



Santolina Development Water and Sewer Infrastructure

**WATER AUTHORITY BOARD MEETING
DECEMBER 4, 2018**

Santolina Timeline

- Bernalillo County Land Use Approval for Level A and Level B.1
- Developer Request for Water and Sewer Serviceability
 - January 11, 2018
 - Supplemental Information provided February 13, 2018
- Water, Reuse and Sewer Serviceability Issued October 1, 2018
- Development Agreement consistent with the Serviceability Statement must be approved by the Water Authority Board for service
- Applicable Policies – Water 2120; Water and Wastewater System Expansion Ordinance (No Net Expense Policy); Line Extension Policy; and Adopted Guiding Principles

Santolina Overview

- Santolina Proposed Buildout Year: 2065
- Request for Water/Sewer Serviceability Statement
- Demands based on 110 GPCD

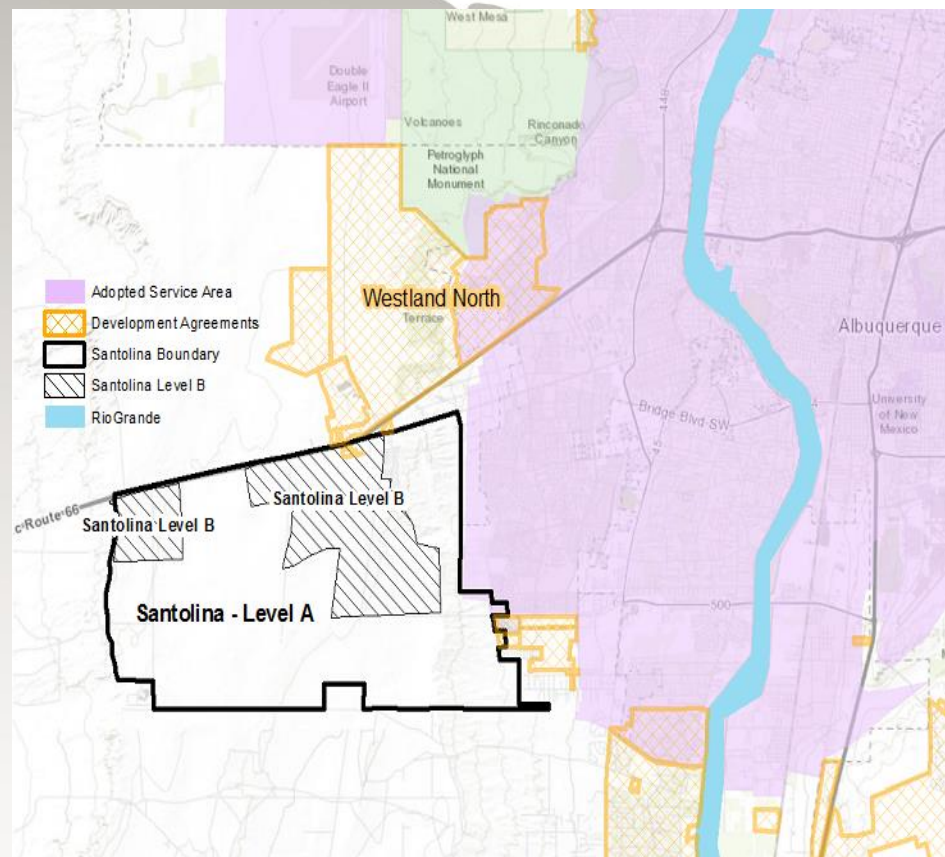
Table 4. Santolina Development Projections

Criteria	Level B	Buildout (Level A)
Acres	4,243	13,851
Population	22,000	95,000
Water Supply (AFY) ¹	2,710	11,700
Peak Day Demand (MGD)	4.4	18.5
<i>Non-Potable</i> ²	1.3	4.3
<i>Potable</i> ³	3.1	14.2
Avg. Day Wastewater Flows (MGD)	1.8	7.8

