary.

4. The Water Authority should investigate the opportunity to import water supplies outside of the Middle Rio Grande when available considering financial, environmental and other criteria.

5. The Water Authority shall discontinue acquisition of native pre-1907 water rights.

H. Implement the Water Quality Protection Policy and Action Plan

POLICY H. The Water Authority shall take steps to fully implement the Water Quality Protection Policy and Action Plan.

RATIONALE: The Albuquerque/Bernalillo County Water Quality Protection Policy and Action Plan (County Resolution No. AR 121-93 and City Enactment No. 81-1994) is another cornerstone of this Water Resources Management Strategy. The Water Authority revised the Groundwater Protection Policy and Action Plan in 2009 to add surface water protection measures, recognizing the use of San Juan-Chama water as a primary drinking water source. Protection of both groundwater and surface resources from known or potential sources of contamination is essential for maintaining a safe drinking water supply and aquifer storage and recovery program. Their protection from contamination is of paramount importance.

SUB-POLICIES:

1. The Water Authority should continue to be proactive in identifying potential water quality threats to surface and groundwater resources and should implement programs to the extent possible to protect the water resources in the MRG.

2. The Water Protection Advisory Board (WPAB) shall provide annual updates on the implementation of the Water Quality Protection Policy and Action Plan (WQPPAP) to the Water Authority Board through submission of the Annual WPAB Reports and presentations at regular WPAB meetings.

3. The Water Authority shall provide pertinent information regarding updates to the water resource management strategy activities to the WPAB during its triennial review of the WQPPAP implementation activities.

4. The Water Authority should consider the occurrence, fate and potential treatment of emerging contaminants in current and future water supplies and should actively participate in research which will become more important as the availability of water resources becomes more constrained.

5. The Water Authority should coordinate with the City, County and State to maintain the quality of groundwater and surface waters.

I. Protect and Enhance Storage of Native, San Juan-Chama Water and other water resources

POLICY I. The Water Authority shall protect the rights to store native, San Juan-Chama and other water resources including reuse and recycled water in a variety of storage facilities including Heron, Abiquiu and Elephant Butte Reservoirs. The Water Authority should seek additional off-channel storage capacity locally or within the Middle Rio Grande as needed to maximize the use of excess wastewater or other water resources in the future.

SUB-POLICIES:

1. The Water Authority should protect and enhance its storage rights in Abiquiu Reservoir for native and San Juan-Chama water which will provide opportunities to continue to cooperate with environmental, local, state and federal entities to maximize the benefit for the MRG.

2. The Water Authority should examine the need for additional short and long-term off-channel storage locally and within the MRG to be prepared when excess San Juan-Chama water, native flood flows, or other water resources are available.

3. The Water Authority should consider the aquifer as a reservoir to be used conjunctively with above-ground storage to optimize the use of current and future water supplies.

4. The Water Authority should develop and implement a Rio Grande Compact pool within the Water Authority storage space working with the Interstate Stream Commission (ISC) and the Office of the State Engineer (OSE).

5. The Water Authority should continue providing space in Abiquiu Reservoir for environmental purposes.

6. The Water Authority should seek long-term storage of San Juan-Chama water in Elephant Butte Reservoir.

J. Protect Valued Environmental and Cultural Resources

POLICY J. The Water Authority shall identify and provide resources to preserve and protect valued environmental resources of the region. The Water Authority shall work independently and in partnerships to ensure that its activities do not irreparably harm the aquifer, river, Bosque, source watersheds and the cultural resources.

RATIONALE: The regional aquifer, Bosque and Rio Grande are exceptional resources of great economic, ecological, aesthetic and cultural value. The Water Authority should cooperate to develop and implement environmentally conscious water resource development activities that protect the environmental and cultural values of our community.

SUB-POLICIES:

1. The Water Authority should continue to participate in the Endangered Species Collaborative Program and Recovery Implementation Efforts for multiple species in the MRG.

2. The Water Authority should encourage the State to recognize instream flows as a beneficial use.

3. The Water Authority should consider the impacts on environmental and cultural resources when implementing new water resources projects and take appropriate steps to mitigate unavoidable effects.

4. The Water Authority should work collaboratively and provide funding to protect and restore watersheds of the San Juan-Chama and Rio Grande.

5. The Water Authority should work with the City, Middle Rio Grande Conservancy District and others to protect and enhance the Rio Grande State Park and the Bosque.

6. The Water Authority should work with the City and County to provide incentives to increase beneficial tree canopy coverage within Bernalillo County and the MRG.

K. Preserve and Enhance the Quality of Life in the Region

POLICY K. The Water Authority seeks a Water Resources Management Strategy that will preserve and enhance the quality of life within the region. The implementation of the Water Authority's water resources strategy will take advantage of opportunities to enhance the quality of life in the region whenever possible.

RATIONALE: As the largest water utility in New Mexico, the Water Authority recognizes its obligation to protect and enhance the quality of life within the region. Factors influencing quality of life include continued socioeconomic growth and development, support of public amenities, healthy ecosystems and green spaces, and minimizing environmental impacts. The Water Authority will provide sustainable water services to meet indoor demands, optimize efficiency of outdoor demands by utilizing recycled, reused and non-potable supplies, and return quality water to the Rio Grande for downstream users in the region.

SUB-POLICIES:

1. The Water Authority shall work with the City of Albuquerque, Albuquerque Public Schools, Bernalillo County and others to ensure that green spaces (parks, golf courses, athletic fields, etc.) are water efficient and provide incentives where appropriate.

2. The Water Authority should continue to reduce its carbon footprint by taking advantage of opportunities to reduce the energy usage of current infrastructure and by building new infrastructure with energy efficiency in mind.

3. The Water Authority shall expand its current green energy projects (solar and biogas) and implement additional green energy projects to reduce its water and energy footprints.

L. Link Land Use Planning with Water Management

POLICY L. The Water Authority shall coordinate and cooperate with the City, County and all other entities with planning authority to integrate water management policies with land use decisions. The Water Authority recognizes that managing the use of groundwater while conserving and using existing water resources including maximizing the use of excess resources when available should significantly reduce acquisition of new supplies to serve future customers.

RATIONALE: With the membership of the Water Authority consisting of elected officials from the City of Albuquerque, Bernalillo County and Village of Los Ranchos, future growth and development in the region requires coordination to integrate land use, transportation, infrastructure, economic improvement, urban infill and planning efforts with water resources management.

SUB-POLICIES:

1. The Water Authority should work with the City and County to update the Albuquerque/Bernalillo County Comprehensive Plan and/or other plans to ensure that system expansion is concurrent with infrastructure service levels and that the extension of facilities and services be phased in an efficient and orderly manner.

2. The Water Authority should ensure that its capital planning process is based on the City and County growth and development master plans so that land use and infrastructure policies are consistent.

3. The Water Authority should support the increase of urban building densities and infill development consistent with adopted land use plans as higher density development uses less water.

4. The Water Authority should encourage the City, County and State to adopt low-water-use Building Codes and low-water-use landscaping standards for all new construction.

5. The Water Authority should continue its review process so that each new residential, commercial, industrial and institutional development will have a resilient, sustainable water supply.

M. Encourage and Facilitate Public Involvement

POLICY M. The Water Authority shall continue its education programs for both children and adults to keep the public informed about the choices and tradeoffs involved in making water management decisions and invite public comment and participation in implementation of these policies.

RATIONALE: When the Water Authority partners with the public, the educated public can help shape the policies that are the foundation of the Water Resources Management Strategy. The public then contributes to the successful implementation of water resource management solutions, because they have been part of their design. Children who attend Water Authority field trips will know the value of water and be wise stewards of our resources for many years to come.

SUB-POLICIES:

1. The Water Authority shall continue its water resource education programs and field trips to teach children the importance, value and appropriate use of water in the region.

2. The Water Authority shall continue its interactive public meeting process to give customers information and get their input on upcoming programs, policies and projects.

3. The Water Authority shall continue its adult education programs so that all customers can participate in a resilient and sustainable water supply.

4. The Water Authority shall continue to partner with real estate, design, building and construction groups, building managers, etc. to educate their membership concerning water resources.

5. The Water Authority shall continue its current marketing and public relations campaigns to keep everyone in the service area informed about effective water resource management.

6. The Water Authority shall continue its process of involving the public in updates to the Water Resources Management Strategy in all future updates to the strategy.

Strategy for Use of Existing Supplies

This section describes the Water Authority's strategy for using the existing supplies to provide a safe and sustainable water supply for the next 100-years.

A. Use of Groundwater

The aquifer will no longer be the primary source of water as we have successfully transitioned to using our San Juan-Chama water along with reuse/reclamation projects. Under the new groundwater management reserve policy, groundwater will be used when surface water is not available (e.g., droughts), well exercising and to meet peak demands. As population increases over time, groundwater use will increase, but the Water Authority's policies are to implement projects over the 100-year timeframe to minimize long-term use of the aquifer to stay at or above the groundwater management level. The aquifer is rising and is projected to rise for another decade or two which will be monitored using both existing groundwater monitoring wells and production wells. The combination of less groundwater use along with aquifer storage and recovery will provide a long-term source of water for this community for many decades to come.

B. San Juan-Chama Drinking Water Project (DWP)

The San-Juan Chama Drinking Water Project (DWP) has been operational since December 2008. The DWP was slowly implemented into the system over the first three to four years to address potential chemical compatibility issues and water quality concerns that have plagued other municipalities (e.g., Tucson, AZ and Flint, MI). The DWP will be our primary source of supply over the next ten years and many decades to come. However, consumptive use in the Water Authority system has reduced to less than 40,000 acre-feet per year which means that we must implement additional aquifer storage and recovery projects to store San Juan-Chama water for use when surface water is not available.

The OSE permit has many conditions that limit the Water Authority's ability to utilize San Juan-Chama water especially during low flows commonly associated with droughts in the Middle Rio Grande. During those times, the Water Authority will shutdown the DWP and utilize groundwater or stored San Juan-Chama water when the large scale ASR projects are on-line and operational. San Juan-Chama not used during one year will be stored and be available for the following year(s) depending on hydrology conditions. Based on the OSE conditions and our current water usage patterns, the Water Authority can most likely meet about 70% of demand using the DWP with no interruptions due to low flows or other unscheduled events. For the next few years and sometime after that, the target will be to use at least 70% surface water and potentially more when the large scale ASR projects come on-line and water is stored which can be used to meet peak demands or when the DWP is reduced or shutdown.

