



Technical Customer Advisory Committee

AGENDA

Members

Melissa Armijo
Janie Chermak
Robert Fowlie
Dave Hill

Erwin Melis
Amy Miller
Ron Schwarzwaldner
Scott Verhines

Thursday, February 6, 2020

4:00 PM

OneABQ GC – 7th Floor
Conference Room 7096

- | | |
|---|-----------|
| 1. Call to Order | 4:00-4:05 |
| 2. Approval of Agenda | 4:05-4:10 |
| 3. Approval of January 9, 2020 Action Summary | 4:10-4:15 |
| 4. Presentation on the Water System Overview | 4:15-5:55 |
| 5. Public Comment | 5:55-6:00 |
| 6. Adjournment | 6:00 |

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

January 9, 2020

Members Present:

Melissa Armijo
Dave Hill
Erwin Melis
Amy Miller
Ron Schwarzwald

Members Excused:

Janie Chermak
Robert Fowlie
Scott Verhines

Water Authority Staff Present:

Mark Kelly, Compliance Division Manager
Elizabeth Anderson, Chief Innovation & Performance Manager

Item 1 – Call to Order - Note presence of quorum

The meeting was called to order at 4:02 pm by Water Authority staff member Elizabeth Anderson. Chair Janie Chermak was not able to attend the meeting. Vice Chair Andrew Bernard resigned as noted in the November 7, 2019 action summary. Consequently, Water Authority staff ran the meeting up to the point where the new chair and vice-chair were elected.

Item 2 – Approval of Agenda

Ron Schwarzwald made a motion to approve the agenda. Erwin Melis seconded the motion. The motion passed on an 5-0 vote.

For: 5 Armijo, Hill, Melis, Miller, Schwarzwald
Against: 0
Excused: 3 Chermak, Fowlie, Verhines

Item 3 – Election of Chair/Vice-Chair

Ron Schwarzwald nominated Amy Miller for the position of chair. Amy Miller nominated Ron Schwarzwald for the position of vice-chair. Erwin Melis seconded the motions. The motions passed on a 5-0 vote.

For: 5 Armijo, Hill, Melis, Miller, Schwarzwaldner
Against: 0
Excused: 3 Chermak, Fowlie, Verhines

Item 4 – Approval of November 7, 2019 Action Summary

Melissa Armijo made a motion to approve the action summary. Erwin Melis seconded the motion. The motion passed on an 5-0 vote.

For: 5 Armijo, Hill, Melis, Miller, Schwarzwaldner
Against: 0
Excused: 3 Chermak, Fowlie, Verhines

Item 5 – Presentation on the Water Authority's new NPDES Permit

Mark Kelly gave a presentation on the new NPDES permit recently issued by EPA to the Water Authority. The presentation included an overview of what an NPDES permit is and the purpose of this permit, the Water Authority's NPDES Program, and recent changes to the NPDES permit.

Item 6 – Approval of Open Meetings Resolution

Ron Schwarzwaldner made a motion to approve the resolution. Dave Hill seconded the motion. The motion passed on a 5-0 vote.

For: 5 Armijo, Hill, Melis, Miller, Schwarzwaldner
Against: 0
Excused: 3 Chermak, Fowlie, Verhines

Item 7 – Approval of 2020 Work Plan

TCAC members reviewed the work plan and suggested that field trips be provided to supplement the presentations providing overviews of the water and wastewater system operations, such as field trips to the San Juan Chama Surface Water Treatment Plant and diversion facilities, pump stations, and the Southside Water Reclamation Plant. TCAC members also expressed interest in seeing benchmarks/metrics relating to Water 2120, which is a topic that would be covered during the presentations on FY21 Goals & Objectives and Water 2120 Projects and Plans. Erwin Melis made a motion to approve the 2020 Work Plan. Melissa Armijo seconded the motion. The motion passed on a 5-0 vote.

For: 9 Armijo, Hill, Melis, Miller, Schwarzwaldner
Against: 0
Excused: 0 Chermak, Fowlie, Verhines

Item 8 – Public Comment

None.

Item 9 – Adjournment

The meeting concluded at 5:02 pm.