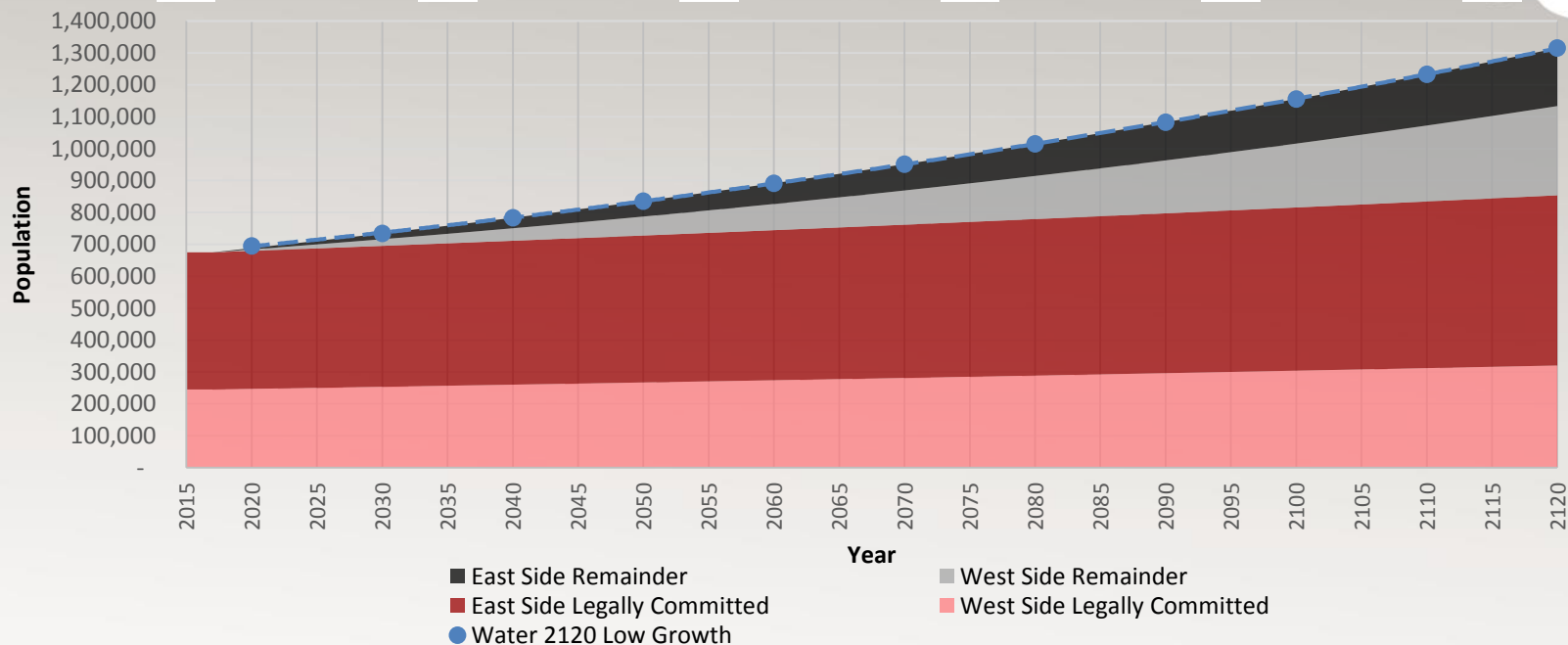
1. Calculated from 110 GPCD

2. Average day non-potable demand (INTERA, 2018) is peaked at 2.7 per estimates from reuse feasibility study (CH2M, 2012)

