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Castaic Mountainview Apartments Water Supply Assessment

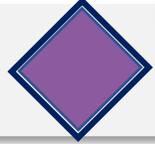
Water Resources and Watershed Committee
March 9, 2022
Item 3
Rick Vasilopoulos



Presentation Outline



SB 610 WSA Process and Requirements



Project Description & Water Demands



Available and Anticipated Water Supplies



Review and Management of Demand and Water Supply Risks



Review of SCV Water's Historical Operations



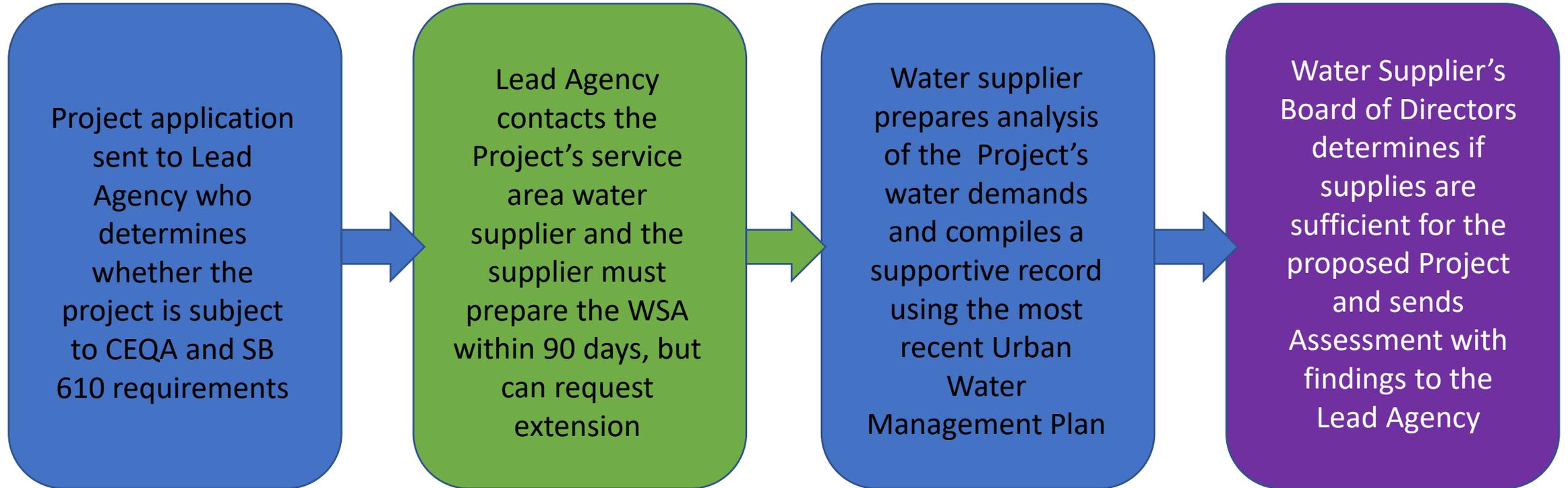
Supply and Demand Comparisons



Conclusions and Recommendations



SB 610 Water Supply Assessment Process



SB 610 Water Supply Assessment Requirements

- Analyze the Project's water demand.
- Quantity of water received by Water Supplier in prior years from:
 - Water Supply Entitlements
 - Water Service Contracts
 - Groundwater
- WSA to show 20-year projected supply will meet demands
 - For normal, single dry and multiple dry years for the Project + existing and planned future uses.
 - Future planned supplies can be considered in projections
- Water Supplier Board of Directors approval of WSA.

