



County of Los Alamos

1000 Central Avenue
Los Alamos, NM 87544

Agenda - Final Board of Public Utilities

*Jeff Johnson, Chair; Carrie Walker, Vice-chair; Paul
Frederickson, Stephen McLin and Kathleen Taylor, Members
Tim Glasco, Ex Officio Member
Harry Burgess, Ex Officio Member
Christine Chandler, Council Liaison*

Wednesday, December 19, 2018

5:30 PM

1000 Central Avenue
Room 110

REGULAR SESSION

Complete Board of Public Utilities agenda packets, past agendas, videos, legislation and minutes can be found online at losalamos.legistar.com. Learn more about the Board of Public Utilities at rebrand.ly/LACBPU.

PUBLIC COMMENTS:

Please submit written comments to the Board at bpu@lacnm.us. Oral public comment is accepted during the two periods identified on the agenda and after initial board discussion on a business item, prior to accepting a main motion on an item. Oral comments should be limited to four minutes per person. Requests to make comments exceeding four minutes should be submitted to the Board in writing prior to the meeting. Individuals representing or making a combined statement for a large group may be allowed additional time at the discretion of the Board. Those making comments are encouraged to submit them in writing either during or after the meeting to be included in the minutes as attachments. Otherwise, oral public comments will be summarized in the minutes to give a brief succinct account of the overall substance of the person's comments.

1. CALL TO ORDER

2. PUBLIC COMMENT

This section of the agenda is reserved for comments from the public on Consent Agenda items or items that are not otherwise included in this agenda.

3. APPROVAL OF AGENDA

4. BOARD BUSINESS

4.A. Chair's Report

4.A [10376-18](#) Reminder for Upcoming Boards & Commissions Luncheon

Presenters: Board of Public Utilities

PG. 1

4.B. Board Member Reports**4.C. Utilities Manager's Report****4.D. County Manager's Report****4.E. Council Liaison's Report****4.F. Environmental Sustainability Board Liaison's Report****4.G. General Board Business****4.G.1 [11313-18](#) Quarterly Conservation Program Update**

Presenters: James Alarid, Deputy Utilities Manager - Engineering

PG. 2

4.H. Approval of Board Expenses**4.I. Preview of Upcoming Agenda Items****4.I.1 [11475-18](#) Tickler File for the Next 3 Months**

Presenters: Board of Public Utilities

PG. 3-6

5. PUBLIC HEARING(S)**6. CONSENT AGENDA**

The following items are presented for Board approval under a single motion unless any item is withdrawn by a member for further Board consideration in the "Business" section of the agenda.

CONSENT MOTION -

I move that the Board of Public Utilities approve the items on the Consent Agenda as presented and that the motions in the staff reports be included in the minutes for the record.

OR

I move that the Board of Public Utilities approve the items on the Consent Agenda as amended and that the motions contained in the staff reports, be included in the minutes for the record.

- 6.A [11468-18](#) Approval of Board of Public Utilities Meeting Minutes

Presenters: Board of Public Utilities

PG. 7-29

7. **BUSINESS**

- 7.A [11464-18](#) Annual Board of Public Utilities Self-evaluation for 2018

Presenters: Board of Public Utilities

PG. 30-39

8. **STATUS REPORTS**

- 8.A [11469-18](#) Status Reports

Presenters: Board of Public Utilities

PG. 40-48

9. **PUBLIC COMMENT**

This section of the agenda is reserved for comments from the public on any items.

10. **ADJOURNMENT**

If you are an individual with a disability who is in need of a reader, amplifier, qualified sign language interpreter, or any other form of auxiliary aid or service to attend or participate in the hearing or meeting, please contact the County Human Resources Division at 662-8040 at least one week prior to the meeting or as soon as possible. Public documents, including the agenda and minutes can be provided in various accessible formats. Please contact the personnel in the Department of Public Utilities (505) 662-8132 if a summary or other type of accessible format is needed.



County of Los Alamos

Staff Report

December 19, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.: 4.A
Index (Council Goals): BCC - N/A
Presenters: Board of Public Utilities
Legislative File: 10376-18

Title

Reminder for Upcoming Boards & Commissions Luncheon

Body

The month prior to a Boards & Commissions luncheon, the attendee schedule will be included in the agenda packet as a reminder during the Chair's report.

For the luncheon, the member should prepare a brief report that outlines recent important activities of the Board and highlights upcoming events. The report will be included in the luncheon minutes.

11:30 a.m. - 1:00 p.m. - Council Chambers

2018 Schedule

January 18 - Steve McLin
March 15 - Paul Frederickson
May 17 - Jeff Johnson
September 20 - Carrie Walker
November 15 - Kathy Taylor
January 17, 2019 - New member (Steve McLin)



County of Los Alamos

Staff Report

December 19, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.: 4.G.1
Index (Council Goals): BCC - N/A
Presenters: James Alarid, Deputy Utilities Manager - Engineering
Legislative File: 11313-18

Title

Quarterly Conservation Program Update

Recommended Action

None

Staff Recommendation

None

Body

Summary of recent conservation activities will be presented.

Alternatives

N/A

Fiscal and Staff Impact

None

Attachments

None



County of Los Alamos

Staff Report

December 19, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.: 4.I.1
Index (Council Goals): BCC - N/A
Presenters: Board of Public Utilities
Legislative File: 11475-18

Title

Tickler File for the Next 3 Months

Attachments

A - Tickler File for the Next 3 Months



County of Los Alamos

Los Alamos, NM 87544
www.losalamosnm.us

Tickler

**Criteria: Agenda Begin Date: 1/1/2019, Agenda End Date: 3/30/2019, Matter Bodies:
Board of Public Utilities**

File Number	Title	
Agenda Date: 01/16/2019		
11306-18	Calendar Approval of Board of Public Utilities Meeting Calendar for 2019 Department Name: DPU Drop Dead Date:	04G General Board Business Length of Presentation: Apx. 5 Min. Sponsors: Jeff Johnson, Chair of the Board of Public Utilities
11307-18	Briefing/Report (Dept,BCC) - Action Requested Approval of Meeting Agenda Outline for 2019 Department Name: DPU Drop Dead Date:	04G General Board Business Length of Presentation: Apx. 5 Min. Sponsors: Jeff Johnson, Chair of the Board of Public Utilities
11308-18	Briefing/Report (Dept,BCC) - Action Requested Schedule and Selection of Members to Attend Boards & Commissions Luncheons for 2019 Department Name: DPU Drop Dead Date:	04G General Board Business Length of Presentation: Apx. 5 Min. Sponsors: Jeff Johnson, Chair of the Board of Public Utilities
11309-18	Appointment Appointment of Board Member to Audit Committee for 2019 Department Name: DPU Drop Dead Date:	04G General Board Business Length of Presentation: Apx. 5 Min. Sponsors: Jeff Johnson, Chair of the Board of Public Utilities
11310-18	Briefing/Report (Dept,BCC) - Action Requested Affirmation of the Incorporated County of Los Alamos Open Meetings Resolution No. XX-XX Department Name: DPU Drop Dead Date:	04G General Board Business Length of Presentation: Apx. 5 Min. Sponsors: Jeff Johnson, Chair of the Board of Public Utilities
11311-18	Election Election of Board of Public Utilities Chair and Vice-chair for 2019 Department Name: DPU Drop Dead Date:	04G General Board Business Length of Presentation: Apx. 5 Min. Sponsors: Jeff Johnson, Chair of the Board of Public Utilities
11312-18	Briefing/Report (Dept, BCC) - No action requested Quarterly Update on Utility System - Water System	04G General Board Business

File Number	Title	
	Department Name: DPU Drop Dead Date:	Length of Presentation: Apx. 30 Min. Sponsors: Jack Richardson, Deputy Utilities Manager - GWS Services
11482-18	Briefing/Report (Dept, BCC) - No action requested Initial Discussion - Water Rate Adjustment Department Name: DPU Drop Dead Date:	07 Business Length of Presentation: Apx. 30 Min. Sponsors: Bob Westervelt, Deputy Utilities Manager - Finance/Admin
Agenda Date: 02/20/2019		
CO0544-18	Code Ordinance (Public Hearing) - Water Rate Adjustment Department Name: DPU Drop Dead Date:	05 Public Hearings Length of Presentation: Apx. 30 Min. Sponsors: Bob Westervelt
11470-18	Budget Item Approval of the Transfer of Profit from Electric and Gas Funds to the General Fund for Operations During Fiscal Year 2018. Department Name: DPU Drop Dead Date:	06 Consent Length of Presentation: N/A Sponsors: Bob Westervelt
11473-18	Briefing/Report (Dept,BCC) - Action Requested (TENTATIVE) Extension of the Western Area Power Administration (WAPA) Agreement Department Name: DPU Drop Dead Date:	07 Business Length of Presentation: Apx. 10 Min. Sponsors: Steve Cummins, Deputy Utilities Manager - Power Supply
11419-18	Budget Item Department of Public Utilities FY2020 Budget Presentation Department Name: DPU Drop Dead Date:	07 Business Length of Presentation: Apx. 30 Min. Sponsors: Bob Westervelt, Deputy Utilities Manager - Finance/Admin
Agenda Date: 03/20/2019		
11471-18	Report Quarterly Conservation Program Update Department Name: DPU Drop Dead Date:	04G General Board Business Length of Presentation: Apx. 10 Min. Sponsors: James Alarid, Deputy Utilities Manager - Engineering
11472-18	Budget Item Approval of Department of Public Utilities FY2020 Budget Department Name: DPU Drop Dead Date:	07 Business Length of Presentation: Apx. 30 Min. Sponsors: Bob Westervelt, Deputy Utilities Manager - Finance/Admin

File Number	Title	
11474-18	Briefing/Report (Dept,BCC) - Action Requested Power Purchase Agreement for Solar Power Department Name: DPU Drop Dead Date:	07 Business Length of Presentation: Apx. 20 min. Sponsors: Steve Cummins, Deputy Utilities Manager - Power Supply



County of Los Alamos

Staff Report

December 19, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.: 6.A
Index (Council Goals): BCC - N/A
Presenters: Board of Public Utilities
Legislative File: 11468-18

Title

Approval of Board of Public Utilities Meeting Minutes

Recommended Action

I move that the Board of Public Utilities approve the meeting minutes of November 20th, 2018 as presented.

