



Technical Customer Advisory Committee

AGENDA

Members

Melissa Armijo	Amy Miller
Andrew Bernard	Ege Richardson
Janie Chermak	Ron Schwarzwald
Mike Hightower	Scott Verhines
Dave Hill	

Thursday, September 6, 2018	4:00 PM	ABCGC – 7th Floor Conference Room 7096
1. Call to Order		4:00-4:05
2. Approval of Agenda		4:00-4:05
3. Approval of August 16, 2018 Action Summary		4:00-4:05
4. Water 2120 Status Report		4:05-5:00
5. Presentation on Asset Management Program		5:00-5:45
6. Public Comment		5:45-5:50
7. Adjournment		5:50

NOTICE TO PERSONS WITH DISABILITIES: If you have a disability and require special assistance to participate in this meeting, please contact the Water Utility Authority Office, Suite 5012, Albuquerque/Bernalillo County Government Center, phone 289-3100, as soon as possible prior to the meeting date.



Technical Customer Advisory Committee

ACTION SUMMARY

August 16, 2018

Members Present:

Melissa Armijo
Andrew Bernard
Janie Chermak
Mike Hightower
Dave Hill
Amy Miller
Ege Richardson
Ron Schwarzwald

Members Excused:

Scott Verhines

Water Authority Staff Present:

Frank Roth, Senior Policy Manager
Mark Kelly, Compliance Division Manager
Elizabeth Anderson, Water Quality Program Manager

Item 1 – Call to Order - Note presence of quorum

The meeting was called to order at 4:02 pm by Chair Ege Richardson.

Item 2 – Approval of Agenda

Amy Miller made a motion to approve the agenda. Janie Chermak seconded the motion. The motion passed on a 7-0 vote.

For: 7	Bernard, Chermak, Hill, Miller, Hightower, Richardson, Schwarzwald
Against: 0	
Excused: 2	Armijo, Verhines

Melissa Armijo entered the meeting at this time.

Item 3 – Approval of June 7, 2018 Action Summary

Dave Hill made a motion to approve the action summary. Janie Chermak seconded the motion. The motion passed on an 8-0 vote.

For: 8 Armijo, Bernard, Chermak, Hill, Miller, Hightower, Richardson, Schwarzwaldner
Against: 0
Excused: 1 Verhines

Item 4 – Presentation on Customer Opinion Survey Results

Frank Roth provided a presentation on the 2018 Customer Opinion Survey focusing on reliability and water quality related questions. He provided both current and historical results on key questions.

Item 5 – Presentation and Discussion of Water Quality Report

Elizabeth Anderson provided background information on drinking water quality and the annual water quality report. The information presented will be used for the FY19 Customer Conversations meetings. TCAC members provided input on a proposed activity centered around exploring customers' main concerns about their water quality. After reviewing the 2017 Water Quality Report, TCAC members participated in a second proposed activity that utilized the feedback capture grid technique. Staff captured committee input on what they like about the report, what they do not like, what else they would like to know about water quality, and ideas they may have to improve the water quality report. TCAC members were asked to attend one of the four Customer Conversations meetings planned for October and November.

Item 6 – Public Comment

There was no public comment.

Item 7 – Adjournment

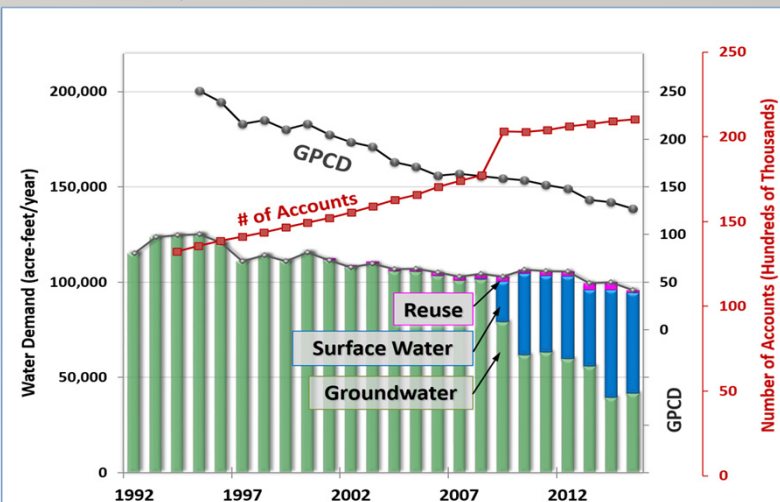
The meeting concluded at 5:55 pm.



