



**Technical
Customer Advisory Committee**

AGENDA

Members

Elias Archuleta
Mark Begay
John Fleck
Brian Freeman
Kerry J. Howe

Donald T. Lopez
Anjali Mulchandani
Jill Peterson
Mario Nuño-Whelan

Attendance: Public participation for this meeting will be via WebEx video conference. To request login information for this meeting contact Jordan Salas at jsalas@abcwua.org or 505-289-3100. Requests for login information must be received before 2:00 PM on Thursday, November 7, 2024. Public comment must be submitted via email to Jordan Salas at jsalas@abcwua.org before 2:00 PM on Thursday, November 7, 2024.

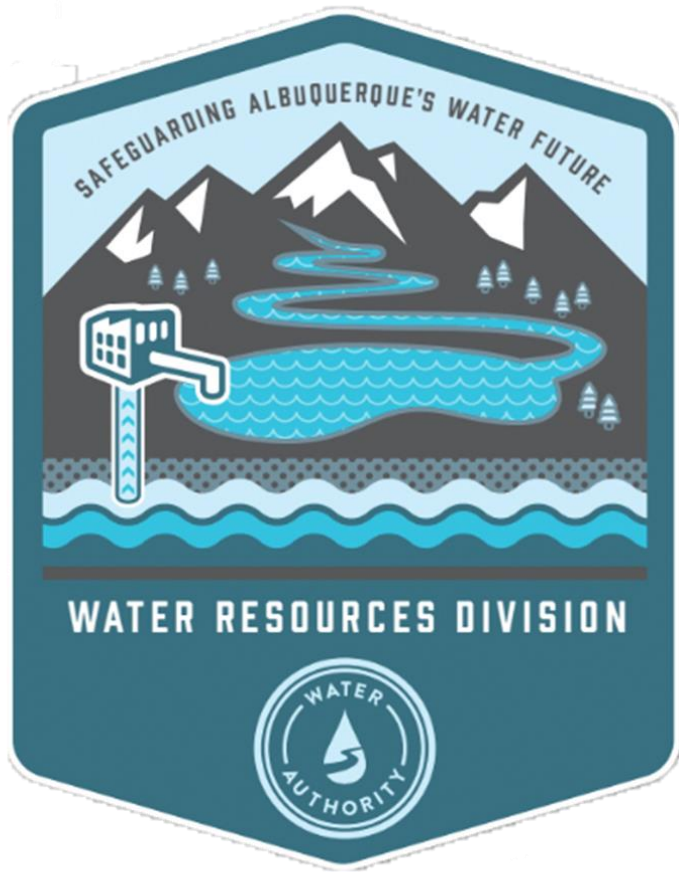
Thursday, November 7, 2024

4:00 PM

**1441 Mission Ave NE
Conference Room 204**

1. Call to Order
2. Approval of Agenda
3. Approval of October 3, 2024, Action Summary
4. Public Comment
5. Water Report
6. Groundwater Management Plan Update
7. Rio Chama Sediment Plug
8. CIP Update
9. Other Business
10. Adjournment

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.



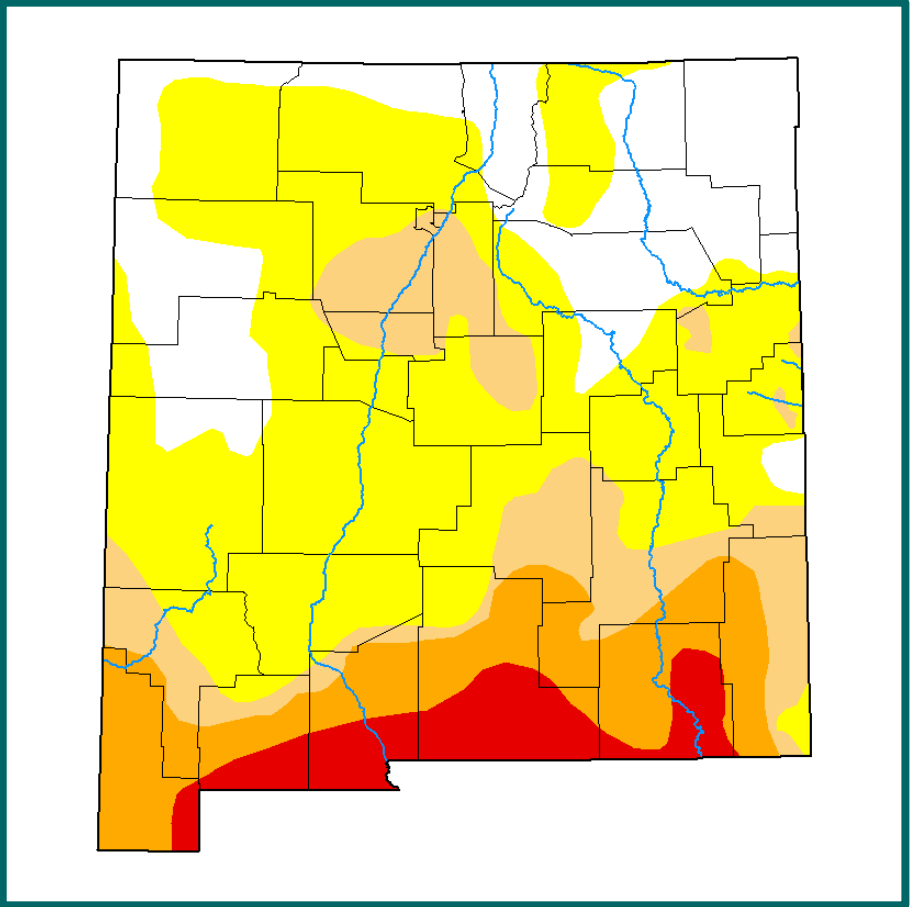
Water Resources Division

Water Report

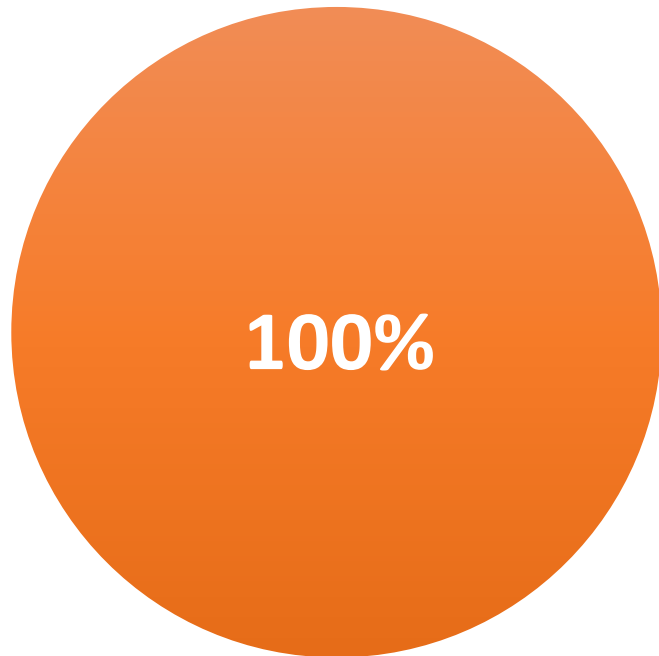
Mark Kelly, PE
Water Resources Manager



🚰 SUPPLY METRICS SNAPSHOT 🚰

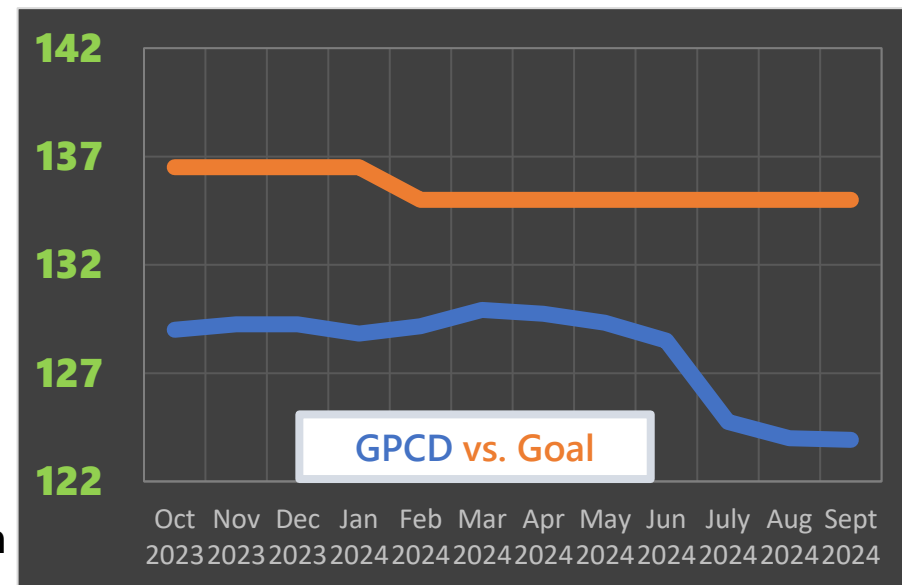
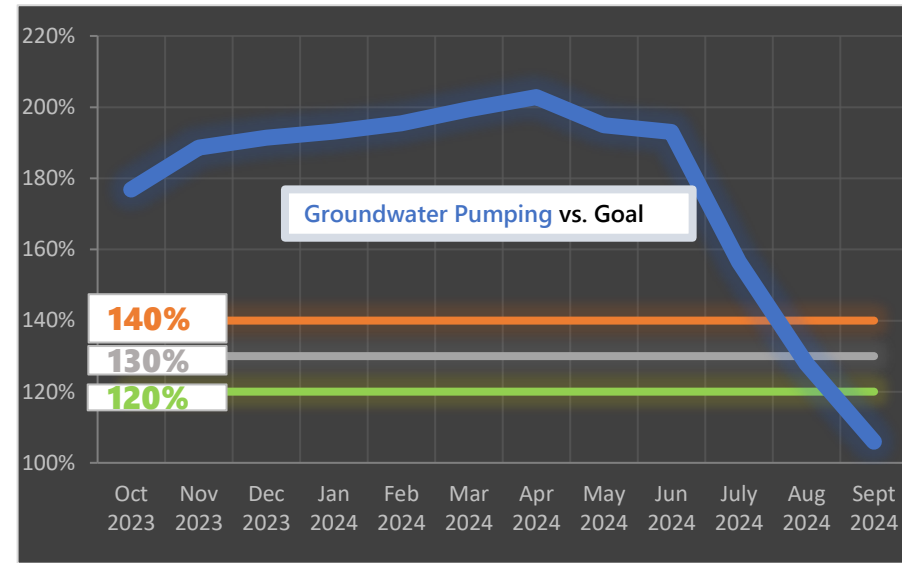
October 2024 (September Demand Data)