3. Peak day to average day factor of 1.6 per current total system water use

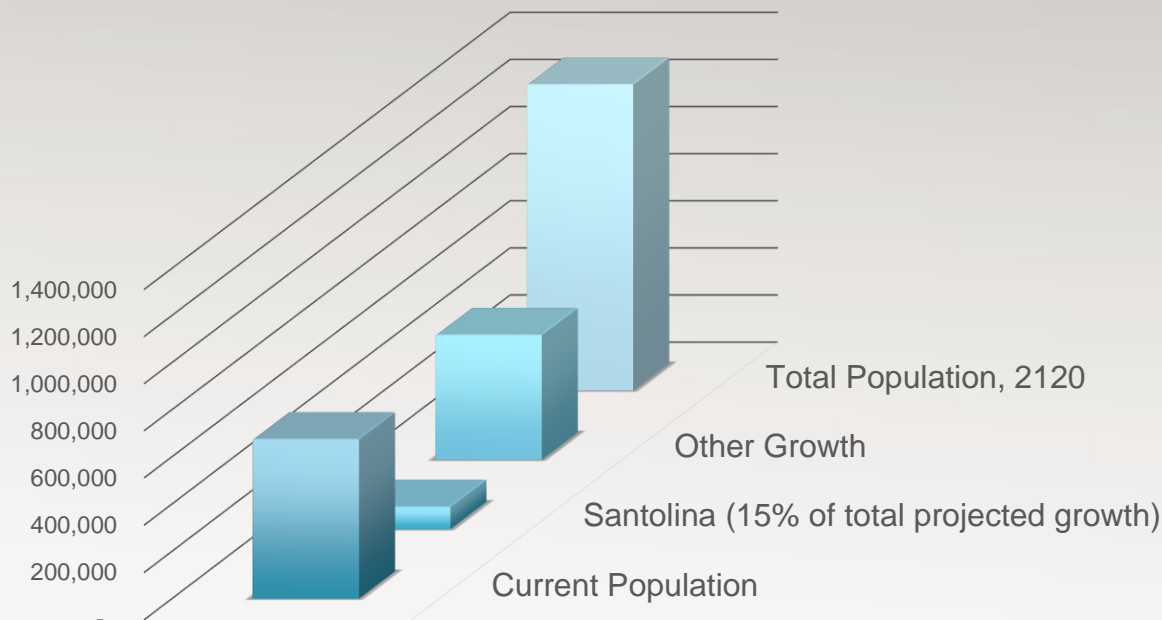


Population Projections



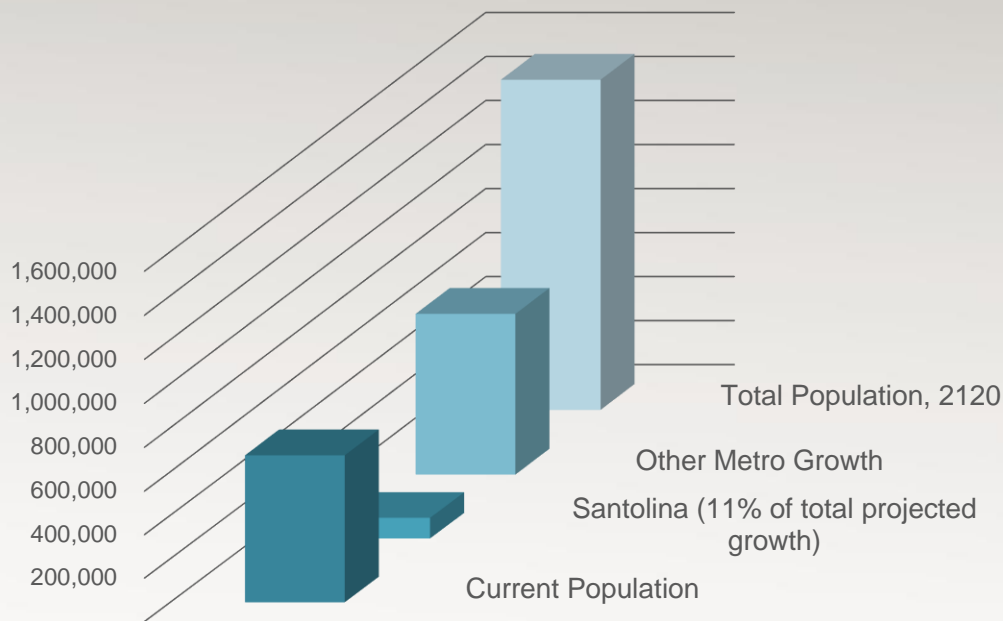
Context: Santolina and Future Metro Growth

Low Population Growth Scenario (+625,000 Residents, 94,804 in Santolina)



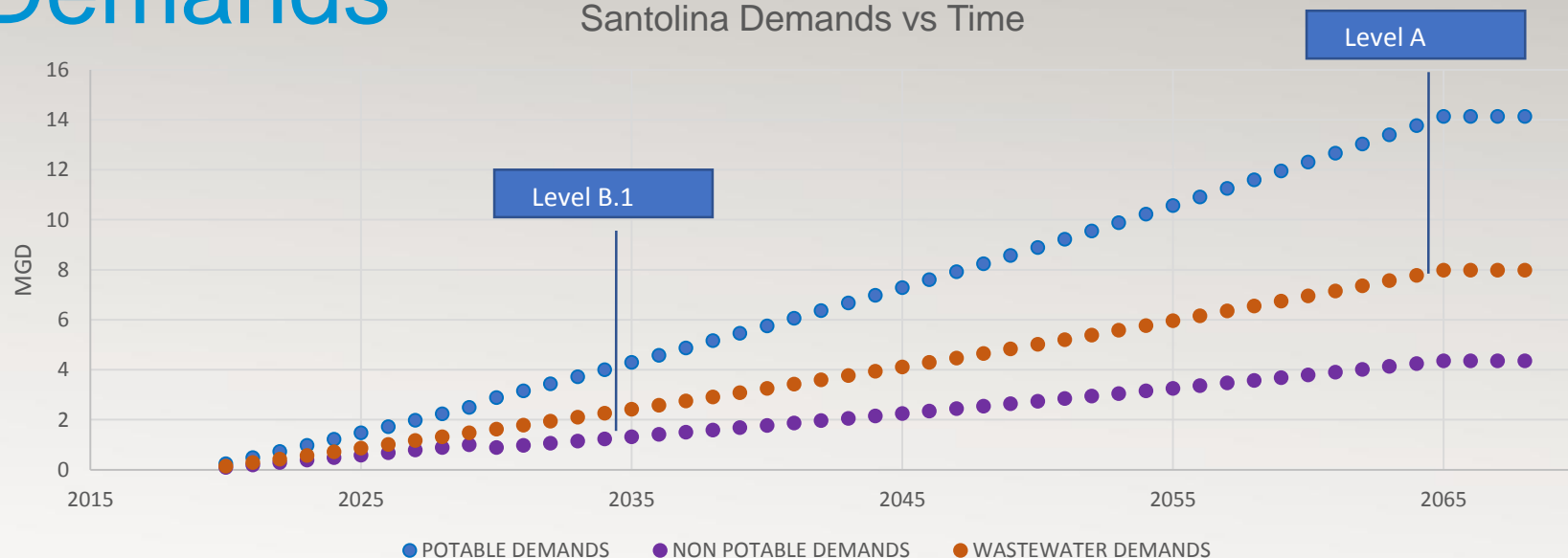
Context: Santolina and Future Metro Growth

Medium Population Growth Scenario (+730,000 Residents, 94,804 in Santolina)