Body

REQUESTED REVISIONS TO THE DRAFT MINUTES

Draft minutes are sent to members after each meeting for their review. Members may then send changes to be incorporated prior to final approval of the minutes at the next regular meeting. No changes were requested.

Attachments

A - Draft BPU Regular Session Minutes - November 20th, 2018



LOS ALAMOS

County of Los Alamos

Minutes

Board of Public Utilities

1000 Central Avenue
Los Alamos, NM 87544

*Jeff Johnson, Chair; Carrie Walker, Vice-chair; Paul Frederickson, Stephen McLin and
Kathleen Taylor, Members
Tim Glasco, Ex Officio Member
Harry Burgess, Ex Officio Member
Christine Chandler, Council Liaison*

Tuesday, November 20, 2018

5:30 PM

1000 Central Avenue
Council Chambers

REGULAR SESSION

1. CALL TO ORDER

The regular meeting of the Incorporated County of Los Alamos Board of Public Utilities was held on Tuesday, November 20th at 5:30 p.m. at 1000 Central Ave., Council Chambers. Board Chair Jeff Johnson called the meeting to order at 5:31 p.m.

Present 5 - Board Member Johnson, Vice-chair Walker, Board Member Frederickson, Board Member McLin and Board Member Taylor

Deputy County Manager Mr. Steve Lynne attended for Mr. Burgess.

2. PUBLIC COMMENT

Mr. Johnson opened the floor for public comment on items on the Consent Agenda and for those not otherwise included on the agenda. There were no comments.

3. APPROVAL OF AGENDA

Ms. Walker asked that item 6.B. be removed from consent.

Ms. Walker moved that the agenda be approved as amended. The motion passed by the following vote:

Yes: 5 - Board Member Johnson, Vice-chair Walker, Board Member Frederickson, Board Member McLin and Board Member Taylor

4. BOARD BUSINESS

4.A. Chair's Report

Mr. Johnson reported on the following items:

1) Mr. Johnson reminded the Board that it is time to start conducting the annual self-evaluation. He passed out hard-copies of the evaluation and criteria from the previous year. Mr. Johnson asked staff to schedule a special meeting before December 25th to conduct the evaluation.

4.B. Board Member Reports

Board members had nothing to report.

4.C. Utilities Manager's Report

Mr. Glasco provided a written report, which is included in the minutes as an attachment.

4.D. County Manager's Report

Mr. Burgess was absent. Mr. Lynne reported on the following items:

1) To answer an earlier question, Mr. Lynne informed the Board that the next Boards & Commissions Luncheon will be held on January 17th.

4.E. Council Liaison's Report

Ms. Christine Chandler was absent. No report was given.

4.F. Environmental Sustainability Board Liaison's Report

Ms. Susan Barns provided a written report, which is included in the minutes as an attachment.

4.G. General Board Business

There were no items on General Board Business.

4.H. Approval of Board Expenses

There were no Board expenses.

4.I. Preview of Upcoming Agenda Items**4.I.1 [11418-18](#) Tickler File for the Next 3 Months**

Presenters: Board of Public Utilities

In addition to the items already listed in the tickler provided in the agenda packet, the following items were identified for the tickler for upcoming meetings:

1) TBD - Special Meeting to Conduct the Annual Self-Evaluation (Jeff Johnson)

5. PUBLIC HEARING(S)

There were no public hearings scheduled for this meeting.

6. CONSENT AGENDA

Ms. Walker moved that the Board of Public Utilities approve the items on the Consent Agenda as amended and that the motions contained in the staff reports be included in the minutes for the record. The motion passed by the following vote:

Yes: 5 - Board Member Johnson, Vice-chair Walker, Board Member Frederickson, Board Member McLin and Board Member Taylor

6.A [11412-18](#) Approval of Board of Public Utilities Meeting Minutes

Presenters: Board of Public Utilities

I move that the Board of Public Utilities approve the meeting minutes of October 17th, 2018 as presented.

6.C [11263-18](#) Approval of Services Agreement No. AGR19-13 With Human Strategies, LLC In An Amount Not To Exceed \$69,500.00, Plus Applicable Gross Receipts Tax, For The Purpose Of Complying With Section 510 Of The County Charter To Perform a Five-Year Management Audit

Presenters: Julie Williams-Hill

I move that the Board of Public Utilities approve Services Agreement No. AGR19-13 with Human Strategies, LLC in an amount not to exceed \$69,500.00, and a contingency of \$3475.00 for a total of \$72,975.00, plus applicable gross receipts tax, for the purpose of complying with Section 510 of the County Charter to perform a Five-Year Management Audit.

6.D [MOU018-18](#) Approval of Memorandum of Understanding MOU19-16 with Comcast for the Installation of Communication Conduit As Part of the New Mexico 502 Project

Presenters: James Alarid

I move the Board of Public Utilities approve Memorandum of Understanding MOU19-16 with Comcast for Installation of Communication Conduit as part of the New Mexico 502 (NM502) Project and forward to the County Council for approval.

6.E [11327-18](#) Approval of Amendment No. 1 to the Utility Cooperative Agreement between the New Mexico Department of Transportation and Los Alamos County for NM 502 Project No. 5100650

Presenters: James Alarid

I move that the Board of Public Utilities Approve Amendment No. 1 to the Utility Cooperative Agreement between the New Mexico Department of Transportation and Los Alamos County for NM 502 Project No. 5100650 and forward to Council for approval.

7. BUSINESS

7.A [11354-18](#) Update on RDX Contamination in Aquifer

Presenters: Tim Glasco

This item was taken up after item 7.B. because the presenter was late to the meeting.

Utilities Manager Mr. Timothy Glasco presented this item. The following is the substance of the item being considered.

Information was recently released from Los Alamos National Laboratory concerning contamination in the regional aquifer from RDX, an explosive compound used in nuclear weapons research. DPU staff met with DOE Environmental Management staff and with N3B, Inc., the contractor performing environmental research and remediation work at the laboratory, to obtain the latest information about this potential threat. The Board of Public Utilities requested an update on this situation, so DOE/EM and N3B were invited to present their information. Mr. Glasco introduced Mr. Danny Katzman from N3B, who gave a presentation.

The Board discussed this item and requested clarification where necessary.

Mr. Johnson opened the floor for public comments. Members of the public gave the following summarized comments:

1) Mr. Antonio Maggiore, 4102 Fairway - Mr. Maggiore clarified that he was speaking predominantly for himself as a citizen and not as a Councilor. He felt the presentation was lacking details and hopes that when it comes before Council it will have more information, especially about how quickly the RDX moves in the water in relation to the chromium plume. He expressed frustration about the numerous inquiries he felt he had to make before the topic was openly discussed.

- 7.B [AGR0602-18](#) Reconsideration of the Board of Public Utilities' Policy Regarding Smart Meter Opt Outs; Approval of Services Agreement AGR19-912 with Ferguson Incorporated in the Amount of \$5,559,480.00, Plus Applicable Gross Receipts Tax for Advanced Metering Infrastructure (AMI) Equipment and Services; Approval of the License and Technical Support Agreement with Sensus Incorporated; and Approval of Related Budget Revision 2019-04

Presenters: Bob Westervelt

Ms. Taylor moved to remove this item from the table. The motion passed by the following vote:

Yes: 4 - Board Member Johnson, Vice-chair Walker, Board Member Frederickson and Board Member Taylor

No: 1 - Board Member McLin

Deputy Utility Manager of Finance and Administration Mr. Bob Westervelt presented this item. The following is the substance of the item being considered.