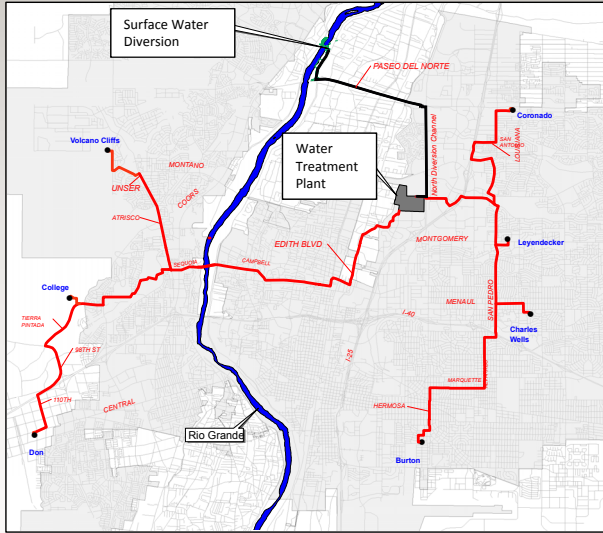
Water 2120: Securing Our Water Future

TECHNICAL CUSTOMER ADVISORY COMMITTEE MEETING
SEPTEMBER 6, 2018

Water Usage is Decreasing Even as the System has Grown



Drinking Water Project Implemented



Multiple Benefits

- Co-locate wells near transmission pipelines for ASR
- New infrastructure can move supply throughout the system
- Reduced need for arsenic treatment

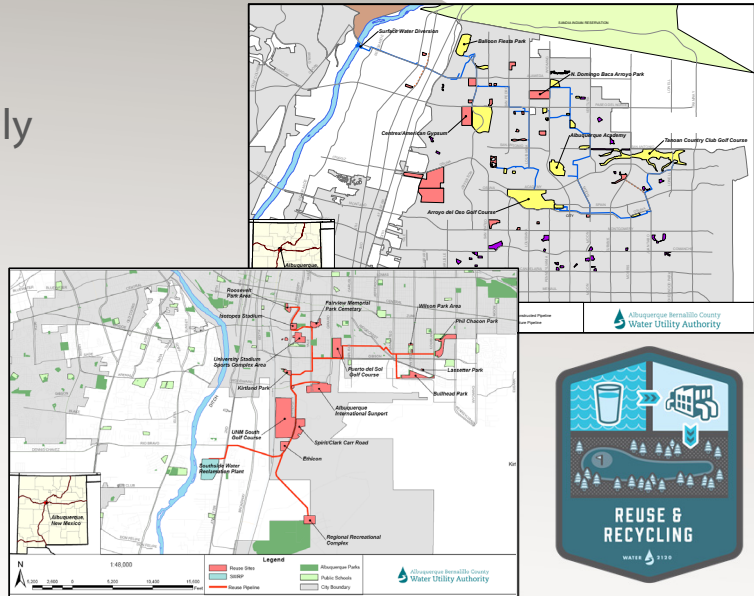


Reuse Continues to be Implemented

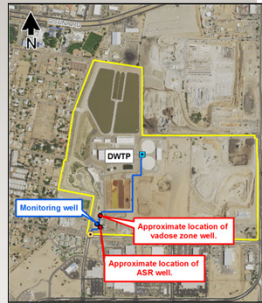


Current projects and supply

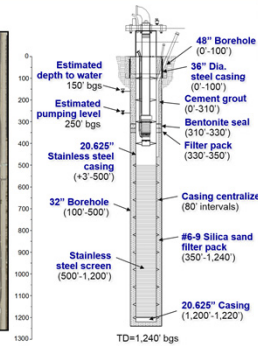
- Industrial recycling
~30 ac-ft/yr
- North I-25 non-potable project **~ 2,500 ac-ft/yr**
- Southside effluent reuse
~1,300 ac-ft/yr



ASR is Being Implemented

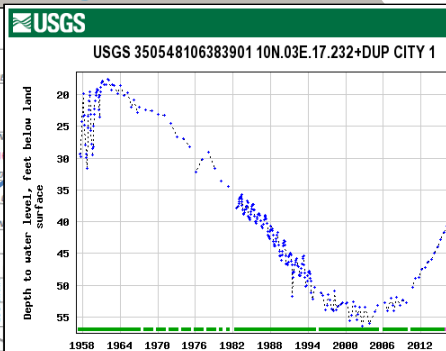
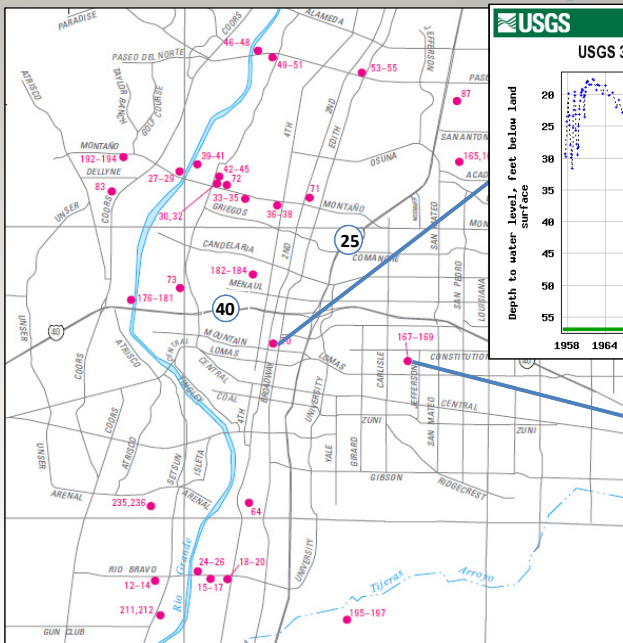