DRAFT

Water System Overview

Scott J. Salvas, P.E.
Chief Engineer – Surface Water



1

Water System Overview

- Primary Sources of Supply
 - Surface Water
 - Groundwater
- Components of the Water System
 - Pipes
 - Pumps
 - Reservoirs
 - Valves
 - Meters
- Water Transmission and Distribution



2

FACILITIES WE OPERATE, WATER WE PRODUCE

- WE MANAGE AND OVERSEE OVER 150 SEPARATE PROPERTIES
- 90 MGD SURFACE WATER TREATMENT PLANT
- 85 GROUNDWATER WELLS
 - 58 ACTIVE GROUNDWATER PRODUCTION WELLS= 176 MILLION GALLONS PER DAY CAPACITY
 - 27 ADDITIONAL HIGH ARSENIC WELLS IN RESERVE
- 3 ARSENIC TREATMENT FACILITIES
- 40 DISINFECTION SYSTEMS



3

FACILITIES WE OPERATE, WATER WE PRODUCE

- 45 PUMP STATIONS
 - 39 POTABLE PUMP STATIONS = OVER 700 MILLION GALLONS PER DAY OF PUMPING CAPACITY
 - 6 NON-POTABLE PUMP STATIONS
- 66 WATER STORAGE RESERVOIRS
 - 61 POTABLE RESERVOIRS = 233 MILLION GALLONS STORAGE
 - 5 NON-POTABLE RESERVOIRS = 7.2 MILLION GALLONS STORAGE



4

FACILITIES WE OPERATE, WATER WE PRODUCE

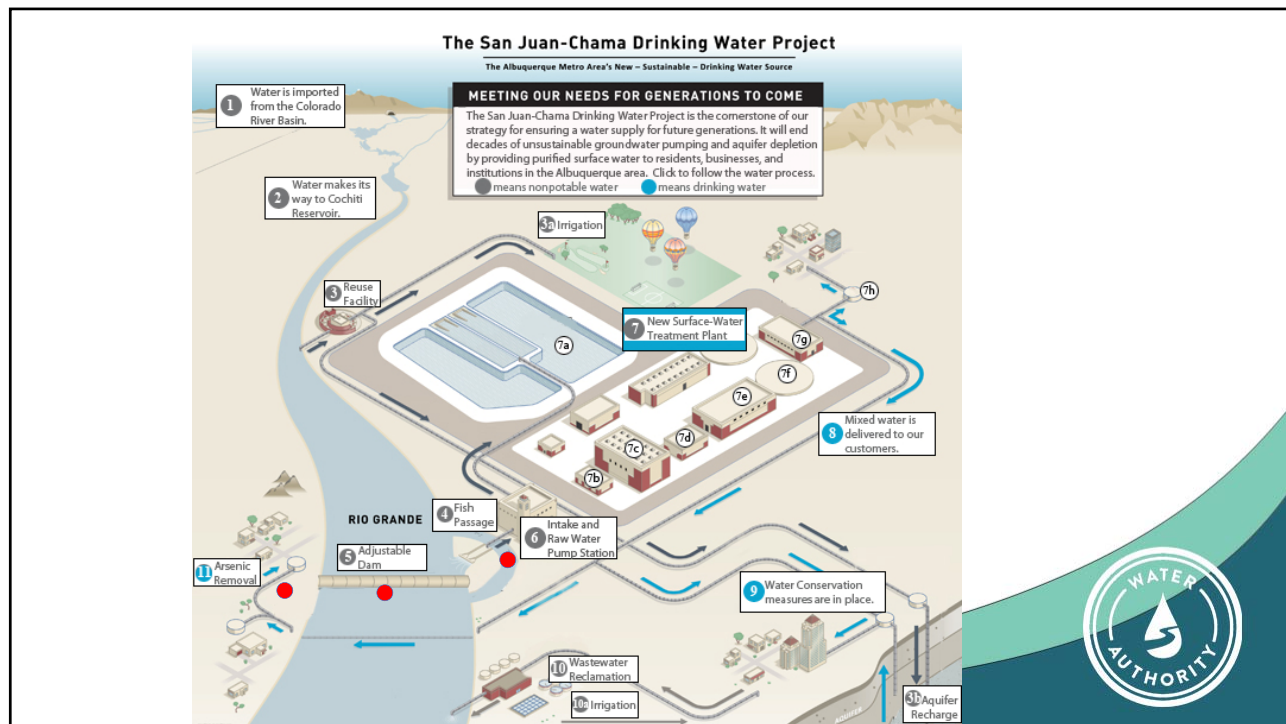
- CAPACITY TO TRANSPORT 84 MILLION GALLONS OF TREATED SURFACE WATER PLUS GROUNDWATER TO DISTRIBUTE ACROSS THE ENTIRE SERVICE AREA
- 3,000+ MILES OF PIPE
- 45,000 ISOLATION VALVES
- 215 PRESSURE REDUCING VALVES
- 18,000+ FIRE HYDRANTS
- 210,000+ SERVICE METERS