The agreement with Ferguson was also presented to the Board for consideration at the August and September 2018 meetings. This contract is for equipment, supplies, installation, software and project management services for implementation of a systemwide advanced metering infrastructure (AMI). The system will provide accurate, near real time read capability for electric, water and gas services for DPU customers. DPU began considering implementation of AMI several years ago as the capabilities of the available systems improved in response to the development of more complex pricing models which began to emerge, primarily in the electric industry, in the early 2000s. The DPU conducted a pilot deployment as part of the New Energy and Industrial Technology Development (NEDO) Project in 2012 through 2014. While the project was limited in

scope and distribution, the Department did learn and realize the impact advanced metering could have on its systems and business model and made the strategic decision to explore the business case for system-wide deployment. In 2015, the Department engaged Power Systems Engineering, a consulting firm specializing in electric grid modernization and utilities metering systems, to conduct a business case analysis for full implementation of advanced metering in all of the metered services (electric, gas, and water) system wide. The study identified both economic benefits and non-economic benefits, both of which have been considered in the decision to move forward. Due to privacy concerns expressed by citizens in prior meetings, staff also recommended the Board reconsider its no-opt-out direction to staff, which was approved on July 20, 2016.

The Board discussed this item and requested clarification where necessary.

Mr. Johnson opened the floor for public comments. Members of the public gave the following summarized comments:

- 1) Mr. Cornell Wright, 700 Totavi - Mr. Wright does not think an opt out is a long-term solution, but he thinks it is very reasonable. He is glad to hear that staff is pursuing legislation.
- 2) Mr. Antonio Maggiore, 4102 Fairway - Mr. Maggiore clarified that he was speaking solely for himself as a citizen and not as a Councilor. He is concerned that the opt-out policy does not have actual fiscal impacts. He is curious about what the cost impact would be, especially for rental properties where people move frequently.

The following actions were identified for follow-up:

- 1) Staff will return to the Board at a later date to discuss in more detail how the opt out provision might be implemented, after which they will bring a proposed rule to the Board for consideration and approval.

Ms. Taylor moved that the Board of Public Utilities revise the Board policy on smart meter opt outs to allow customers the option of not having smart meters installed at their service locations. Ms. Taylor further moved that the Board of Public Utilities approve Services Agreement AGR19-912 with Ferguson Incorporated in the amount of \$5,559,480, plus a contingency in the amount of \$971,950 for a total project budget amount of \$6,531,430.00, plus applicable gross receipts tax. Ms. Taylor further moved that the Board of Public Utilities approve execution of the License and Technical Support Agreement between The Incorporated County of Los Alamos and Sensus, Incorporated, funding for which is included in and payable through the Ferguson agreement. Ms. Taylor further moved that the Board of Public Utilities approve budget revision 2019-04 and that it be included in the minutes as an attachment; and she further moved that the agreements and budget revision be forward to Council for approval.

Yes: 4 - Board Member Johnson, Vice-chair Walker, Board Member Frederickson and Board Member Taylor

No: 1 - Board Member McLin

- 6.B** **[AGR0598-18](#)** Approval of Services Agreement No. AGR19-10 with Julian Herrera, dba Allied Tree Service and Fencing in the amount of \$1,000,000.00, plus

Applicable Gross Receipts Tax, for the Purpose of Electric Power Line Trimming

Presenters: Rafael De LaTorre

ITEM 6.B. WAS MOVED FROM CONSENT TO BUSINESS.

Deputy Utility Manager of Electric Distribution Mr. Rafael De La Torre presented this item. The following is the substance of the item being considered.

The trimming and cutting of trees near and around energized power lines is a critical operation and maintenance (O&M) program for the department. Failure to clear trees from power line contacts can result in lengthy power outages and cause fires. The department trims and cuts trees near power lines for emergencies or during routine trouble calls; however, the department's overhead maintenance crew has other project deadlines and O&M priorities, including pole and cross-arm replacement. This type of work generally costs more for a contractor to perform than tree trimming. Due to the increased work load and time required for tree trimming activities, it is more cost effective to contract with a third-party rather than utilize the department's overhead maintenance crew. The contract amount is expected to be spent over a five to six year term.

The Board discussed this item and requested clarification where necessary.

Ms. Taylor moved that the Board of Public Utilities approve Services Agreement No. AGR19-10 with Julian Herrera, dba Allied Tree Service and Fencing in the amount of \$1,000,000.00, plus applicable gross receipts tax, for the purpose of Electric Power Line [Tree] Trimming and forward to Council for approval. The motion passed by the following vote:

Yes: 5 - Board Member Johnson, Vice-chair Walker, Board Member Frederickson, Board Member McLin and Board Member Taylor

8. STATUS REPORTS

8.A [11413-18](#) Status Reports

Presenters: Board of Public Utilities

The following informational status reports were provided to the Board in the agenda packet:

- 1) Electric Reliability Update
- 2) Accounts Receivables Report
- 3) Safety Report

9. PUBLIC COMMENT

Mr. Johnson opened the floor for public comment on any items. There were no comments.

10. ADJOURNMENT

The meeting adjourned at 7:48 p.m.

APPROVAL

Board of Public Utilities Chair Name

Board of Public Utilities Chair Signature

Date Approved by the Board

Budget Revision 2019-04 AMI (Advanced Metering Infrastructure)

Board of Public Utilities November 20, 2018

Council Meeting Date: December 18, 2018

	Fund/Dept	Munis Org	Revenue (decrease)	Expenditures (decrease)	Transfers In(Out)	Fund Balance (decrease)
1	Joint Utilities Fund - Elec Prod	51185199-8839		\$ 2,500,000		\$ (2,500,000)
2	Joint Utilities Fund - Elec Dist	51285299-8839		\$ 2,500,000		\$ (2,500,000)
3	Joint Utilities Fund - Elec Dist	51285299-8839		\$ 832,000		\$ (832,000)
4	Joint Utilities Fund - Elec Prod	51185199-8839		\$ (1,960,752)		\$ 1,960,752
5	Joint Utilities Fund - Gas	53185399-8839		\$ 1,960,752		\$ (1,960,752)
6	Joint Utilities Fund - Elec Prod	51185199-8839		\$ (539,248)		\$ 539,248
7	Joint Utilities Fund - Water Dist	54185499-8839		\$ 539,248		\$ (539,248)
8	Joint Utilities Fund - Elec Dist	51285299-8839		\$ (1,040,593)		\$ 1,040,593
9	Joint Utilities Fund - Water Dist	54185499-8839		\$ 1,040,593		\$ (1,040,593)

Description: The purpose of this budget revision is to carryover remaining budget authority from FY2018 to FY2019 for the Advanced Metering Infrastructure (AMI) Project, to add budget authority to the project and to move budget authority from Electric Production and Electric Distribution to the Gas and Water Distribution Funds. Work will begin after July 1, 2018 (FY2019). Line 1 is to carryover FY18 budget authority for Electric Production. Line 2 is to carryover FY18 budget authority for Electric Distribution. Line 3 increases budget authority in the Electric Distribution Fund. Lines 4 & 5 move budget authority to the Gas Fund. Lines 6 through 9, move budget authority to the Water Distribution Fund.

Fiscal Impact: The net fiscal impact to the Joint Utilities Fund in FY2019 is to increase expenditures and decrease Fund Balance by \$5,832,000.

ATTACHMENT
OFFICER REPORTS
SUBMITTED AT THE MEETING

MANAGER'S REPORT

November 20, 2018

1. Received report from NMED concerning the October, 2018 sanitary survey compliance inspection of drinking water production system. We received a clean bill of health with no negative findings. This inspection is conducted every three years.
2. New employees Alfred Lucero as SCADA Technician and Heather Garcia as Business Operations Manager. Both started work on November 19th.
3. Sent letter to NNSA formally requesting meeting to begin negotiations on water sales contract. First meeting is to agree on procedures, set meeting schedule and identify participants and their authorities. Suggest a closed session with Board and Council after first of year to discuss negotiation strategy and issues.
4. Water Production Superintendent Wayne Witten will be retiring on November 30. Wayne has been with DPU since 2001, and previously had a career with a well drilling and service company.
5. DPU Christmas Party will be December 7 at 11:30 AM. Board members are invited.
6. New Councilors orientation will be December 19th. We traditionally also invite new Councilors to the DPU new employee orientation, that will be held in late January, or early February.
7. Kick-off meeting for the 5-year Management Audit will be December 13 at 9:00 AM. Any interested Board member is invited to attend.
8. Safety employee of the quarter is Victor Tanuz, Water Production Senior Operator.

Environmental Sustainability Board (ESB) liaison report

Susan Barns, ESB Liaison 11/20/2018

Recent activities of the ESB include:

- Tour of food waste composting facilities at Reunity Resources in Santa Fe
- Approval of the installation of a sunflower sculpture by Ed Grothus at the EcoStation
- Presentations on food waste prevention and illegal dumping issues in Los Alamos
- Preliminary discussion of surveys of trash, recycle and yard trimmings roll carts use conducted in October by ESB members and Environmental Services staff. Among the findings so far are that over 80% of residents participate in recycling, which is very high given lack of extrinsic incentives.
- Placement of additional corrugated cardboard collection sites around LA and WR to accommodate holiday cardboard generation
- Participation in the Recycled Fair and Fashion Show at Chamisa School

Upcoming ESB meeting topics include:

- Revision of the LAC Environmental Sustainability Plan
- Options for at-home composting systems

Due to James Robinson's election to County Council, the ESB will have an opening starting in January. If you have any family, friends or co-workers who might be interested in joining our Board, please encourage them to apply!



BOARD OF PUBLIC UTILITIES

ADDITIONAL MEETING DOCUMENTS

Additional or revised information or documents are often passed out to the Board at the meetings.
Whenever possible, this informational cover page will accompany those documents.

