



**SCV**  
**WATER**

# Shadowbox Studios Development Water Supply Assessment

Water Resources and Watershed Committee Meeting  
Sept 14, 2022  
Rick Vasilopoulos



# Presentation Outline



**SB 610 WSA Process and Requirements**



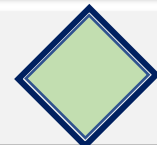
**Project Description & Water Demands**



**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**



# The Water Supply Assessment

- The WSA statute is intended to better link land use decision-making and water supply availability
- Unlike UWMPs, WSAs are project-specific analyses that are required when a city or county lead agency determines the project is subject to CEQA
- WSAs must determine whether projected supplies will be available during normal, single-dry, and multiple dry years to meet the demand of the project as well as existing and planned future uses over 20-year planning horizon
- Projected supplies can include future planned supplies
- Water supplier's Board of Directors are required to adopt a WSA
- If the water supplier concludes that water supplies are, or will be, insufficient, the water supplier "... shall provide to the City or County its plans for acquiring additional water supplies"
- An adopted WSA is not subject to direct legal challenge and can only be challenged as part of a CEQA action against the lead agency



# SB 610 Water Supply Assessment Process

Project application sent to Lead Agency who determines whether the project is subject to CEQA and SB 610 requirements

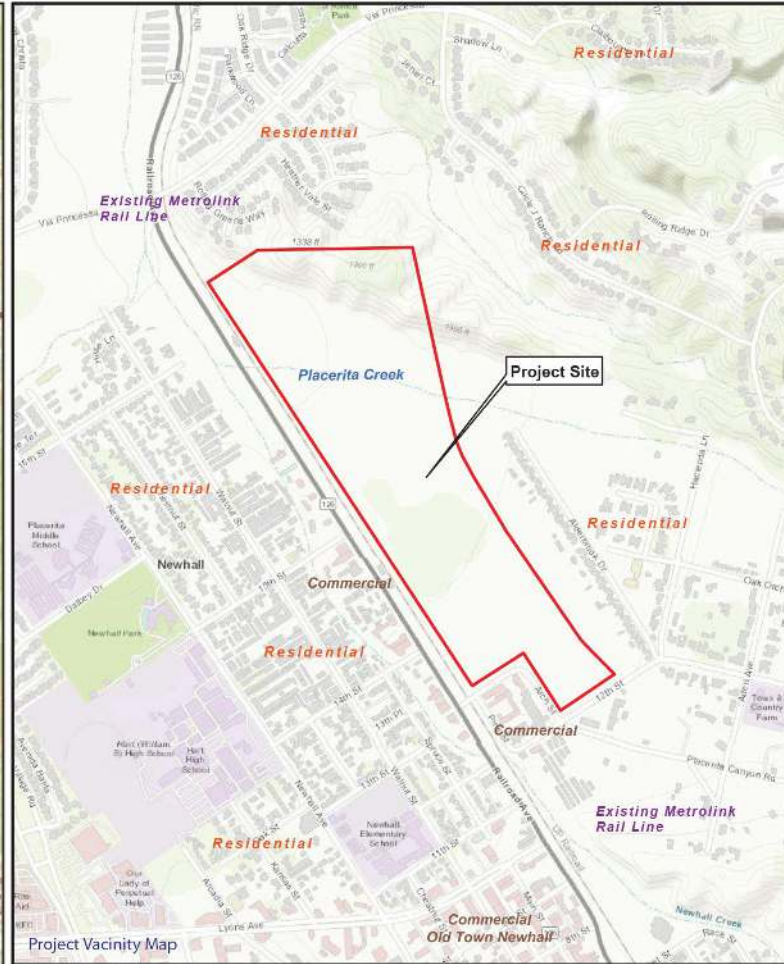
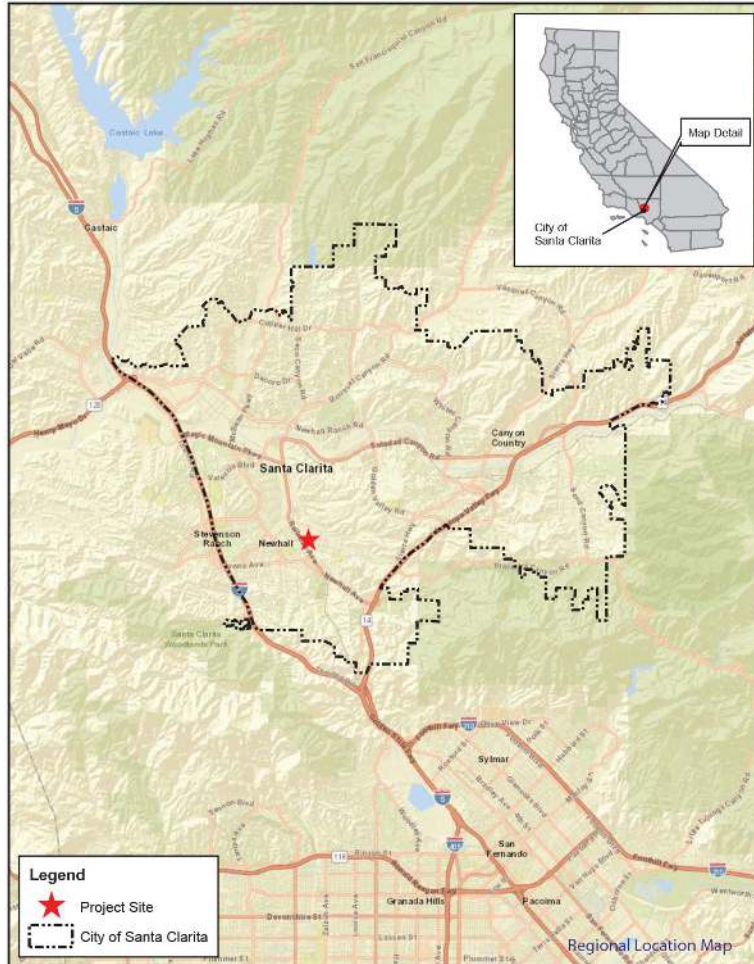
Lead Agency contacts the Project's service area water supplier, and the supplier must prepare the WSA within 90 days, but can request extension