C. Reclamation and Reuse Projects

The Water Authority will continue to operate and maintain the two existing reuse and recycling projects. As additional customers connect, additional reuse and recycled water will be used for large turf areas and potentially industrial demands. The Water Authority is committed to additional reuse projects under this plan including connecting the two existing reuse systems on

the eastside of the Rio Grande, construction of a new reuse system on the Westside and an additional system to treat effluent for reuse near Mesa del Sol.

D. Aquifer Storage and Recovery

The Water Authority has implemented the Bear Canyon Arroyo aquifer storage and recovery project. That project can provide about 1,000 acre-feet of supply over a two year period until changes are made as planned to connect the Northside Reuse system to the Southside Reuse system whereby non-potable municipal effluent can be used for irrigation and more water will be available for infiltration of San Juan-Chama water during the winter months.

The Large Scale ASR project is underway with the permit submitted to the OSE and approval from NMED for the demonstration project. Under this project, purified San Juan-Chama water will be injected directly into the aquifer via the construction of a new well and also through infiltration via a newly constructed vadose system well. Water stored during the winter months will be available for recovery from the new well during the summer months. The demonstration project will attempt to get up to 5,000 acre-feet of water into the aquifer annually and then recovery that amount later in the same year or store it for future withdrawal.

Appendix A

2016 Water Resources Town Hall Report

2016

Town Hall

Albuquerque Bernalillo County
Water Utility Authority

Town Hall
July 22, 2016

Introduction

The Water Authority conducted a four hour Town Hall on July 22, 2016 that focused on the update to the Water Resources Management Strategy (now called Water 2120: Securing our Water Future) and the Policies to implement the strategy. The meeting was held at the Uptown Marriot in Albuquerque and hosted over 200 customers.

The Town Hall (Agenda – Attachment D) opened with two presentations in plenary to provide background information on:

- Future Supply Alternatives
- Water Resource Policies

The Town Hall participants were then divided into ten groups and with the support of professional facilitators and recorders were asked to participate in the below activities.

- Activity 1: Prioritizing Future Supply Alternatives
- Activity 2: Focused Input on Four Water Resource Policies.

ACTIVITY 1

The small groups first reviewed the supply alternatives commenting on those alternatives they most liked and why. They were then given six marbles to place in plastic cups labeled with the name of each alternative. They were asked to place 3 marbles in their first choice, two in second, and one in third.

ACTIVITY 2

The goal of Activity 2 was to review four key policies for discussion and input (Attachment E). The four policies were:

- Policy B: Fully Utilize and Protect Existing Water Rights and Water Resources
- Policy D: Update and Maintain the Water Conservation Strategy
- Policy J: Protect Valued Environmental and Cultural Resources
- Policy M: Encourage and Facilitate Public Involvement

Small Group Work

Group A

Ed McCorkindale, *Facilitator*

Lily Gates, *Recorder*

ACTIVITY 1

#2 – Connect Southside Reuse to Northside with Expansion in the Middle

- Like: It's low cost and is relatively well balanced.

#3 – Lease Additional San Juan — Chama Water

#4 – Interbasin Transfer

- Concern: It's expensive.

#5 – Indirect Potable Reuse

- Like: It has worked in other places. We already have the resources.
- Like: We already have the plant.

#6 – Rio Grande Compact Relinquishment Credit Water

- Concern: Issues with Texas and the amount of water we gave to them

#7- Brackish Groundwater

- Concern: It's the most expensive and it's just "a last resort".

#8 – Stormwater Capture

- Like: It's environmentally friendly and we might as well take advantage of it.

#9 – Additional Reuse — Westside/Eastside and ASR

#10 – Watershed Restoration

- It's good for insurance.

General

- We should promote xeriscaping.
- Continue educating public about where water comes from (especially adults)

What is the relative priority of alternatives after the vote?

- Aquifer Storage and Recovery
- Connect Southside to Northside with Expansion in the Middle
- Stormwater Capture

ACTIVITY 2

POLICY B:

CONCERN:

- Will our water rights conflict with other city's water rights?

POLICY D:

LIKE:

- Should encourage xeriscaping

POLICY J:

LIKE:

- Key sub policies: J–4 and J–6

Policy M:

LIKE:

- Key sub policies: M–3

On which sub-policies should we focus our educational efforts with the public to build understanding and support? Why?

- The group didn't choose one in particular.

What types of outreach are most effective?

- Didn't choose just one, need to combine all of them

Group B

Scott McKitrick, *Facilitator*

Raye Myers, *Recorder*

ACTIVITY 1

#1 – Aquifer Storage and Recovery

- Like: Meets all of the criteria and good for the environment
- Like: Meets for all of the reasons and a blend of all factors
- Like: Provides the highest volume of water
- Like: It has less (negative) impact on the environment.

#2 – Connect Southside Reuse to Northside with Expansion in the Middle

- Like: Provides a high yield for water

- Like: Is low cost and efficient
- Question: Why is the environmental impact less? Is it due to new infrastructure?

#3 – Lease Additional San Juan — Chama Water

- No comment.

#4 – Interbasin Transfer

- No comment.

#5 – Indirect Potable Reuse

- No comment.

#6 – Rio Grande Compact Relinquishment Credit Water

- No comment.

#7- Brackish Groundwater

- No comment.

#8 – Stormwater Capture

- Like: Has impressive yield
- Like: The cost is negligible.
- Like: It is an easy resource to capitalize on.
- Comment: Nature gives us the water, so let's make use of it.

#9 – Additional Reuse — Westside/Eastside and ASR

- No comment.

#10 – Watershed Restoration

- Like: Provides long-term environmental benefits
- Like: Protects water quality and is available
- Comment: We should protect what we have and be proactive.

General

- Do these alternatives only apply to the source of the water and not the uses?
- Why is it the law that we can only have water for 96 hours after a power outage?
- We should use what we have by capturing stormwater.
- We should protect what we have, which is why it is proactive to go with the Watershed Restoration alternative.
- Why can't we do all of these alternatives?

- How does the Water Authority interact with PNM?
- What percent of the water goes where/for what purpose?

What is the relative priority of alternatives after the vote?

- Aquifer Storage and Recovery
- Connect Southside Reuse to Northside with Expansion in the Middle
- Stormwater Capture
- Watershed Restoration

ACTIVITY 2

POLICY B:

COMMENTS:

- Every resource has different people and purposes associated with it.
- There needs to be an introduction that says it is a plan and more education so that people are aware of it and see that it's written down somewhere (in regard to all of the policies and goal of 110 GPCD).

QUESTIONS:

- Are there things we need to do now that are more forward-thinking?
- Are these policies permanent?
- What are the water rights related to the Juan-Chama River?
- Why would we need alternative legal strategies (in reference to sub-policy 4)?

SUB-POLICIES MISSING:

- None

POLICY D:

QUESTIONS:

- Is it always the case that conservation is the cheapest thing to do?
- How do the conservation efforts of the Water Authority compare to other desert communities and conservation goals?
- What can you attribute the success of Albuquerque water conservation to?
- How are agriculture, reduction (of resources), and growth (population) bringing the volume numbers down?

SUB-POLICIES MISSING:

- None

POLICY J:

QUESTIONS:

- Would this policy include restoration in the Bosque?
- J–6: Are there environmental benefits of tree canopy coverage other than quality of life?

LIKE:

- Provides watershed planning and funding
- Gives tree canopy importance
- Includes watershed protection and restoration in case of fires

SUB-POLICIES MISSING:

- None

POLICY M:

LIKE:

- Like current education programs and how the Water Authority is keeping 4th graders and children in general informed—education 10 years from now, will really be able to see the impact
- The website is awesome, well designed, and is a good way to inform the public.
- Like the newsletter, very informational

COMMENTS:

- Need to tell people that they have water when the power goes out
- Social media depends on the age and is good way to communicate with millennials.
- The app can be used more, and not many people know about it.
- Some people like paying bills electronically, so advertise that more.

QUESTIONS:

- Do you have programs on channel 16?
- Is it the state that sets service areas where the water reaches?
- Is billing based on meter size and are there separate meter sizes based on house size?

SUB-POLICIES MISSING:

- Try to get people focused on water usage/conservation

On which sub-policies should we focus our educational efforts with the public to build understanding and support? Why?

- D–2: It is important that the public understands that this is the goal so that we can try and meet it and also that we have met a previous goal.
- J–4: Agree that watershed restoration is important and not many people know about it, put information in Bosque walks
- Support water reuse but need to get a better understanding of issues and health concerns
-

What types of outreach are most effective?

- Provide information in with the bill because people have to open the bill anyway
- Use app/website notifications and updates on the Water Authority

GENERAL:

- Town hall was a very well organized event.
- Like how the Water Authority is getting high school students involved
- Think the Water Authority seems very committed and interested in public involvement
- Want the Water Authority to tell the public more about the successes
- Interested in a comparison with other cities

~ ~

Group C

Sara Douglas, *Facilitator*

Bernadette Mitchell, *Recorder*

ACTIVITY 1

#1 – Aquifer Storage and Recovery

- Like: A recovery process that will eventually replenish the aquifer.
- Like: It may one day put us back to the water levels we once had.
- Like: Storage is not subject to evaporation, so no water will be lost.
- Like: It has already been proven effective.
- Like: This option does not disrupt the environment.
- Like: Creates the most options for water use
- Concern: Testing standards
-

#2 – Connect Southside Reuse to Northside with Expansion in the Middle

- Connecting the two will give the benefit of using waste water.

#3 – Lease Additional San Juan — Chama Water

- Concern: It took time to get these contracts in place so we should consider this option thoroughly before dismissing it.

#4 – Interbasin Transfer

- Water can be fully consumed with a portion being returned for reuse.

#5 – Indirect Potable Reuse

- Reclaimed highly treated water can be reused after a storage period.

#6 – Rio Grande Compact Relinquishment Credit Water

- No comment.

#7- Brackish Groundwater

- No comment.