MAKE 20 COPIES OF ANY DOCUMENTS, INCLUDING THIS COVER SHEET, AND RETURN TO JAIME KEPHART PRIOR TO THE MEETING.

MEETING DATE	11/20/2018
AGENDA ITEM	7.A. Update on RDX Contamination in Aquifer
DOCUMENT TITLE(S)	Los Alamos National Laboratory's RDX Campaign Project Overview
FROM	Danny Katzman, N3B
NEW OR REVISED? Is this a revision that is different from what was in the agenda packet or is it something entirely new?	New
RECOMMENDED ACTION If you have a new or revised recommended motion for the Board, enter it here.	<u>N/A</u>
ADDITIONAL INFORMATION Please VERY BRIEFLY explain the purpose of this information or document.	Mr. Katzman's presentation was not available at the time of agenda publication.

Los Alamos National Laboratory's RDX Campaign Project Overview Presentation to Los Alamos County Board of Public Utilities November 20, 2018



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

RDX Project – Presentation Topics

- Background
 - Groundwater setting
 - Source and history
 - Remediation conducted to date
- Extent of RDX in groundwater
- Is RDX present in Los Alamos County water-supply wells?
- Next Steps

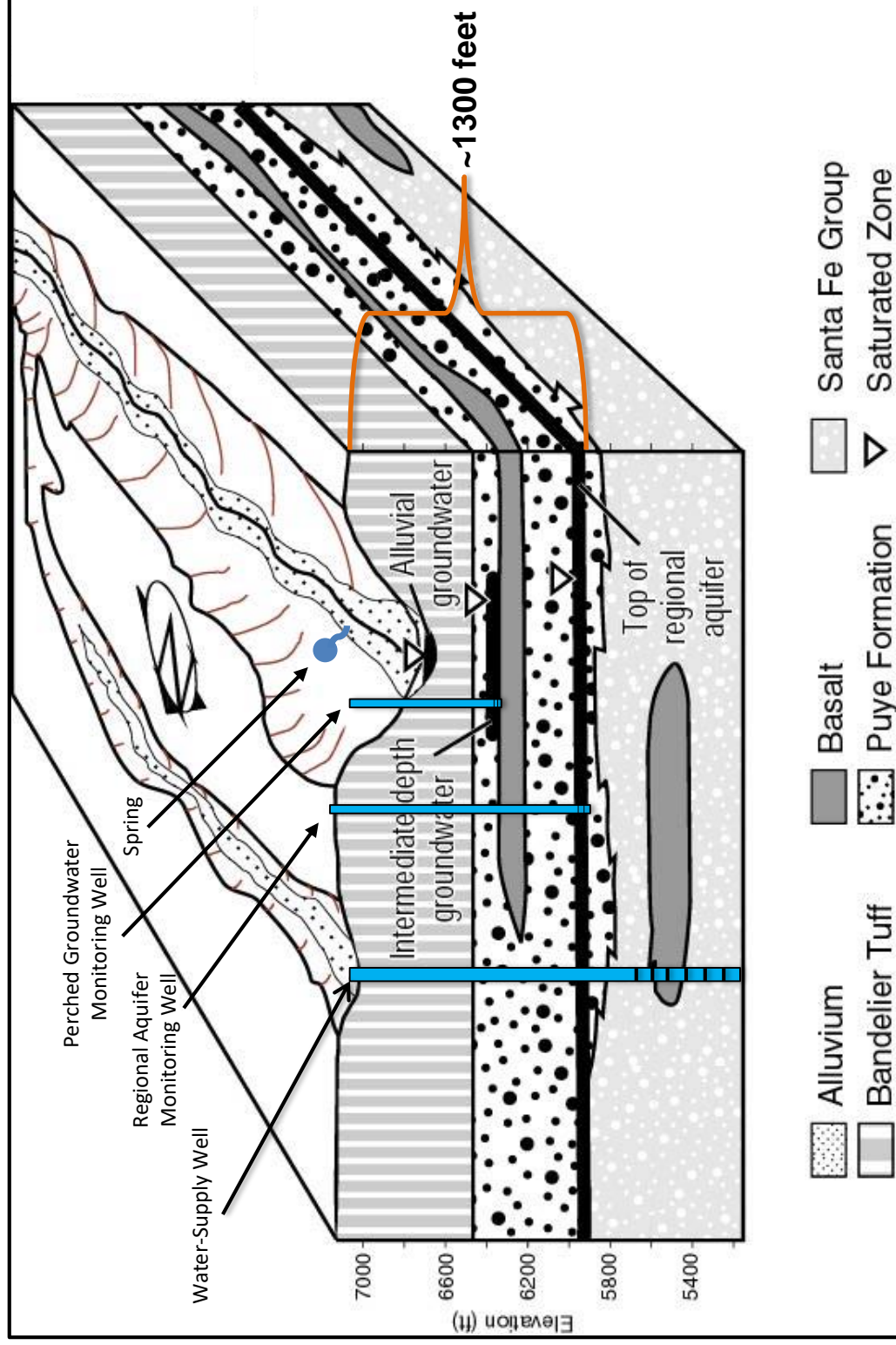
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ENVIRONMENTAL MANAGEMENT
SAFETY ♦ PERFORMANCE ♦ CLEANUP ♦ CLOSURE



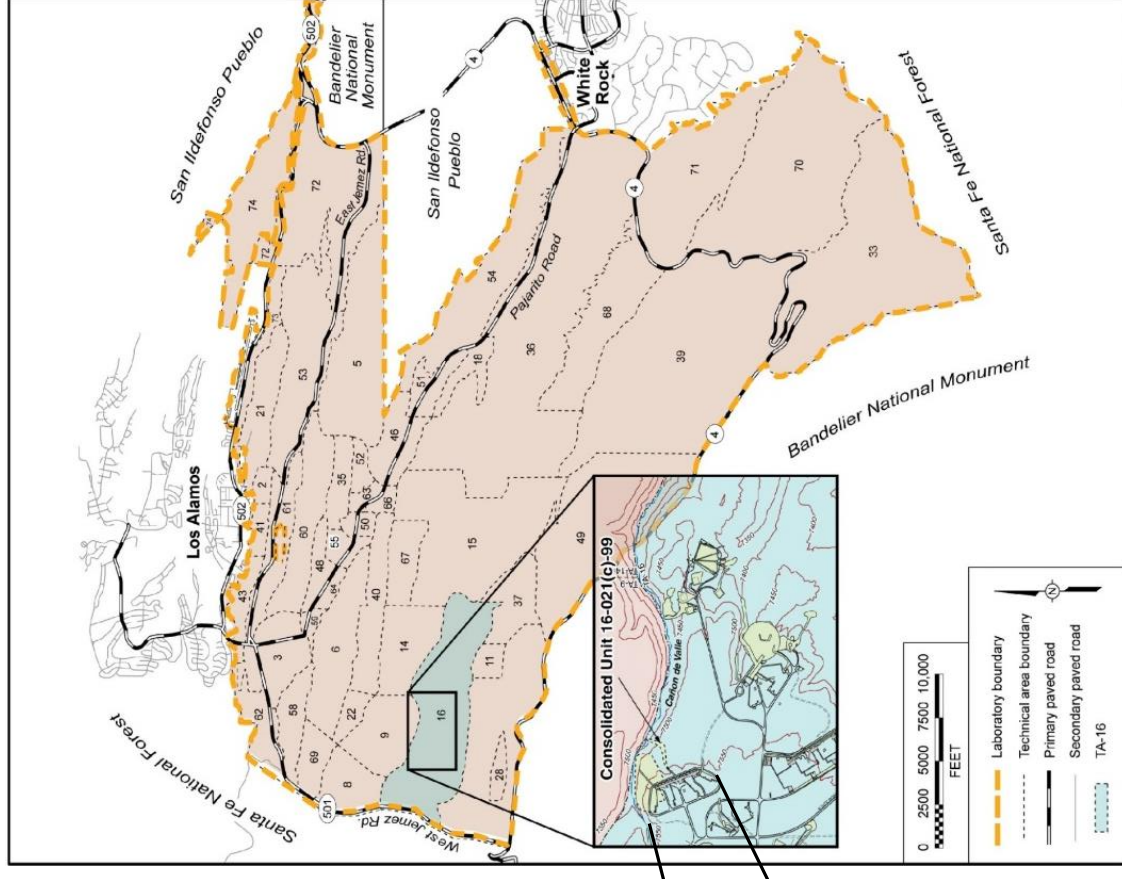
Groundwater beneath Los Alamos



Background

- TA-16 facilities established in early 1950s to develop high explosive (HE) formulations
 - Explosives (RDX, HMX, TNT) were casted and machined for nuclear weapons
 - Building 260 used since 1951 to machine HE
 - Several million gal/yr of HE-contaminated water discharged to Cañon de Valle (CdV) between 1951 – 1996
 - The 260 Building outfall was primary source of RDX
 - Other potential sources include operations in other buildings at TA-16 and at TA-09.
- First investigations of RDX in soils occurred in the mid 90s
- Groundwater investigations first identified RDX (below standards) in perched and regional groundwater in the late 1990s
- Present-day RDX contamination is low in nearby springs, surface water, and shallow groundwater