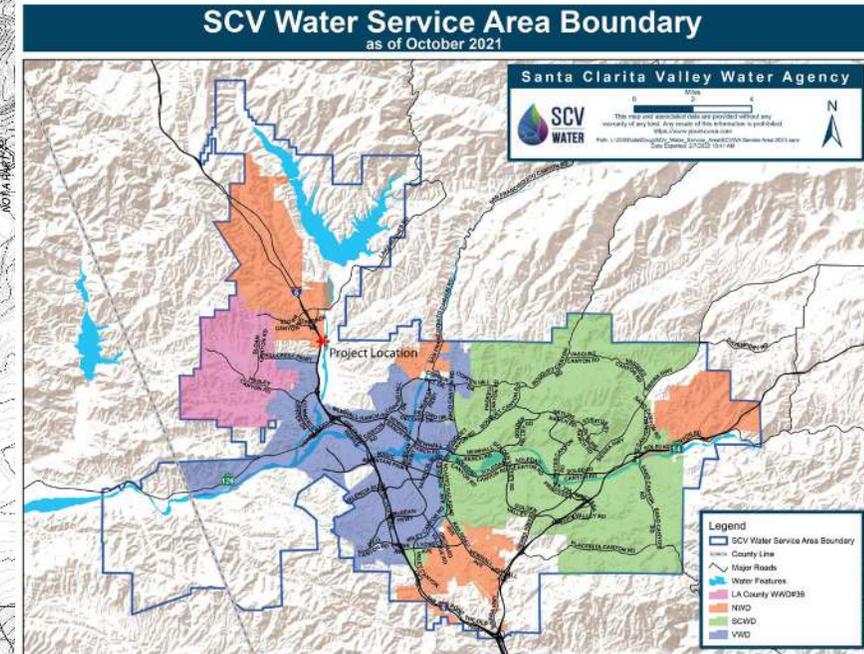
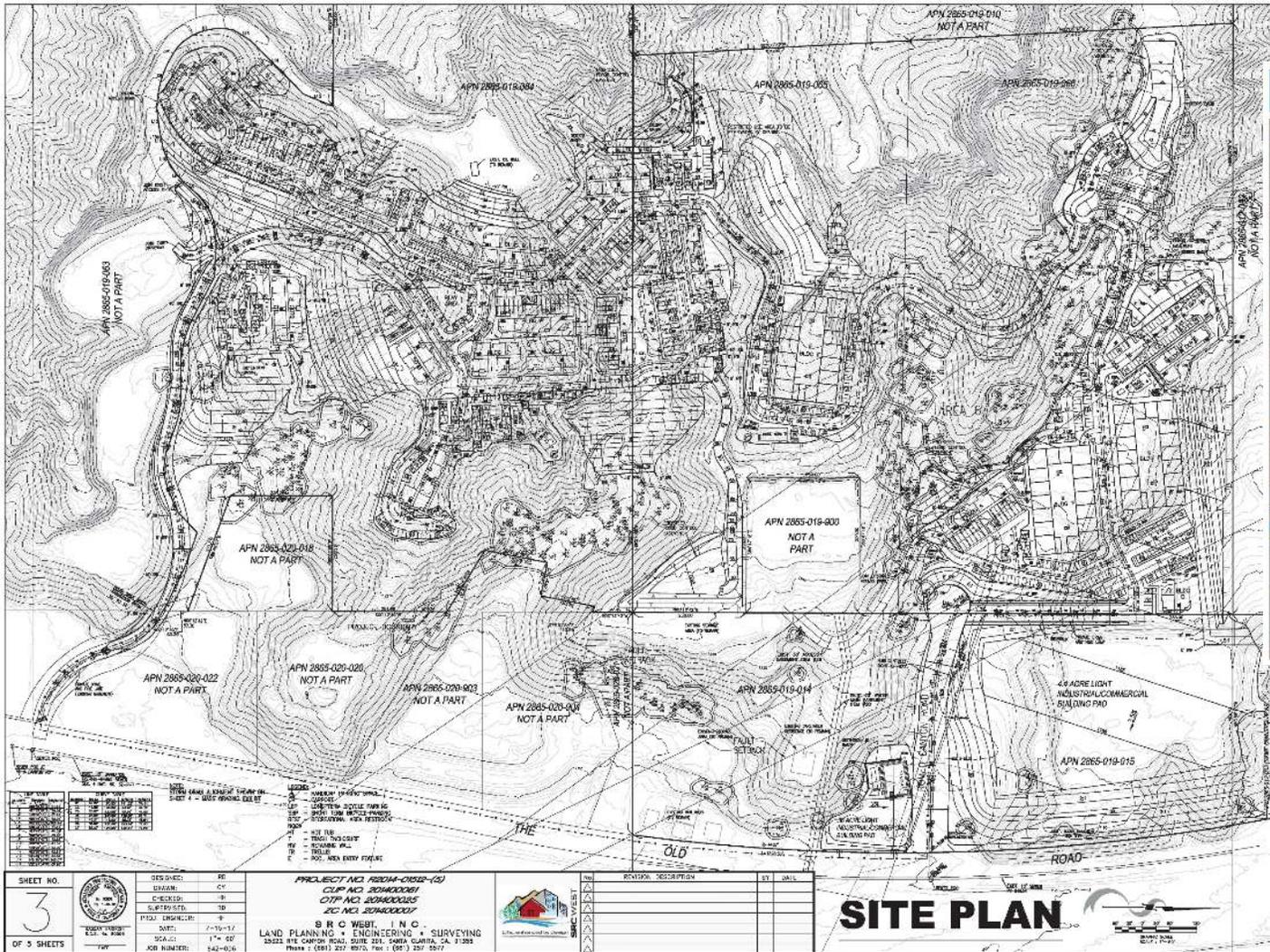


Castaic Mountainview Apartments Project Description

- The Project is within SCV Water's service area.
- The Project consists of 106 acres of residential and light industrial land use
- The Project consists of 648 residential units of varying sizes in 24 individual apartment buildings
- The Project also proposes 8 acres of light/industrial that can accommodate 351,000 square feet of building area



Castaic Mountainview Apartment Project Location



The Project is located on the West side of The Old Road at Romeo Canyon in Castaic, California.