5



6

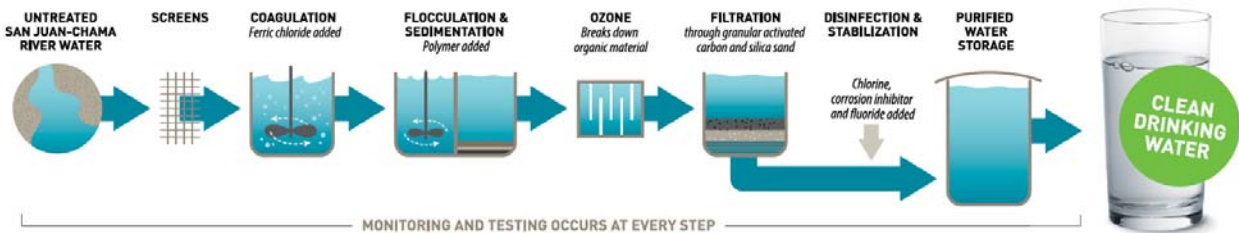


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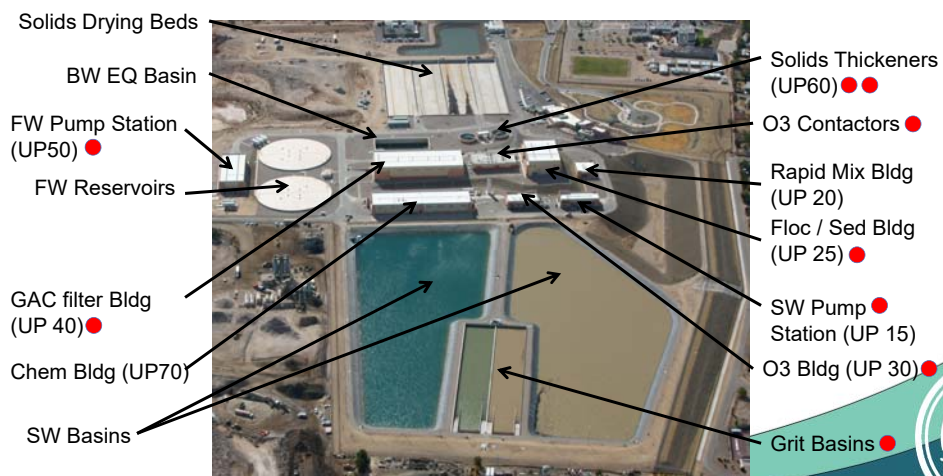
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How is Surface Water Treated and Tested