Water Authority
Drought Stage: N/A



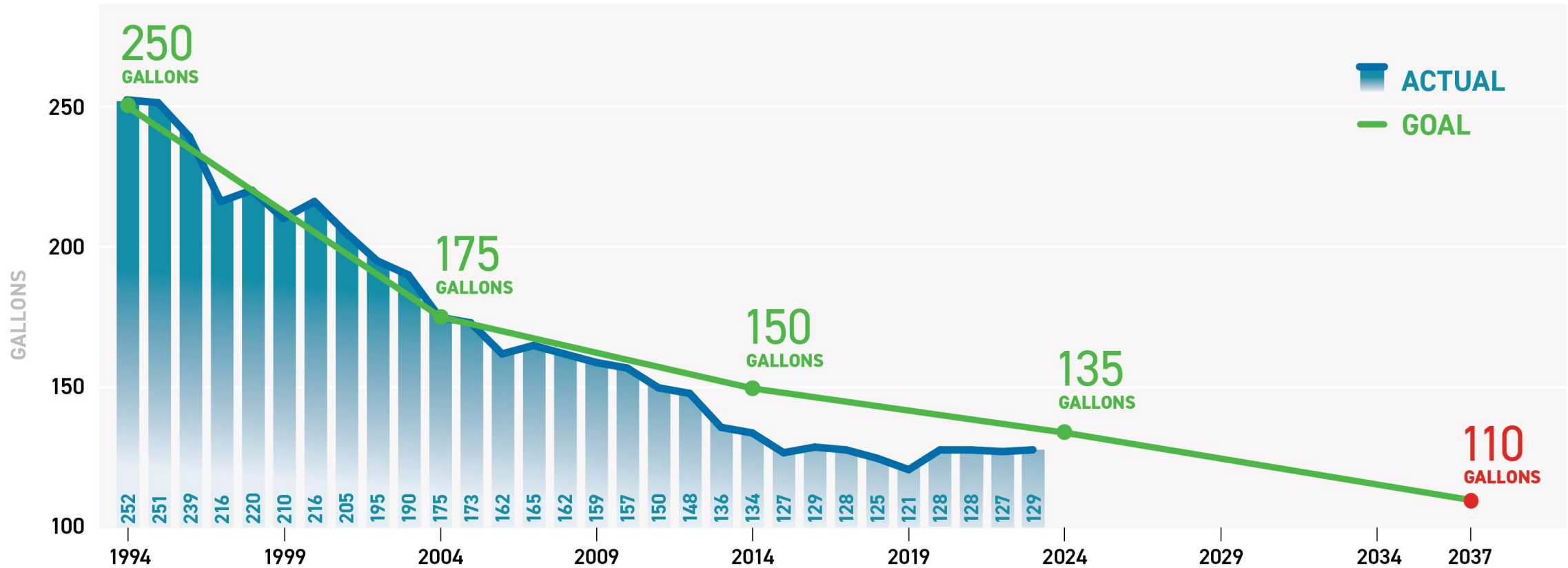
-  Groundwater Production
-  Surface Water Production



Long Term GPCD



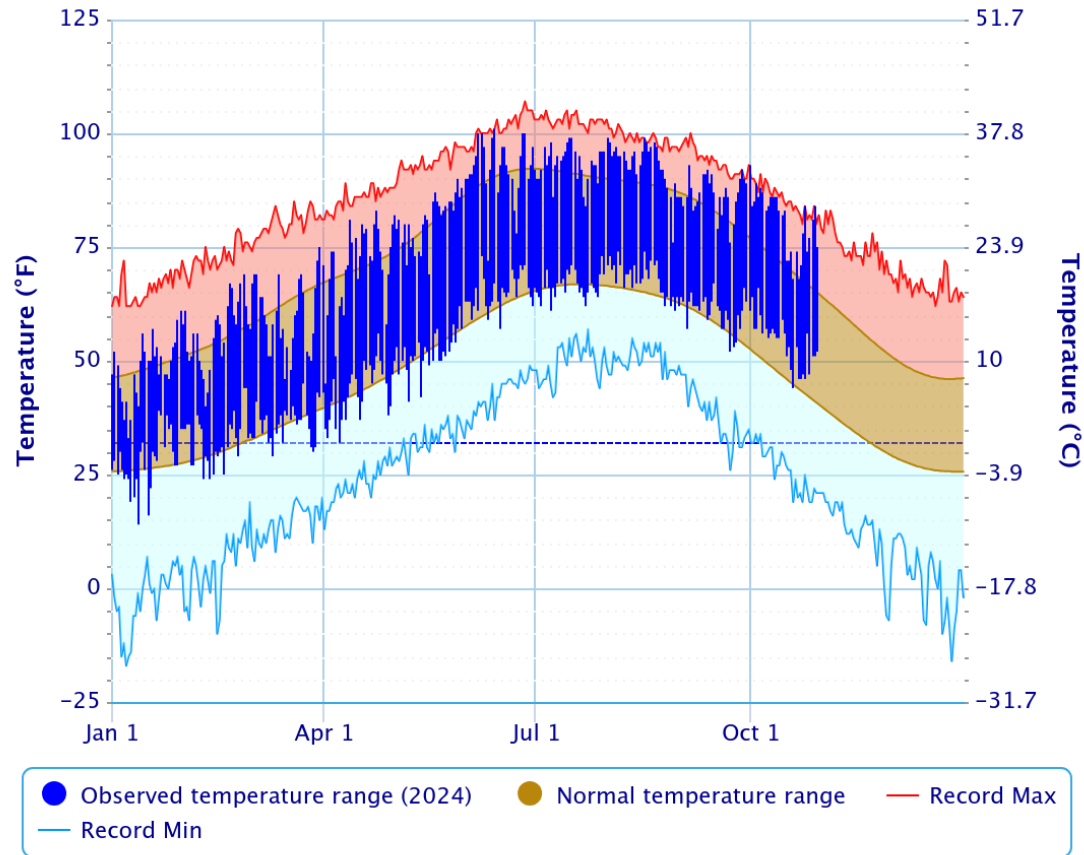
Gallons Per Capita Per Day, 1994-2037



Temperature and Precipitation

Daily Temperature Data – Albuquerque Area, NM (ThreadEx)

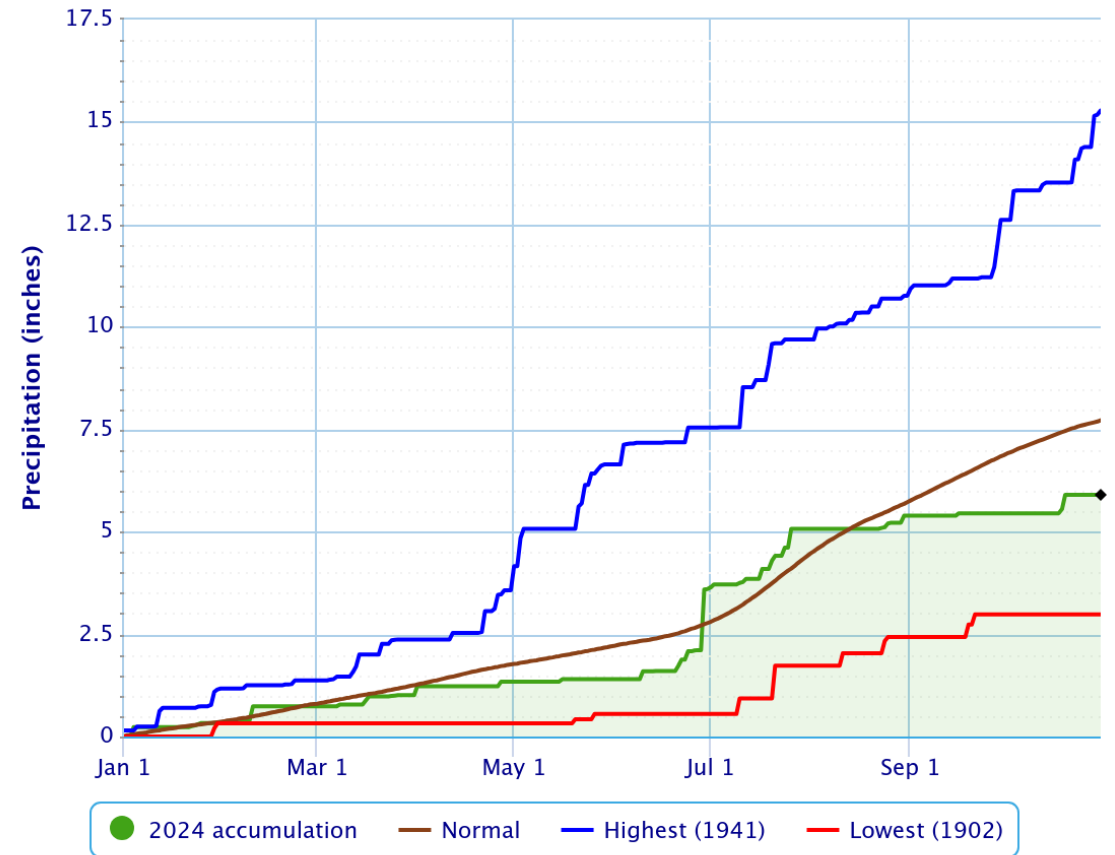
Period of Record – 1891–12–01 to 2024–10–29. Normals period: 1991–2020. Click and drag to zoom chart.



Powered by ACIS

Accumulated Precipitation – Albuquerque Area, NM (ThreadEx)

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values

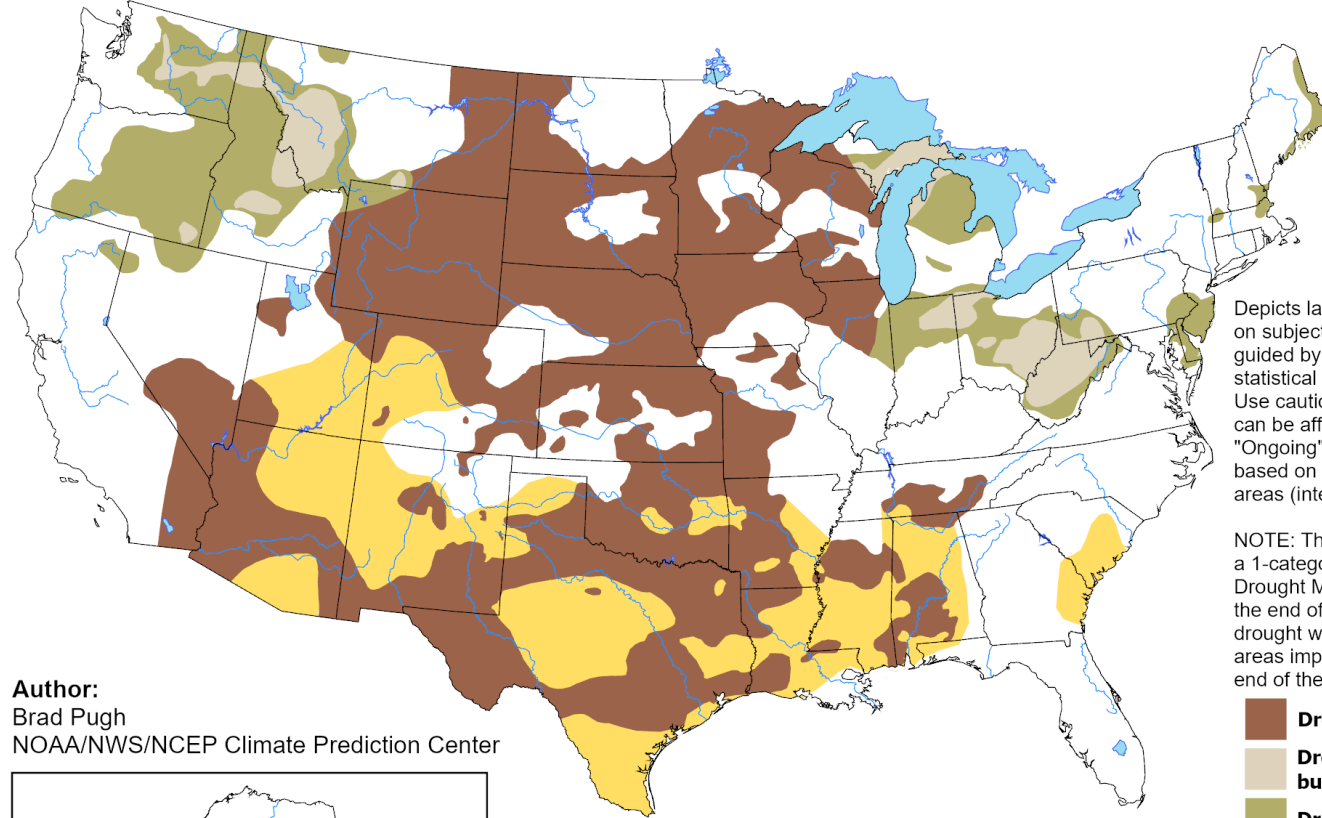


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Drought Outlook



U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for October 17, 2024 - January 31, 2025
Released October 17, 2024

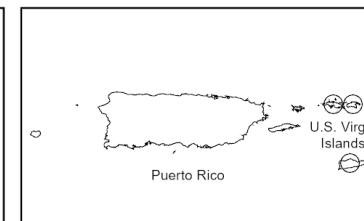
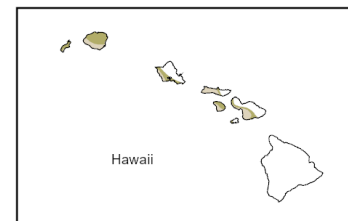


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

-  Drought persists
-  Drought remains, but improves
-  Drought removal likely
-  Drought development likely
-  No drought

Author:
Brad Pugh
NOAA/NWS/NCEP Climate Prediction Center



<https://go.usa.gov/3eZ73>



Questions?