Water supplier prepares analysis of the Project's water demands and compiles a supportive record using the most recent Urban Water Management Plan

Water Supplier's Board of Directors determines if supplies are sufficient for the proposed Project and sends Assessment with findings to the Lead Agency



# Project Location



The Shadowbox Studios Development is located between Via Princessa Avenue and 12<sup>th</sup> Street east of the Railroad Avenue



# Shadowbox Studios Project Description

- The Project is within SCV Water's service area.
- The Project consists of:
  - 473,000 sf of sound stages
  - 561,500 sf of workshops, warehouses and support uses
  - 221,000 sf of production and administrative offices
  - 37,500 sf of catering and specialty services
  - 17.1 acres of landscape irrigation



# SB 610 Requirement:

## Shadowbox Studios

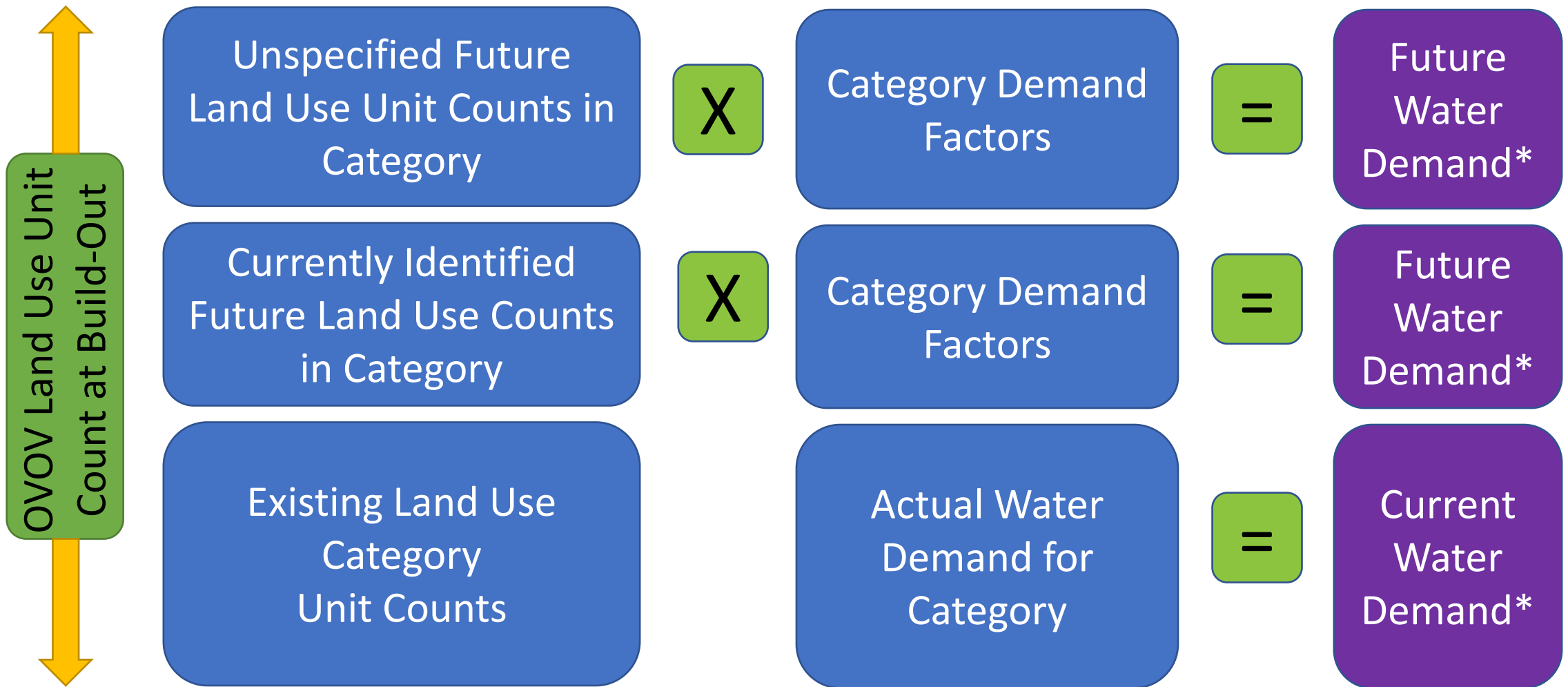
### Demand Assessment Analysis

WATER DEMAND ESTIMATES - SHADOWBOX STUDIOS DEVELOPMENT			
Unit	# of units	Unit Type	Demand (AFY)
Landscape Irrigation	17.1	Acres	55.71
Commercial/Office	266	TSF	64.8
Industrial	1018	TSF	76.2
<b>Total Average Year Demands (AFY)</b>			<b>197</b>
<b>Projected Single Dry Year Demands (AFY)</b>			<b>209</b>
<b>Projected Multiple Dry Year Demands (AFY)</b>			<b>201</b>

Note: Totals reflect additional overwatering factor of 25.6% for commercial uses and 3.77% climate change factor