#8 – Stormwater Capture

- Like: Collects and uses another source of water
- Like: Doesn't take any water from storage

#9 – Additional Reuse — Westside/Eastside and ASR

- Allows for more uses of waste water

#10 – Watershed Restoration

- Like: Will help advert wildfires and protect water gains
- Like: We need to take care of the water we have.

General

- The environment should be the most important consideration when choosing an option.

What is the relative priority of alternatives after the vote?

- Aquifer Storage and Recovery
- Additional Reuse – Westside/ Eastside and ASR
- Connect Southside reuse to Northside with Expansion in the Middle
- Watershed Restoration
- Stormwater capture
- Lease additional San Juan – Chama water
- Interbasin Transfer
- Indirect Potable Reuse

ACTIVITY 2

POLICY B:

LIKE:

- Protecting water rights that we already have
- Actively working so water rights are not limited or lost by seeking legal strategies

SUB-POLICIES MISSING:

- None

POLICY D:

LIKE:

- 110 GPCD is a great goal in water conservation.

SUB-POLICIES MISSING:

- None

POLICY J:

LIKE:

- Instream flows will be seen as a beneficial use.
- Restoring and protecting the watersheds help insure that water will not be wasted.
- Very important to enhance public green areas as long it is fully accessible to the public and doesn't just benefit a small percentage (i.e. golf courses).
- Trees are very important for our environment. Will increasing the tree canopy keep us in line with the 110 GPCD goal?

SUB-POLICIES MISSING:

- Incentives should apply to residential areas to increase canopy and to upkeep older trees in established neighborhoods.

POLICY M:

LIKE:

- Supports youth educational programs
- Support commercials

SUB-POLICIES MISSING:

- None

On which sub-policies should we focus our educational efforts with the public to build understanding and support? Why?

- M–3: Work with neighborhood associations by having someone from the Water Authority come to HOA meetings and teach about conservation and show ways water is being wasted (i.e. over watering, washing vehicles).
- M–5: Commercials are a great reminder, but would like them to be more detailed, including how long to water.

What types of outreach are most effective?

- Technology and Social Media (apps, twitter, Facebook)
- Public Meetings

Group D

Ildi Oravecz, *Facilitator*

Ruby Gates, *Recorder*

ACTIVITY 1

#1 – Aquifer Storage and Recovery

- Like: It will protect the water from evaporating.
- Like: It will be good for times of drought.

#2 – Connect Southside Reuse to Northside with Expansion in the Middle

- Like: We can reuse water, and get more out of it.

#3 – Lease Additional San Juan — Chama Water

- Like: Accessing more for water conservation

#4 – Interbasin Transfer

- No input.

#5 – Indirect Potable Reuse

- Like: Reuse is an essential long term necessity.
- Like: It is the only one with no apparent issues.
- "Gross"

#6 – Rio Grande Compact Relinquishment Credit Water

- Like: Is all around good economically and at a low price

#7- Brackish Groundwater

- Concern: Alternative is not cheap

#8 – Stormwater Capture

- Like: If it is not used it will be polluted. This is a solution.
- Like: With the technology today we could do a lot.
- Like: The water is already there, now we just need to use it.
- Concern: Legal issues

#9 – Additional Reuse — Westside/Eastside and ASR

- Like: This option is all around good.
- Like: Volume
- Like: It is easy to continue.

#10 – Watershed Restoration

- Like: Wildfires do a lot of damage. They are less likely with this option or better controlled.
- Concern: It takes away from our drinking water projects.
- Like: It keeps some heat/sunlight off the ground that cause evaporation.
- Concern: There is not a lot of gain.
- Is this already done?

General

- Everyone is interested in reuse.
- Price and availability are important to everyone.

What is the relative priority of alternatives after the vote?

- Stormwater capture

ACTIVITY 2

POLICY B:

LIKE:

- Like everything about sub-policy 3.

- Taking advantage of everything

CONCERN:

- Legal issues

SUB-POLICIES MISSING:

- Direct potable reuse
- Water quality control, not just water policy

POLICY D:

LIKE:

- The fact of giving and showing small things makes people think more about water use.

CONCERN:

- Population will grow.
- We need to look into this more often (every other year).
- Will we be adjusting rates?
- How will we actually get there? We know the end result, just not everything in the middle.
- We need to break down the global GPCD into smaller more specialized categories (Turf, household…).

SUB-POLICIES MISSING:

- Requiring updated utilities

POLICY J:

Concerns:

- Dead trees and dirt are disturbing.
- Is this really what we want to spend money on?
-

Like:

- Sub-policy 5

Sub-Policies Missing:

- Protecting the urban environment

- We need to work on Bosque restoration and management.

Policy M:

LIKE:

- The younger you learn, the better.

SUB-POLICIES MISSING:

- Social media (Instagram)
- Go back to what does work and then make it better
- Get the information to everyone
- Provide more reminders on bills, websites, and everything
- Add more nonprofits on sub-policy 4.

On which sub-policies should we focus our educational efforts with the public to build understanding and support? Why?

- B–5: Get the information to everyone, especially the people who want to do something.

What types of outreach are most effective?

- Social Media

Group G

Elizabeth Phillip, *Facilitator*

Celina Hill, *Recorder*

ACTIVITY 1

#1 – Aquifer Storage and Recovery

- Like: Protects aquifer
- Like: Stores excess water
- Like: Has no evaporation, high yield, available and low cost

#2 – Connect Southside Reuse to Northside with Expansion in the Middle

- No comments

#3 – Lease Additional San Juan — Chama Water

- No comments

#4 – Interbasin Transfer

- No comments

#5 – Indirect Potable Reuse

- Like: Low environmental impact

#6 – Rio Grande Compact Relinquishment Credit Water

- No comments

#7- Brackish Groundwater

- No comments

#8 – Stormwater Capture

- Concern: Stormwater is being wasted.
- Like: Has no evaporation, high yield, available and low cost

#9 – Additional Reuse — Westside/Eastside and ASR

- No comments

#10 – Watershed Restoration

- Like: Has more than one benefit

General

- Cost was a low priority for the group.

What is the relative priority of alternatives after the vote?

- Aquifer Storage and Recovery
- Stormwater Capture
- Indirect Potable Reuse
- Watershed Restoration

ACTIVITY 2

POLICY B:

LIKE:

- Uses something that we already have
- It is cost effective to continue work rather than to create new infrastructure.

SUB-POLICIES MISSING:

POLICY D:

LIKE:

- Supports continuous review

SUB-POLICIES MISSING:

- Involve the state more
- Provide services or financial aid for homes that want to do xeriscaping or remove sprinklers but do not have the means to do it.

POLICY J:

Like:

- Continues environmental efforts

Sub-Policies Missing:

- In addition to taking out non-native plant species, add new plants that will be helpful.

POLICY M:

LIKE:

- Makes information available

SUB-POLICIES MISSING:

- Gives more attention to climate change

On which sub-policies should we focus our educational efforts with the public to build understanding and support? Why?

- Without attention on climate change, all of our conservation efforts will be ineffective.

What types of outreach are most effective?

- Pamphlet in their bill
- Involving neighborhood associations in the conservation and educational process
- Face to face meetings

~ ~

Group H

Karen Klein, *Facilitator*

Anna Horner, *Recorder*

ACTIVITY 1

#1 – Aquifer Storage and Recovery

- Like: Useful to store water and use it later, makes sense
- Like: Provides long term solution, is easy on the environment, highly available with net to low cost
- Like: Aquifer has been depleted and we’ve seen success restoring it so far, stick with this practice to keep water in the ground for grandkids.
- Like: We’ve seen success and allows water for a long time.

- Like: Is fiscally responsible
- Like: Dilutes any bad things in the water
- Like: Provides better quality water for the future
- Like: Provides water for future generations and is good for the environment
- Like: Allow more water for environment and cost is low
- If you have the first alternative, then the 8th alternative (storm water catchment) makes sense.

#2 – Connect Southside Reuse to Northside with Expansion in the Middle

- Like: Like the description, frees up water on Northside for other purposes
- Like: Provides for reuse
- Like: New communities are being built and old communities are being rebuilt.
- Like: It improve neighborhoods, improve communities, uses routes that are already established and saves money.

#3 – Lease Additional San Juan — Chama Water

- Like: Is low cost and a clean source

#4 – Interbasin Transfer

- Concern: Viability of this option

#8 – Stormwater Capture

- Like: It is good for the environment and a reasonable price.
- Cost of the alternative should be the bottom line.
- Like: keeps water out of the gutter
- Like: The practice is cost effective.
- Like: Don't like to see all that water wasted.

ACTIVITY 2

POLICY B:

LIKE:

- Continues to improve what is in place
- B–3: It is recycling and reusing
- We are fortunate to have this alternative because when there is drought we have options.

SUB-POLICIES MISSING:

- Capture and use stormwater as a part of using the water resources we have

- Provide understanding how we can legally capture and use rainwater and still fulfill our obligations to Texas
- Provide clear articulation of current utilization of existing water rights
- Are we fully using the rights we have?
- Policy should state if any of the current water rights haven't been adjudicated, then they need to be validated and incorporated into Water Authority.

POLICY D:

LIKE:

- We can adapt and change as needed.
- The Water Authority can and will stay on top of changes.

SUB-POLICIES MISSING:

- D-3: We need equity of conservation requirements, no discounts for big business, and an even playing field where we all conserve.
- Be aware of potential high cost to consumer
- Use language that requires a buffer between sidewalks and streets to catch water run-off from watering public parks
- Improve regulations for Parks and Engineers in regards to efficient water use, such that consumers are not stuck with inefficient water use systems in their homes
- Improve options for conversation – such as xeriscaping at schools with healthy options, not artificial turf that has carcinogens
- This policy talks a lot about external changes and conservation efforts. What is the Water Authority doing internally to conserve?

POLICY J:

LIKE:

- More trees mean less pollution.
- Tree canopy is very important to the health of the city and protects the future for grandkids and the city.