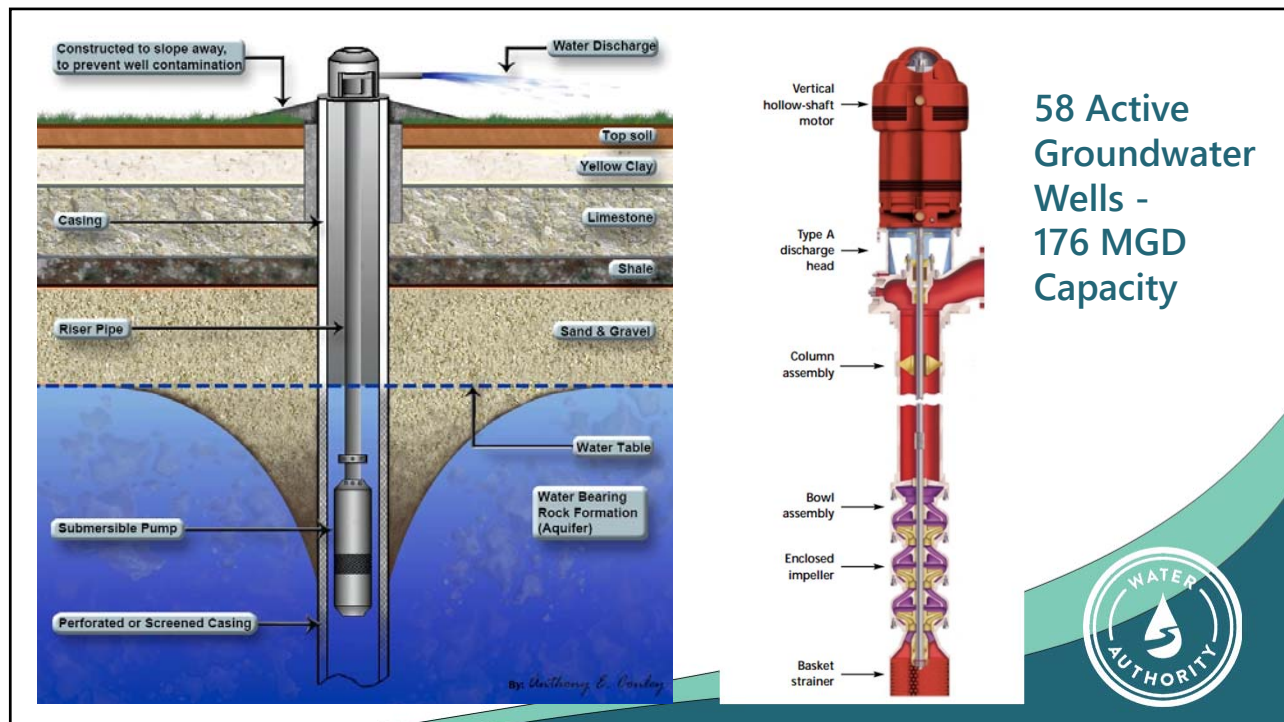


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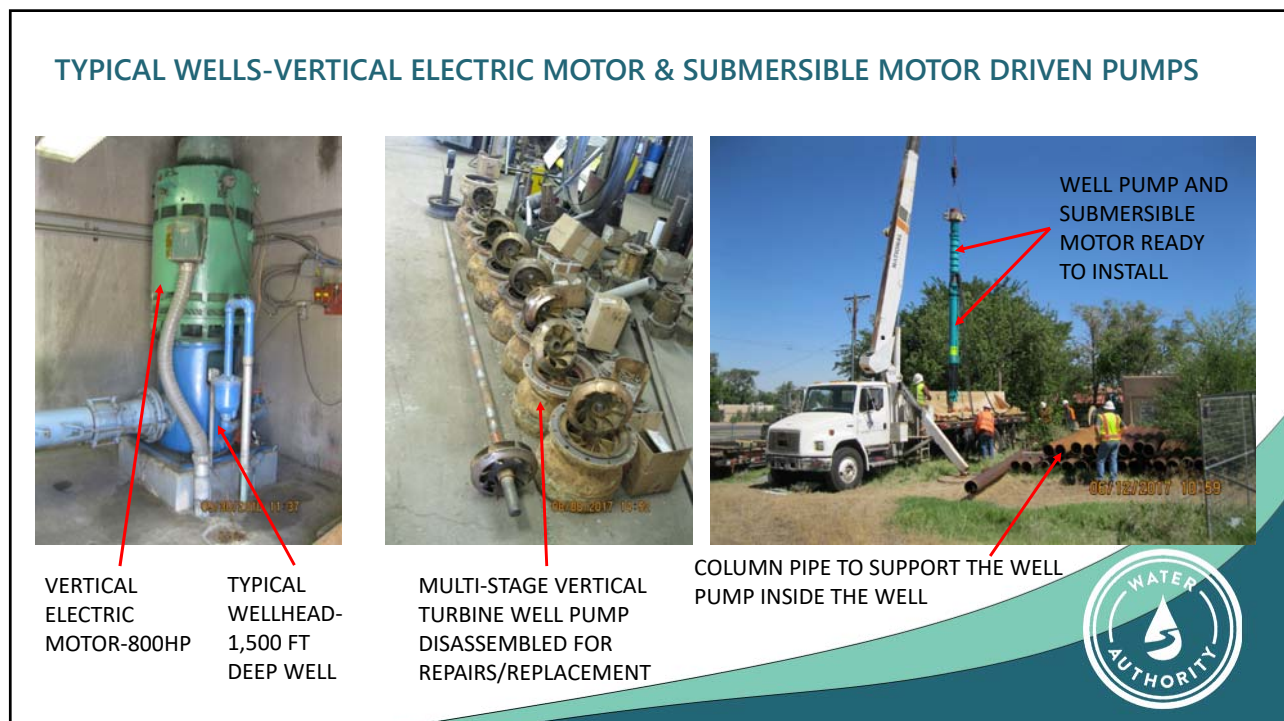
San Juan Chama Water Treatment Plant 90 MGD Capacity