SB 610 Requirement:

Castaic Mountainview Apartment Demand Assessment Analysis

Projected Demands			
Land Use	# of Units	Unit	Demand (AFY)
Multi-Family Residential (Apartments) - 1 Bedroom	354	Dwelling Units	47
Multi-Family Residential (Apartments) - 2 Bedroom	234	Dwelling Units	31
Multi-Family Residential (Apartments) - 3 Bedroom	60	Dwelling Units	8
Light Industrial	351	1,000 Square Feet	10
Landscaped Areas	23	Acres	72
Total Average Year Demands (AFY)			260
Projected Single Dry Year Demands (AFY)			276
Projected Multiple-Dry Year Demands (AFY)			265

- Project was included in the City of Santa Clarita and Los Angeles County's One Valley-One Vision General Plan, and Project demands were incorporated into the 2020 UWMP



Water Supply Approach

- Project's WSA relies on current and future SCVWA water supply portfolio
- The WSA references the supply portfolio as described in the 2020 UWMP with modifications due to:
 - DWR's December 2021 Draft Delivery Capability Report
 - Modified schedules for the recovery of impacted well capacity due to PFAS, VOC and Perchlorate contamination



2021 SWP Delivery Capability Report

- Draft Report Issued December 31, 2021
- Uses Updated Model (CALSIM3) with longer hydrologic record
- Draft Report indicated reduction of average reliability from 58% to 56% and single dry-year from 7% to 5%
- Analysis was updated using currently available data
- *Resulted in minor modifications to reliability tables*



Modified Schedule Well Restoration

- Saugus Well 201
 - On-line date deferred from 2022 to 2024
 - Accommodated installation and permitting for additional VOC treatment
 - Saugus Well 205
 - On-line date deferred from 2022 to 2024
 - Currently in design for Perchlorate & VOC treatments
 - PFAS impacted Alluvial Wells
 - Well supply of 15,270 AFY to return by 2025
 - Additional Well supply of 6,420 AFY to return by 2030
- *Resulted in minor modifications to reliability tables*



Current Supply Portfolio

Current Supply	Amount (AFY)
SWP Table A Amount (single dry - normal)	4,760-53,300
Groundwater	
Alluvium	15,000-16,000
Saugus	7,500-15,000
Groundwater Banking Programs	
Semitropic	5,000
Rosedale-Rio Bravo	10,000
Transfers & Exchanges	
AVEK - 2 for 1 Exchange	5,174
UWCD - 2 for 1 Exchange	500
BV-RRB Transfer Agreement	11,000
Yuba Accord Water	1,000
Recycled Water	450



Future & Proposed Supplies

Planned Supplies	Amount (AFY)	Proposed On-Line Date
Future and Recovered Groundwater		
Saugus Wells 201 & 205	5,210	2025
Saugus Wells 3 & 4	8,060	2025
Saugus Wells 5 & 6	6,460	2027
Saugus Wells 7 & 8	6,460	2030
Recovered Alluvial Wells	21,690	2030
Recycled Water		
Phase 2 Projects	2,440	2023
FivePoint Westside Communities	5,174	2021-2043
Banking Programs		
Rosedale-RB Additional Extraction	10,000	2030
Semitropic - NLF	4,950	2035
Nickel Water - NLF	1,607	2035



Groundwater Quality

- Groundwater Quality Issues
 - Restoration of PFAS impacted wells
 - Restoration of perchlorate impacted wells
 - Permitting of additional Saugus wells
- Approach consistent with 2020 UWMP
 - Historical and Current Conditions Assessed
 - Treatment methods and scheduling identified
 - Permitting path documented



Climate Change

- Restructured UWMP Information to provide additional text in main report.
- Water Demand anticipated to increase by 3.77% by 2050 consistent with DWR's SGMA approach.
- Groundwater supplies are based on modeling that incorporated the DWR's same SGMA approach
- SWP Reliability 2019 Delivery Capability Report (DCR)
 - Incorporates a sea level rise of 45 cm

