



# 20-Year Water Supply Plan

RWSA City Council Meetings | Summer 2023

# Plan Purpose



RWSA municipalities have approximately 72,000 planned new units that have been approved for development



Based on current growth projections, it will take approximately **20 years** to realize this development



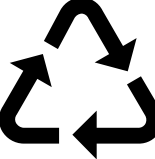
The 20-year plan outlines the measures to supply water to new growth

# Existing Water Supplies

- Through coordination with RWSA partners, the estimated reliable yield of existing water supplies was determined
- Reliable yield of existing water supplies will be fully used by the end of 2023
- Additional water supplies are needed to meet the approved new growth



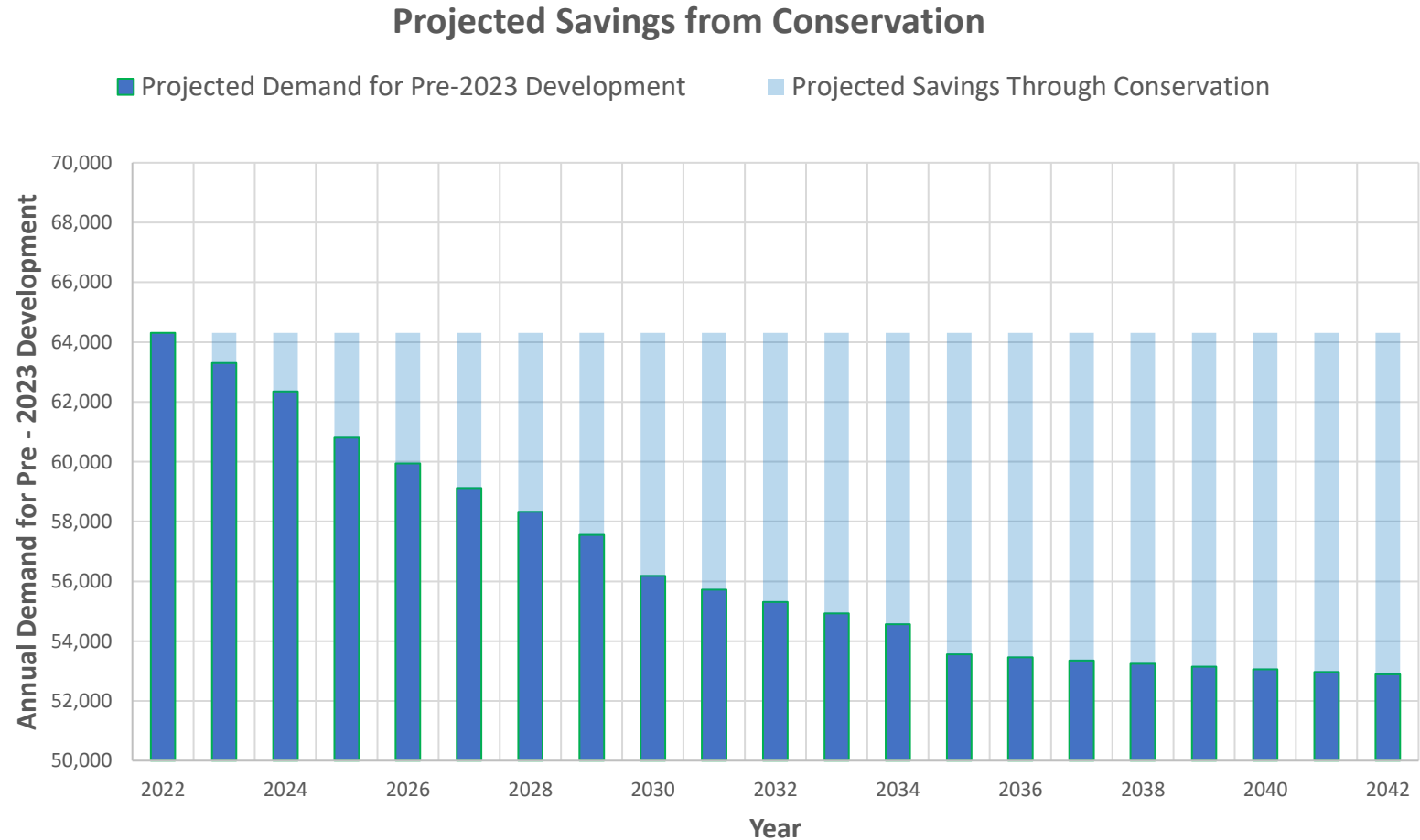
# Proposed New Sources of Water

- Water Conservation 
- Reuse Water 
- New Water Supply Development 
- Municipal Groundwater Optimization 
- Agricultural Conversion 