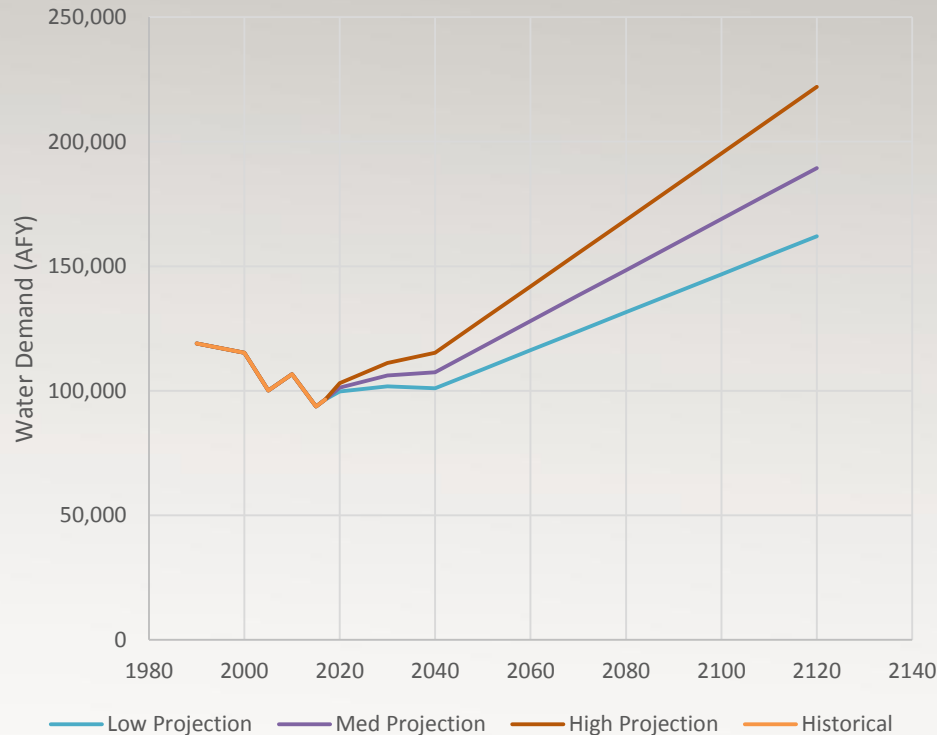


Santolina Water, Reuse and Wastewater Demands

Santolina Demands vs Time

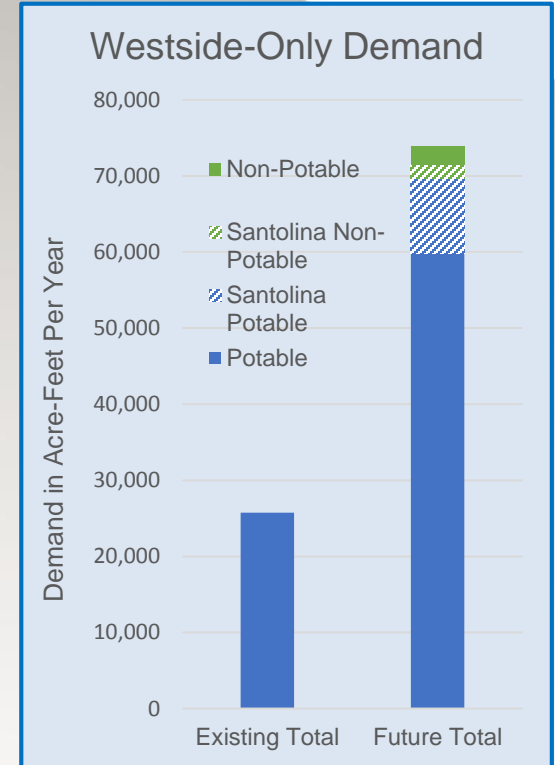
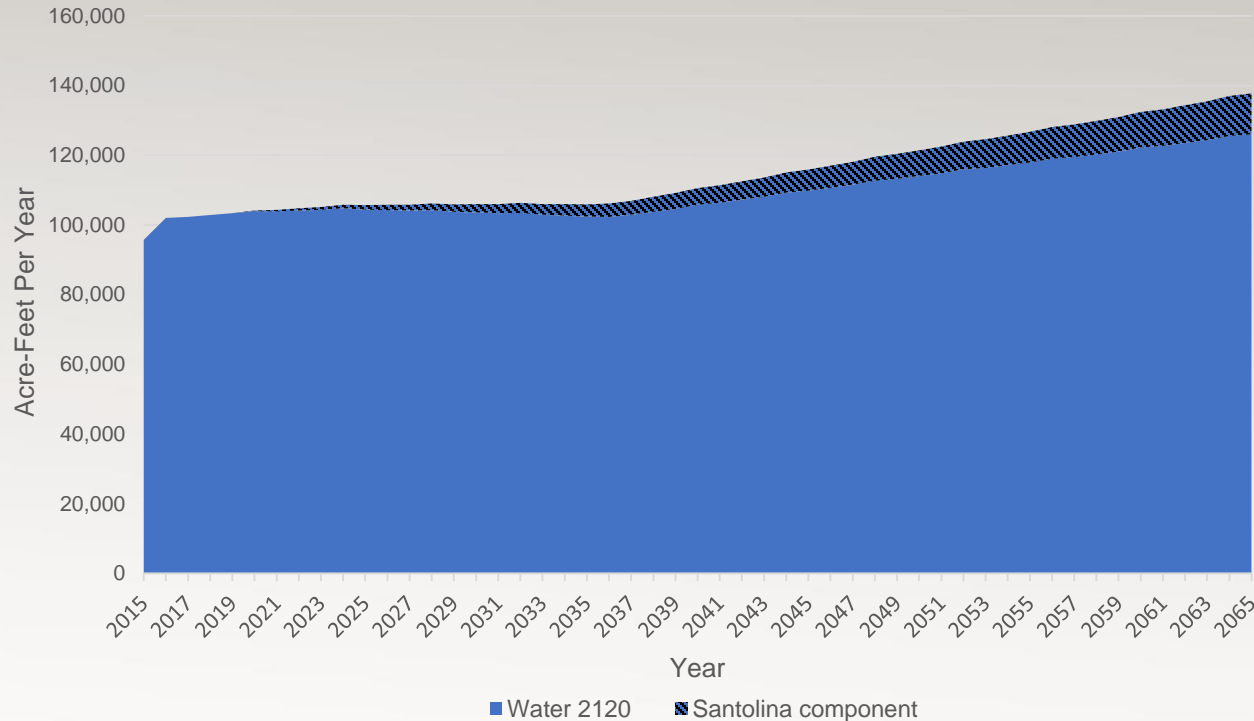