Groundwater Status Update

Groundwater Management Level and Aquifer Response

Diane Agnew
Water Rights Program Manager
November 7, 2024

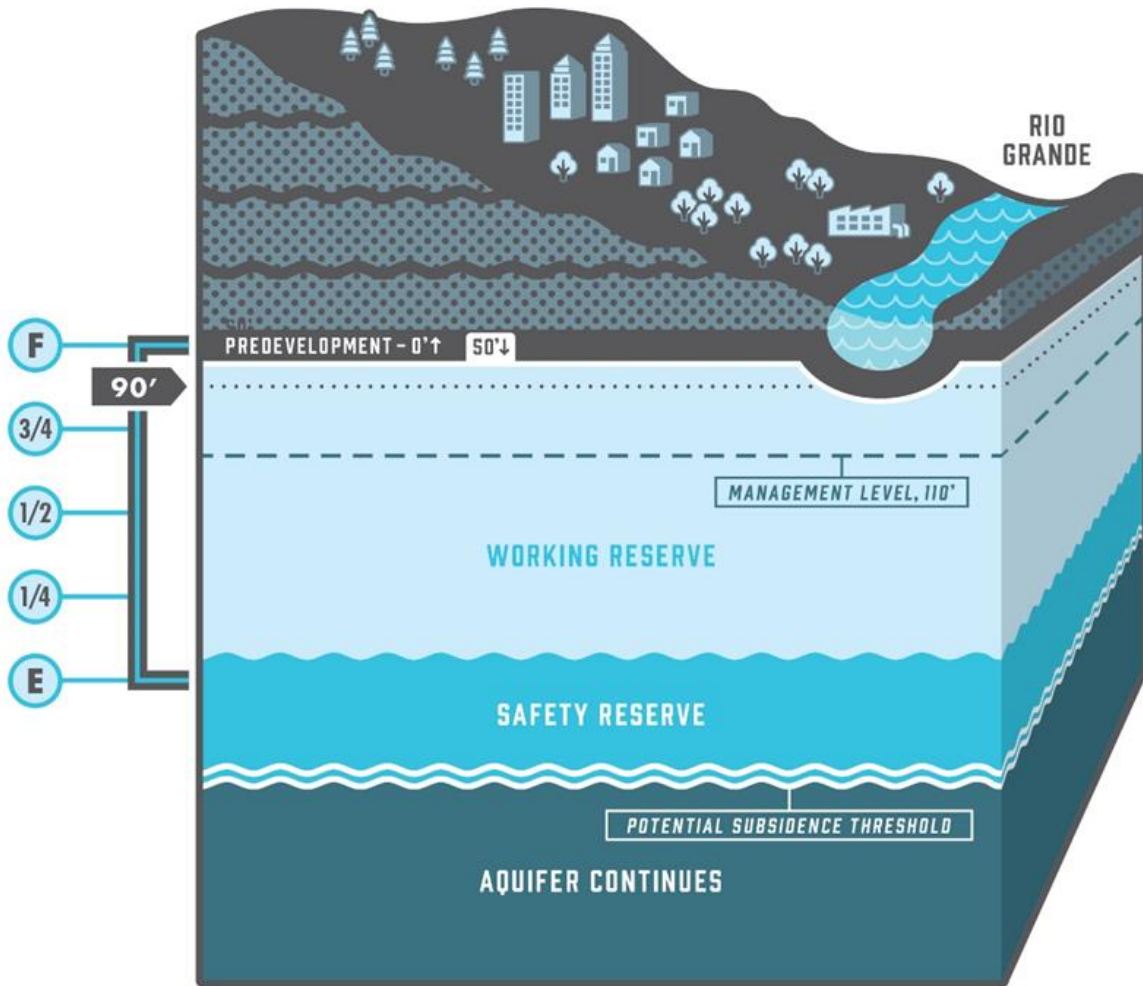
Water 2120 and Groundwater Management

- *Groundwater Management Plan* is one of four implementation plans
- Collaboration with USGS for real-time and manual monitoring of aquifer levels
- Annual Open File reports with the New Mexico Bureau of Geology and Mineral Resources

Policy C: Establish and Maintain a Groundwater Reserve

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.

Groundwater Management Levels



Graph not to scale

Target: 110 feet for average drawdown

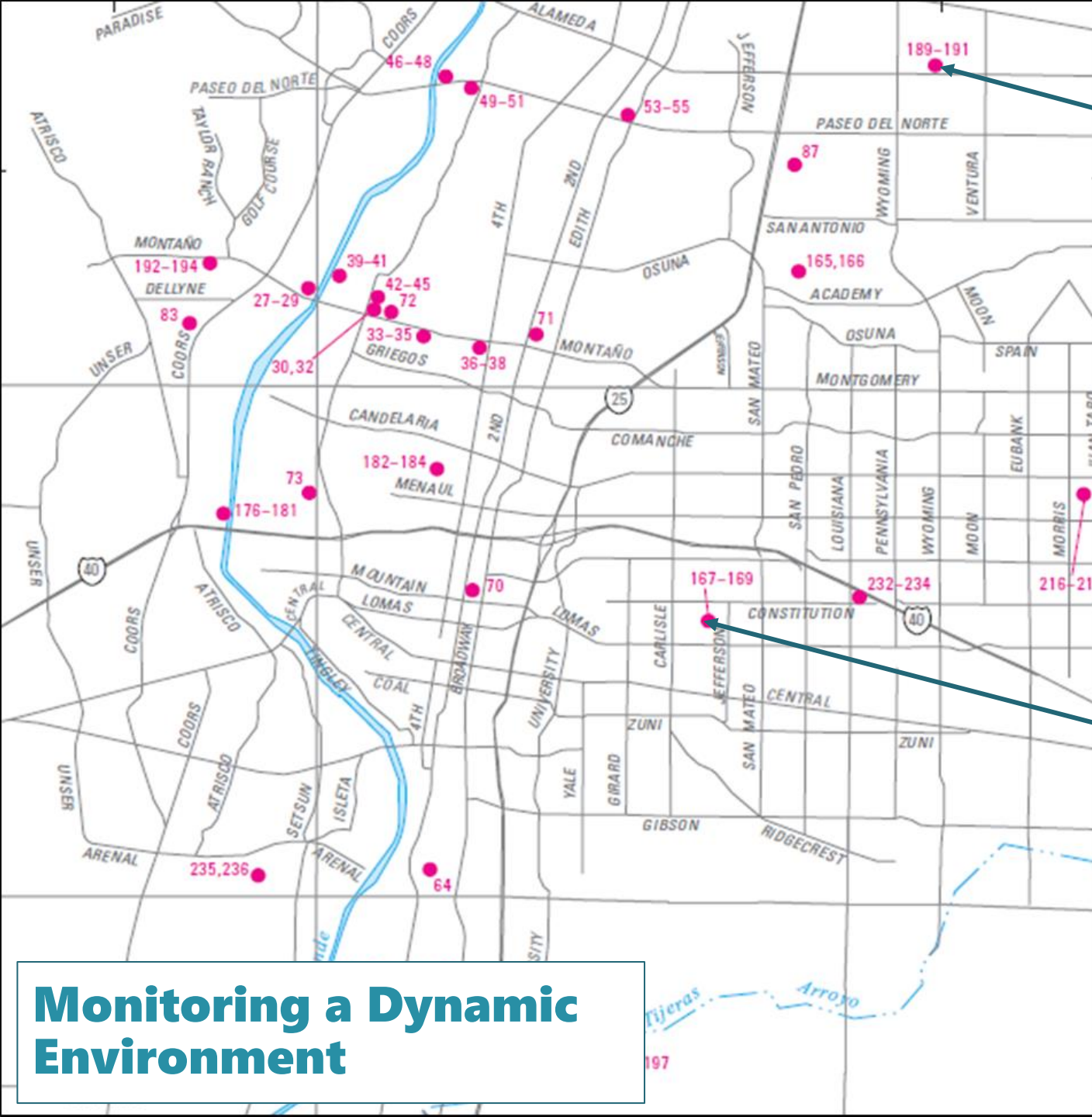
Working Reserve: between 50 and 250 feet of drawdown