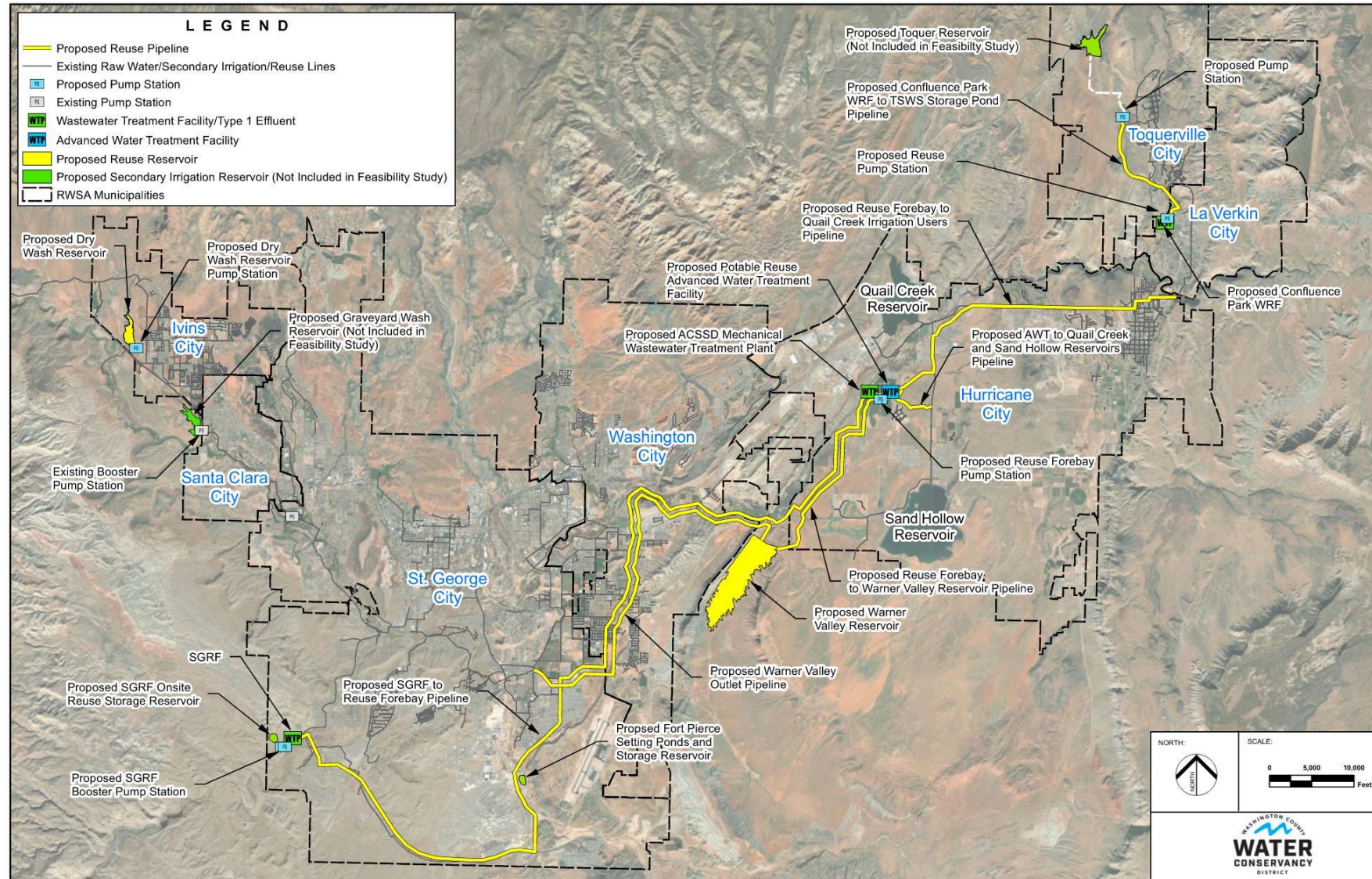


# Water Conservation

- Aggressive long-term goal established by the state
- 23% reduction in use by the year 2070
- Estimated user base 0.78 AFY to 0.63 by 2042
- Estimated target savings of **11,400 AFY** by 2042



# Regional Reuse Plan



# Regional Reuse Plan

- Treat wastewater from St. George Water Reclamation Facility (WRF), Ash Creek Special Service District lagoons and Confluence Park WRF
- Treatment facilities, pipelines, pump stations and reservoirs
- Secondary irrigation, agricultural water exchange, and indirect potable reuse (reservoir augmentation)
- Estimated to provide over **24,000 AFY** by 2042