Injection Well Design

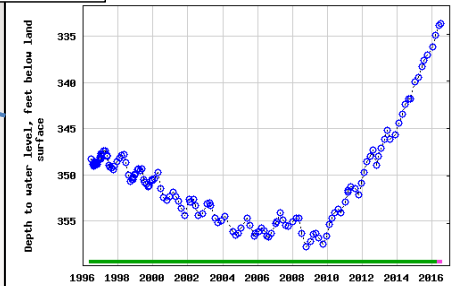


- Bear Canyon is operational, using North I-25 non-potable water
- Demonstration project for large-scale ASR – permit submitted

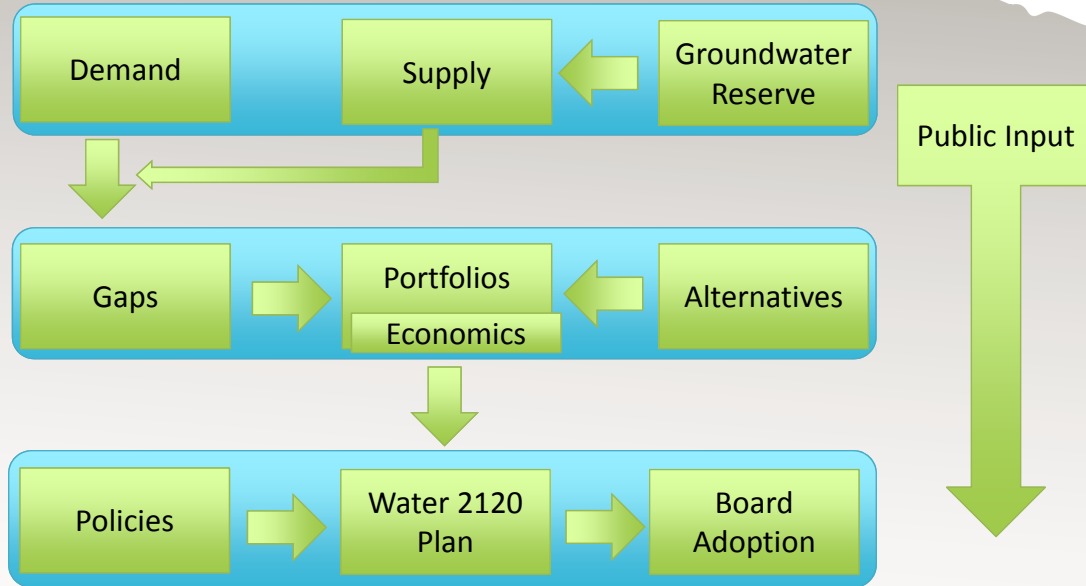
The Aquifer is Rising



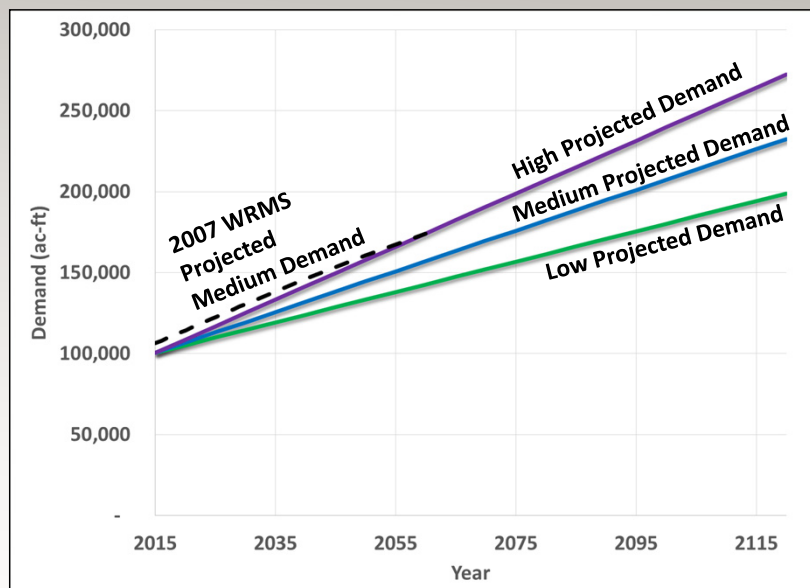
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Road Map for the Process *Framework for the Future*