23





- Surface soil cleanup conducted in outfall area in 2000 – 2001 under an Interim Measure, and in 2009 – 2010 under a Corrective Measures Implementation
 - More than 1500 yd³ HE-contaminated soil excavated & disposed of offsite
 - Significantly reduced contamination in surface soils
- Injection of grout in permeable rock layers to cut off infiltration pathways
- Completion of Surface Corrective Measures Activities
 - Included documentation of no further requirements for cleanup for RDX in surface setting
 - Includes Long-Term Monitoring Plan and reporting requirements
 - Surface water, springs, shallow alluvial wells

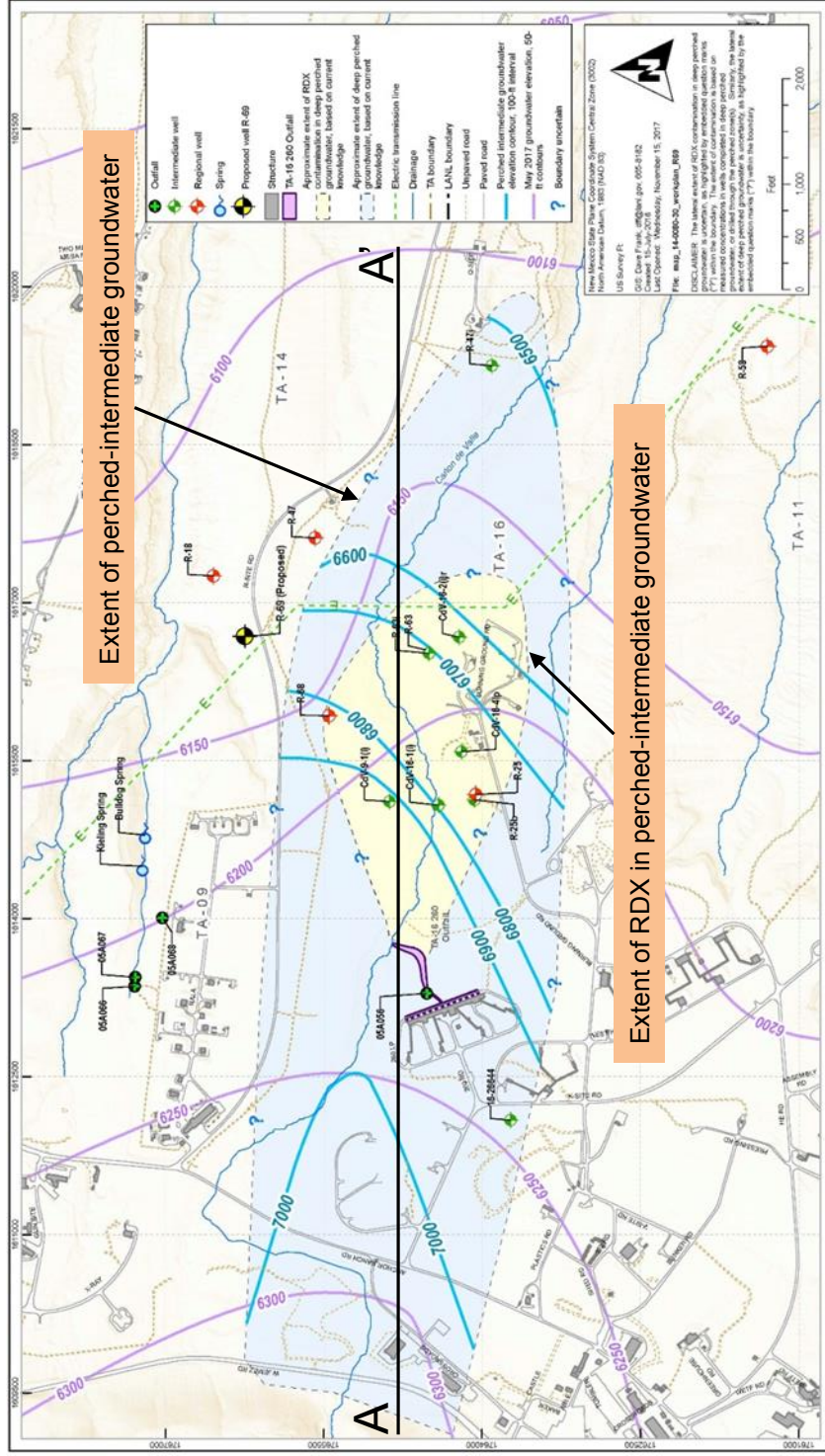


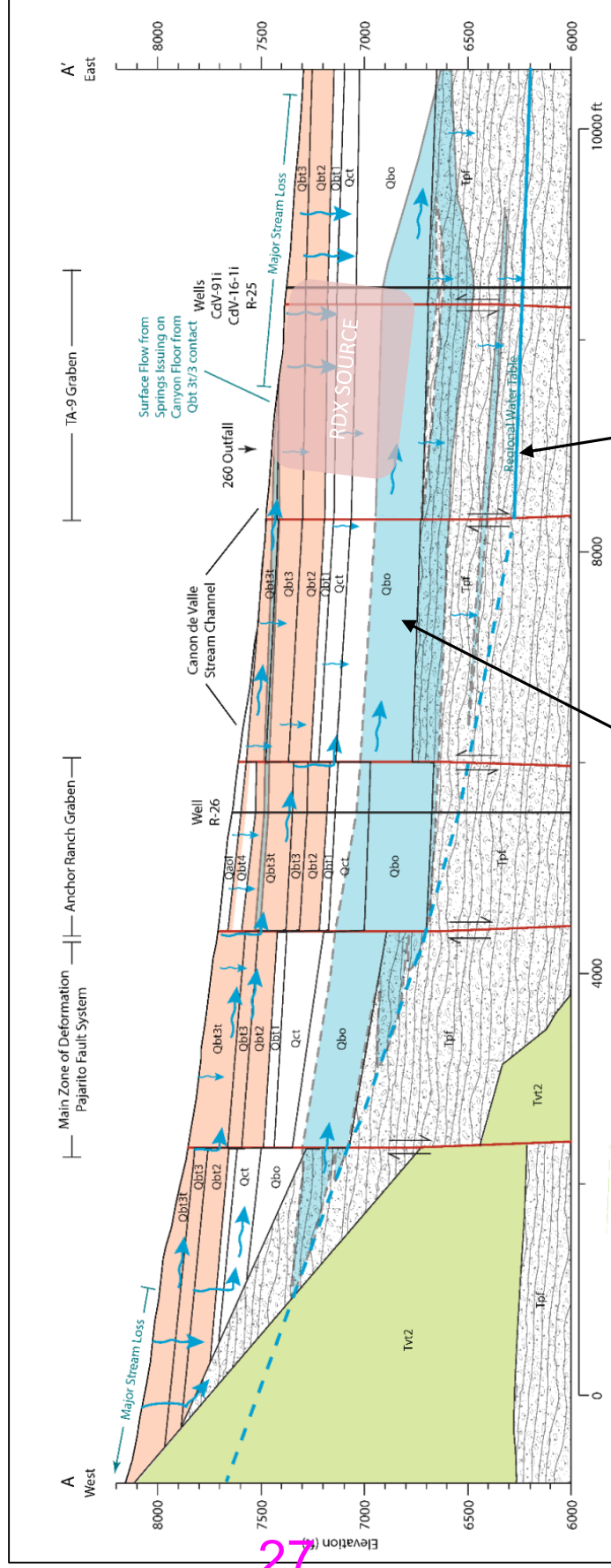


Deep Groundwater Investigation

- Installation of monitoring wells to investigation “nature and extent” of contamination
 - Intermediate-depth wells screened in perched groundwater
 - Deep wells screened in the regional aquifer
- Studies to understand the hydrology and “fate and transport” of contamination
 - Tracer studies
 - Aquifer tests