# Build-out Water Demand Methodology

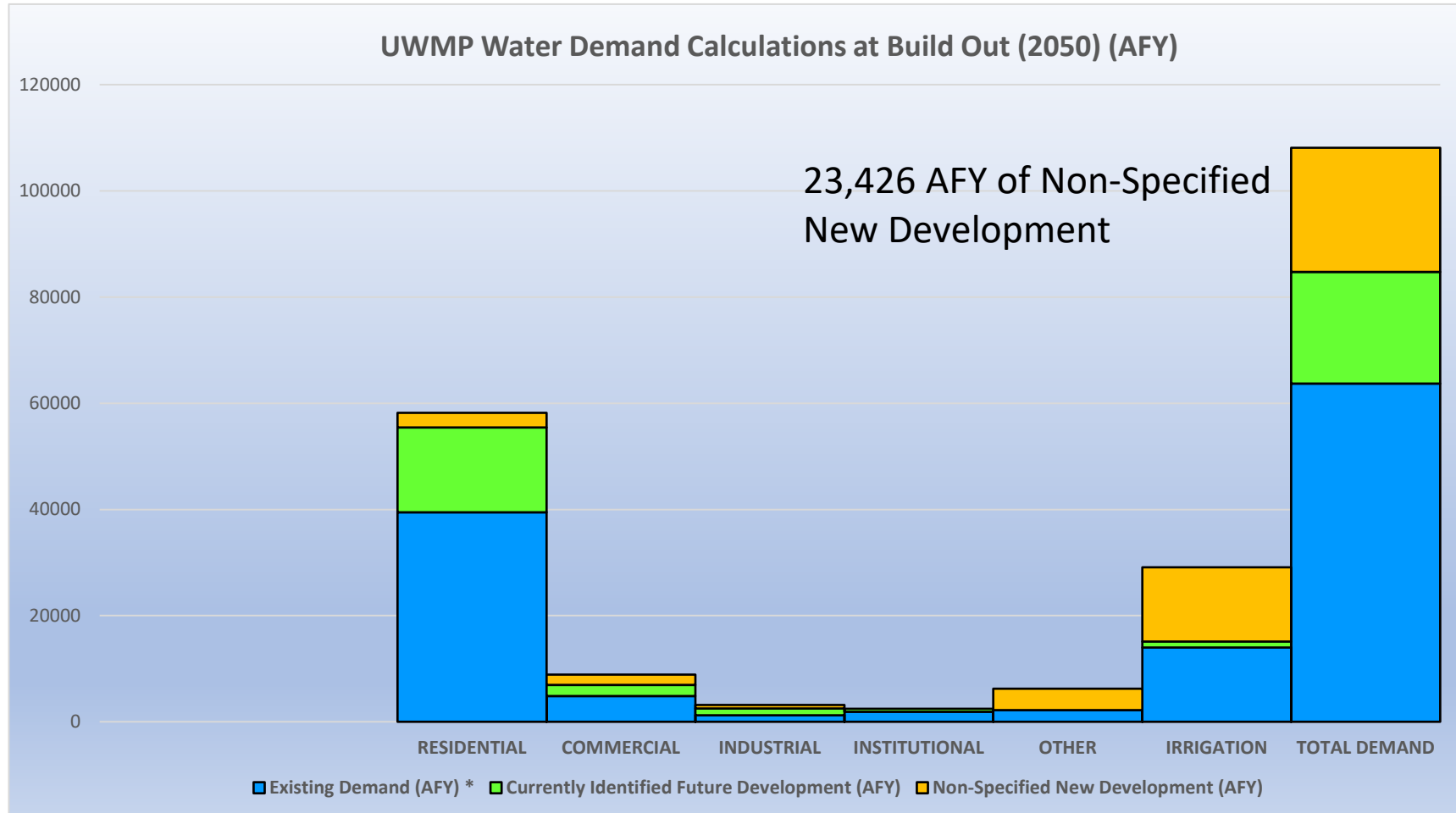


\* Adjusted Annually for Climate Change and Conservation





# Valley Build-out Demand Calculations



# 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 2025
    - Currently in design for Perchlorate & VOC treatments
  - PFAS impacted Alluvial Wells
    - Nine wells restored by 2025
    - Remaining wells to be restored 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
<b>Groundwater</b>	
Alluvium	14,980-15,630
Saugus	15,000-7,500
<b>Groundwater Banking Programs</b>	
Semitropic	5,000
Rosedale-Rio Bravo	10,000
<b>Transfers &amp; Exchanges</b>	
AVEK - 2 for 1 Exchange	2,350
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	5,820-5,030	2024-2025
Saugus Wells 3 & 4	5,240-60	2025
Saugus Wells 5 & 6	3,880-60	2027
Saugus Wells 7 & 8	3,880-60	2030
Recovered Alluvial Wells	20,500-23,490	2030
Recycled Water		
Phase 2 Projects	2,440	2021-2029
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