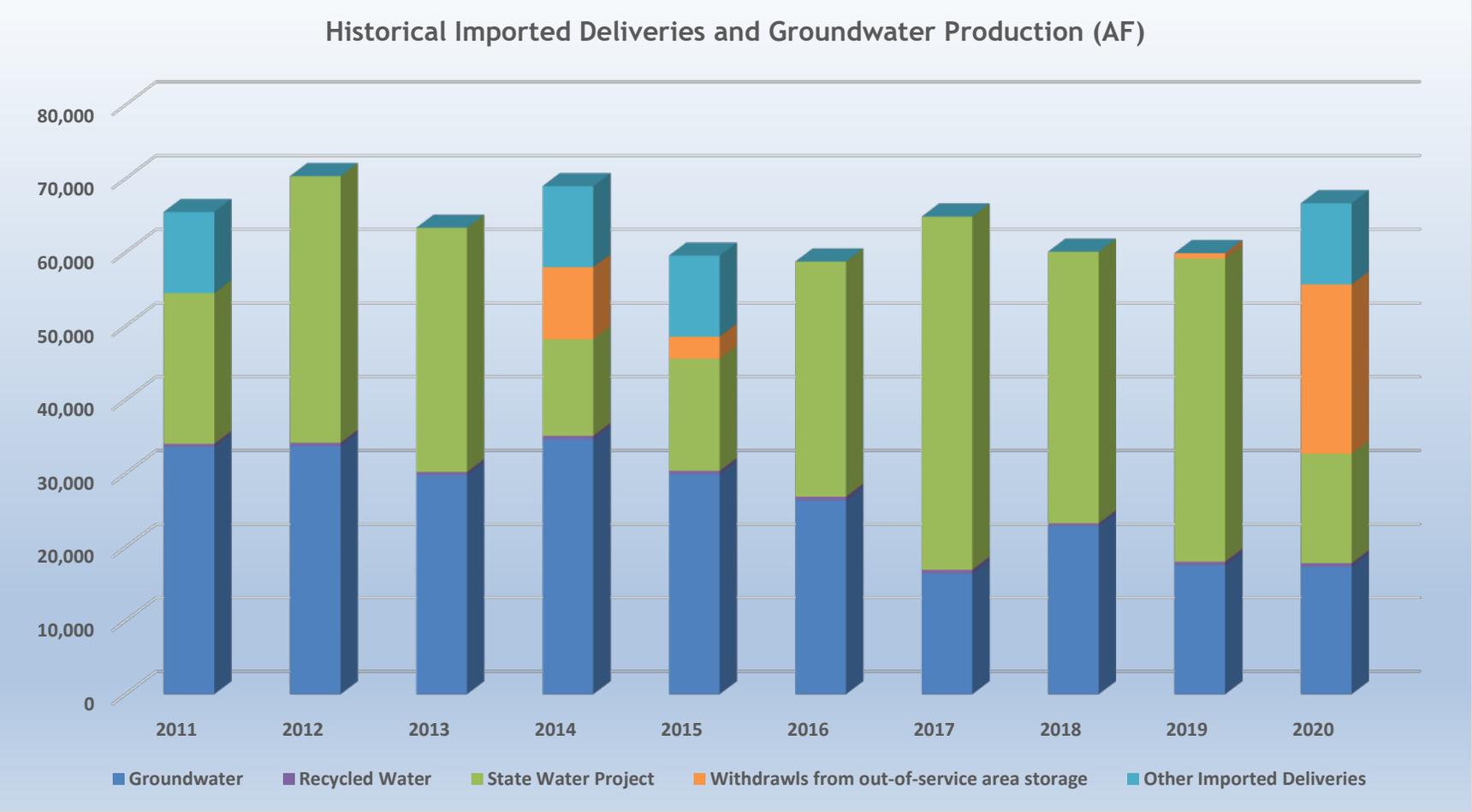


Pending Water Conservation Regulations

- Potential reduction of Indoor water use to 42 gpcd
- Potential regulation to mandate irrigation water efficiency
 - *Irrigation efficiencies gains would offset reduced recycled water availability*



SB 610 Requirement: Assessment of Recent Operations



Conclusion: SCV Water demonstrated an ability to conjunctively use its imported surface water and groundwater along with recycled water and conservation to meet water demands facing the dual challenges of severe drought and restricted groundwater supplies.