Total System Projected Demands Over Time



- Based on different population growth scenarios
- Will be less if 110 gpcd *Water 2120* conservation goal met
- *Water 2120* plan addresses supply needs under all three growth/demand scenarios, regardless of where growth occurs in the community
- Plan requires expanded re-use capacity under all growth/demand scenarios

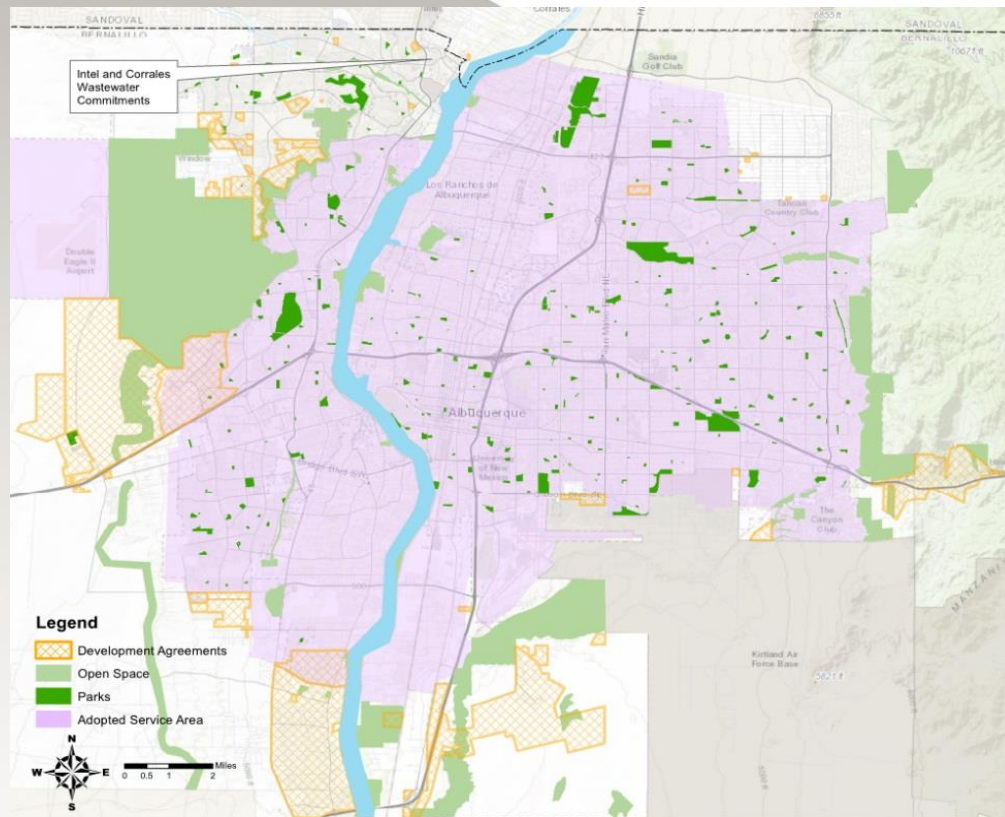
Santolina's Projected Contribution to Overall Water Demand (9% by 2065)



Existing Legal Commitments

- Development Service Area
 - Existing Service +
 - Adopted Service Area +
 - Development Agreements +
 - Contracts =