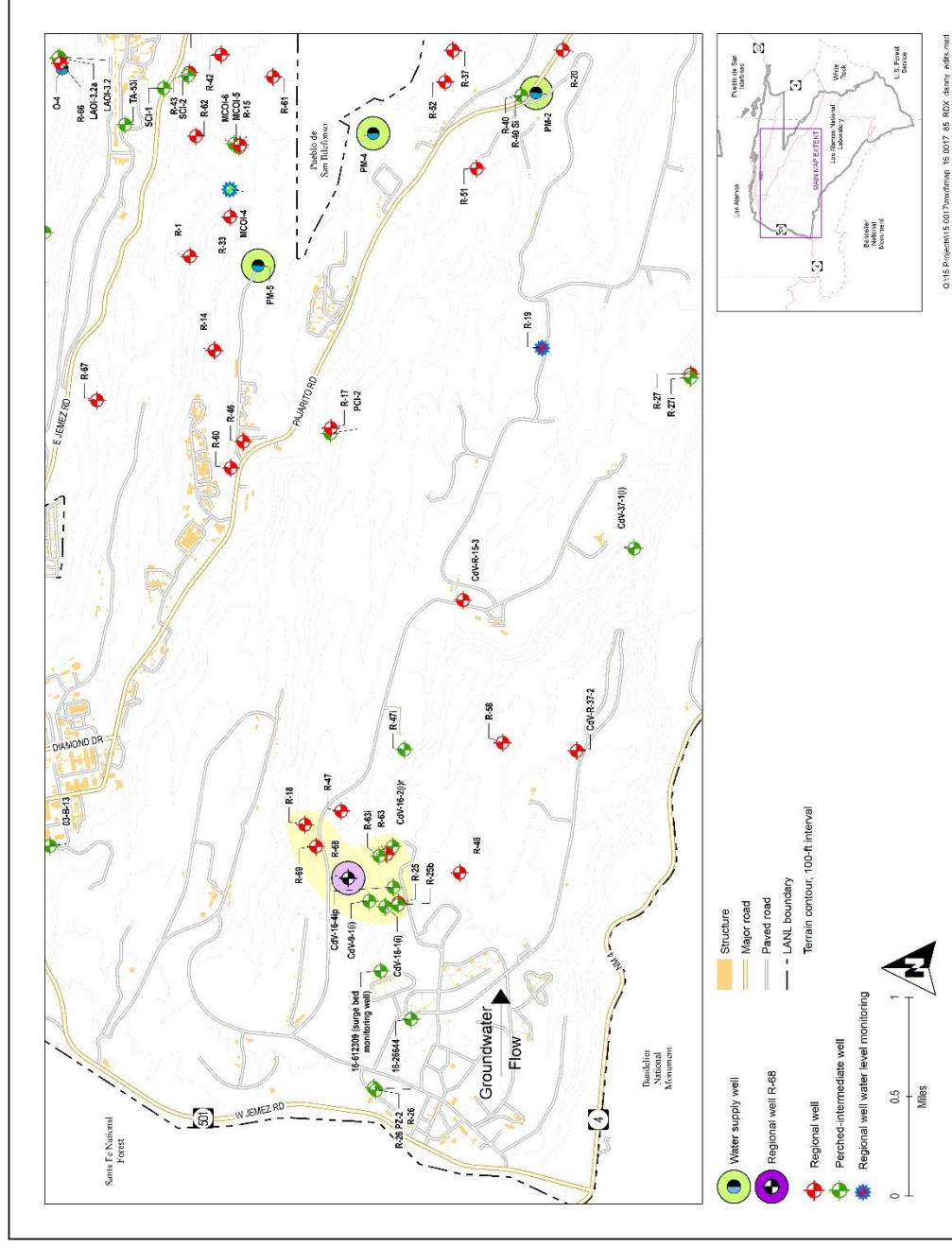
Perched-Intermediate Groundwater

Regional Aquifer Water Table



RDX in Regional Aquifer

- RDX is present in several regional groundwater monitoring wells
- Known since 2005
- Only one monitoring well (R-68, completed in 2017) has RDX above the NMED's 7.02 ppb screening level
- RDX is not present in LAC water-supply wells (approx. 3 miles away)
- DOE collects groundwater samples from water-supply wells for RDX analysis
 - sampled since 1998
 - Current semi-annual sampling supplements LAC's sampling requirements
- DOE will continue to monitor for RDX in water-supply wells and in upgradient monitoring wells closer to the RDX project site





- **Deep Groundwater Investigation Report (DGIR)**
 - Due in August 2019 (Consent Order “Appendix B” Deliverable)
- **Field Activities to support DGIR**
 - R-69 aquifer testing, monitoring
- **DGIR Path Forward**
 - DGIR will include a groundwater model that includes
 - Model long-term fate of RDX in regional aquifer
 - Determine whether groundwater remediation is necessary at this time to protect regional aquifer
 - Long-term monitoring will follow





County of Los Alamos

Staff Report

December 19, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.: 7.A
Index (Council Goals): BCC - N/A
Presenters: Board of Public Utilities
Legislative File: 11464-18

Title

Annual Board of Public Utilities Self-evaluation for 2018

Recommended Action

The Board may identify follow-up actions based on its evaluation.

Staff Recommendation

None

Body

The Board will conduct its annual self-evaluation as required by the Policies and Procedures manual.

Alternatives

The Board could choose to reschedule its evaluation.

Fiscal and Staff Impact

None

Attachments

A - BPU Self-evaluation Questions

B - Self-evaluation Actions from 2017

BPU Self-Evaluation Questions

Criteria: Enter a number from 1 to 5 next to each question; make comments keyed to specific questions at the end of this assessment:
 5 = All the time 3 = Some of the time 1 = Seldom or not at all

Question	Score	Comments	Priority	Possible Action
I. General Board Areas:				
A. Is there a Board policy manual addressing meeting procedures, committee roles and structure, election and term of officers, new member orientation, and related matters?				
B. Do all Board members participate in a formal orientation?				
C. Are Board procedures adhered to regarding bylaws, open meeting requirements, compliance with legal regulations, etc.?				
D. Are meeting packets complete and distributed prior to meetings?				
E. Is the length of Board meetings appropriate?				
F. Is there an annual Board calendar?				
G. Does the Board receive sufficient information to make good decisions?				
H. Are decisions made in a timely manner?				
II. Board Policy Areas				
A. Accountability				
1. Does the Board understand its obligation to see the organization acts in the best interests of DPU customer and citizens of the county?				

BPU Self-Evaluation Questions

Criteria: Enter a number from 1 to 5 next to each question; make comments keyed to specific questions at the end of this assessment:
 5 = All the time 3 = Some of the time 1 = Seldom or not at all

Question	Score	Comments	Priority	Possible Action
2. Does the Board act with diligence and objectivity on behalf of DPU customers and the County?				
B. Responsibility				
1. Do Board members understand their roles?				
2. Do Board members understand the difference between their policy role and management's administrative role?				
3. Do Board members actions reflect this understanding?				
C. Policy Direction				
1. Do Board members understand the mission, goals and strategies of the organization?				
2. Does the Board give clear directions to management on the mission and goals of the organization?				
3. Does the Board spend appropriate time on policy consideration and direction versus operational issues?				
D. Monitoring				
1. Does the Board have a system for receiving and monitoring information about the DPU's organizational performance?				

BPU Self-Evaluation Questions

Criteria: Enter a number from 1 to 5 next to each question; make comments keyed to specific questions at the end this assessment:
 5 = All the time 3 = Some of the time 1 = Seldom or not at all

Question	Score	Comments	Priority	Possible Action
2. Are there systems for corrective action where performance is below standard or reward when performance is above standard?				
3. Are organizational goal setting and achievements taken into account during the DPU Manager's evaluation?				
E. Other Communication and Advocacy				
1. Does the Board represent the community interests it serves?				
2. Does the Board communicate the value of the organizations to its stakeholders?				
3. Does the Board seek input and involve its stakeholders in policy considerations and decisions?				
4. Do Board members support the organization publicly?				
5. Does the Board communicate effectively with the County Council?				
III Board Responsibility Areas				
A. Legal				
1. Does the Board act within the guidelines set by the county charter				

BPU Self-Evaluation Questions

Criteria: Enter a number from 1 to 5 next to each question; make comments keyed to specific questions at the end of this assessment:
 5 = All the time 3 = Some of the time 1 = Seldom or not at all

Question	Score	Comments	Priority	Possible Action
and policies and procedures document?				
2. Are there written policies on Board ethics and conflicts of interest?				
B. Financial				
1. Does the Board approve annual operating and capital budgets and receive periodic (at least quarterly) progress reports?				
2. Does the Board review a financial plan for the organization and receive sufficient information to monitor its financial strength and performance?				
3. Are financial goals and comparative ratios established and does the Board receive tracking information?				
4. Are the requirements for an annual audit met and does the Board receive a report on the results?				
5. Are the organizations and the Board indemnified sufficiently against insurable risk?				
6. Is the Board proactive in pushing for rate increases with the County Council when these increases are necessary for the financial health of the DPU?				
C. Planning				

BPU Self-Evaluation Questions

Criteria: Enter a number from 1 to 5 next to each question; make comments keyed to specific questions at the end of this assessment:
 5 = All the time 3 = Some of the time 1 = Seldom or not at all

Question	Score	Comments	Priority	Possible Action
1. Is the Board informed about the business environment in which the organization is operating?				
2. Does the Board review and approve the organization's mission, goals, and major strategic initiatives?				
3. Do Board members usually attend annual DPU strategy and planning meetings?				
D. Board-Management Relations				
1. Is there a written job description and/or employment contract for the DPU Manager?				
2. Does the Board conduct a formal, annual performance review of the DPU Manager?				
3. Is the DPU Manager's compensation linked to the results of this review?				
4. Does the Board make resources available for the DPU Manager's continued professional development?				
5. Is there a succession plan for the DPU Manager, with exposure to the Board of possible successors?				
6. Has the Board established an effective working relationship with the DPU Manager?				

BPU Self-Evaluation Questions

Criteria: Enter a number from 1 to 5 next to each question; make comments keyed to specific questions at the end of this assessment:
 5 = All the time 3 = Some of the time 1 = Seldom or not at all

Question	Score	Comments	Priority	Possible Action
7. Is there Board/management cooperation on determining the future direction of the organization?				
8. Are Board/DPU Manager roles clearly defined so the Board focuses on its policy role and avoids micro-management?				
9. Does the Board provide overall human resources direction to the DPU Manager without becoming involved in specific personnel matters?				
10. Is the Board explicit about the information it needs from the DPU Manager to fulfill its governance function?				
F. Education and development				
1. Do Board members participate in educational opportunities recommended and offered by the DPU or other entities that enhance their effectiveness as a board member?				