SUB-POLICIES MISSING:

- Involvement of boy scouts and prisoners in watershed management
- This is the desert — why do we need to have water in the river?
- Need to include the history of water and rivers in the desert
- Consider recreational use of water in Albuquerque

- Reconcile cultural use and importance of acequias with environmental impact

POLICY M:

LIKE:

- Rebates and lunch bring people in

SUB-POLICIES MISSING:

- We need community representation on the board.
- Location of the meeting is very important.
- There should be more meetings downtown and throughout the city.
- Concerns about cost of this meeting – have meetings in schools, rather than in hotels
- Business representation is not present at the town hall. There needs to be more outreach to businesses to get them to attend.
- Increase age range present at the meeting
- Encourage attendees to spread the word by word of mouth, tell everyone to tell at least one person about this opportunity
- Continue to use age appropriate methods to educate young folks to help hit 2120 goals

On which sub-policies should we focus our educational efforts with the public to build understanding and support? Why?

- We did not get to this

What types of outreach are most effective?

- This seemed to be addressed in response to Policy M

PARKING LOT:

- Need to understand how implementing stormwater capture requires change of state law
- Need to increase public understanding of water law — especially in regards to farms' water rights — don't use them they lose them
- This requires farmers to water fallow fields!
- How do we get out more information about the rebate for planting trees?
- Concern about water unnecessarily going down the drain
-

Group I

Susan Chaudoir, *Facilitator*

Nicki Villansenor, *Recorder*

ACTIVITY 1

#1 – Aquifer Storage and Recovery

- Like: This offers good environmental protection.
- Like: This reserves water for the future. By reducing evaporation the groundwater levels increase.
- Like: This alternative is not as expensive over the long run.
- Like: Here is high volume and frequency of availability.

#2 – Connect Southside Reuse to Northside with Expansion in the Middle

- Like: This connection creates opportunity for other alternatives and expansion in the future.
- Like: Green spaces are important for the public to enjoy, this alternative sustains the existing parks.
- Like: This is a known strategy, with known yield and evidence that it works.

#3 – Lease Additional San Juan — Chama Water

#4 – Interbasin Transfer

#5 – Indirect Potable Reuse

#6 – Rio Grande Compact Relinquishment Credit Water

#7- Brackish Groundwater

#8 – Stormwater Capture

- Like: This alternative supports conservation, and if reused it can support he landscape.
- Like: Water is usable without treatment, which saves money.
- Like: It is a local supply, so it is not coming from elsewhere.
- Like: This is self-sustaining and recharges naturally.

#9 – Additional Reuse — Westside/Eastside and ASR

#10 – Watershed Restoration

- Green infrastructure requires us to focus on areas that require attention.
- The Bosque has many nonnative species.

What is the relative priority of alternatives after the vote?

- Aquifer Storage and Recovery
- Connect Southside reuse to Northside with expansion in the middle.
- Stormwater capture.

ACTIVITY 2

POLICY B:

POLICY D:

LIKE:

- This is helpful if they encourage education on how to use gray water safely.
- This can be reused with no treatment and can help meet conservation goals.
- I'm very concerned about the trees. They are dying. If rates go up more trees will die.
- The trees are the personal responsibility of the individual.

SUB-POLICIES MISSING:

POLICY J:

Like:

- No comments

POLICY M:

LIKE:

- This is currently being implemented. We are involved and participating. We are making decisions.
- We have the third largest canopy die off because education was not on trees but on lawns.
- Trees encourage mental health and provide shade.
- Technology will become available and we need aggressive education on what is out there.
- Rebates for smart controllers should be part of the strategy.
- We need education on how trees work.

On which sub-policies should we focus our educational efforts with the public to build understanding and support? Why?

- Education on how to water trees correctly can help keep trees alive without wasting water.
- Knowing the meter alternatives can help customers track their use and conserve more water.
- Understanding gray water, the available systems, and how it can be used at home would be great information.

What types of outreach are most effective?

- Bill inserts are not great.
- For online billing an email attachment would work great.
- Facebook and other social media work well because not many read the newspaper anymore.
- Weekly stories on the evening news can update the community on usage and other projects.
- Target all ages through a variety of avenues

Group J

Lucy Moore, *Facilitator*

Ross Hibbett, *Recorder*

ACTIVITY 1

#1 – Aquifer Storage and Recovery

- Like: Relatively cheap, high yield, good for the environment, always available, efficient, long term conservation, but can use in the meantime

#2 – Connect Southside Reuse to Northside with Expansion in the Middle

- Like: High yield, available, low cost, reuse, ability to move water allows for greater flexibility, logical

#3 – Lease Additional San Juan — Chama Water

#4 – Interbasin Transfer

- This alterative is high yield but also high cost.

#5 – Indirect Potable Reuse

- Like: We will have to reuse water sometime in the future, so the sooner we start the better.
- Like: With increase in technology it can be done and is good for the long term.
- Concern: It is costly, but we should start investing.
- Concern: Doesn't like the thought of "toilet to tap."

#6 – Rio Grande Compact Relinquishment Credit Water

#7- Brackish Groundwater

- Concern: Is low yield, bad for environment, not available often, very high cost
- Concern: On a list it should be at the bottom.

#8 – Stormwater Capture

- Like: Is good for environment, low cost
- Concern: Regulations would have to be changed and water is not always available.

#9 – Additional Reuse — Westside/Eastside and ASR

#10 – Watershed Restoration

- Like: This is most important
- When fire damage is severe, river can run black.
- Like: This is good for environment, good availability, low cost

General

- Provide gray water at the personal scale
- "Reuse" water for recreation such as rafting on releases
- Need criteria of "time
- Has there been an increase in radio-nucleoids?
- Personal large scale conservation can have a large impact.

What is the relative priority of alternatives after the vote?

- Watershed Restoration
- Indirect Potable Reuse
- Connect Southside reuse to Northside with expansion in the middle
- Aquifer Storage and Recovery
- Stormwater capture
- Brackish groundwater

ACTIVITY 2

POLICY B:

LIKE:

- It is important to keep our right to use San Juan-Chama water
- Let's collaborate, expand it — we have neighbors

SUB-POLICIES MISSING:

- B-4: Clarification — could be intergovernmental

POLICY D:

LIKE:

- Willing to pay more for future generations

CONCERN:

- 110 gpcd is more than twice the world average.

QUESTION:

- How will Albuquerque change because of the 110 gpcd goal?
- Provide running paths, buffer around parks, and use less turf where it isn't used

POLICY J:

Like:

- Supports watersheds, but should be connected to H–1.

Concerns:

- How would this impact work on the Bosque?
- Mayor's development proposition doesn't support J.

Sub-Policies Missing:

- J-6: Dead trees are a fire hazard and need a beautiful tree canopy not a dead one.
- Elms have a short life.

POLICY M:

LIKE:

SUB-POLICIES MISSING:

- Place emphasis on kindergarten and elementary school, get them young
- Teach kids about planting, watering, and the water cycle (how it all works).

On which sub-policies should we focus our educational efforts with the public to build understanding and support? Why?

- Not much said, refer to M.

What types of outreach are most effective?

- Advertising- water bill inserts, messages of the mayor, social media for younger people, news apps, new feeds, TV promotional stories

Las Cruces Group

Leslie Kryder, *Facilitator*

Cristina Hoberg, *Recorder*

ACTIVITY 1

#1 – Aquifer Storage and Recovery

- Like: Should not have #1 without #10
- Agreement: #1 and #10 need to be a pair
- With new technologies there is a possibility of capturing humidity from the air.
- Like: Prefer to save, sensible to use less
- Like: Banking for the future, not taking natural resources for granted
- Like: Volume-wise we should go with this option vs. #10.
- Like: Believe in saving, reusing, recycling
- Like: Water is not subject to evaporation and keeps aquifer from draining.

#2 – Connect Southside Reuse to Northside with Expansion in the Middle

- Like: Increase the yield now
- Like: Low cost, long term strategy, less environmental

#3 – Lease Additional San Juan — Chama Water

- No comments

#4 – Interbasin Transfer

- No comments

#5 – Indirect Potable Reuse

- No comments

#6 – Rio Grande Compact Relinquishment Credit Water

- Question: What is the status of the State of Texas law suit about the compact? What is the amount of water they receive and potential that we will have to give them more?

#7- Brackish Groundwater

- No comments

#8 – Stormwater Capture

- Like: Has potential but has limitations
- Concern: The option requires dams designed for short-term storage; we cannot do this with our current design (or regulations); it will require more naturalistic treatment of arroyos because need impervious elements.

#9 – Additional Reuse — Westside/Eastside and ASR

- Like: An economical option to build on current system

#10 – Watershed Restoration

- Concern: Not well defined, should also promote grassland - deep root prairie grass not just trees in forests
- Like: We should do this from the beginning to protect water quality.
- Like: We could easily hire 5,000 people to clear excess deadwood/logs for watershed and forest management. This would provide both employment and economic resources.

General

- Everyone is interested in reuse.
- Price and availability are important to everyone.

What is the relative priority of alternatives after the vote?

- Aquifer Storage and Recovery

- Watershed Restoration
- Connect Southside to Northside with Expansion in the Middle

ACTIVITY 2

POLICY B:

LIKE:

- B–3: We need to get all use out of water instead of letting it disappear.

CONCERN:

- The challenge with reuse is that we don't get return flow credit when we discharge back to Rio Grande. It is a delicate balance and creates internal deficit in regards to the compact.
- B–1 is too general.

QUESTION:

- How are amounts of water quantified?

COMMENT:

- Needs main diversion channel
- Needs EPA quality water treatment facility so storm water discharged is returned through Alameda drain

POLICY D:

LIKE:

- D–2: We should be able to do this before 2037. The Water Authority has done a phenomenal job.
- D–3: Comprehensive and incorporates D–2
- D–1: Good job with consumer education/rebates and water audits.
- D–3: Support updating every 10 years, especially with climate change it good to review as innovation and new ways to conserve always come up
- D–1: Educator should focus on public outreach and education because it is affordable. People need to know about water use and conservation.

CONCERN:

- D-4: Flesh it out better, too passive of a statement, needs to be more of a practice statement

- Work with companies like Intel to put water back into river as a more proactive strategy
- "Development and infrastructure" needs to be more active to encourage and promote better city-wide developments and plans (medians with grass).
- Reach out to other groups, public sessions, churches

POLICY J:

QUESTION:

- How does food production and agriculture impact our dependence on water? Isn't it part of the issue? We need to maintain and develop additional food supply.