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11



12

TYPICAL DISINFECTION SYSTEM FOR WELL WATER-WE GENERATE WEAK BLEACH SOLUTION



SALT TANK TO PRODUCE A HEAVY BRINE SOLUTION



ON-SITE GENERATED 0.8% SODIUM HYPOCHLORITE (WEAK BLEACH) LIQUID TO DISINFECT WELL WATER



STORAGE TANK WITH 0.8% SOLUTION BEFORE WELL WATER DISINFECTION



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TYPICAL PUMP STATIONS



3~400 HP ELECTRIC MOTORS

4~HORIZONTAL SPLIT-CASE PUMP (5,000 GPM, 7.2 MILLION GALLONS PER DAY)

PUMP CONTROL VALVE

DURANES PUMP STATION – 21.6 MILLION GALLONS PER DAY CAPACITY



THOMAS PUMP STATION- 43.2 MILLION GALLONS PER DAY CAPACITY

6~600 HP VERTICAL ELECTRIC MOTORS

6~VERTICAL TURBINE PUMPS (6,500 GPM, 9.4 MILLION GALLONS PER DAY CAPACITY)



4,160 VOLT MOTOR CONTROL CENTER TO OPERATE PUMPS



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TYPICAL UNDERGROUND PUMP STATION



OTTO PUMP STATION – 11,600 GPM (16.7 MILLION GALLONS PER DAY)

24,000 GAL SHOCK ABSORBER SURGE TANK

ELECTRICAL-CONTROLS BUILDING

UNDERGROUND PUMP STATION



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620 HP SUBMERSIBLE MOTOR AND 6,000 GPM (8.6 MILLION GALLON PER DAY) PUMP



INSTALLED PUMP AND MOTOR ASSEMBLY



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RESERVOIRS-STEEL AND CONCRETE



OTTO RESERVOIR – 4.2
MILLION GALLONS

- DIAMETER=175 FT
- DEPTH=24 FT



ECHO CANYON
RESERVIOR-0.38
MILLION GALLONS

- DIAMETER=45 FT
- DEPTH=32 FT



GLENWOOD
RESERVOIR 2- 4.8
MILLION
GALLONS

- MULTI-USE
FACILITY WITH
PUBLIC TENNIS
COURTS

ARROYO DEL OSO
NON POTABLE
RESERVOIR



17

SAN JUAN CHAMA FLOW CONTROL VAULTS-WHERE SURFACE WATER IS DELIVERED TO POTABLE RESERVOIRS



UNDEGROUND CONCRETE
VALVE VAULT



INFLOW CONTROL VALVE
TO DELIVER UP TO 30
MILLION GALLONS PER DAY
OF SURFACE WATER AT
EACH OF 7 SITES



18

3,000 Miles of Pipelines (6" to 72")



19

45,000 Isolation Valves (2" – 66")

- Contractor shut offs
- Valve assessments/exercising



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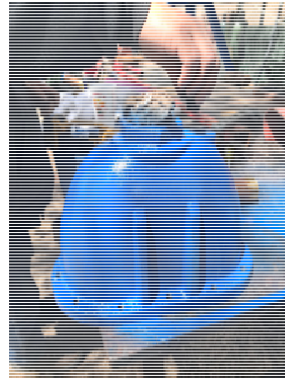
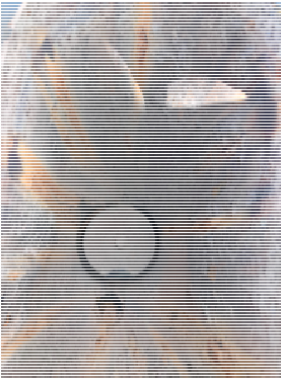
- Over 125 vaults containing 215 individual PRV's ranging in size from 2" to 16"