Safety Reserve: 250 – 300 feet of drawdown

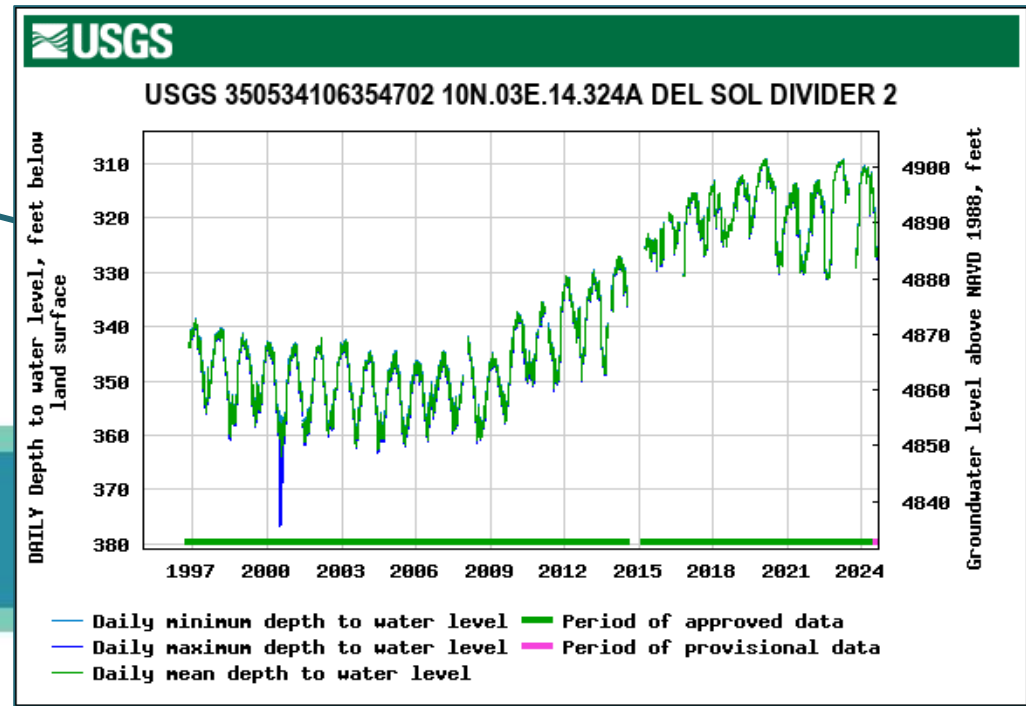
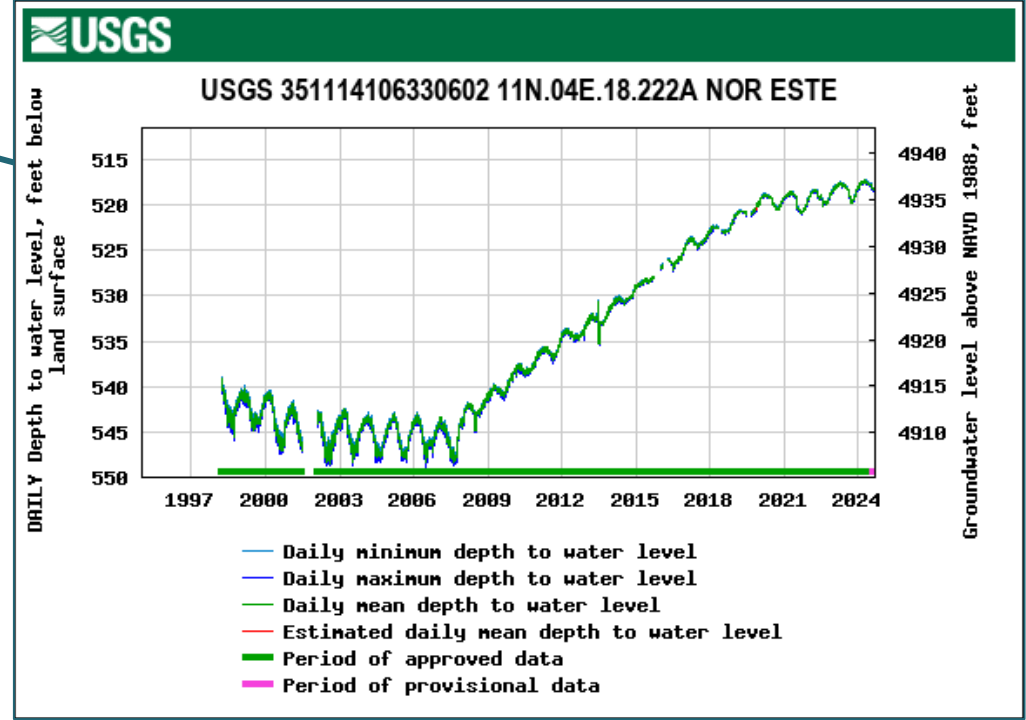
"Fuel gage" approach tracks average drawdown relative to the top of the safety reserve.



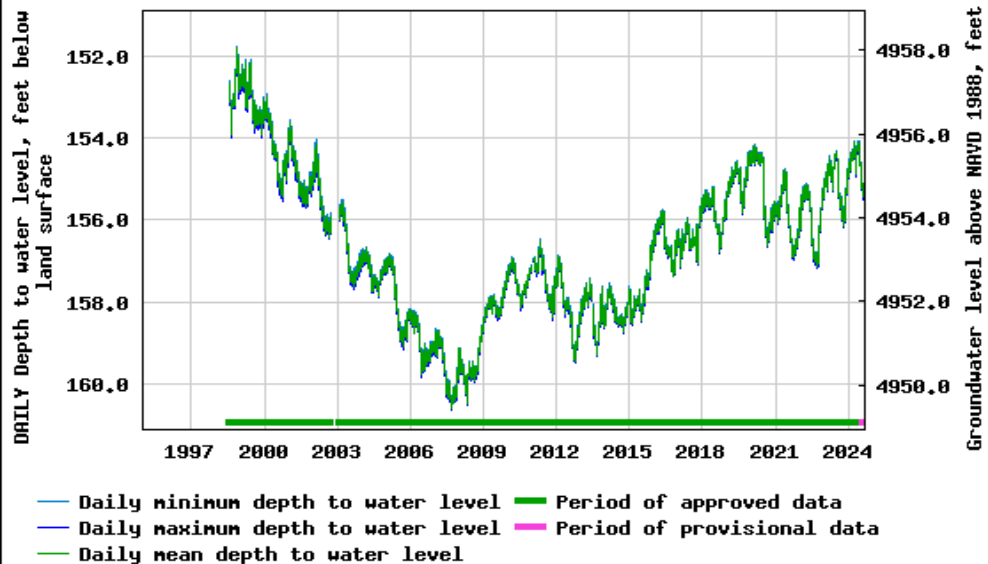
Albuquerque Bernalillo County
Water Utility Authority



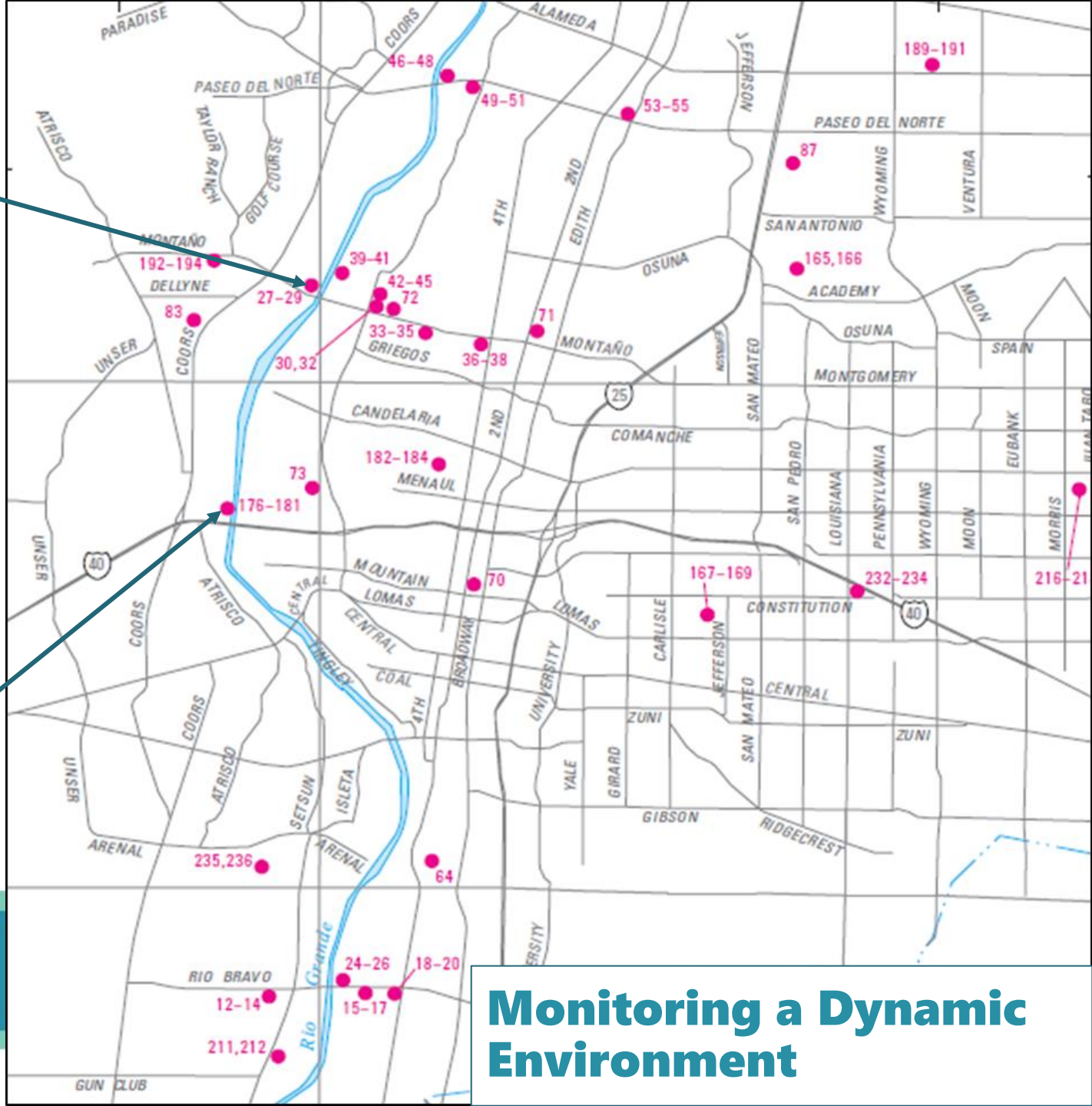
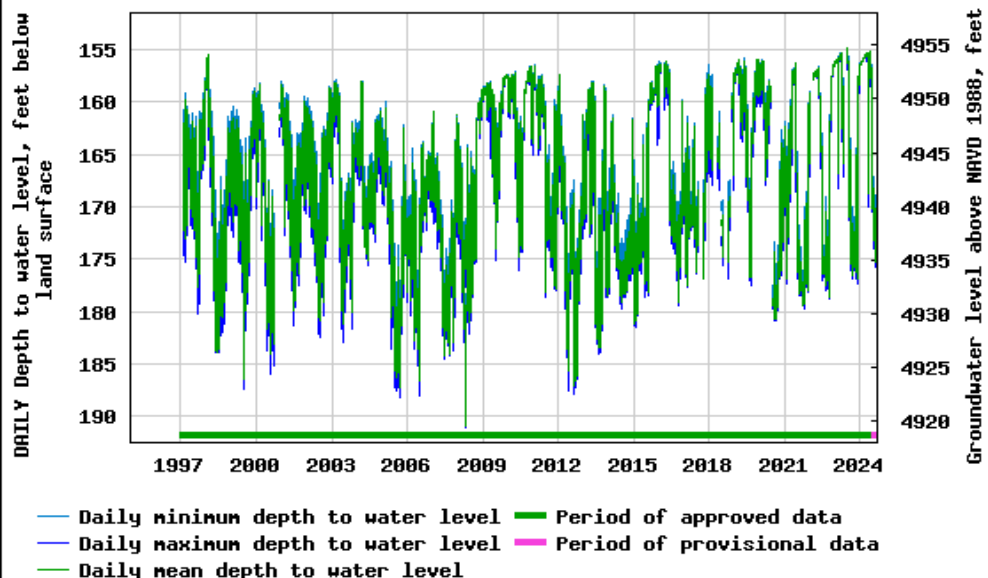
Monitoring a Dynamic Environment