LIKE:

- J-2 seems practical but not sure but beneficial in-stream activities on Bosque.
- Need more canoeing/fishing
- You build awareness of resources when people use them.
- Engineer flows to provide recreational opportunities and big value of water in desert

CONCERNS:

- Need to recognize beneficial use to include economic impact of tourism in state.

POLICY M:

LIKE:

- M–4: Glad because takes care of commercial buildings, informs managers/owners on environment in building
- M–4 and M–5: Supports partnering with builders and designers
- Passage of time is fast for children to grow to the future, children's education has great returns.

QUESTION:

- Can we have an educational focus on how to retrofit homes for graywater use?
- What distinguishes "shall versus "should"? Is should is more adaptive?

On which sub-policies should we focus our educational efforts with the public to build understanding and support? Why?

- Broadcast successes and tie into policy M2/5 such as national award for children's education. It should be a headline.

What types of outreach are most effective?

- Conservation should be the focus of public announcements and be a long-term strategy.
- Place emphasis on what community has accomplished, 50% reduction in 10 years
- Albuquerque Museum exhibit shows how water is being used and how much we have reduced. Really like the exhibit.

QUESTION:

- Policy G–5, pre-1907 water rights: It is a bad decision to stop buying because Intel is actively pursuing/buying those water rights (as are other corporations) and so they won't stay in agricultural use just because the city does not buy them. It is contrary to good management to keep them in agriculture and to buy them and preserve them for that use.

Cimarron Group

Heidi Howley, *Facilitator*

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ACTIVITY 1

#1 – Aquifer Storage and Recovery

- Like: Provides frequency of availability once it's in the aquifer
- Like: " I see it working physically out of an Arroyo"
- Comment: I am willing to pay for this because I live in a desert.
- Comment: Has best returns across the board except for the cost
- Like: It has been proven to work.
- Like: It is available and that it's already been tested.
- Like: Allow water volume and has a positive effect on the environment

- Comment: This is good in all 4 categories and there are a lot of advantages to living in a desert so I am willing to pay for water.
- Environment is most important.
- Comment: The cost is okay since we live in a desert.
- Like: Protects the environment at a low cost

#5 – Indirect Potable Reuse

- Like: Provides huge volumes of water and is reliable
- Like: We always will have waste water available.

#6 – Rio Grande Compact Relinquishment Credit Water

- Like: Less costly and we can receive a credit for our water
- Like: Our storage space is good so we can hold more water.
- Comment: Cost is most important.

#8 – Stormwater Capture

- Like: Infrastructure is in place already and free rain!

#9 – Additional Reuse — Westside/Eastside and ASR

- Like: Includes alternative #1 and reuse
- Like: Provides reasonable water volume, good cost and availability

#10 – Watershed Restoration

- Comment: There are a lot of impacts from fires so preservation of our watersheds is important for the environment and this is low cost.
- Soil is important and we need to consider the environmental consequences in all aspects and for everyone.

General

- Being proactive is helpful, but who is paying for these alternatives? Who is shouldering these costs? We would like to see what is best for the community as a whole –cost wise.
- Alternatives 1 & 10 work well together.
- Comment: Should be used in conjunction with each other

What is the relative priority of alternatives after the vote?

- Aquifer Storage and Recovery
- Stormwater Capture
- Additional Reuse/Westside and Eastside and ASR
- Watershed Restoration

ACTIVITY 2

POLICY B:

CONCERN:

- Is there a potential threat that our water rights will be taken away?

SUB-POLICIES MISSING:

- We have to demonstrate that we are using our rights so "use it or lose it" needs to be made clearer.
- In Sub-policy 1, the "necessary steps" needs to be defined. What are the "steps"?

POLICY D:

CONCERN:

- "I am all about conserving water, but I don't want to preserve too much since I need to preserve trees as well.

SUB-POLICIES MISSING:

- Equitable use of water needs to be added to "efficiency" because water justice is important and needs to happen.

POLICY J:

CONCERNS:

- Use arroyos draining north so that a north detention pond can be incorporated with the Bosque.
- Does the city have a regulation that it is required to maintain landscape?

SUB-POLICIES MISSING:

- "In stream flow" needs a definition.
- Sub-policy 6 needs the word sustain added to it: "sustain and increase"

POLICY M:

CONCERN:

- Concern with $80,000 spent on TV commercial

SUB-POLICIES MISSING:

- There should be public education added in all areas.

- We need to educate on use of rainwater harvesting,

What types of outreach are most effective?

- Newspapers
- Email list updates
- Workplace training programs
- Collaborations with organizations such as appliance businesses and nurseries to educate about rebates available to their customers and the importance of water conservation

Large Group Report Out of Prioritization Results

#1– Aquifer Storage and Recovery – **264 votes**

#2 – Connect Southside Reuse to Northside with Expansion in the Middle – **122 votes**

#3 – Lease Additional San Juan – Chama Water – **28 votes**

#4 – Interbasin Transfer – **5 votes**

#5 – Indirect Potable Reuse – **38 votes**

#6 – Rio Grande Compact Relinquishment Credit Water – **22 votes**

#7 – Brackish Groundwater – **9 votes**

#8 – Stormwater Capture – **125 votes**

#9 – Additional Reuse/ Westside and Eastside and ASR – **22 votes**

#10 – Watershed Management – **97 votes**

Large Group Q and A

Questions/Comments after Presentation on Supply Alternatives:

- Need to swamp coolers with refrigerated air/using evaporative cooling as a means of conserving water
- Are some of the supply alternatives mutually exclusive?
- Did the mine spill complicate the San Juan Chama drinking water project?
- Does the Water Authority work with other agencies?
- What is the quality of the water that is stored in the aquifer?
- Why choose 135 GPCD as a goal if we are currently below that?
- Please provide information on swamp cooler thermostat rebates
- Why not plan further into the future (100 years versus every 10 for example)?
- How many actual sources of water do we have?
- How are the sources of water categorized?
- What is the security of our water supply like?
- How is the Water Authority handling heavy metals in the water supply? (testing)

Questions/Comments after Presentation on Water Policies:

- How much are TV commercials costing the Water Authority?
- How many water agencies are in NM and how often do you collaborate?
- Will these presentation power points be available?
- What is the extent of the Aquifer in ABQ?
- Is water going back into the aquifer when watering the lawn during good times of the day?
- Does this data include the city of Albuquerque only?
- Does the city of Rio Rancho and Intel effect our plan and aquifer?
- In collaborations with the MRGCD do you consider flood irrigation and how it recharges the aquifer?
- What is the delta between the current demands and how much do we need for high use water supply with and without conservation?
- How much money would a 1% increase in rate generate?
- What is the Cost per acre foot in respect to drops and alternatives?
- What can we do as citizens to educate on water conservation especially among young people and social media?
- There are new products of swamp coolers at the moment that can save water. The Water Authority claims six sources of water when there are only two, ground and surface, the rest is just maintenance.
- Thank you for having this, it's great to see such a great turn out.

Albuquerque Bernalillo County
Water Utility Authority

Town Hall Agenda 2016

July 22, 2016 • 10am–2pm

10:00 – 10:10	Welcome from ABCWUA Board Chair - Trudy Jones
10:10 – 10:20	Overview of Town Hall, Head Facilitator – Mary Davis Hamlin
10:20 – 10:30	Video
10:30 – 11:00	Presentation on Water 2120: Securing Our Water Future, Intera Vice President – David Jordan, P.E.
11:00 – 11:15	Panel Q & A
11:15 – 11:35	Presentation on Water 2120: Policies, ABCWUA COO -John M. Stomp III, P.E.
11:35 – 11:50	Panel Q & A
11:50 – 12:10	Get lunches and go to break-out groups
12:10 – 1:30	Break-out group activities A. Future Supply Alternatives B. Water Resource Policies

1:30 – 1:40 Return to Main Room

1:40 – 2:00 Report Out and Raffle

A. WATER BUDGET PLANNING AND REPORTING

POLICY A. The Authority shall utilize an adaptive management approach to water resources planning and reporting. The water budget established shall be reported annually to the Authority Board and updated no less than every five years.

RATIONALE: The Adaptive Management Strategy (AMS) adopted as part of the 2017 WRMS is intended to provide an iterative process by which supply and demand can be re-evaluated as needed in the future. The intent of AMS is to provide an iterative process for robust decision-making in the face of uncertainty, with the aim or reducing uncertainty over time via monitoring. Since both supply and demand projections are uncertain and may be revised in the future, AMS allows for re-evaluation of currently-identified predicted supply gaps, and subsequent revision of these gaps, if necessary. Future revisions to the supply and demand analyses may be made based on new technical understanding, availability of new technical tools, and/or revisions to current predictions of supply and/or demand. A key aspect of the Authority's AMS will be monitoring groundwater levels in the Groundwater Reserve.

SUB-POLICIES:

1. The Authority should update the Water Resources Management Strategy using the best available science following the Adaptive Management Strategy (AMS) every ten years or more frequently as requested by the Authority Board.

2. The Authority shall report on an annual basis to the Authority Board to provide a water budget for the upcoming year which includes estimated groundwater and surface water use along with estimated non-potable water reuse.

3. The Authority shall report to the Authority Board every five years regarding the aquifer level and the projected level for the next five years as compared to the groundwater management level established in Policy C.

B. FULLY UTILIZE AND PROTECT EXISTING WATER RIGHTS AND WATER RESOURCES

POLICY B. The Authority shall protect its right to fully use its San Juan-Chama and Rio Grande surface water as a direct water supply and transition to other renewable supplies when available and appropriate. The Authority shall limit the use of ground water except when exercising wells, providing supply during peak demand periods or when surface water supplies are not available (e.g., droughts).

RATIONALE: The Water Authority holds the rights to about 26,396 acre-feet of vested and acquired Rio Grande water rights and 48,200 acre-feet of San Juan-Chama water. Meeting future water demands will require full utilization of these water rights and resources, including the increasing volume of excess wastewater which will be available for reuse. A safe and sustainable water supply for the Authority is based on using the existing water rights and resources which will reduce the long-term acquisition of additional water supplies. This involves using groundwater and limiting the long-term use of the aquifer to preserve a portion for future generations while preserving the right to fully utilize our groundwater permits during droughts and when surface water supplies are unavailable.