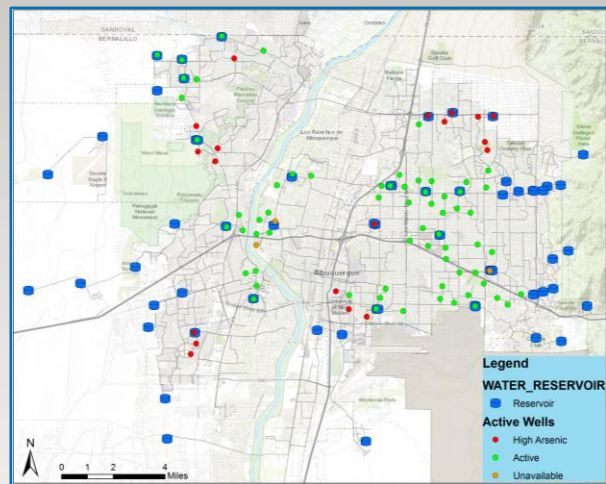
Legally Committed



Water Authority Service Area and Legal Commitments

Existing Infrastructure/Capacity

Water



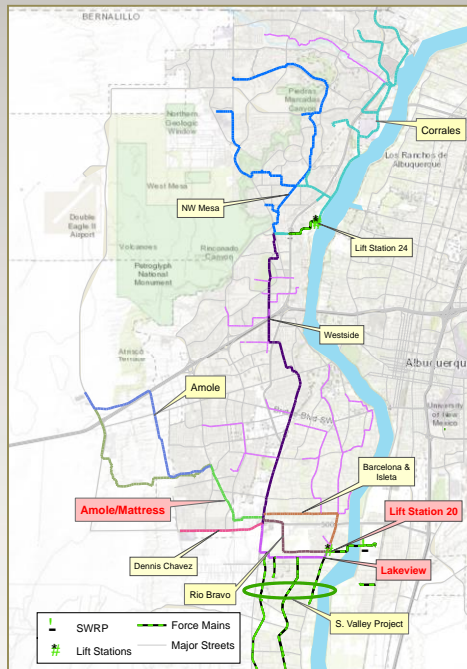
Peak Day Demand: 147 MGD (107 MGD East, 40 MGD West)

Groundwater Available Capacity: 176 MGD (146 MGD East, 30 MGD West)

Surface Water Available Capacity: 90 MGD Unavailable (Legally Committed)

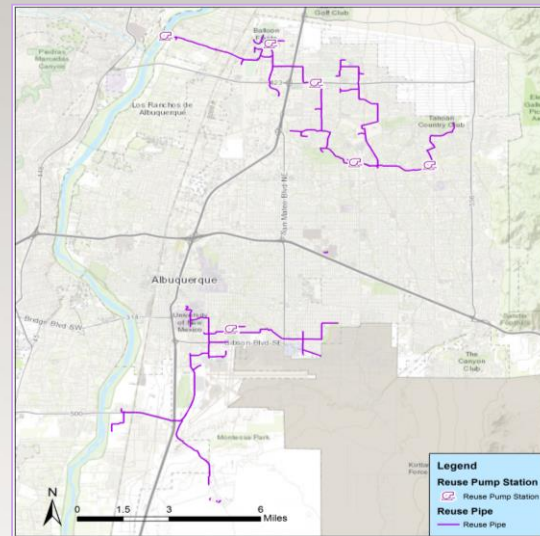
Groundwater: 73 MGD

Sewer



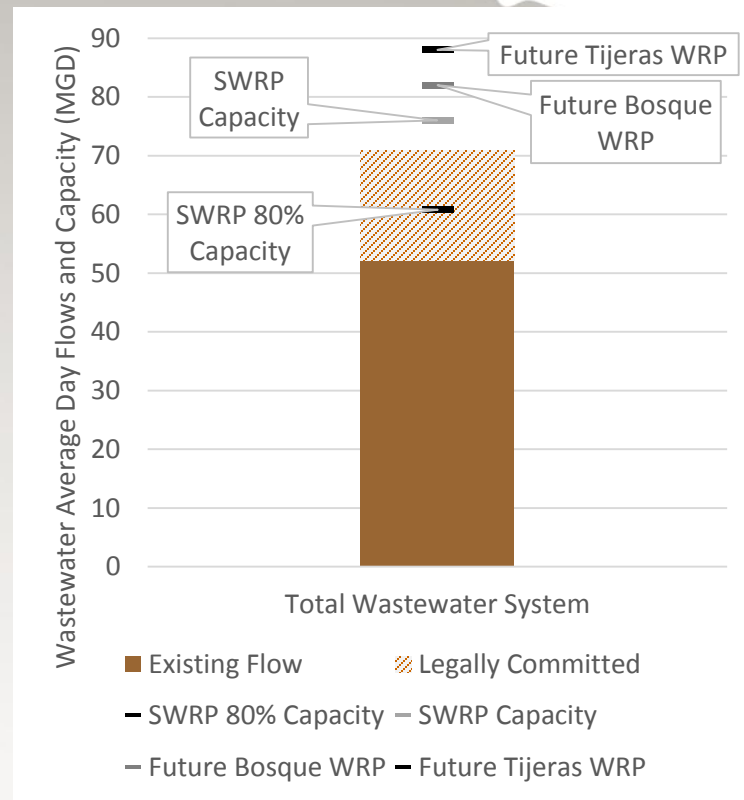
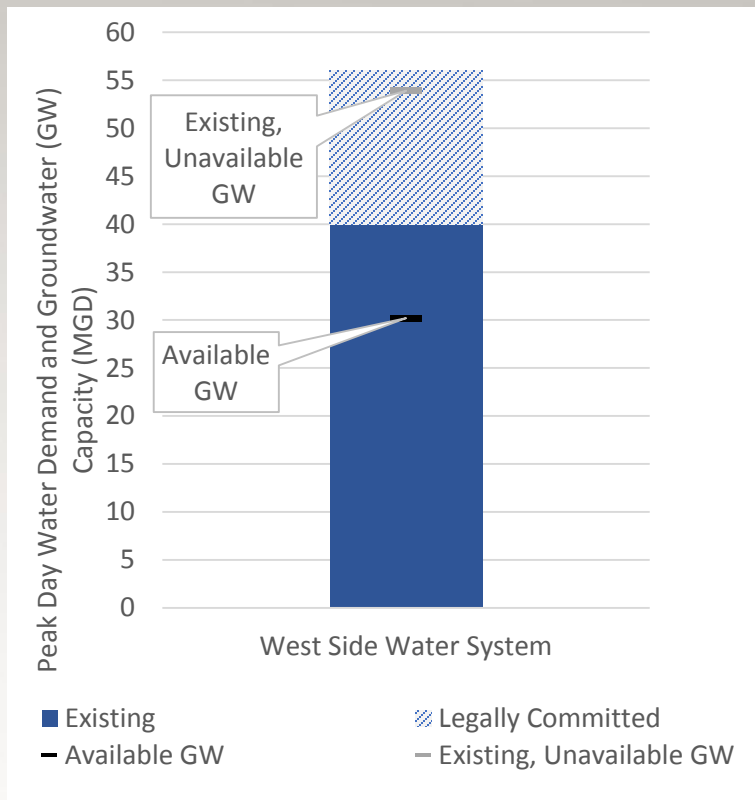
Critical for Santolina:
Lift Station 20; Lakeview
Interceptor

