About the Water Authority

Water and Wastewater Utility:

210,000  Customer Accounts
675,000 People Served
3,200 Miles of Supply Pipeline
2,500 Miles of Sewer Collector Pipeline
Current Sources of Supplies

- Surface (San Juan-Chama)
- Groundwater (native RG)
- Non-Potable Surface Water (SJC)
- Non-Potable Wastewater Effluent
- Aquifer Storage and Recovery (SJC)
Southside Water Reclamation Plant (SWRP) - Reclaimed Water

- 18.5 billion gallons per year (55 MGD)
- Offsets for groundwater pumping
- Return of native Rio Grande water back to the river
- "Purple Pipe" System
WUA River Diversion and Return to Rio Grande
Water Usage has Decreased Even with Growth
Multiple Benefits

- New ASR Wells co-located at the Water Treatment Plant
- New infrastructure can move supply throughout the system
- Reduced need for arsenic treatment
Existing Reuse Projects

Current projects and supply

- Industrial recycling
  \(~30\text{ ac-ft/yr}~

- North I-25 non-potable project (SJC) \(~2,500\text{ ac-ft/yr}~

- Southside effluent reuse
  \(~1,300\text{ ac-ft/yr}~\)
Aquifer Storage and Recovery

Bear Canyon

~300 AF recharged each year, currently ~1,700 AF currently in storage
Large Scale ASR Project

Direct Injection Well - 3,000 to 5,000 AFY
Vadose Zone Well - 500 AFY
The Aquifer Continues to Rise
How was the 100-Year Plan Developed?

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

[Graph showing supply gaps with axes for demand and supply, and color-coded cells for different combinations of low, medium, and high values.]

- Supply Needed (afy) vs. Years (2020-2120)
- Low Supply, Medium Supply, High Supply areas indicated.
Water 2120 Plan Elements

- Conservation – 110 gpcd in 20 years (plan adopted 2016)
- Diverse portfolio of supplies – includes stormwater
- No additional acquisition of Pre-1907 Water Rights
- Reuse – includes ASR and/or new storage
- Aquifer storage and recovery (ASR) – Large Scale
- Indirect potable reuse/direct potable reuse (IDPR/DPR)
- Additional storage – Elephant Butte and Abiquiu Reservoirs
- Watershed management
Projected Timeline of Projects and Estimated Costs

- **2020**: ASR $10M
- **2035**: Connect Northside I-25 to Southside (Reuse) $23M
- **2045**: IDPR Phase I Storm Water Capture $47M
- **2055**: Westside Reuse Off-Channel Storage IDPR Phase II $216M
- **2065**: Eastside Reuse IDPR Phase III $127M
2120 Reuse Implementation

- Reuse Projects for Irrigation
  - Winrock Reuse Plant
  - Bosque Reuse Plant (return flows in winter)

- Reuse and IDPR with ASR
  - Tijeras Reuse Plant and Infiltration Project

- Reuse and DPR
  - Connect the North/South Reuse Project
  - Advanced Treatment at SWRP
  - Pipeline to SJC Water Treatment Plant

- Storage
Water 2120 Westside Effluent Reuse Project

Bosque Reuse Plant and Project

2,000 - 7,000 AFY

Map of Westside Turf Irrigation Sites
Water 2120 Westside Effluent Reuse Project

Winter Months - treated Effluent Returned to RG (return flows)

Bosque Reuse Plant

Effluent Discharge to Rio Grande
Water 2120 Eastside Reuse Project

Tijeras Reuse and ASR Project

6,000-7,000 AFY

Tijeras Reuse Plant Site (KAFB)

Map of Eastside Turf Irrigation Sites
Water 2120 Eastside Reuse Project
Connect Northside/Southside Reuse Systems with Advanced Treatment

- New Pipeline to connect North/South Reuse Projects
- Use Non-potable Effluent for Entire Eastside Reuse
- Save SJC for other uses (ASR)
- Advanced Treated Effluent conveyed to SJC Water Treatment Plant (DPR)
Direct Potable Reuse

- Excess Return Flows used for Reuse and Drinking Water Supply
- Construct new Advanced Water Treatment Facilities
- Connect to SJC Water Treatment Plant
Thank You!

Questions?