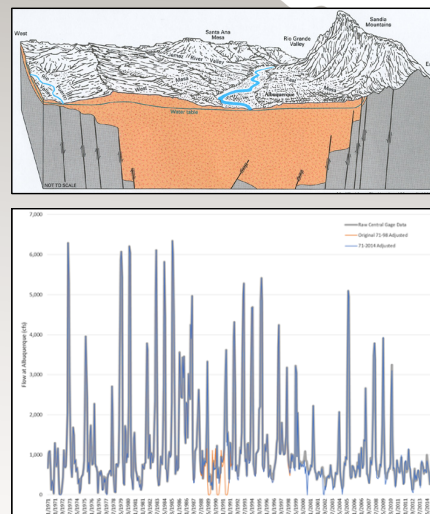


Range of Projected Demand

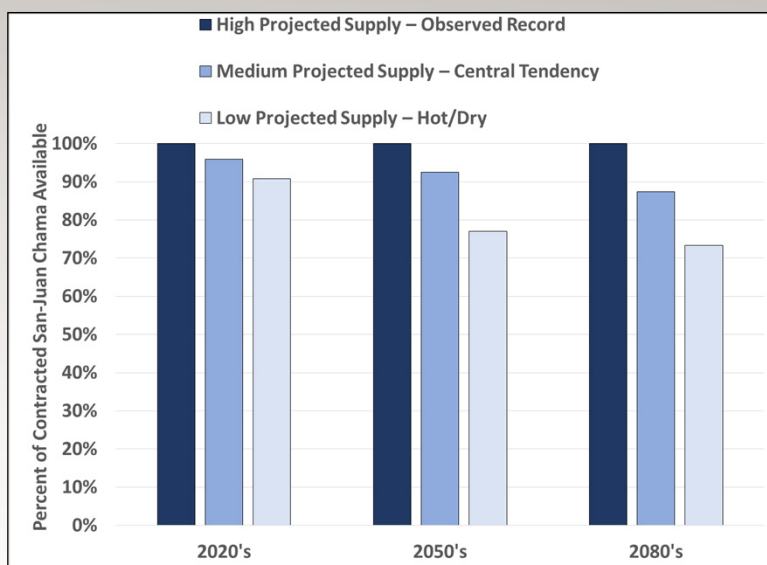


New Information on Supply

- Groundwater levels are known with relatively high certainty
- Surface water - we have developed time series of flow for low, medium, and high surface water supply – highly variable
- We considered the observed record, as well as potential climate variability