SUB-POLICIES:

1. The Authority shall take all the necessary steps to protect its existing water rights and water resources.

2. The Authority should utilize a combination of renewable supplies including the groundwater reserve, direct diversion of San Juan-Chama and native surface water, industrial and municipal effluent, impaired groundwater and recycled water.

3. The Authority should utilize all available excess return flows as part of a reuse and recycling plan that consists of aquifer storage and recovery, indirect potable and non-potable reuse.

4. The Authority should prepare for a basin adjudication or seek alternative legal strategies (negotiated settlements) in addition to the traditional adjudication process.

C. ESTABLISH AND MAINTAIN A GROUNDWATER RESERVE

POLICY C: The Authority shall establish a groundwater reserve that maintains sufficient water in aquifer storage to provide water supply during catastrophic drought or other unforeseen, largely unquantifiable events. The groundwater reserve shall be partitioned into a safety reserve and a working reserve. The safety reserve is that portion of the groundwater reserve prudently maintained for emergency use only, while the working reserve is the balance of the groundwater reserve above the safety reserve. A management level goal of aquifer drawdown set within the working reserve shall be maintained so that the groundwater reserve shall be accessible without causing adverse, irreversible impacts to the aquifer. The management level provides explicit operational guidance to the implementation of Policy B in that it balances full utilization of the Authority's existing water rights with no long-term change in groundwater storage.

RATIONALE: The aquifer is generally rising throughout the Middle Rio Grande. This began in 2008 with the implementation of the Drinking Water Project. The water levels are expected to rise for more than a decade longer and it is important to develop and implement an explicit policy for managing the aquifer in the future to prevent a return to pre–1997 practice under which continuing drawdown was unsustainable. This augmented Policy C makes minimal nomenclature changes to the 2007 Policy C and adds specific language to guide management of the aquifer itself.

SUB-POLICIES:

1. The reserve terminology should be implemented by reference to average level of drawdown in Authority wells from pre-development conditions. Accordingly, the initial 2017 reserve settings should be:

    a. Groundwater Reserve. This reserve extends from fifty feet of drawdown to three hundred feet of drawdown, the latter constituting the threshold of irreversible subsidence.
    b. Safety Reserve. That portion of the Groundwater Reserve extending from two hundred and fifty feet of drawdown to three hundred feet of drawdown.
    c. Working Reserve. The residual portion of the Groundwater Reserve extending from fifty feet of drawdown to two hundred and fifty feet of drawdown.
    d. Management Level. This is set at one hundred and ten feet of drawdown which would maintain seventy percent of the Working Reserve.

2. If drawdown in the Working Reserve should fall below the Management Level, then projects should be implemented to add supply to the Authority portfolio to restore it to the Management Level.

D. UPDATE AND MAINTAIN THE WATER CONSERVATION STRATEGY

POLICY D. Implementation of the Water Conservation Plan has been a key aspect of the success of the 2007 Water Resources Management Strategy. Continued progress in conservation to achieve a gallons per capita per day (GPCD) water usage of 110 will further extend our water supplies even in the face of climate change. The Authority shall utilize the conservation program to reduce GPCD to 110 by 2037.

RATIONALE: Water conservation has proven to be a powerful tool for managing water resources over the past twenty years. GPCD has been reduced from 250 in 1995 to 127 in 2015. This has led to an overall reduction in production from approximately 125,000 acre-feet in 1995 to approximately 98,000 acre-feet in 2015. Further water conservation efforts over the 100-year planning period are a key element to secure a resilient, affordable water supply for the Water Authority's service area. In addition to representing wise stewardship and management of our water resources, successful implementation of an effective conservation plan is required by the State for obtaining future permits and funding water projects.

SUB-POLICIES:

1. Conservation is the primary way in which customers participate in extending the need for additional water resources. The Authority shall continue its public outreach efforts to involve all customer classes in water conservation efforts.

2. The Authority shall update the Water Conservation Plan consistent with the 110 GPCD goal.

3. The Water Conservation Plan shall be updated at least every ten years and shall be reviewed annually so that updates to incentive, education and deterrent programs can be kept current with program needs.

4. The Authority shall work with the City and County to foster the efficient management and use of water in development and infrastructure.

E. SUPPORT REGIONAL WATER RESOURCES PLANNING AND MANAGEMENT

POLICY E. The Authority shall pursue efforts to enhance regional water resources planning and management activities within the Middle Rio Grande Valley. The Authority shall work cooperatively with its neighbors—the Pueblos, the Middle Rio Grande Conservancy District, Middle Rio Grande Valley cities and counties, and involved state and federal agencies. The Authority shall continue to be involved in and monitor the progress of regional and interstate water management initiatives that may affect the Authority and the region.

RATIONALE: The Authority recognizes the need to work in cooperation with other entities that share use of the Middle Rio Grande Valley's water resources. Regional water resources planning needs to address uses for public and domestic water supply, irrigated agriculture, livestock, commerce, industry, fish, wildlife and recreation. The Authority, neighboring jurisdictions, and other water users need to work with State, regional, and federal agencies with water management responsibilities.

SUB-POLICIES:

1. The Authority shall continue its proactive role to ensure that the necessary technical investigations with U.S. Geologic Survey and others are completed efficiently and expeditiously and that they result an improved understanding of surface and ground water.

2. The Authority is committed to seek common solutions within a regional context. The Authority shall work with others in the Middle Rio Grande Valley on updates and implementation of the Regional Water Plan.

3. When appropriate, the Authority should share their experience in groundwater management to assist other planning efforts in transitioning to renewable supplies and to limit long-term groundwater usage.

4. The Authority shall work with federal and state agencies including the Bureau of Reclamation, Corps of Engineers and Bureau of Land Management, the State Engineer and the Interstate Stream Commission to continue to find common solutions for water management on the Rio Chama and the Rio Grande.

5. The Authority shall collaborate with the Middle Rio Grande Conservancy District (MRGCD) to develop and implement a plan to support and promote agriculture in the Middle Rio Grande.

6. The Authority shall promote and develop green infrastructure including storm water infrastructure to promote efficient water resources management and aquifer storage.

F. UTILIZE CONJUNCTIVE MANAGEMENT AND DIVERSIFY WATER RESOURCES PORTFOLIO

POLICY F. The Authority shall enhance the resiliency and sustainability of the water supply by effectively combining the use of surface water, recycled and reclaimed water, the shallow and deep aquifer, and other supplies as needed to meet current and future demand.

RATIONALE: Enhancing the efficiency of the Authority's water use, requires conjunctive management and use of all available resources: surface water for municipal and industrial supply and for irrigation, groundwater for exercising wells, peaking, and when surface water supplies are not available (e.g. , drought), ASR for municipal and industrial supply, and other supplies as available.

Reclamation and reuse of existing water supplies, where economically feasible and protective of human health and the environment, represents a method of maximizing and increasing the usefulness of a limited water supply. Consideration must also be given to satisfying the return flow needs of the Rio Grande from water-rights-permitting, Rio Grande Compact Compliance and environmental standpoints.

The use of groundwater will always be a key component of the Authority's supply portfolio. Following a conservative Groundwater Management Plan that limits long-term groundwater production and establishes a Safety Reserve positions the Authority for indefinite use of the aquifer while maintaining a significant volume of water for unforeseen events. Using the Authority's surface water and other sources for municipal and industrial supply will protect the aquifer so that it is available to meet seasonal peak demands and when surface water is not available (e.g. , drought). Without a groundwater component of supply, the Authority would need to abandon use of significant investment in groundwater assets and transition to expensive additional surface water storage facilities and larger and more costly treatment facilities to meet seasonal peak demands.

Aquifer storage and recovery is a key component of balancing groundwater use during times when surface water is not available (e.g., droughts). Using stored surface water during these times will reduce overall long-term use of groundwater during the planning period. In Albuquerque, this requires artificial recharge of the aquifer with deep recharge wells. It is essential that this capability be expanded. Stored surface water will not increase overall groundwater use because there will always be a need to utilize groundwater to exercise wells or to meet seasonal peak demands which will provide the native water component needed to facilitate use of imported San Juan-Chama water.

In addition, the Authority should be opportunistic in utilizing other sources to extend supply that may not always be available. These sources could include relinquishment credit water, contaminated groundwater, excess San Juan-Chama water and native flood flows in addition to leased San Juan-Chama

water. Each of these sources has been available for use in the Middle Rio Grande in the past and may be available for limited use in the future. Utilizing these sources extends supply by saving other resources for future use.

SUB-POLICIES:

1. The Authority shall use various sources of supply (potable and contaminated groundwater, surface water, reuse water, etc.) to meet demand over the planning period. The quality of the water supplied will be matched to its use to reduce treatment costs and to optimize available excess supplies when available.

2. The Authority shall prepare and implement plans to utilize water sources that are typically only available sporadically (excess San Juan-Chama water, relinquishment credit water, etc.).

3. The Authority should investigate and enter into agreements for short-term leases in times when wet water is available to be stored and used during times of drought and for aquifer recharge.

4. The Authority shall develop a reuse and recycling master plan to address current and future reuse demand, excess available wastewater supplies and the associated infrastructure needs over the planning period.

5. The Authority shall use pumping from the aquifer to meet seasonal demands, well exercising and when surface water is not available (e.g., droughts).

6. The Authority shall continue to develop and implement methods to store available surface water and other reuse supplies in the aquifer and to recover it from storage as needed to meet current and future demands.

7. The Authority should develop and implement the use of storm water and native water flood flows when supplies are available considering permitting and environmental criteria along with Rio Grande Compact Compliance.

G. DEVELOP AND IMPLEMENT LONG-TERM WATER RESOURCES ACQUISITION PLAN

POLICY G. The Authority shall pursue a portfolio of potential additional sources of supply.

RATIONALE: Establishing and maintaining a groundwater reserve (Policy C) will require the Water Authority to rely less on the local aquifer and to secure additional sources of supply to meet future demands. A more diversified water supply portfolio that includes more renewable sources is essential to provide a resilient and sustainable water supply that can meet customer demands in perpetuity.

While this Water Resources Management Strategy does not contemplate the need for acquisition of additional supplies, the Authority should continue to pursue these additional supply sources over the long-term which will allow the Authority to be ready when those supplies become available. Full consideration will be given to the financial implications in addition to the regional context including agricultural and environmental issues.