SB 610 Requirement

Water Balance Analysis Performed for:

- Normal
- Single Dry-Year
- Multiple Dry-Years

Projected Normal Year Supplies and Demands (AF)						
	2025	2030	2035	2040	2045	2050
Existing Supplies						
Existing Groundwater ^(a)						
Alluvial Aquifer	8,900	8,180	7,300	7,300	7,300	7,300
Saugus Formation	14,440	7,110	7,110	7,110	7,110	7,110
Total Groundwater	23,340	15,290	14,410	14,410	14,410	14,410
Recycled Water ^(b)						
Total Recycled	450	450	450	450	450	450
Imported Water						
State Water Project ^(c)	52,360	51,410	50,460	49,500	49,500	49,500
Flexible Storage Accounts ^(d)						
Buena Vista-Rosedale	11,000	11,000	11,000	11,000	11,000	11,000
Nickel Water - Newhall Land ^(e)	-	-	1,607	1,607	1,607	1,607
Yuba Accord Water ^(f)	1,000	-	-	-	-	-
Total Imported	64,360	62,410	63,067	62,107	62,107	62,107
Existing Banking and Exchange Programs ^(g)						
Rosedale Rio-Bravo Bank ^(g)	-	-	-	-	-	-
Semitropic Bank ^(g)	-	-	-	-	-	-
Semitropic - Newhall Land Bank ^(g)	-	-	-	-	-	-
Antelope Valley West Kern Water Agency Exchange ^(g)	-	-	-	-	-	-
United Water Conservation District Exchange ^(g)	-	-	-	-	-	-
Total Bank/Exchange	0	0	0	0	0	0
Total Existing Supplies	88,150	78,150	77,927	76,967	76,967	76,967
Planned Supplies						
Future and Recovered Groundwater ^(h)						
Alluvial Aquifer ⁽ⁱ⁾	10,340	19,870	23,490	23,490	23,490	23,490
Saugus Formation ^(j)	3,010	2,790	2,790	2,790	2,790	2,790
Total Groundwater	13,350	22,660	26,280	26,280	26,280	26,280
Recycled Water ^(k)						
Total Recycled	1,849	3,696	5,091	6,498	7,499	8,511
Planned Banking Programs						
Rosedale Rio-Bravo Bank ^{(h)(i)}	-	-	-	-	-	-
Total Banking	0	0	0	0	0	0
Total Planned Supplies	15,199	26,356	31,371	32,778	33,779	34,791
Total Supplies (Existing and Planned) ^(m)	103,349	104,506	109,298	109,745	110,746	111,758
Demands⁽ⁿ⁾						
Demands with passive conservation ⁽ⁿ⁾	82,100	89,300	97,600	104,300	109,600	115,100
Demands with passive and active conservation ⁽ⁿ⁾	76,400	81,700	88,700	93,600	97,500	101,000



SB 610 Requirement: Supply exceeds Demand

SUPPLY AND DEMAND COMPARISON with the Castaic Mountainview Apartment Project									
Year	Normal Year Supply (AF)	Normal Year Demand (AF) with Project	Remaining Balance (AF)	Single-Dry Year Supply (AF)	Single-Dry Year Demand (AF) with Project	Remaining Balance (AF)	5-Year Dry Period Supply (AF)	5-Year Dry Period Demand (AF) with Project	Remaining Balance (AF)
2025	103,349	76,400	26,949	83,419	81,000	2,419	101,303	77,830	23,473
2030	104,506	81,700	22,806	106,736	86,600	20,136	114,033	83,620	30,413
2035	109,298	88,700	20,598	117,428	94,000	23,428	125,559	90,570	34,989
2040	109,745	93,600	16,145	118,835	99,200	19,635	130,085	95,780	34,305
2045	110,746	97,500	13,246	119,836	103,400	16,436	131,015	99,670	31,345
2050	111,758	101,000	10,758	120,848	107,100	13,748	128,715	102,870	25,845

Conclusion: Water Supply exceeds projected demands in normal, multi dry-years and single dry-years throughout the study period



Conclusion:

- Staff has evaluated the long-term water demands and has compared these needs against existing and planned water supplies.
- Demand projections were based on:
 - Population projections
 - County and City land use plans
 - Both active and passive conservation
 - Climate change impacts
- The WSA concluded that the total projected water supplies over the 30-year projection period are sufficient to meet the projected demands associated with the proposed Castaic Mountainview Apartments as well as existing and planned future uses.



Recommendation

Staff recommends that the Water Resources and Watershed Committee recommend that the Board of Directors of the Santa Clarita Valley Water Agency adopt a resolution approving the SB 610 Water Supply Assessment for the Castaic Mountainview Apartment Project and direct staff to submit the WSA to the County of Los Angeles.





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Questions?