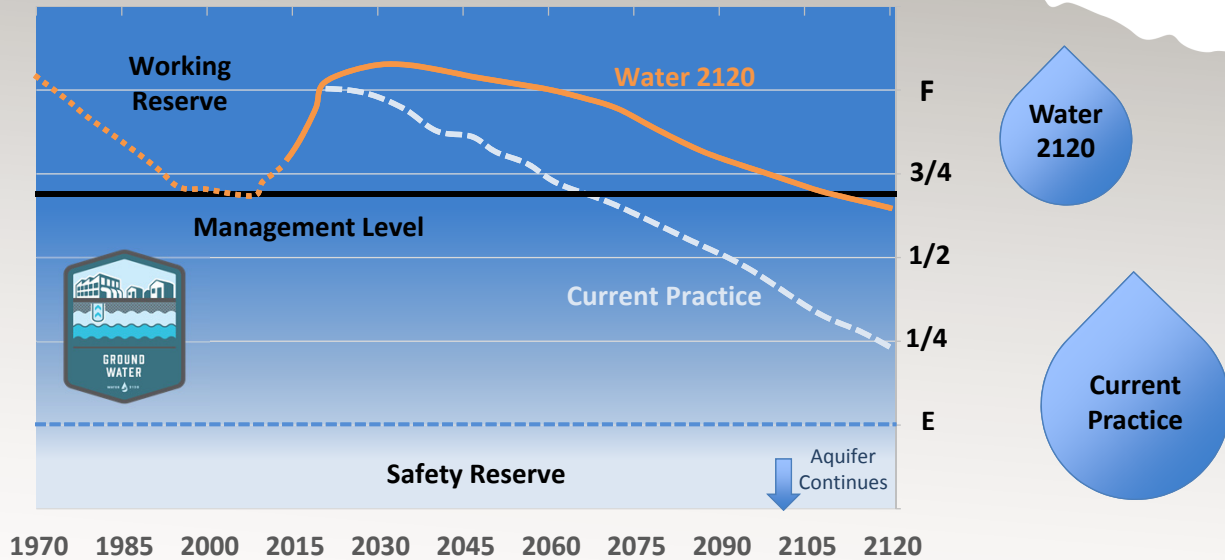


Supply Projections Include Historical and Climate Change



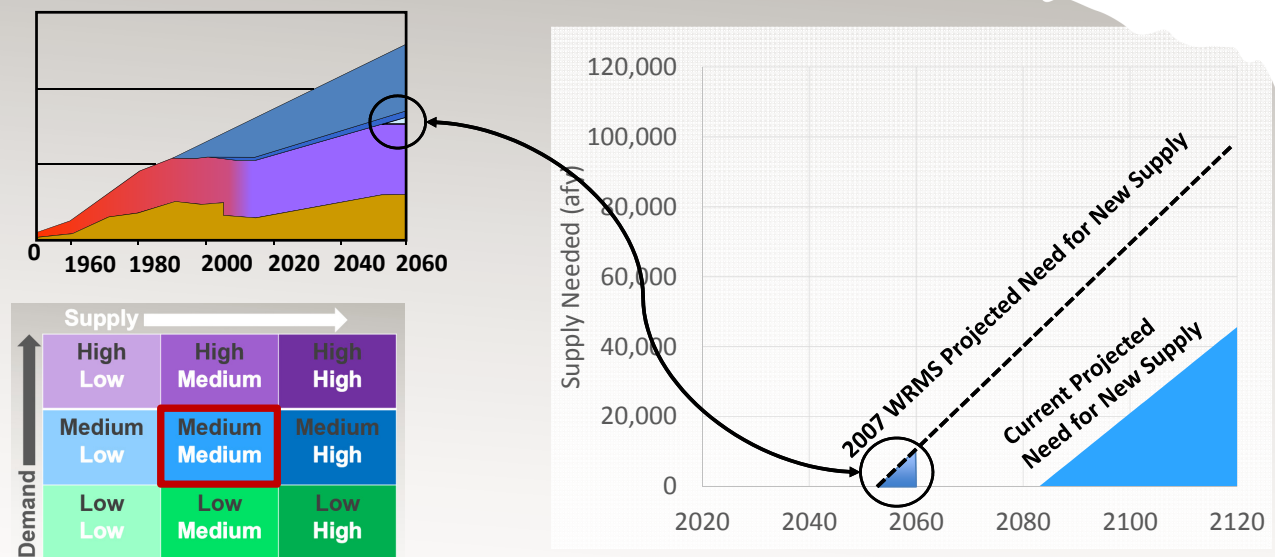
Groundwater Reserve Management

Albuquerque Bernalillo County
Water Utility Authority



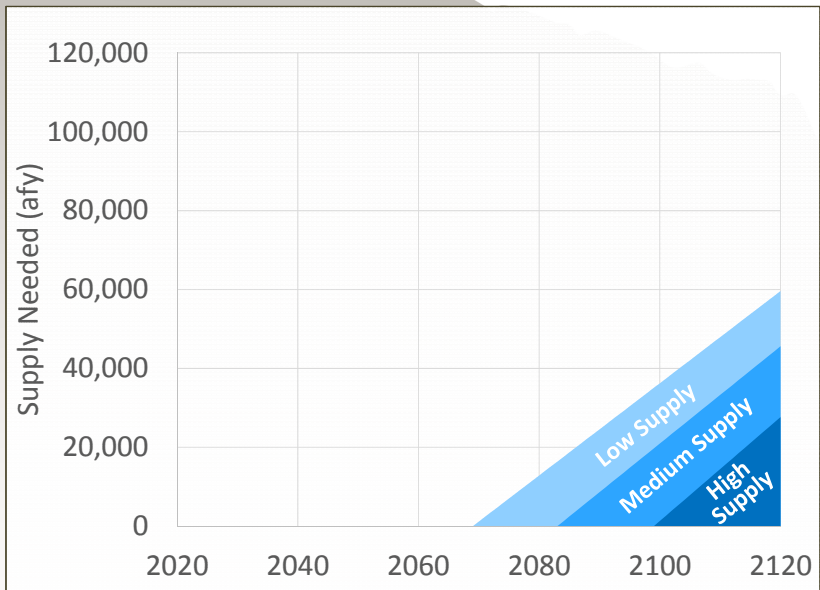
Current Projected Supply Need

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Range of Projected Supply Need: *Medium Demand*

	Supply →		
Demand ↑	High Low	High Medium	High High
	Medium Low	Medium Medium	Medium High
	Low Low	Low Medium	Low High

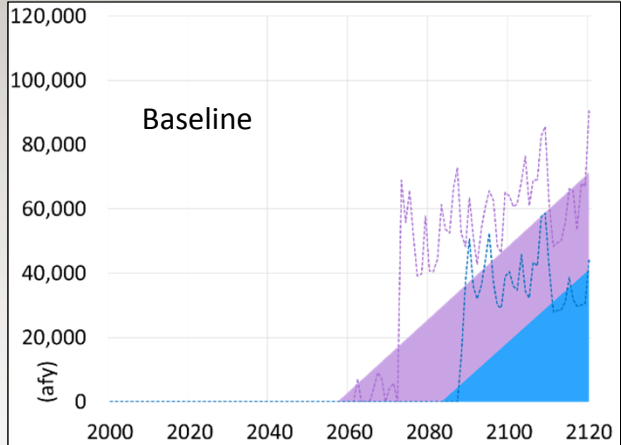
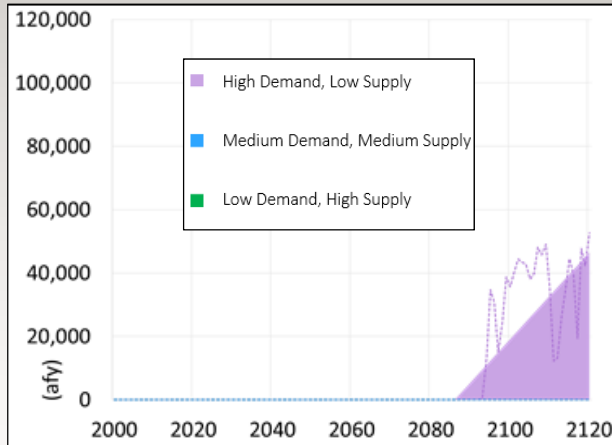


Meeting the Demand *Portfolio 1*

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

Portfolio 1 Performance

Supply Gaps



Example Results – Do Not Quote or Cite

Questions?

The Water Authority's Asset Management Program

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Drinking Water Assets

- San Juan Chama WTP
- Arsenic Removal WTPs
- Wells, Booster Pumping Stations
- Reservoirs
- Water Pipelines



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Wastewater Assets

- Sewage Collection Pipelines
- Sewage Lift and Vacuum Stations
- Southside Water Reclamation Plant
- Soil Amendment Facility



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Non-Potable Water Assets

- Northeast Non-Potable Water System
- Southeast Non-Potable Water System

Compliance Division Assets

- Analytical Laboratory at the SWRP
- Process Laboratory at the SJCWTP

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Asset Management

Definition:

An integrated set of processes to minimize the life-cycle costs of infrastructure assets, while maintaining acceptable levels of customer service and risk.