St. George Water Reclamation Facility (WRF)



# Planned Supply Development

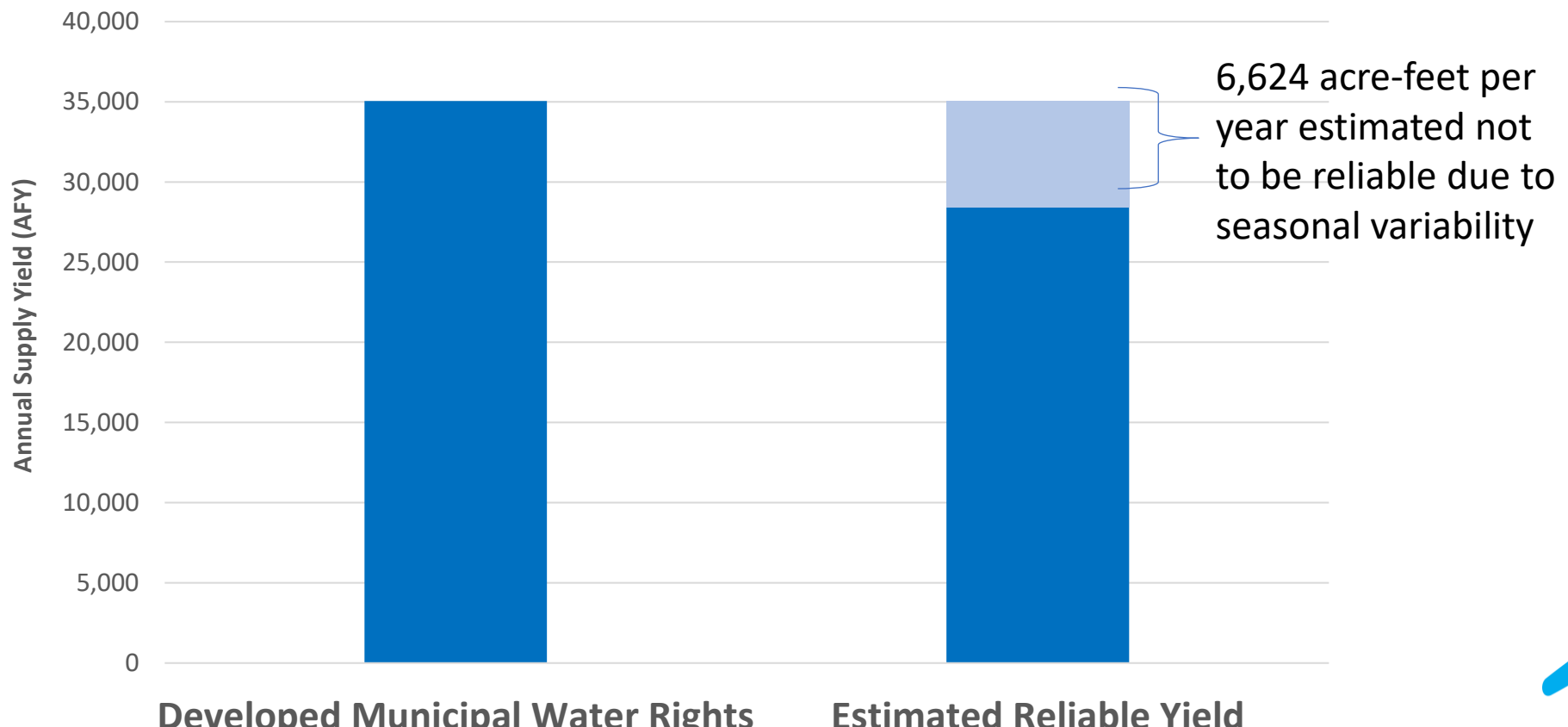
- Development of new local water supplies
- Reservoirs, wells and pipelines
- Estimated to provide nearly **5,000 AFY**



| New Water Supply                      | Estimated Reliable Yield (AFY) | Estimated Completion Year |
|---------------------------------------|--------------------------------|---------------------------|
| Sullivan Wells/Cottam Wells Expansion | 1,405                          | 2024                      |
| Ash Creek Pipeline/Toquer Reservoir   | 1,748                          | 2026                      |
| Cove Reservoir                        | 546                            | 2033                      |
| Diamond Valley Well                   | 388                            | 2040                      |
| <b>Subtotal</b>                       | <b>4,087</b>                   |                           |
| <b>Supply Redevelopment</b>           |                                |                           |
| Ence Well Redevelopment               | 700                            | 2025                      |
| <b>Total</b>                          | <b>4,787</b>                   |                           |