LOS ALAMOS

County of Los Alamos

Minutes

Board of Public Utilities

1000 Central Avenue
Los Alamos, NM 87544

*Jeff Johnson, Chair; Stephen McLin, Vice-chair; Paul Frederickson, Kathleen Taylor and
Carrie Walker, Members
Tim Glasco, Ex Officio Member
Harry Burgess, Ex Officio Member
Christine Chandler, Council Liaison*

Tuesday, January 16, 2018

11:30 AM

1000 Central Avenue
Council Chambers

SPECIAL SESSION

1. CALL TO ORDER

A special meeting of the Incorporated County of Los Alamos Board of Public Utilities was held on Tuesday, January 16th, 2018 at 1000 Central Ave., Council Chambers. Board Chair, Jeff Johnson, called the meeting to order at 11:32 a.m.

Present 5 - Board Member Johnson, Board Member McLin, Board Member Frederickson, Board Member Taylor and Board Member Glasco
Absent 2 - Board Member Walker and Board Member Burgess

2. PUBLIC COMMENT

Mr. Johnson opened the floor for public comment on items not otherwise included on the agenda. There were no comments.

3. APPROVAL OF AGENDA

Ms. Taylor moved that the agenda be approved as presented. The motion passed by the following vote:

Yes: 4 - Board Member Johnson, Board Member McLin, Board Member Frederickson and Board Member Taylor
Absent: 1 - Board Member Walker

4. BUSINESS

4.A [10325-18](#) Annual Board of Public Utilities Self-evaluation for 2017

Presenters: Board of Public Utilities

The Board conducted its annual self-evaluation using the same questionnaire from the 2016 evaluation. Rather than scoring, prioritizing and assigning action for every question, the Board focused only on those questions where action or improvements might be necessary. The members identified those questions they wished to discuss. If a question was not discussed, it was assumed that the members felt the Board was already doing well in those areas.

The following questions were discussed and actions identified for follow-up:

1) QUESTION 1.G. Does the Board receive sufficient information to make good decisions.

ACTION - Some members felt that sometimes sufficient time was not given to digest information on complex issues before being asked to make decisions. Mr. Johnson will review the Board's Policies and Procedures Manual (PPM) to see if it is possible to include criteria for when the Board might require additional time or informational meetings on complex or controversial topics prior to making final decisions.

2) QUESTION II.A.1. Does the Board understand its obligation to see the organization acts in the best interests of DPU customers and citizens of the county.

ACTION - After discussion, the Board confirmed that it scored high in this area and no action was necessary.

3) SECTIONS B. & C. Regarding Responsibility and Policy Direction

ACTION - The Board discussed these two sections in general. Members agreed that it was important to clarify, either through formal vote or general consensus, when the direction given to staff is coming from the Board as a whole as opposed to recommendations given by individual members. Mr. Johnson will review the Board's PPM to see if it is possible to include language to address this issue.

4) QUESTION II.B.1. Do Board members understand their roles?

ACTION - Some members felt that new members do not always understand their roles and discussed the value of the American Public Power Association governance series webinars members have viewed in the past. Staff has already been working with the newest member, Ms. Walker, so that she may complete the series, but will also send the information to the rest of the members who may want to view some of the recently revised content.

5) QUESTION II.E.5. - Does the Board communicate effectively with the County Council?

ACTION - Members agreed that it is important to continue the progress that has been made regarding communication with Council on topics of mutual interest while still maintaining the semi-autonomous nature of the Board. Some Councilors have expressed a desire to see more Board member presence at Council meetings. However, it was not clear how best to determine when a member needs to be present at Council meetings, as this can be very subjective depending on the complexity of or controversy surrounding a topic. Additionally, issues could arise with individual members speaking for the entire Board, especially on topics where there may not have been a unanimous vote. In the future, when considering items that will go to Council, the Board will also consider whether it might be useful to have a member present at the meeting. Mr. McLin will also bring this up at the next Board/Council subcommittee meeting to get more guidance from Council on when they expect a member representative to be present at Council meetings and how those members might contribute to their discussion.

FINAL - APPROVED

An agenda item will be added to the February regular meeting to review any potential changes to the PPM proposed by Mr. Johnson to address these action items.

5. PUBLIC COMMENT

Mr. Johnson opened the floor for public comment on any items. There were no comments.

6. ADJOURNMENT

The meeting adjourned at 12:45 p.m.

APPROVAL

Carrie Walker for Jeff Johnson
Board of Public Utilities Chair Name

Carrie Walker
Board of Public Utilities Chair Signature

February 21, 2018
Date Approved by the Board



County of Los Alamos

Staff Report

December 19, 2018

Los Alamos, NM 87544
www.losalamosnm.us

Agenda No.: 8.A
Index (Council Goals): BCC - N/A
Presenters: Board of Public Utilities
Legislative File: 11469-18

Title

Status Reports

Body

Each month the Board receives in the agenda packet informational reports on various items. No presentation is given, but the Board may discuss any of the reports provided.

Attachments

- A - Electric Reliability Report
- B - Accounts Receivables Report
- C - Safety Report

STATUS REPORTS

ELECTRIC RELIABILITY

Los Alamos County Utilities



Electric Distribution Reliability

December 19, 2018

Stephen Marez
Senior Engineer

**Electric Distribution Reliability Study
Twelve Month Outage History**

**Prepared by Stephen Marez
Senior Engineer L.A.C.U.**

<u>Date</u>	<u>Call Rcd.</u>	<u>Circuit</u>	<u>Cause</u>	<u>Start Time</u>	<u>End Time</u>	<u>Duration</u>	<u>Customers Affected (Meters)</u>	<u>Combined Customer Outage Durations</u>	<u>Total Outage H:M:S</u>	<u>Running SAIDI</u>
12/22/2017	Utilities	13	URD Failure	12:30	15:50	3:20	15	50:00:00	50:00:00	0:00:20
12/27/2017	Utilities	13	URD Failure	18:30	21:07	2:37	1	2:37:00	52:37:00	0:00:21
1/16/2018	Utilities	18	HUMAN	8:30	8:34	0:04	213	14:12:00	66:49:00	0:00:27
2/3/2018	Utilities	13	Animal	1:30	2:30	1:00	8	8:00:00	74:49:00	0:00:30
2/14/2018	Utilities	14	Planned	9:00	10:30	1:30	7	10:30:00	85:19:00	0:00:34
3/8/2018	Utilities	WR2	Planned	9:30	11:00	1:30	7	10:30:00	95:49:00	0:00:38
3/9/2018	Utilities	15	Unknown	13:00	14:00	1:00	6	6:00:00	101:49:00	0:00:41
3/9/2018	Utilities	15	Animal	9:30	10:30	1:00	1	1:00:00	102:49:00	0:00:41
3/10/2018	Utilities	WR2	Unknown	14:11	15:11	1:00	1	1:00:00	103:49:00	0:00:41
3/16/2017	Utilities	WR1	Weather	16:30	17:30	1:00	5	5:00:00	108:49:00	0:00:43
3/18/2017	Utilities	WR1	Weather	14:00	16:00	2:00	1	2:00:00	110:49:00	0:00:44
3/12/2018	Utilities	13	OH Failure	12:30	15:07	2:37	22	57:34:00	168:23:00	0:01:07
4/17/2018	Utilities	16	URD Failure	17:00	20:00	3:00	2	6:00:00	174:23:00	0:01:09
4/26/2018	Utilities	WR1	Planned	9:50	12:20	2:30	7	17:30:00	191:53:00	0:01:16
5/27/2018	Utilities	16	URD Failure	12:00	13:30	1:30	30	45:00:00	236:53:00	0:01:34
5/30/2018	Utilities	WR2	Planned	9:05	11:05	2:00	8	16:00:00	252:53:00	0:01:41
6/3/2018	Utilities	WR2	URD Failure	15:00	16:00	1:00	50	50:00:00	302:53:00	0:02:01
6/3/2018	Utilities	WR2	URD Failure	15:00	16:45	1:45	27	47:15:00	350:08:00	0:02:19
6/12/2018	Utilities	13	URD Failure	20:45	9:30	12:45	15	191:15:00	599:08:00	0:03:58
6/17/2018	Utilities	16	URD Failure	18:30	20:00	1:30	2	3:00:00	602:08:00	0:04:00
7/15/2018	Utilities	14	URD Failure	23:30	5:30	6:00	30	180:00:00	782:08:00	0:05:11
7/20/2018	Utilities	WR2	URD Failure	10:10	11:30	1:20	12	16:00:00	798:08:00	0:05:18
8/7/2018	Utilities	13	URD Failure	20:00	1:00	5:00	50	250:00:00	1048:08:00	0:06:57
8/19/2018	Utilities	WR2	URD Failure	19:00	23:00	4:00	24	96:00:00	1144:08:00	0:07:35
9/1/2018	Utilities	WR2	URD Failure	5:00	8:30	3:30	21	73:30:00	1217:36:00	0:08:05
9/3/2018	Utilities	WR1	OH Failure	13:30	16:30	3:00	15	45:00:00	1262:36:00	0:08:23
9/4/2018	Utilities	WR1	Weather	17:50	19:30	1:40	15	25:00:00	1287:36:00	0:08:32
9/13/2018	Utilities	WR1	HUMAN	14:45	15:15	0:30	14	7:00:00	1294:36:00	0:08:35
9/13/2018	Utilities	WR2	URD Failure	9:30	11:15	1:45	24	42:00:00	1336:36:00	0:08:52
10/3/2018	Utilities	WR2	URD Failure	8:00	11:30	3:30	7	24:30:00	1361:08:00	0:09:02
11/13/2018	Utilities	13	SAFETY	9:45	15:00	5:15	87	456:45:00	1817:53:00	0:12:04
11/23/2018	Utilities	13	URD Failure	11:45	12:00	0:15	7	1:45:00	1819:38:00	0:12:04
11/13/2018	Utilities	13	TREE	19:00	20:52	1:52	15	28:00:00	1847:38:00	0:12:15
11/13/2018	Utilities	13	TREE	19:00	0:00	5:00	15	75:00:00	1922:38:00	0:12:45