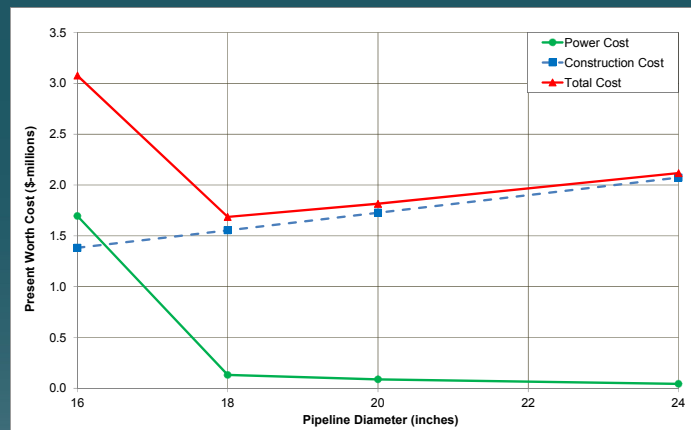
Life-Cycle Costs include all costs associated with an asset from planning and design, through construction, operation and maintenance, rehabs, and eventually decommissioning.

Risk = Probability of Failure multiplied by Consequence of Failure

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Asset Management

Example of Life Cycle Cost Analysis:



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Asset Management Program

2011 Asset Management Plan

- Evaluated over 200,000 assets
- Scheduled the asset renewal requirements largely based on their age and anticipated useful life plus through individual asset condition assessments
- Highest “risk” assets given priority for renewal
- Risk = Probability of Failure X Consequence of Failure

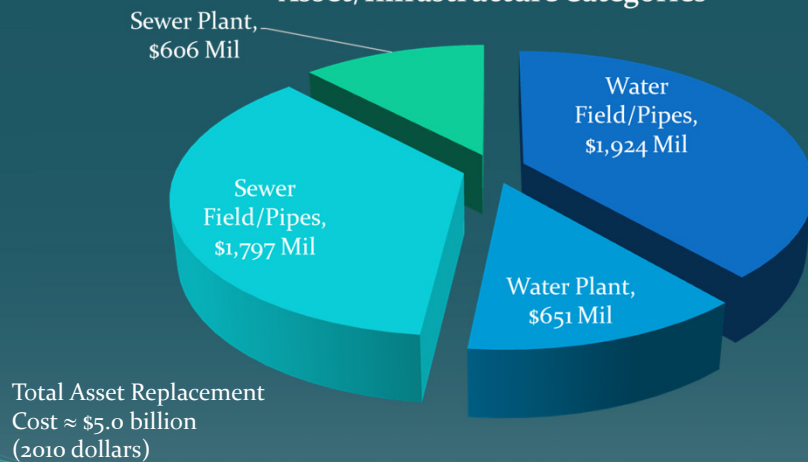


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Asset Management Program

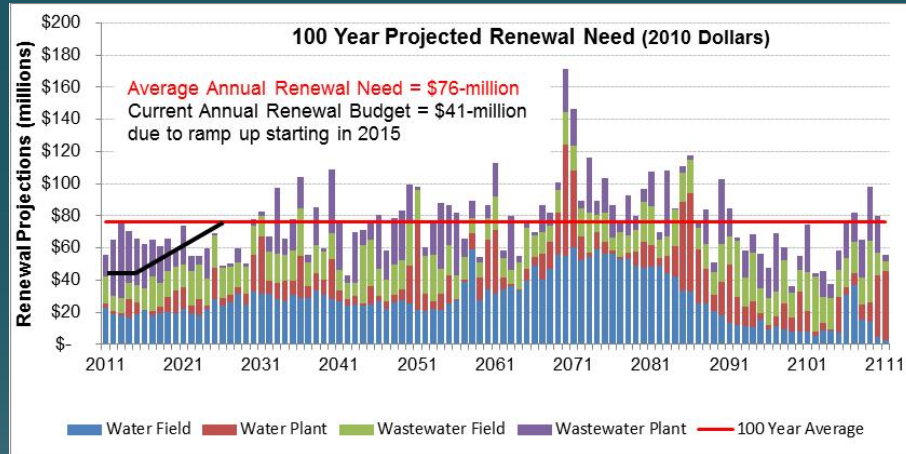
Asset/Infrastructure Categories



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Asset Management Program



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Asset Management Program

Falling behind in asset renewal may result in catastrophic failures such as sewer collapses



Westside Interceptor along Coors Blvd. between Blake and Barcelona. Repair Cost = \$2.6-million for 2,300 ft of 42" SAS.