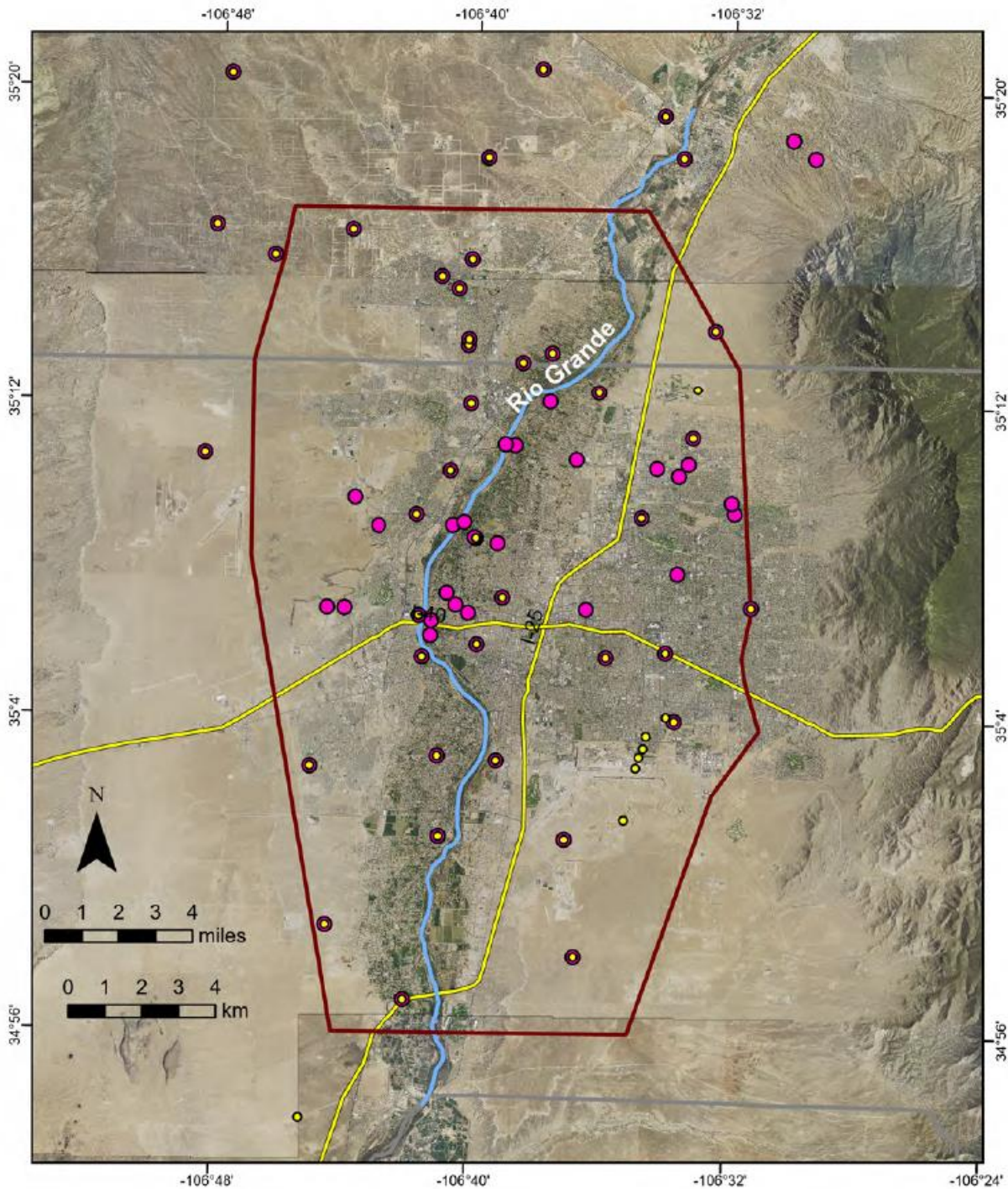
USGS 350910106414802 11N.03E.26.243A SIERRA VISTA



USGS 350638106413702 10N.02E.11.244A WEST BLUFF NO. 1



Monitoring a Dynamic Environment



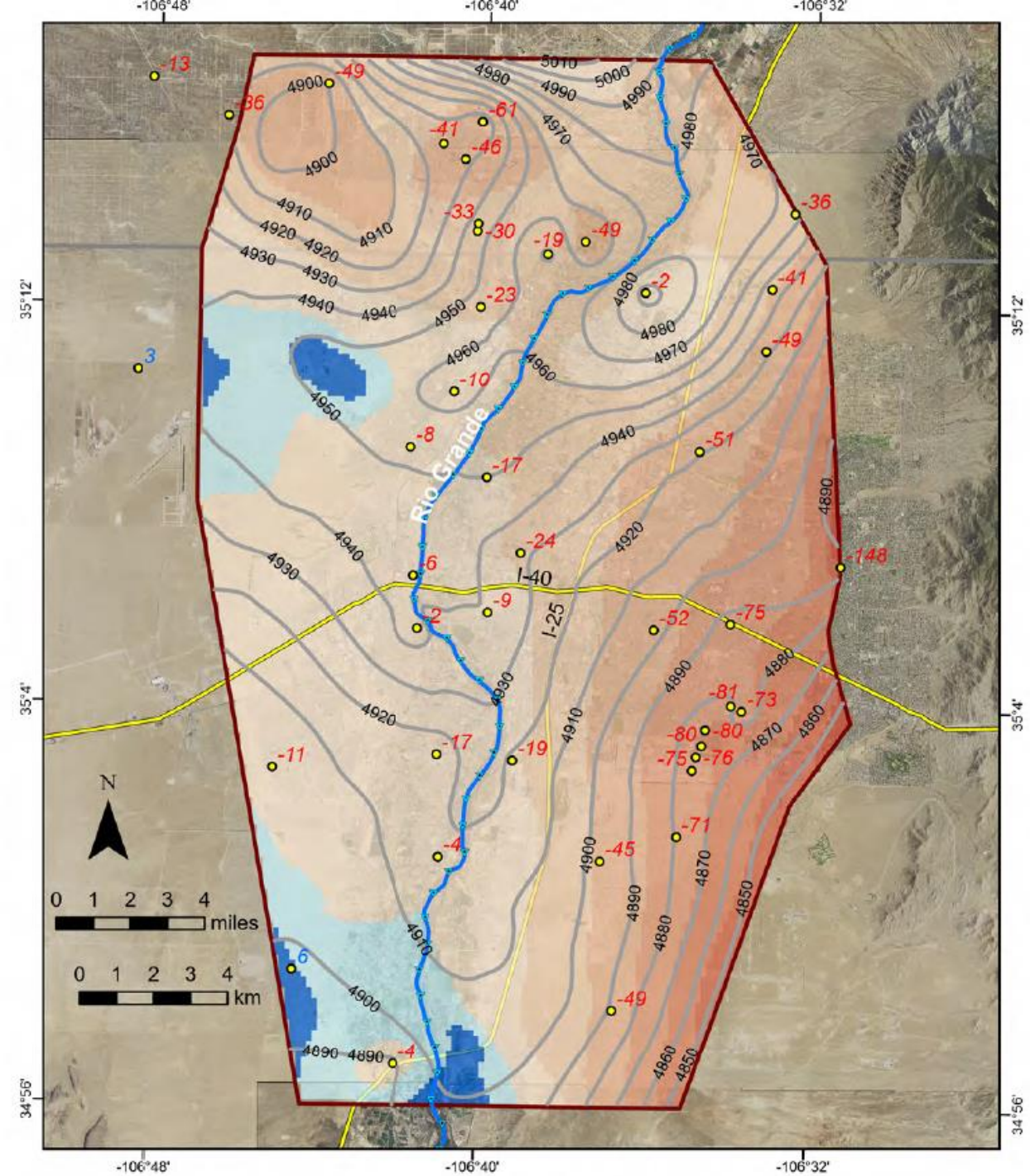
Groundwater Mapping

- Groundwater level monitoring across service area
- Data from:
 - USGS monitoring well network
 - Bernalillo County monitoring wells
 - KAFB Bulk Fuels Facility wells
 - City of Albuquerque monitoring wells
- Continuous and manual data collection

Drawdown 2022 - 2023

- Map represents change in water-level surface from pre-development
- Map accuracy highly dependent on spatial distribution of data

Increase drawdown = red
Decrease drawdown = blue

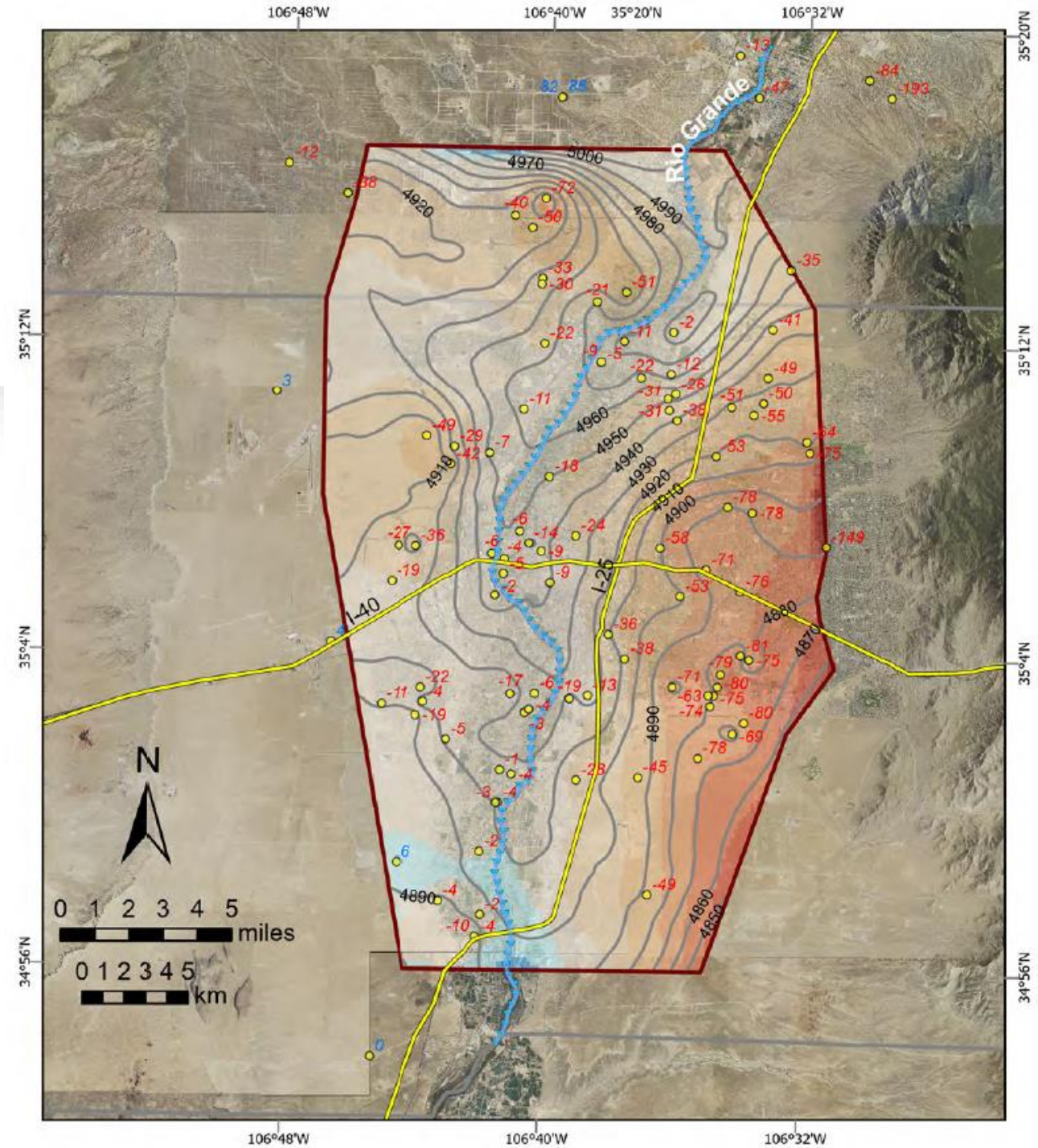


Drawdown 2023 - 2024

- Increased number of data points, better understanding of changes in drawdown
- Generally, no change in drawdown in study area