Reuse



Current Demand:
2.6 MGD North (4.9 Peak)
0.55 MGD South (1.2 Peak)

Water and Sewer Capacity



Santolina: Additional Infrastructure Requirements

Water Infrastructure

Pipe	13 miles transmission system pipe 12 miles raw water pipe
Storage	6 storage tanks 1000 AF raw water/reuse reservoir
Pumping	5 pump stations River diversion (Rainey collector) and pump station
Additional Groundwater Capacity	18 MGD
Treatment	5 MGD advanced WTP 10 MGD conventional WTP

Reuse Infrastructure

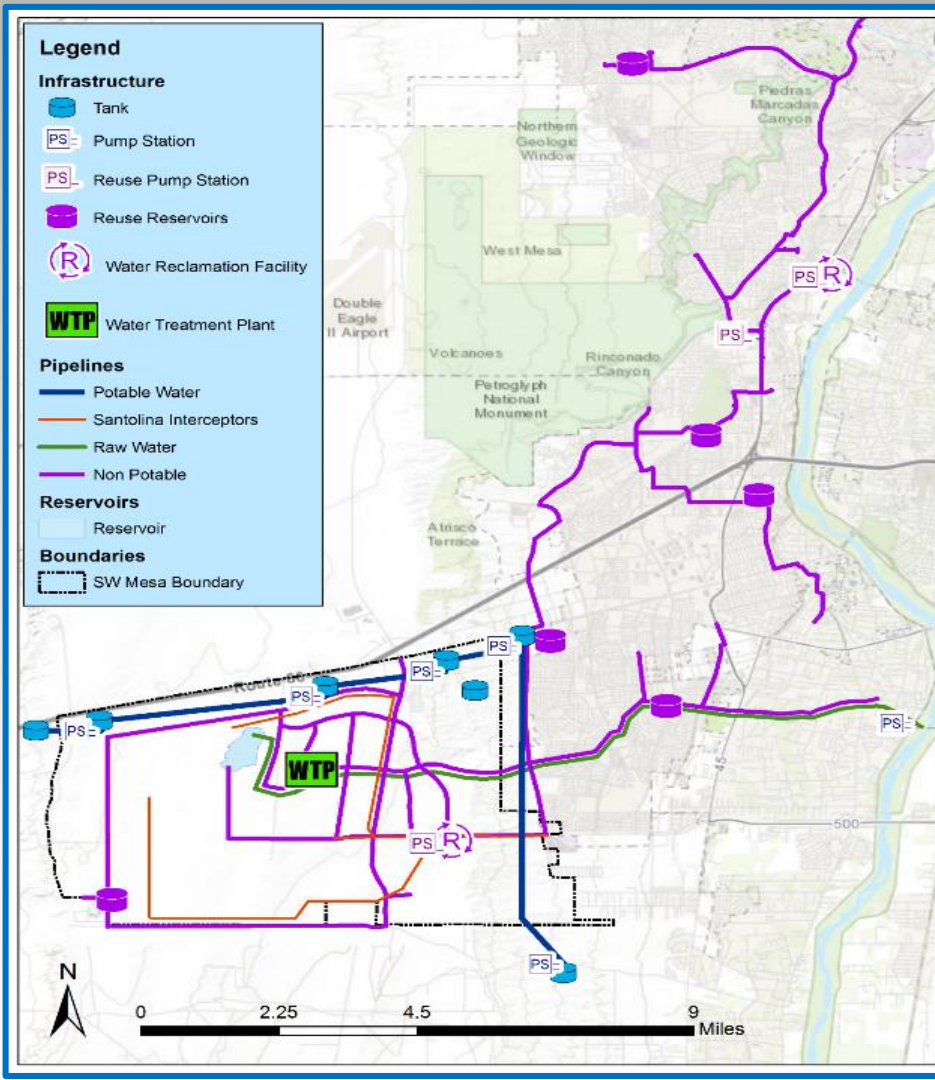
Treatment	4 MGD Bosque WRP 7 MGD WRP
Pipe	67 miles transmission system pipe
Storage	6 storage tanks
Pumping	3 pump stations