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Asset Management Program

April 2011 Sewer Interceptor Collapse
Resulted in Untreated Sewage Overflow




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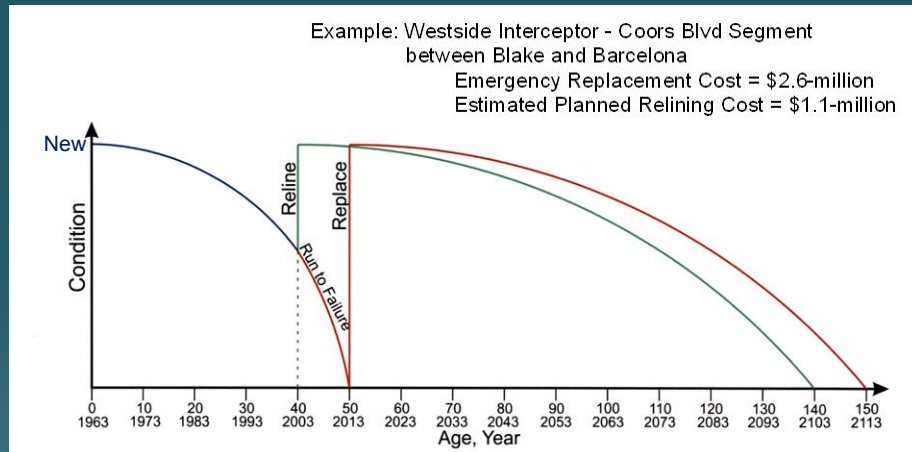
Video assessment of sewers



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Minimizing life-cycle cost by proactive rehab



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Asset Management Program

The “Level of Service” that the Water Authority provides to its rate payers is dependent on maintaining our water and wastewater assets.



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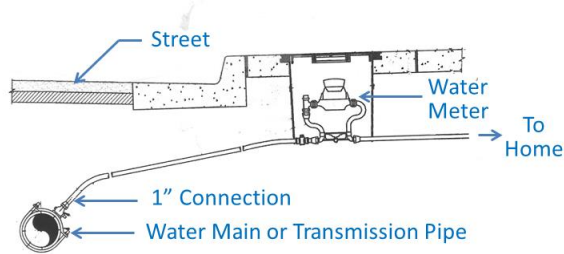
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Water Service Connection Breaks



Dozens of water service connections fail each year with repair costs typically in the \$3,000 to \$10,000 range, some have greater damage

Improper connections to larger diameter transmission lines have a higher risk of property damage



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College Reservoir: A critical west side asset in need of rehab



- 34 years old
- San Juan-Chama Terminal Reservoir
- College Arsenic Treatment Facility Finished Water Reservoir
- Key reservoir for College Trunk

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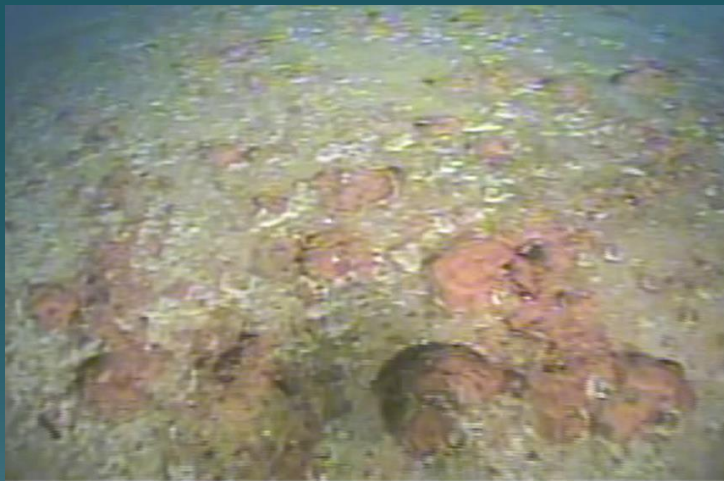
Videoring of reservoir interiors



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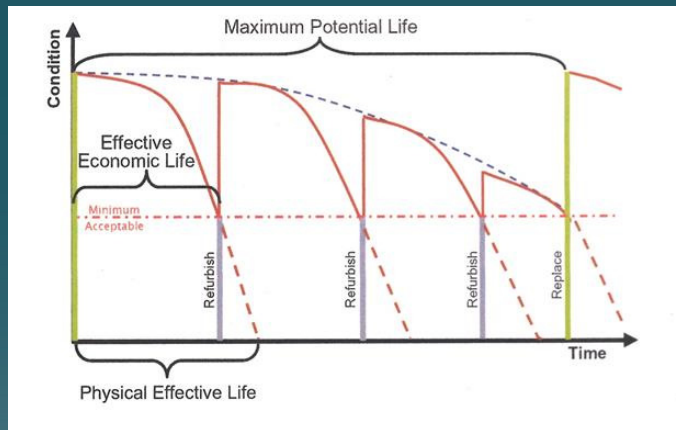
Rust nodules on College Reservoir floor



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Routine, proactive maintenance lengthens the life & reduces the life-cycle costs of our assets



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Groundwater Production Wells