Increase drawdown = red

Decrease drawdown = blue



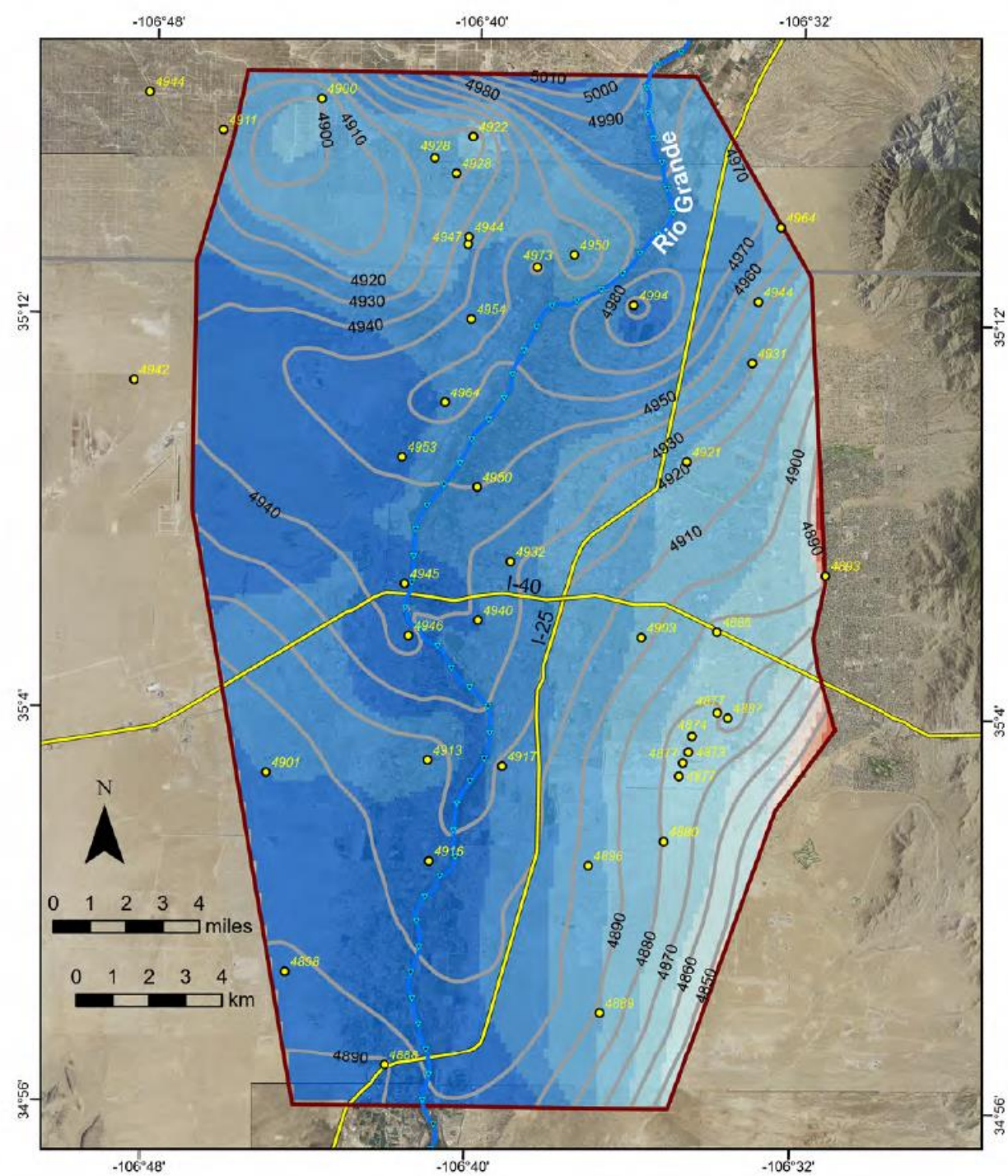
Groundwater Management Level

2022-2023 water levels relative to groundwater management level

Above 100 ft = blue

Below 110 ft = red

Groundwater Management Level
Target: 110 feet of drawdown



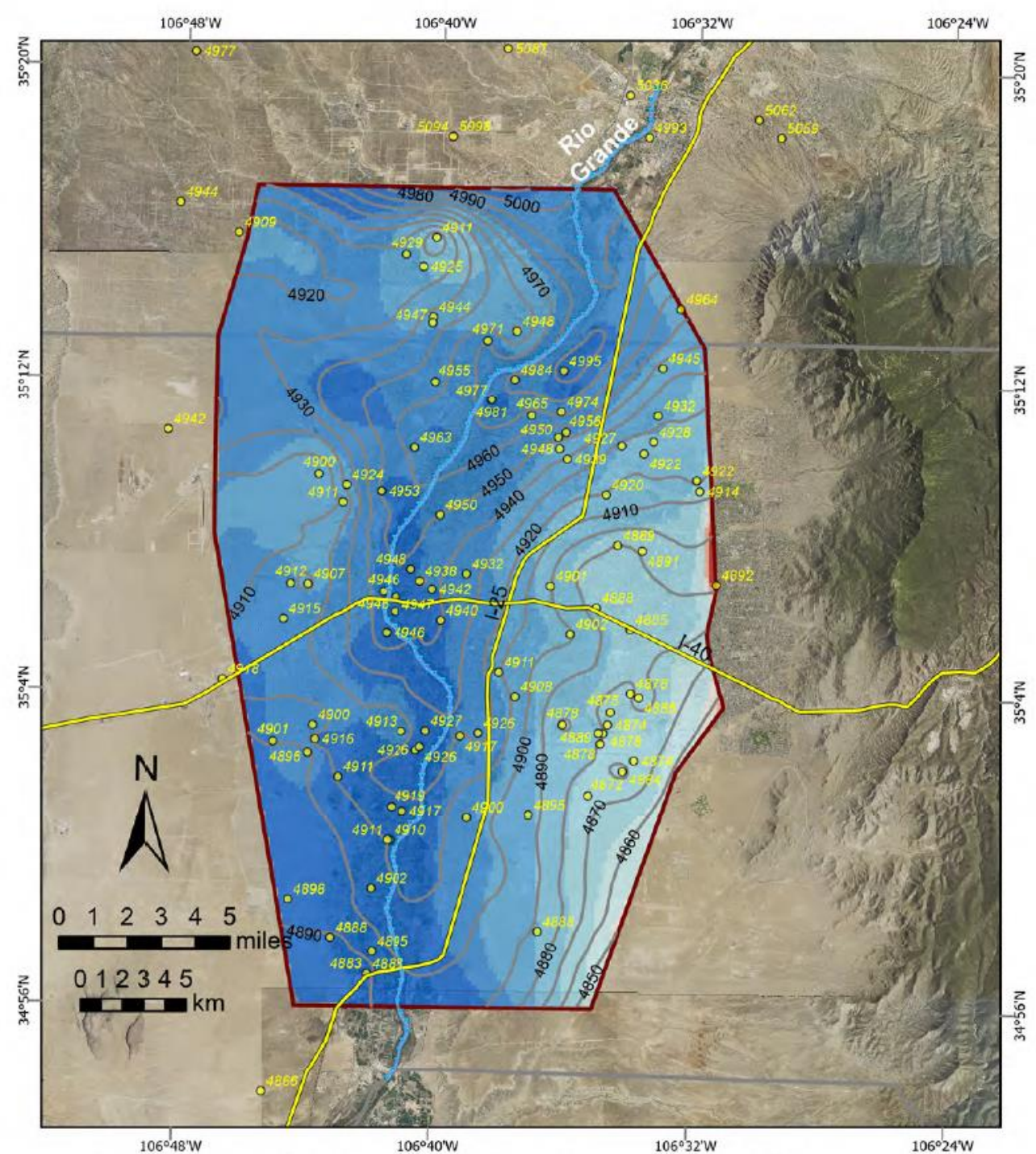
Groundwater Management Level

2023-2024 water levels relative to groundwater management level

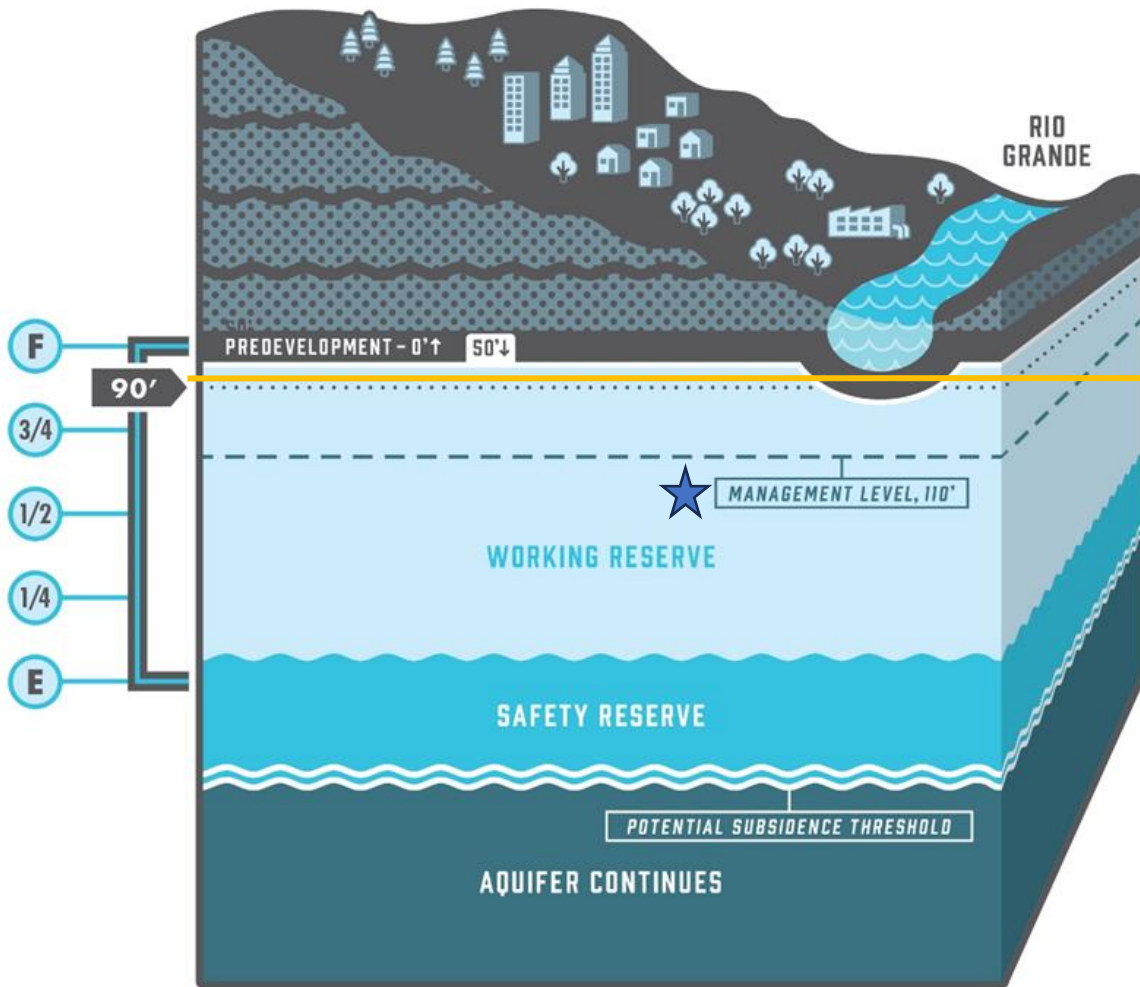
Above 100 ft = blue

Below 110 ft = red

Groundwater Management Level Target: 110 feet of drawdown



Fuel Gage Status



2021 Level:

88 feet of drawdown below predevelopment

2022 Level:

78 feet of drawdown below predevelopment

2023 Level:

80 feet of drawdown below predevelopment

Graph not to scale



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Water Utility Authority

Summary

- An estimated 139,200 acre-feet of water was added to storage in the aquifer during 2022
- Between 2022 and 2023, there was an estimated 63,806 acre-feet lost from storage in the aquifer
- Water levels in aquifer remain above groundwater management level of 110 feet below predevelopment
- Groundwater levels appear to be stabilizing
- Additional groundwater monitoring data points will increase certainty in estimations of changes in storage and aquifer levels



Questions?