21



22



- Air and Vacuum Relief Valves



23

18,000 Fire Hydrants - Repairs & Replacements



24

210,000 METERS

- 100,000 Meters are AMI Equipped
- Remaining 100,000 Meters will be AMI Equipped within 5 years
- Leveraging AMI-Using AMI for distribution pressure and temperature



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Aquifer Storage and Recovery (ASR)

Purpose: to store San Juan – Chama water in the aquifer for future use

Current projects:

Bear Canyon – surface water infiltrating through the bed of the arroyo

Drinking Water Plant Wells – two wells being tested. One in the vadose zone and one all the way into the water table



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Bear Canyon ASR



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BREAK & HYDRAULICS ACTIVITY



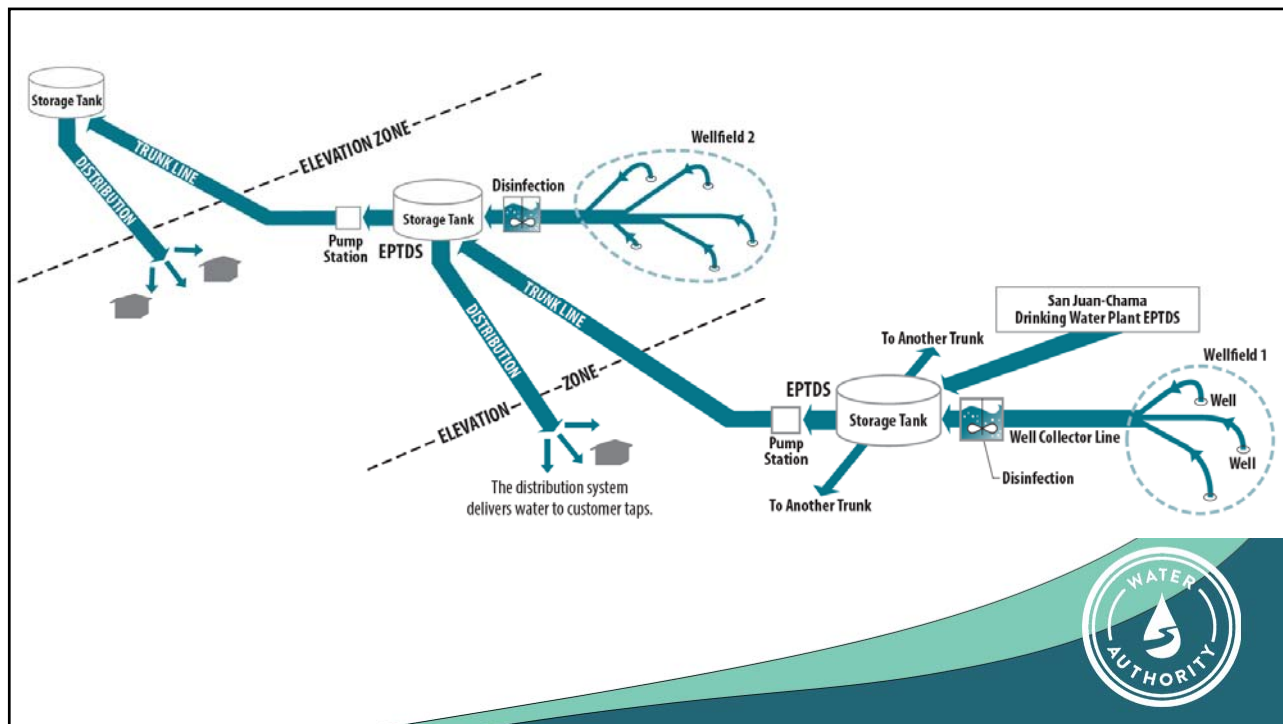
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Water Transmission & Distribution

- Water is transmitted along East-West trunks to service pressure zones that run North-South
- 4 Eastside trunks
- 5 Westside Trunks
- 12 Eastside pressure (service) zones
- 9 Westside pressure (service) zones
- 2 Non-potable Trunks
- In general, water is pumped up to reservoirs at night and water flows via gravity during the day.



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QUESTIONS?



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