SUB-POLICIES:

1. The Authority should seek legislation to allow for water leasing and banking on a local, regional and interstate basis.

2. The Authority should continue to develop the potential for use of brackish ground water as a future supply considering financial, environmental and carbon footprint criteria.

3. The Authority should stay active in evaluating other water rights transfers in the Middle Rio Grande and should take proactive stances when necessary.

4. The Authority should investigate the opportunity to import water supplies outside of the Middle Rio Grande when available considering financial, environmental and other criteria.

5. The Authority shall discontinue acquisition of native pre-1907 water rights.

H. IMPLEMENT THE WATER QUALITY PROTECTION POLICY AND ACTION PLAN

POLICY H. The Authority shall take steps to fully implement the Water Quality Protection Policy and Action Plan.

RATIONALE: The Albuquerque/Bernalillo County Water Quality Protection Policy and Action Plan (County Resolution No. AR 121-93 and City Enactment No. 81-1994) is another cornerstone of this Water Resources Management Strategy. The Authority revised the Groundwater Protection Policy and Action Plan in 2009 to add surface water protection measures, recognizing the use of San Juan-Chama water as a primary drinking water source. Protection of both groundwater and surface resources from known or potential sources of contamination is essential for maintaining a safe drinking water supply and aquifer storage and recovery program. Their protection from contamination is of paramount importance.

SUB-POLICIES:

1. The Authority should continue to be proactive in identifying potential water quality threats to surface and ground water resources and should implement programs to the extent possible to protect the water resources in the MRG.

2. The Water Protection Advisory Board (WPAB) shall provide annual updates on the implementation of the Water Quality Protection Policy and Action Plan (WQPPAP) to the Authority Board through submission of the Annual WPAB Reports and presentations at regular WPAB meetings.

3. The Authority shall provide pertinent information regarding updates to the water resource management strategy activities to the WPAB during its triennial review of the WQPPAP implementation activities.

4. The Authority should consider the occurrence, fate and potential treatment of emerging contaminants in current and future water supplies and should actively participate in research which will become more important as the availability of water resources becomes more constrained.

5. The Authority should coordinate with the City, County and State to maintain the quality of groundwater and surface waters.

I. PROTECT AND ENHANCE STORAGE OF NATIVE, SAN JUAN-CHAMA WATER AND OTHER WATER RESOURCES.

POLICY I. The Authority shall protect the rights to store native, San Juan-Chama and other water resources including reuse and recycled water in a variety of storage facilities including Heron, Abiquiu and Elephant Butte Reservoirs. The Authority should seek additional off-channel storage capacity locally or within the Middle Rio Grande as needed to maximize the use of excess wastewater or other water resources in the future.

SUB-POLICIES:

1. The Authority should protect and enhance its storage rights in Abiquiu Reservoir for native and San Juan-Chama water which will provide opportunities to continue to cooperate with environmental, local, state and federal entities to maximize the benefit for the MRG.

2. The Authority should examine the need for additional short and long-term off-channel storage locally and within the MRG to be prepared when excess San Juan-Chama water, native flood flows, or other water resources are available.

3. The Authority should consider the aquifer as a reservoir to be used conjunctively with above ground storage to optimize the use of current and future water supplies.

4. The Authority should develop and implement a Rio Grande Compact pool within the Authority storage space working with the Interstate Stream Commission (ISC) and the Office of the State Engineer (OSE).

5. The Authority should continue providing space in Abiquiu Reservoir for environmental purposes.

6. The Authority should seek long-term storage of San Juan-Chama water in Elephant Butte Reservoir.

J. PROTECT VALUED ENVIRONMENTAL AND CULTURAL RESOURCES

POLICY J. The Authority shall identify and provide resources to preserve and protect valued environmental resources of the region. The Authority shall work independently and in partnerships to ensure that its activities do not irreparably harm the aquifer, river, Bosque, source watersheds and the cultural resources.

RATIONALE: The regional aquifer, Bosque and Rio Grande are exceptional resources of great economic, ecological, aesthetic and cultural value. The Authority should cooperate to develop and implement environmentally conscious water resource development activities that protect the environmental and cultural values of our community.

SUB-POLICIES:

1. The Authority should continue to participate in the Endangered Species Collaborative Program and Recovery Implementation Efforts for multiple species in the MRG.

2. The Authority should encourage the State to recognize instream flows as a beneficial use.

3. The Authority should consider the impacts on environmental and cultural resources when implementing new water resources projects and take appropriate steps to mitigate unavoidable effects.

4. The Authority should work collaboratively and provide funding to protect and restore watersheds of the San Juan-Chama and Rio Grande.

5. The Authority should work with the City, Middle Rio Grande Conservancy District and others to protect and enhance the Rio Grande State Park and the Bosque.

6. The Authority should work with the City and County to provide incentives to increase beneficial tree canopy coverage within Bernalillo County and the MRG.

K. PRESERVE AND ENHANCE THE QUALITY OF LIFE IN THE REGION

POLICY K. The Authority seeks a Water Resources Management Strategy that will preserve and enhance the quality of life within the region. The implementation of the Authority's water resources strategy will take advantage of opportunities to enhance the quality of life in the region whenever possible.

RATIONALE: As the largest water utility in New Mexico, the Water Authority recognizes its obligation to protect and enhance the quality of life within the region. Factors influencing quality of life include continued socioeconomic growth and development, support of public amenities and green spaces, and minimizing environmental impacts. The Water Authority will provide sustainable water services to meet

indoor demands, optimize efficiency of outdoor demands by utilizing recycled, reused and non-potable supplies , and return quality water to the Rio Grande for downstream users in the region.

SUB-POLICIES:

1. The Authority shall work with the City of Albuquerque, Albuquerque Public Schools, Bernalillo County and others to ensure that green spaces (parks, golf courses, athletic fields, etc.) are water efficient and provide incentives where appropriate.

2. The Authority should continue to reduce its carbon footprint by taking advantage of opportunities to reduce the energy usage of current infrastructure and by building new infrastructure with energy efficiency in mind.

3. The Authority shall expand its current green energy projects (solar and biogas) and implement additional green energy projects to reduce its water and energy footprints.

L. LINK LAND USE PLANNING WITH WATER MANAGEMENT

POLICY L. The Authority shall coordinate and cooperate with the City, County and all other entities with planning authority to integrate water management policies with land use decisions. The

Authority recognizes that managing the use of groundwater while conserving and using existing water resources including maximizing the use of excess resources when available should significantly reduce acquisition of new supplies to serve future customers.

RATIONALE: With the membership of the Water Authority consisting of elected officials from the City of Albuquerque, Bernalillo County and Village of Los Ranchos, future growth and development in the region requires coordination to integrate land use, transportation, infrastructure, economic improvement, urban infill and planning efforts with water resources management.

SUB-POLICIES:

1. The Authority should work with the City and County to update the Albuquerque/Bernalillo County Comprehensive Plan and/or other plans to ensure that system expansion is concurrent with infrastructure service levels and that the extension of facilities and services be phased in an efficient and orderly manner.

2. The Water Authority should ensure that its capital planning process is based on the City and County growth and development master plans so that land use and infrastructure policies are consistent.

3. The Water Authority should support the increase of urban building densities and infill development consistent with adopted land use plans as higher density development uses less water.

4. The Water Authority should encourage the City, County and State to adopt low-water-use Building Codes and low-water-use landscaping standards for all new construction.

5. The Water Authority should continue its review process so that each new residential, commercial, industrial and institutional development will have a resilient, sustainable water supply.

M. ENCOURAGE AND FACILITATE PUBLIC INVOLVEMENT

POLICY M. The Authority shall continue its education programs for both children and adults to keep the public informed about the choices and tradeoffs involved in making water management decisions and invite public comment and participation in implementation of these policies.

RATIONALE: When the Water Authority partners with the public, the educated public can help shape the policies that are the foundation of the Water Resources Management Strategy. The public then contributes to the successful implementation of water resource management solutions, because they have been part of their design. Children who attend Water Authority field trips will know the value of water and be wise stewards of our resources for many years to come.

SUB-POLICIES:

1. The Authority shall continue its water resource education programs and field trips to teach children the importance, value and appropriate use of water in the region.

2. The Authority shall continue its interactive public meeting process to give customers information and get their input on upcoming programs, policies and projects.

3. The Authority shall continue its adult education programs so that all customers can participate in a resilient and sustainable water supply.

4. The Authority shall continue to partner with real estate, design, building and construction groups, building managers, etc. to educate their membership concerning water resources.

5. The Authority shall continue its current marketing and public relations campaigns to keep everyone in the service area informed about effective water resource management.

6. The Authority shall continue its process of involving the public in updates to the Water Resources Management Strategy in all future updates to the strategy.

EVALUATIONS
Town Hall 2016

July 22, 2016

1. My time was well spent. – 4.4
2. I felt the Water Authority truly wanted my input. – 4.6
3. I would participate in this type of session again. – 4.2
4. The meeting structure allowed participants to provide feedback. – 4.6
5. I learned something about our long-term water supply needs and how we will address them in the future. – 4.6

COMMENTS

July 22, 2016

- John was great.
- I would like to receive any mailing through the mail; we do not own a computer.
- Great job organizing this! Reach the current future generations by promoting the phone app. Once downloaded it can be used to promote events, education, and conservation via push notifications.
- Large water users should pay more for the water they use — use more than the average of 110gpcd should pay more, those that use less pay less.
- Over the next 100 years ABQ's population will quadruple, but the water supply will remain relatively static. Why isn't the Water Authority doing anything to slow growth?
- Bottom line: How much is this going to cost the customers?
- Due to a large number of people, everybody did not get a chance to ask questions.
- More reuse plans.
- Good job, tough audience, nice morning presentations.
- Clarify #5 — I have been to community conversations plus years of following the utility — great work — 100 year plan is great.
- Very Informative — great proactiveness
- Inform the uneducated general public regarding agricultural versus municipal uses – irresponsible flooding of farms is 100 times more than our municipal use - $$ impact
- Inform regarding challenges of stormwater usage — next to impossible