Rio Chama Channel Restoration

November 7, 2024

Diane Agnew, Water Rights Manager
Francesca Shirley, Senior Water Resources Scientist



Albuquerque Bernalillo County
Water Utility Authority

Background

- June 20, 2024 rain event resulted large sediment plug within the Rio Chama
- Additional storm events have increased the extent of the sediment plug
- Estimated 150 cfs conveyance capacity (1,500-1,800 cfs in pre-June 2024 conditions)

Project Partners

- US Army Corps of Engineers
- Bureau of Land Management
- NM Interstate Stream Commission (Project Lead Agency)
- NM Environment Department
- Water Authority
- Rio Chama Acquia Assoc.
- Private landowners



Photo: Chili Diversion (taken 10/17/2024)

Impacts of No Action

- Rio Grande compact deliveries
- MRG San Juan-Chama operations
- USACE Reservoir Operations
- Flood risk to adjacent properties



Photo: Threatened private property – Reach 2 (taken 10/17/2024)

Project Scope

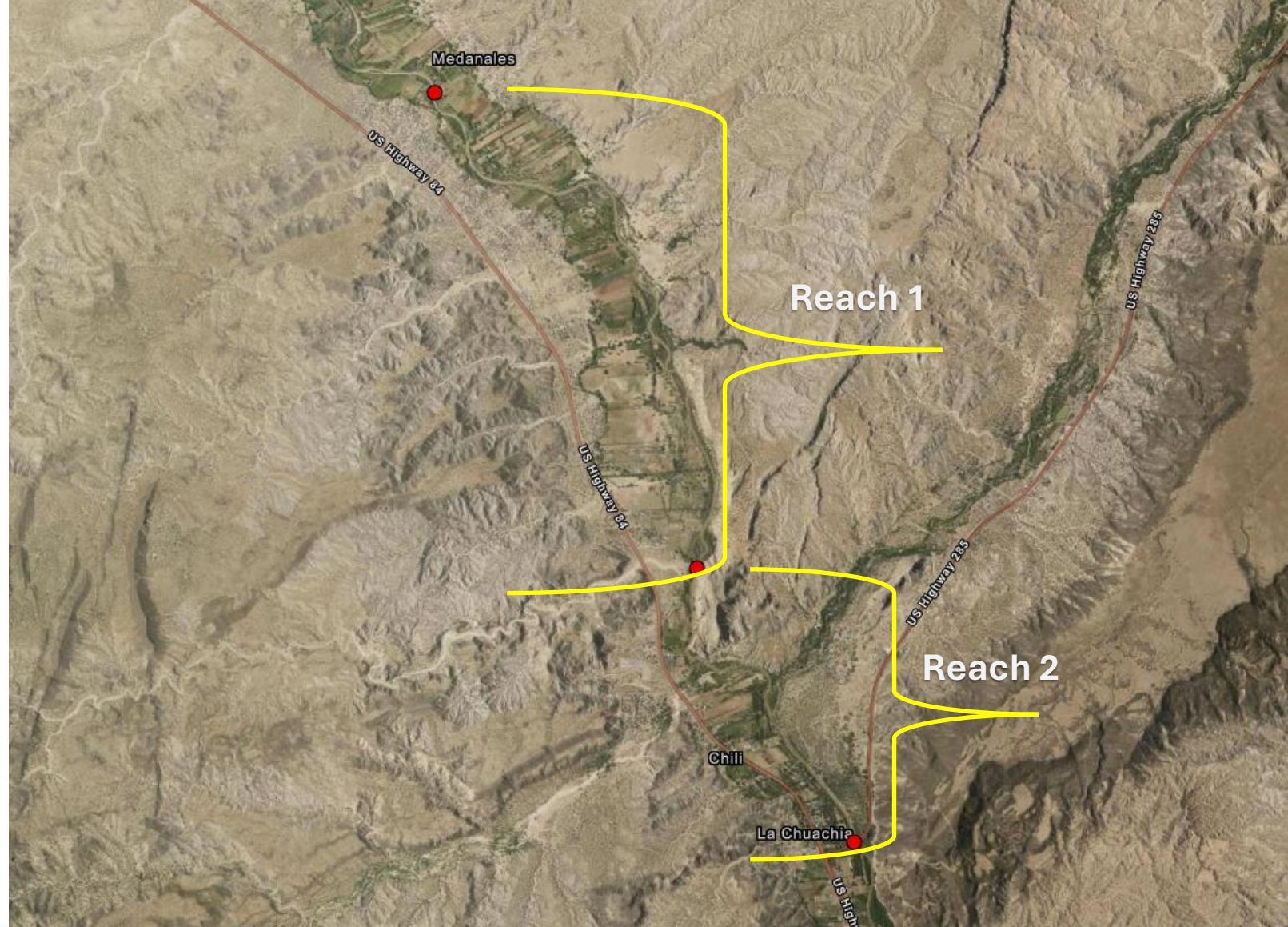
NM Interstate Stream Commission funded and lead sediment removal

- Reach 1:

- 4.5 miles
- HWY 233 to Chili Diversion

- Reach 2:

- 2.5 miles
- Chili Diversion to US HWY 285



USACE 404 CWA Permitting

Accelerated path

- Regional permit LOP NM-2

Resources

- Cultural Inventory
- Endangered Species
- Wetland Inventory



NMED 401 CWA

Permitting

Water Quality Certification

- Work under LOP NM-2 water quality certification
- Use of amphibious excavators
- Implement best management practices
- Long term reductions in turbidity



Photo: Wilco amphibious excavator in Delta Channel



Albuquerque Bernalillo County
Water Utility Authority

Timeline

- Oct 28 – 404 CWA Permit Application Submitted
- Oct 28 – Additional information submitted to NMED for 401 certification
- Nov 7: Estimated start date of channel work
 - ❖ Phase 1 → ~500 cfs channel capacity (est. duration of 20-25 days)
 - ❖ Phase 2 → ~1,500 cfs channel capacity

Need to begin moving native water from Abiquiu Reservoir to Elephant Butte by December 2nd.



Expected Outcomes

- Increased channel capacity
- Timely release of P&P and letter water from Abiquiu
- Release of SJC Project water
- Improved water quality
- Fish passage
- Protected property



Long-Term Sediment Management

2024 sediment events highlight need for long-term planning, including:

- Sediment study
- Area surveys (ESA and cultural) for future permitting
- Identification of lead agency for future sediment removal



Photo: Eroded bank line – Reach 2 (taken 10/17/2024)



Albuquerque Bernalillo County
Water Utility Authority



Questions?

TCAC Meeting CIP Project Update

November 2024



Water Authority Organization

Planning & Engineering

- Utility Development
- Water Resources
- Centralized Engineering

Support Services

- Asset Management
- IT/GIS/SCADA
- Facility/Fleet
- Finance/Procurement

Operations

- Field Distribution (WL/T-Lines)
- Collections (SAS/LS/VS)
- Plant
 - Southside Water Reclamation Plant (SWRP) & Soil Amendment Facility (SAF)
 - San Juan Chama Water Treatment Plant (SJCWTP)
 - Groundwater (Wells/PS/Reservoirs)

Compliance (WQ)



Responsibilities of Centralized Engineering

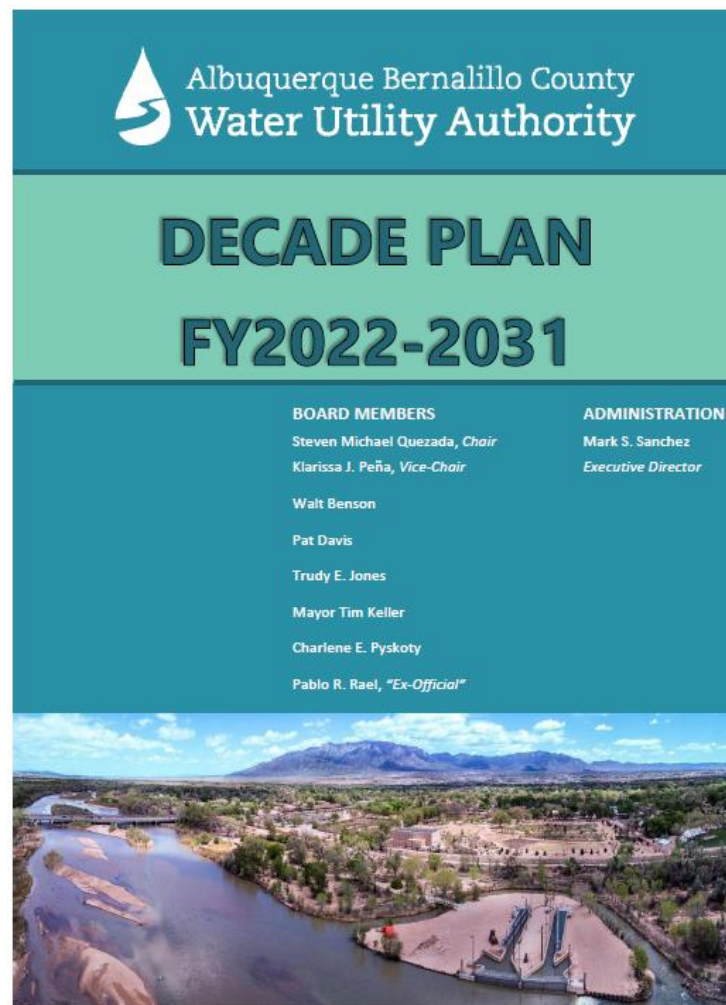
Capital Improvement Program

- Basic Program Renewal
- Basic Program Growth
- Special Projects



Decade Planning Process

- Identifies capital projects for next 10 years
- Developed/Updated every year
- Direct link to Water Authority's Financial Plan for proposed capital needs
- Proposed funding based on data and analysis from Asset Management Plans, ongoing condition assessments, and input from Operations groups



CIP Budget Summary (FY25)



CIP Budget At-A-Glance

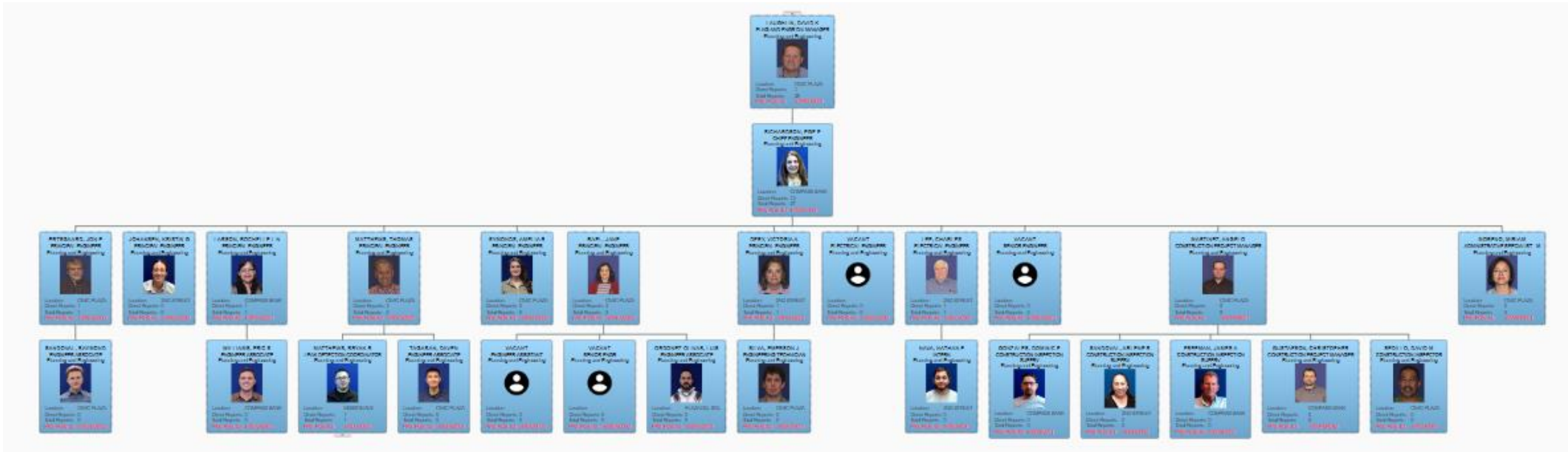
- FY25 – ~\$150M, have \$76M encumbered as of September 2024, spent \$11M thru Sept. 2024