CIRCUIT SAIDIS CALCULATED ACCORDING TO THE NUMBER OF CUSTOMERS IN EACH CIRCUIT RESPECTIVELY												
Running SAIDI Circuit 13	Running SAIDI Circuit 14	Running SAIDI Circuit 15	Running SAIDI Circuit 16	Running SAIDI Circuit 17	Running SAIDI Circuit 18	SAIDI Circuit E44 & Royal Crest	Running SAIDI Circuit WR1	Running SAIDI Circuit WR2	Monthly SAIDI	Monthly Customer Minutes out of service	WEATHER SAIDI	
0:01:49									DECEMBER	0:00:21	52:37:00	
0:01:54					0:04:00				JANUARY	0:00:06	66:49:00	
0:02:12	0:01:10							0:00:39	FEBRUARY	0:00:07	35:19:00	
		0:00:12										
		0:00:13										
								0:00:43				
							0:00:11					
0:04:17			0:00:12				0:00:16		MARCH	0:00:10	25:30:00	0:00:03
			0:01:40				0:00:56		APRIL	0:00:32	81:04:00	
								0:01:43	MAY	0:00:24	61:00:00	
								0:04:50				
								0:07:47				
0:11:13								0:11:24				
			0:01:46						JUNE	0:02:19	349:15:00	
	0:20:02							0:01:00	JULY	0:01:18	183:00:00	
0:20:17								0:07:00	AUGUST	0:02:18	346:00:00	
								0:11:35				
							0:02:38					
							0:03:35					
							0:03:50					0:00:10
								0:14:12	SEPTEMBER	0:01:17	49:00:00	
0:36:50								0:15:44	OCTOBER	0:00:10	66:30:00	
0:37:51												
0:40:34									NOVEMBER	0:03:43	561:30:00	
Circ 13	Circ 14	Circ 15	Circ 16	Circ 17	Circ 18	Circ E44	Circ WR1	Circ WR2	Total	0:12:45		0:00:13

Twelve Month History	November 2018	
Total # Accounts	9045	
Total # Interruptions	35	
Sum Customer Interruption Durations	1922:38:00	hours:min:sec
# Customers Interrupted	785	
SAIFI(APPA AVG. = 1.0)	.09	int./cust.
SAIDI (APPA AVG. = 1:00)	00:12	hours:min
CAIDI	2:26	hours:min/INT
ASAI	99.9999%	% available

- **SAIFI - System Average Interruption Frequency Index**

A measure of interruptions per customer (Per Year)

$$\text{SAIFI} = \frac{(\text{Total number of customer interruptions})}{(\text{Total number of customers served})}$$

- **SAIDI – System Average Interruption Duration Index**

A measure of outage time per customer if all customers were out at the same time (hours per year)

$$\text{SAIDI} = \frac{(\text{Sum of all customer outage durations})}{(\text{Total number of customers served})}$$

- **CAIDI – Customer Average Interruption Duration Index**

A measure of the average outage duration per customer (hours per interruption)

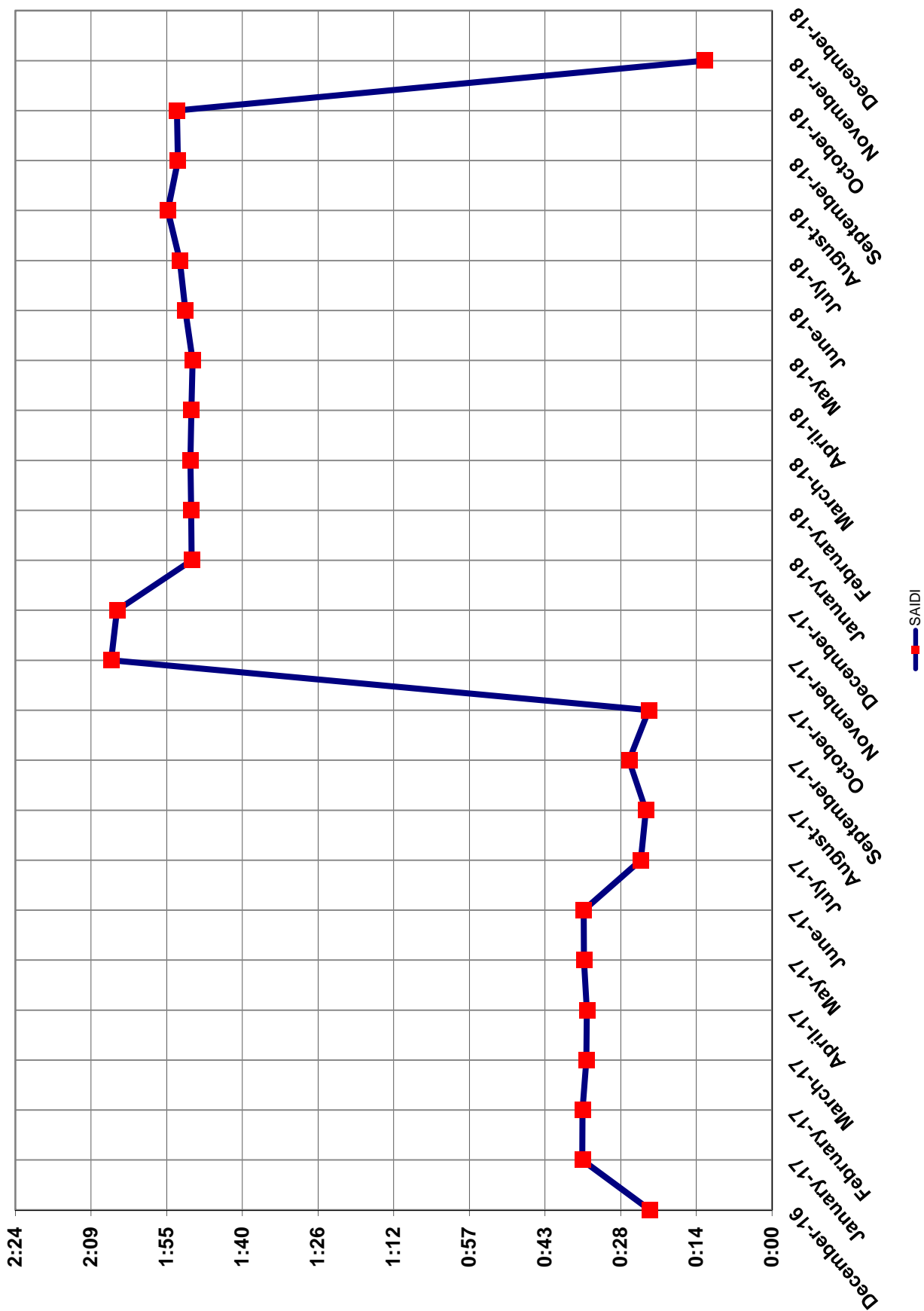
$$\text{CAIDI} = \frac{(\text{Sum of all customer outage durations})}{(\text{Total number of customer interruptions})} = \frac{\text{SAIDI}}{\text{SAIFI}}$$

- **ASAI – Average System Availability Index**

A measure of the average service availability (Per unit)

$$\text{ASAI} = \frac{(\text{Service hours available})}{(\text{Customer demand hours})} = \frac{8760 - \text{SAIDI}}{8760}$$

EACH POINT IS A 12 MONTH SAIDI HISTORY
1:00:00 = APPA BENCHMARK SAIDI



STATUS REPORTS

ACCOUNTS RECEIVABLES

Due to the recent Enterprise Resource System conversion from Cayenta to Munis, collection activities for past due bills were temporarily put on hold until billing and reporting issues could be resolved. We believe that the bulk of those issues have now been resolved, and we can once again begin collection activities in earnest, with late fees being issued again beginning in January after customers have been properly notified.

STATUS REPORTS

SAFETY

The County Risk Department provides all the Safety Status Reports included in the agenda packet. The following information was received from the Risk Department:

There were no utilities related Workers' Compensation claims, Tort Claims or County Property Damage Claims in November 2018.

The OSHA Incidence Rate report was not available at the time of agenda publication.