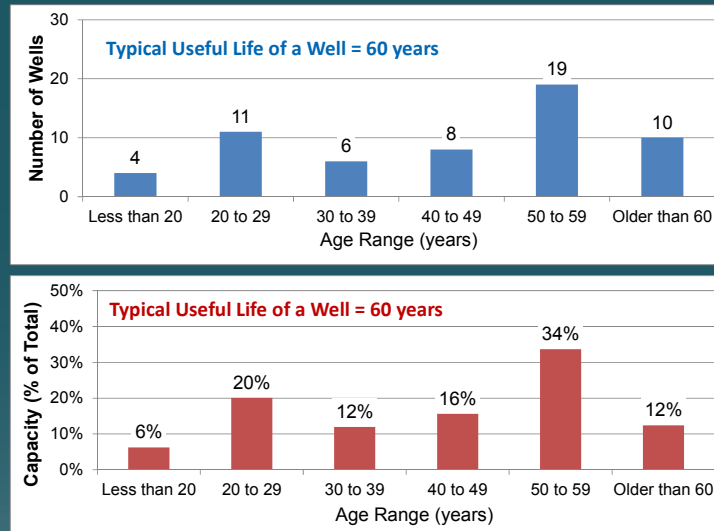


- Most currently operated wells were developed in the 1950's through 90's
- 27 wells are not used due to high arsenic levels
- 58 wells are low in arsenic or are treated to remove arsenic
- Total available capacity \approx 175 mgd
- Peak summer time demand \approx 150 mgd

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Water Authority wells are aging

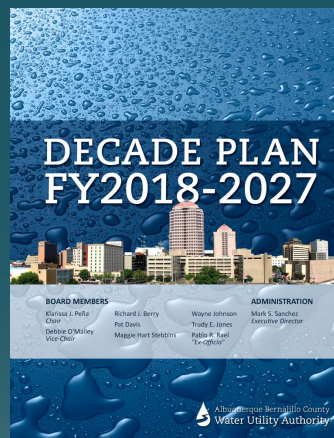


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FY2018-2027 Decade Plan

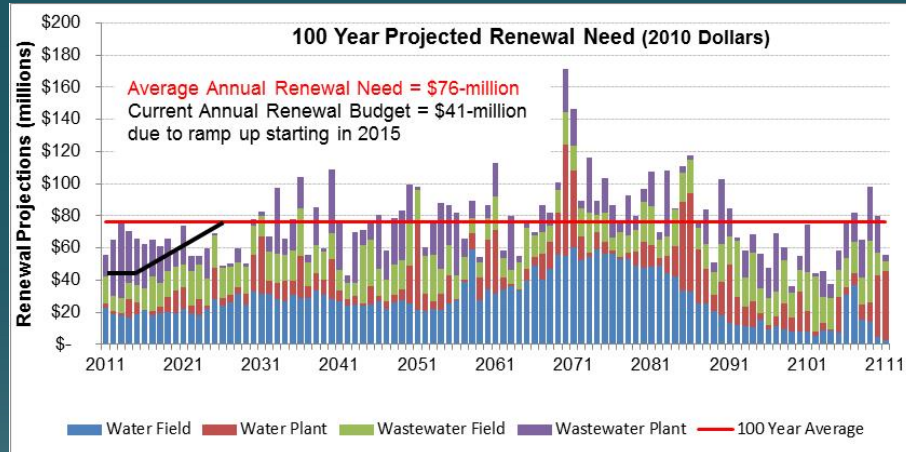
- Identifies capital projects for next 10 years
- Developed every 2 years
- Direct Link to Water Authority's Financial Plan to proposed capital needs
- Incorporates data and analysis from Asset Management Plan



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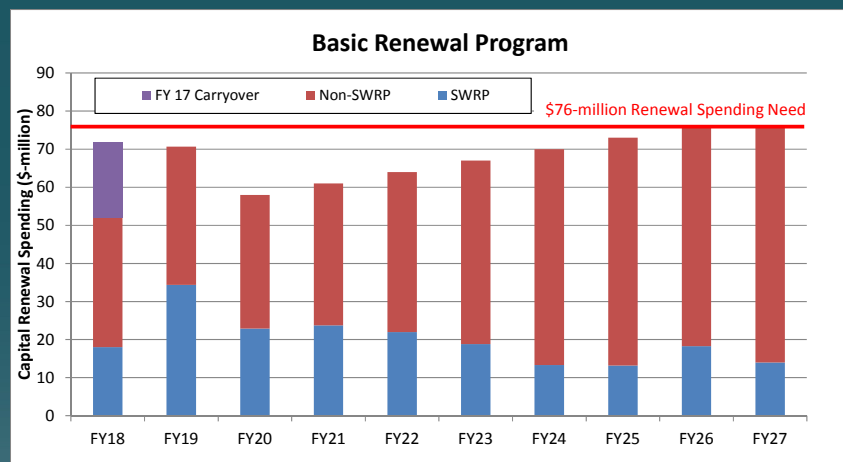
Asset Management Program defines needed CIP renewal spending



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Projected Spending per the FY2018-2027 Decade Plan



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Update of the 2011 Utility Wide Asset Management Plan

- Incorporate data from 10-year specific category asset management plans:
 - Southside Water Reclamation Plant
 - Large Diameter Sewer Interceptors
 - Large Diameter Water Transmission Lines
 - Small Diameter Water and Sewer Lines
 - Lift Stations and Vacuum Stations
 - Wells
 - Reservoirs
 - Vehicles and Mobile Equipment
- Add all “capital assets” to Maximo asset registry

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Update of the 2011 Utility Wide Asset Management Plan

- Re-evaluate risk scoring using triple bottom line parameters
- Re-estimate current asset renewal backlog
- Revise 100-year forecast of annual renewal spending needs in terms of current dollars

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