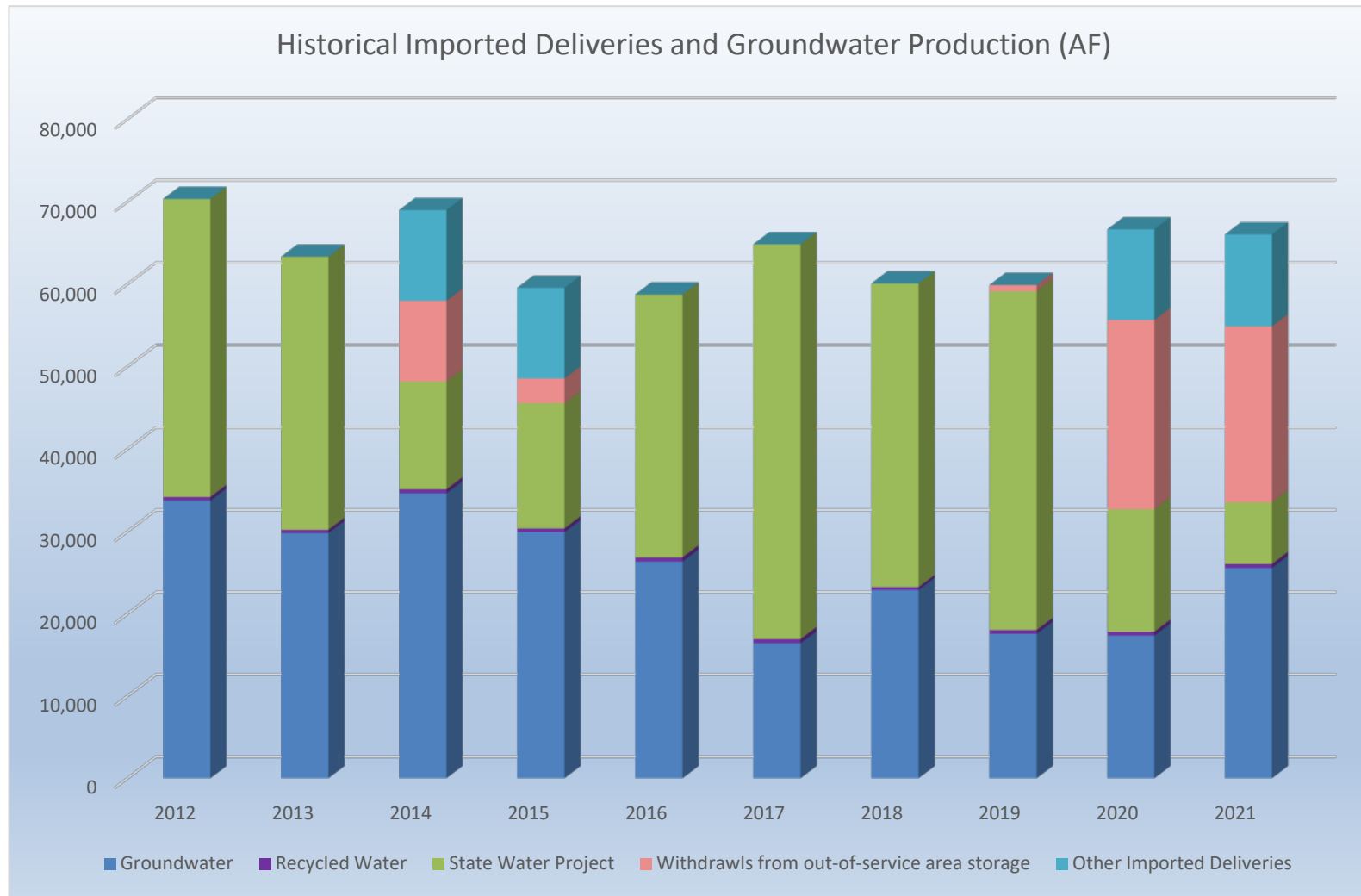


# Pending Water Conservation Regulations

- 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
<b>Existing Supplies</b>						
Existing Groundwater <sup>(a)</sup>						
Alluvial Aquifer <sup>(o)</sup>	8,900	8,180	7,300	7,300	7,300	7,300
Saugus Formation <sup>(o)</sup>	12,940	7,110	7,110	7,110	7,110	7,110
<b>Total Groundwater</b>	<b>21,840</b>	<b>15,290</b>	<b>14,410</b>	<b>14,410</b>	<b>14,410</b>	<b>14,410</b>
Recycled Water <sup>(b)</sup>						
<b>Total Recycled</b>	<b>450</b>	<b>450</b>	<b>450</b>	<b>450</b>	<b>450</b>	<b>450</b>
Imported Water						
State Water Project <sup>(c)</sup>	52,360	51,410	50,460	49,500	49,500	49,500
Flexible Storage Accounts <sup>(d)</sup>						
Buena Vista-Rosedale	11,000	11,000	11,000	11,000	11,000	11,000
Nickel Water - Newhall Land <sup>(e)</sup>	-	-	1,607	1,607	1,607	1,607
Yuba Accord Water <sup>(f)</sup>	1,000	-	-	-	-	-
<b>Total Imported</b>	<b>64,360</b>	<b>62,410</b>	<b>63,067</b>	<b>62,107</b>	<b>62,107</b>	<b>62,107</b>
Existing Banking and Exchange Programs <sup>(g)</sup>						
Rosedale Rio-Bravo Bank <sup>(g)</sup>	-	-	-	-	-	-
Semitropic Bank <sup>(g)</sup>	-	-	-	-	-	-