Wastewater (Sewer) Infrastructure

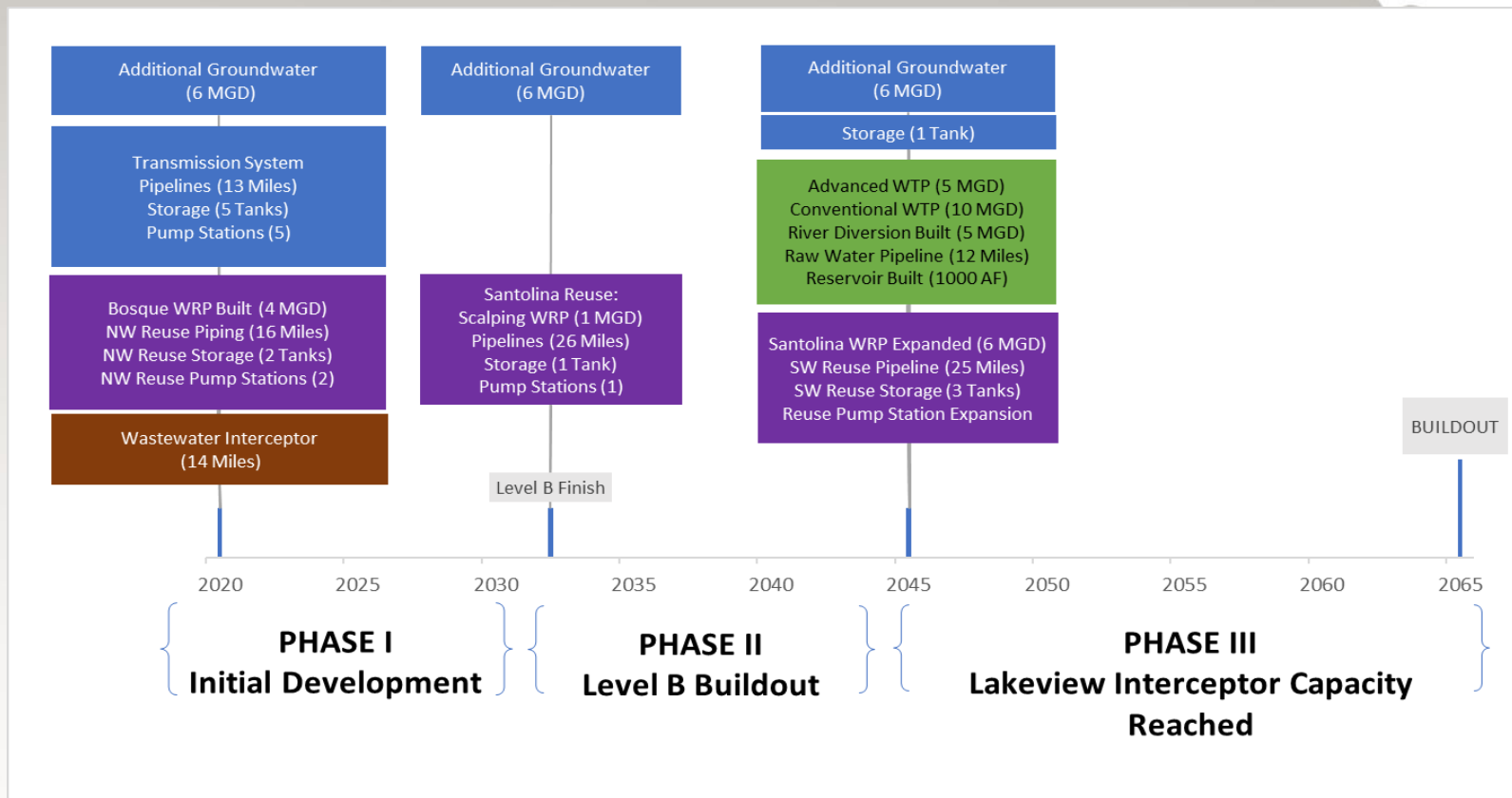
Pipe	14 miles of interceptors
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*Must be built at zero net cost to existing ratepayers

Santolina: Additional Infrastructure Requirements



Infrastructure Phasing



Questions?