- Toot your own horn because we are in great shape and have access to groundwater and surface sources because of visionaries from the 60's. Cities grow or die, we need solid growth to remain viable in the SW, or we will continue to lose population.
- The facilitators were great! This was a really good way to voice our ideas, concerns and hopes for the future in a controlled environment. I learned a great deal.
- I appreciate the enthusiasm of the presenters.
- Explain the difference between groundwater and surface water – remind people about the cost of water — public service messages re: water, trees, rebates, and conservation, desert living, rain barrels
- Well Done. The design was balanced, low tech with high involvement.
- Watersheds need to be the key focus of long-term planning for protection of water sources.
- Direct potable use could be another alternative.
- There was not enough time for feedback and not all feedback was captured despite the fact that it was stressed that all feedback would be captured. The voting of top 3 seems silly considering the fact it was said many of these were synergistic and not mutually exclusive. The panel was not that old. The Water Authority needs to start a social media campaign, set up a FB and LN page, hold these meetings at a time when younger people can attend, add technology as a component — such as sensors and smart controllers etc. We need an alternative for direct potable water reuse. Place PSA's on TV and local news and add info on conservation to the quarterly water quality mailings. Town Hall not perfect but worth the time.
- Good combination of large meeting and small work group yielded positive results
- I left thinking the Water Authority is proactive, environmentally aware and open minded. Keep it up — thank you and good work.
- In the future, giving us more info that would be covered would be very helpful. We could be better prepared to ask intelligence questions.
- Well planned and executed! Good use of student helpers-breakout sessions good size and limiting some proposals is good — all would be too much — well prepared speakers.
- Well organized and informative. WA successes and improvement to long-term prospects should be more publicized.
- Great job, I really enjoyed this.
- Great presentations – I am much more aware and educated. I appreciate the City Board and how you are organized for our water conservation and our future.
- Good job of making the community feel like their input matters, many thanks
- Excellent question and format – excellent job of educating public and all the planning and detail that goes into running a water program
- Thank you very much.
- I was impressed with the organized way this conference proved to be. It was reassuring to know that in the past 6 years of drought, our water supply was increasing instead of decreasing.
- Thank you, very well done.
- Thank you for this opportunity.
- This time was well spent.
- This was a well thought out seminar — very interesting — I really liked it.
- Great program — highly informative and well run
- Information in Spanish and sessions in Spanish as Spanish is a predominate language
- The people running these sessions were really very good — and very patient. The crises of climate change should be increasingly addressed by the Water Authority and other utilities in their public outreach and education for both adults and children; it is critical.

- I really appreciate the town hall type of agenda.
- Some was a repeat of the Customer Conversations
- Excellently run, on time, well organized, structures well to optimize what people needed to know and giving them the chance to provide both open ended feedback/complaint and targeted feedback based on the Water Authority's needs and questions to the group.
- Coordinate resources to prevent extra waste: recycling of plastic cans
- How were cooperators contacted? From and agency perspective having an invitation would be nice rather than knowing from receiving at residence.
- The elephant metaphor insults my intelligence — create a clever message to inform public about intelligent water use
- With regards to new water meters, be able to go on-line to see the exact water usage — not just in units but by gallons
- I can never digest/process John Stomps discourse because it is way too fast.
- Elder neighbors are not getting message and wasting enormous amount of water on driveways and tiny strips of dirt that can't hold it. Neighborhood Associations could educate.
- Very well thought out and organized event — great job — and thanks for the lunch and the $20 credit.
- Thank you for the opportunity to learn more. The program was well organized and there were many opportunities for people to share their thinking. Thank you for keeping of time and keeping people on track! Would be nice to have recycling for plastic cups and cans.
- Kudos for the whole process — well done!
- Why can't golf courses be covered with plastic grass? The golf course between the McKinley Light to Wyoming on Alameda for example. The amount of water distributed there is enormous! This is only one golf course! How many golf courses exist in Albuquerque using the same style and amount of water? We as resident here try our very best to be sparing in our use and we have ground scape in place and use a minimum amount — we did have a roof leak recently due to the swamp cooler. Spoke with Frank today, he is very good listener.
- Very informative, well done!
- Graywater use for residential, commercial, schools, motels etc.
- Please break the down on an individual basis — one of the most important things that I felt was imputed was how and when to water efficiently how to save our trees and not go bankrupt – also for giving us an understanding of the problems faced by our water authority.
- Agree you must use social media more to educate and persuade younger people —promote greywater use — save the dying trees all over the city will kept the city cooler — provide education on how to water tree

Albuquerque Bernalillo County
Water Utility Authority

Agenda Item No. 9d

Meeting Date: September 21, 2016
Staff Contact: Frank Roth, Senior Policy Manager

TITLE: C-16-24 - Appointment to the Technical Customer Advisory Committee

ACTION: Recommend Approval

SUMMARY:
The Technical Customer Advisory Committee (TCAC) was established in 2006 to assist in and facilitate public review and discussion of Water Authority policies, plans and programs. The TCAC was established to provide a professional/ technical group of volunteer individuals who represent the five core functional areas of operating a water and wastewater utility. This group is intended to provide outside expertise in best practices and private sector applications for continuous business improvement.

At the August 2016 meeting, the Chair announced that there was a vacancy on the committee and that an online application was created for customers who may be interested in serving on this technical committee. Board members were informed that if they know of anyone interested that they should apply on the Water Authority's website. In addition, a notice was placed on the Water Authority website's front page.

Qualified nominations were compiled and forwarded to the Chair who through this communication is forwarding the nomination to the Board for confirmation. Dr. Janie Chermak is recommended for confirmation. Dr. Chermak is highly qualified and certified in her field of work. Below is a summary of nominee's professional and academic background.

Janie Chermak
Janie Chermak is a professor in the Department of Economics and former chair of the department. She is an applied micro economist who specializes in natural resource economics research. She earned a MSc. and a PhD in Mineral Economics from the Colorado School of Mines and a BA in geology from Western State College. Prior to earning her graduate degrees she was a practicing geologist focusing on uranium exploration and natural gas exploration and development. Before joining the faculty at the University of New Mexico in 1995, she was a member of the faculty at the Naval Postgraduate School. Since joining UNM her research has focused on various aspects of resource economics ranging from consumer issues in water, to common pool problems in water and in invasive species, to efficient production of fossil fuels and the tradeoffs between energy/water futures. Her work is interdisciplinary in nature and often incorporates aspects of the physical sciences within a dynamic optimization framework. This results in work that advances the discipline, provides learning tools for students, and provides improved information for policymakers.

A total of three applicants were received through the online application. The other two applicants are listed below; however, neither one had technical experience in resource economics which is the category that is being vacated:

- Luis Aguirre, water treatment plant coordinator in Santa Fe
- Mona Varela, paralegal, legal research, retired from NMPRC

CURRENT MEMBERS:

Member	Category	Term Expiration
Ege Richardson	Water System Engineering	6/2017
Michael Hightower	Water Resource Planning	6/2017
Elaine Hebard	Customer Service	6/2017
Laura McCarthy	Non-profit Water Management Advocacy/Education	6/2017
Amy Ewing	Water Resource Planning	4/2018
Laurie Firor	Landscape Architecture	9/2016
Dave Hill	Financial/Business Management	3/2018
Scott Verhines	Water System Engineering	3/2018
Vacant	Resource Economics	

FISCAL IMPACT: None

Albuquerque Bernalillo County
Water Utility Authority

Agenda Item No. 9e

Meeting Date: September 21, 2016
Staff Contact: Frank Roth, Senior Policy Manager

TITLE: C-16-25 – FY16 4th Quarter Performance Indicator Report

ACTION: Receipt be Noted

SUMMARY:
The 4th Quarter Performance Report provides a snapshot of how the utility is performing in key operational areas. The categories established are meant to be intuitive to our stakeholders and do not represent a specific goal or division. The report identifies the fiscal year-to-date performance compared to the established target. A status of each indicator is provided in three categories: target achieved, work in progress, or target not met.

Summary Status

On Target / Target Achieved	Work in Progress / Below Target	Target Not Met
20 of 22	0 of 22	2 of 22

Quarterly Performance Indicators
FY16 4th Quarter Scorecard

Area	Indicator	FY16 4Q Actual	FY16 Target	Status
Customer Service	Call Abandonment Rate	6%	Between 5-9%	▲
	Call Responsive Time	69% within 60 sec.	90% within 60 sec.	▼
	First Call Resolution	93%	> 90%	▲
	Bill Exception Rate (per 10,000 Bills)	8	< 10	▲
	Water Quality Complaints Rate (per 1,000 customers)	2.5	< 3	▲
Operational Maintenance	Estimated Meters	0.1%	< 1%	▲
	Facility Planned Maintenance Ratios	70% ground water 64% surface water 85% water reclamation	60% ground water 45% surface water 40% water reclamation	▲
	Leak Detection Leaks Located / GPY Water Loss Reduction	986 miles surveyed 2,148 miles monitored 101 leaks found 111 MGY water loss reduced	500 miles surveyed 2,000 miles monitored > 50 leaks found 100 MGY water loss reduced	▲
	Miles of Small Diameter Sewer Line Cleaned	515	Between 500 to 600 miles	▲
	Miles of Sewer Line Televised	96	> 95 miles	▲
Enviro-nment	% of Biosolids to Compost	38%	> 25%	▲
	Water Consumption Goal	11.1 BGY GW 18.9 BGY SW	< 20.7 BGY GW 14.1 BGY SW	▲
	Renewable Energy	25% Bio Gas 7% Solar	20% Bio Gas 5% Solar	▲
Compliance	Reported Overflows	41	< 50	▲
	Number of Permit Excursions	6	<= 5	▼
	Sewer Use/Wastewater Control Ordinance Compliance	88% Permitted Industrial Users 85% Food Service Est. 98% Dental Offices	86% Permitted Industrial Users 86% Food Service Est. 86% Dental Office	▲
Finance	Rehabilitation Spending	$69 million	$46 million	▲
	CIP Emergency vs. Planned Spending	90% Planned 10% Emergency	52% Planned 48% Emergency	▲
	Cash Reserves (Days)	319 days	Between 45-89 days	▲
	Revenue to Expenditures	106%	> 100%	▲
	Expenditures to Budget	98%	< 100%	▲
Safety	Injury Time	2,358 hours	< 2,750 hours	▲

Performance Key

▲ On Target/Target Achieved

■ Work in Progress / Below Target

▼ Target Not Met