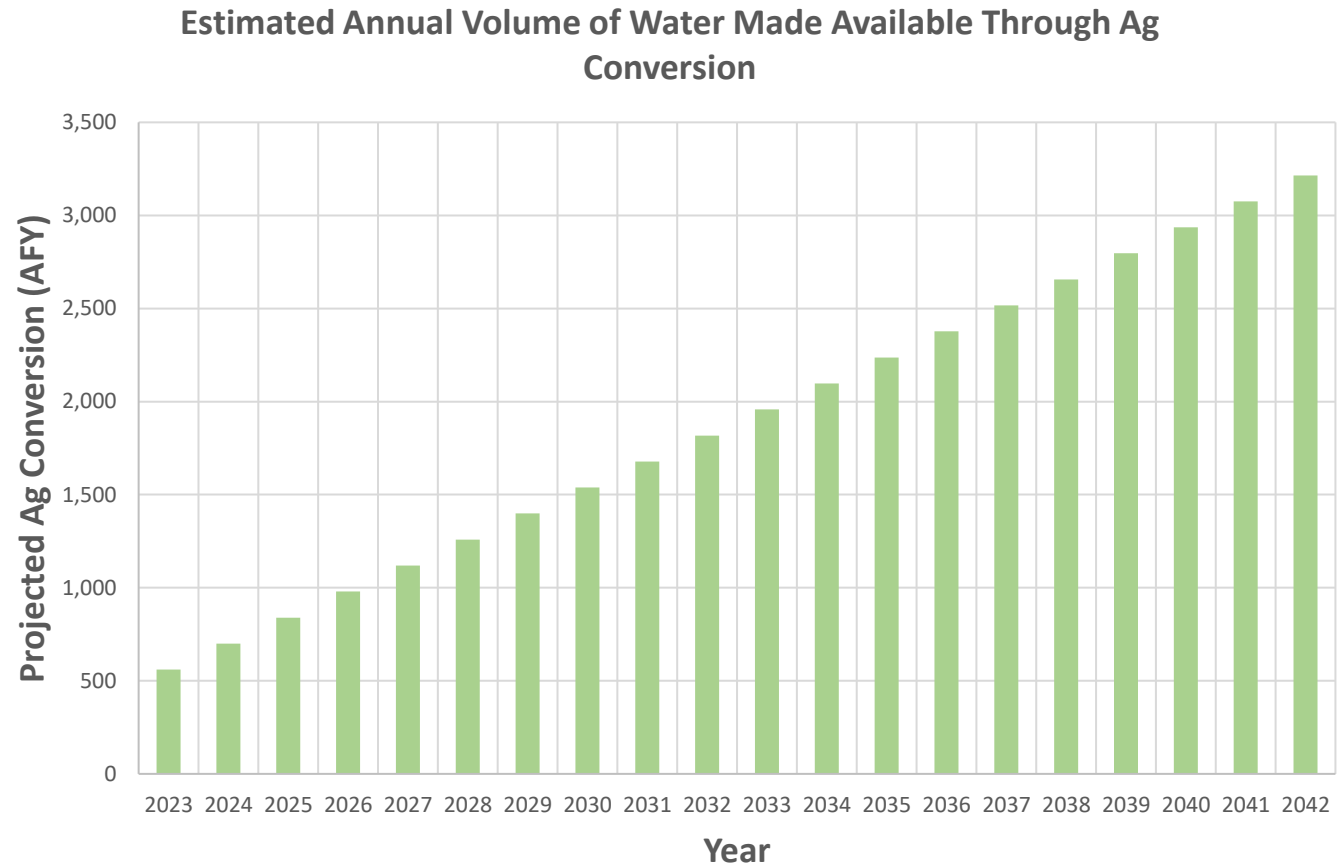
# Municipal Groundwater Optimization

- District planning to commission studies on local aquifers to refine estimates for reliable yield
- Estimated to yield up to **3,000 AFY** of additional supply