Areas of Focus/Need for Rehab per Decade Planning Process

- Interceptor Sewers – Isleta/Griegos/Viola/Sunport-Arno
- Reservoirs and Wells – Reservoir Inspection in FY25, well replacement (Love W1R)
- SWRP Facility – Digesters, Aeration Basins, and Electrical Upgrades ongoing in FY25
- SJCWTP Facility – Settled Water Pond dredging (\$26M) & GAC Filter Bay exchange in FY25
- Westside/Bosque WRF plant –design in FY25/FY26, construction by FY27/FY28



All Projects Made Possible By:



Annually recurring projects

Sanitary Sewer Pipeline Renewal

- Interceptor (planned and emergency)
- Small diameter (planned and emergency)
- Sewer line CCTV inspections



Drinking Water Pipeline Renewal

- Small diameter (planned and emergency)
- Large diameter (planned and emergency)
- Water meters, boxes and services
- Large water valves
- PRVs



Annually recurring projects

SWRP Renewal (planned & emergency)

- Unit Processes (PTF, PCs, ABs, Dig., SDF, etc.)
- Electrical Upgrades
- Facility/Landscaping & SAF Facility



SJCWTP Renewal (planned and emergency)

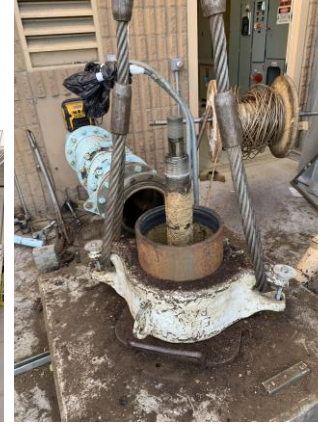
- Unit Processes (Chem., Floc/Sed, Ozone, GACs, Pumps, Res.)
- Electrical Upgrades
- Settling Basins
- Raw Water Intake & PS
- College Arsenic Treatment Facility



Annually recurring projects

GW Facilities Renewal (planned & emergency)

- Booster pumping stations & Sodium Hypochlorite systems
- Wells
- Reservoirs
- Electrical, telemetry and arc flash improvements
- Arsenic treatment plants



Collections Facilities Renewal (planned & emergency)

- Lift stations (smaller + LS20 & LS24)
- Vacuum stations
- Chemical/Odor Control stations



Coordinated Projects (City, County, NMDOT, AMAFCA, MRGCD, etc.)

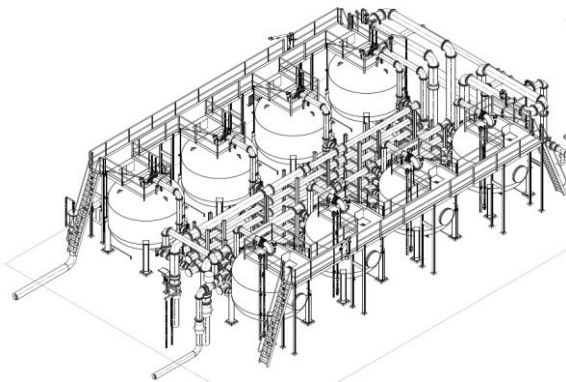
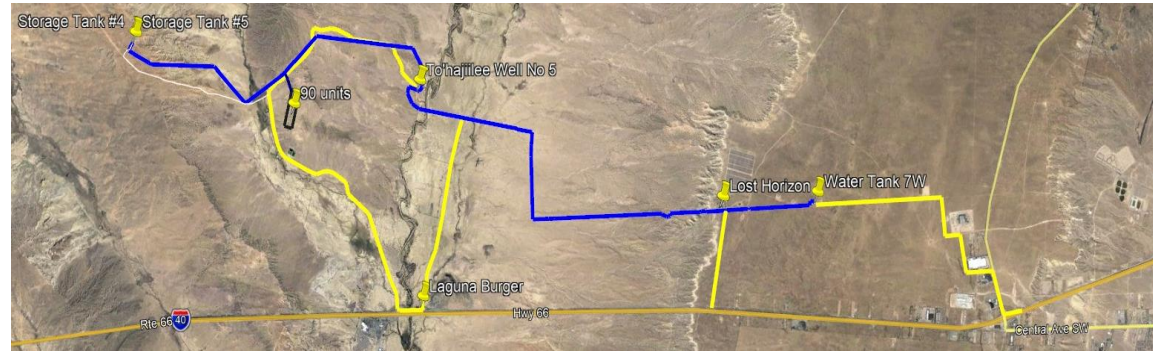
- Franchise Agreements with City & County
 - Require Water Authority coordination on City County projects
 - Water/Sewer Infrastructure adjustments to accommodate City/County projects
 - Varying project scope and schedule requirements
- Utility Conflict Analysis and Utility Relocations (using our On-Call Consultants and Contractors)



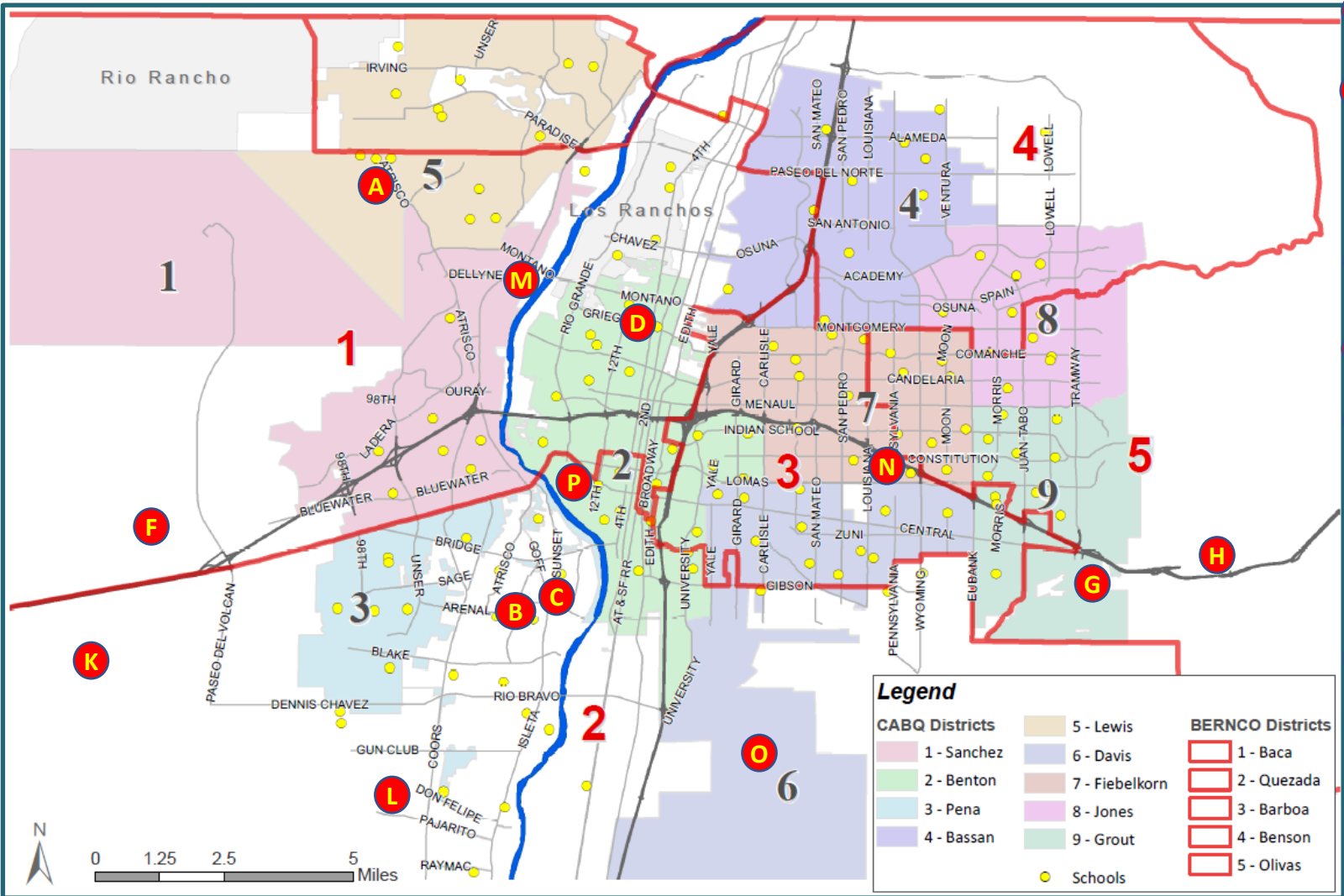
Special Projects

Typically driven by:

- External Funding Sources (County ARPA funds, DWSRF/CWSRF,
- Community Needs (Development & Growth)



Priority Rehab Projects



- A** VOLCANO CLIFFS ATF & T-LINE – ARPA/WTB
Purpose: Add 17 MGD drinking water, remove T-Line bottleneck
Status: In Construction
- B** SEWER REHAB (Viola)
Purpose: Rehab failing 30" sewer interceptor pipe
Status: Construction pending (after Isleta work completed)
- C** SEWER REHAB (Isleta Blvd)
Purpose: Rehab ~2 miles of aging 8"/18"/24" sewer interceptor pipe
Status: Construction – completion by Feb 2025
- D** SEWER REHAB (Griegos Rd.)
Purpose: Rehab ~1 mile of aging 24" sewer interceptor pipe
Status: Construction pending (after Isleta/Viola work completed)
- F** TO'HAJILEE TRANSMISSION LINE – ARPA/WTB
Purpose: Install 8" WL to To'Hajiilee for Water Supply
Status: In Construction
- G** 8E TRANSMISSION LINE
Purpose: Install 2nd source of supply to Escondido Reservoir
Status: In Design
- H** CARNUEL WATER & SEWER PROJECTS - ARPA
Purpose: Potable system extension & SAS Phase 1 in Carnuel
Status: In Construction
- K** MDC LIFT STATION/FORCE MAIN - ARPA
Purpose: Install LS & FM, decommission lagoon system
Status: In Construction
- L** SVDWP PHASE 8/9 WL EXTENSIONS - ARPA
Purpose: Extend WL W of Coors, S of Dennis Chavez
Status: In Construction
- M** BOSQUE/WESTSIDE REUSE PROJECT- ARPA
Purpose: Expand reuse to Westside via new reclamation plant
Status: In Design
- N** WINROCK REUSE LINE EXTENSION
Purpose: Extend South Reuse system to new irrigation customers
Status: In Design; Const. early 2025
- O** MDS REUSE PUMP STATION - ARPA
Purpose: Deliver Reuse Water to MDS & County Recreation Complex
Status: In Design; Package for Bid in March 2025
- P** HUNING CASTLE STEEL WL REPLACEMENT
Purpose: Replace ~2 miles of steel WL
Status: Complete



CIP in Action – To'Hajiilee work

AUI fusing and installing HDPE pipe
Project completion targeted for
Nov./Dec. 2025



CIP in Action – Emergencies

- College Arsenic Facility – Buffer Tank Coating Failure
- 8” SAS collapse at Park/Laguna
- Damage to 36” Emergency FM at Lift Station 20