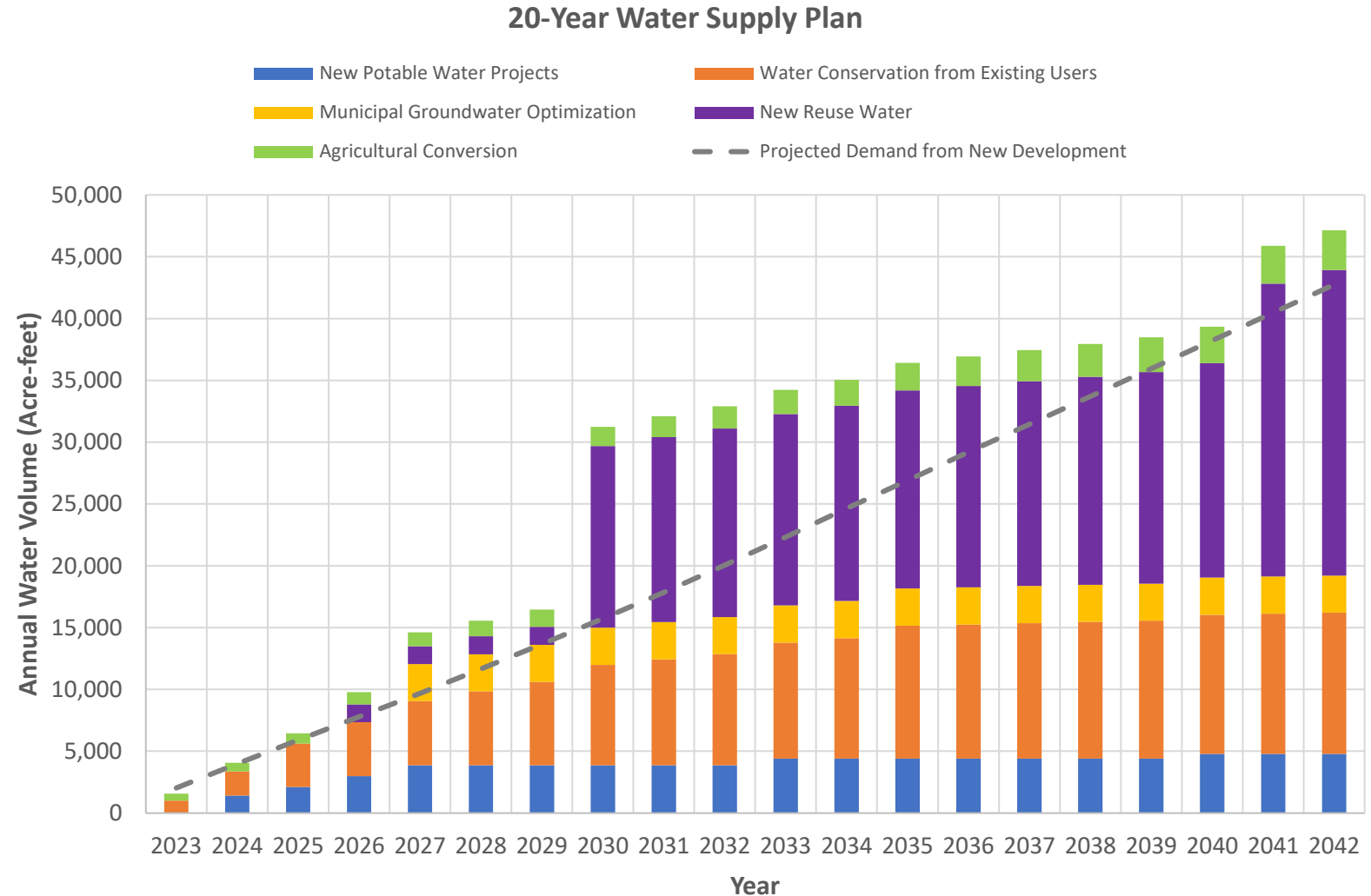
# Agricultural Conversion

- Utah Division of Water Resources determines estimates for agricultural conversion
- As agricultural land is sold and converted for development, irrigation water shares will become available
- 50<sup>th</sup> percentile climate scenario: **3,216 AFY** by 2042



# Integrated 20-Year Supply Plan

| New Water Supplies                               | Estimated Annual Yield (AFY) |
|--------------------------------------------------|------------------------------|
| Projected Water Conservation from Existing Users | 11,421                       |
| New Reuse Water                                  | 24,716                       |
| New Potable water Projects                       | 4,787                        |
| Municipal Groundwater Optimization               | 3,000                        |
| Agricultural Conversion to M&I                   | 3,216                        |
| <b>Total New Water Developed</b>                 | <b>47,141</b>                |
| <b>Total Volume Required for 20-Year Growth</b>  | <b>42,746</b>                |
| <b>Water Supply Surplus</b>                      | <b>4,395</b>                 |



# Timeline

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District board adopted resolution  
accepting the plan

10 July

Board presentation of costs and  
financing plan

11 Sep.

Board presentation of  
implementation details

7 Aug.

Board 2024 budget review

4 Oct.

# Q&A



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