Semitropic - Newhall Land Bank <sup>(g)</sup>	-	-	-	-	-	-
Antelope Valley West Kern Water Agency Exchange <sup>(g)</sup>	-	-	-	-	-	-
United Water Conservation District Exchange <sup>(g)</sup>	-	-	-	-	-	-
<b>Total Bank/Exchange</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Existing Supplies</b>	<b>86,650</b>	<b>78,150</b>	<b>77,927</b>	<b>76,967</b>	<b>76,967</b>	<b>76,967</b>
<b>Planned Supplies</b>						
Future and Recovered Groundwater <sup>(h)</sup>						
Alluvial Aquifer <sup>(i)(o)</sup>	9,845	19,870	23,490	23,490	23,490	23,490
Saugus Formation <sup>(j)(o)</sup>	3,000	2,790	2,790	2,790	2,790	2,790
<b>Total Groundwater</b>	<b>12,845</b>	<b>22,660</b>	<b>26,280</b>	<b>26,280</b>	<b>26,280</b>	<b>26,280</b>
Recycled Water <sup>(k)</sup>						
<b>Total Recycled</b>	<b>1,849</b>	<b>3,696</b>	<b>5,091</b>	<b>6,498</b>	<b>7,499</b>	<b>8,511</b>
Planned Banking Programs						
Rosedale Rio-Bravo Bank <sup>(h)(l)</sup>	-	-	-	-	-	-
<b>Total Banking</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Planned Supplies</b>	<b>14,694</b>	<b>26,356</b>	<b>31,371</b>	<b>32,778</b>	<b>33,779</b>	<b>34,791</b>
<b>Total Supplies (Existing and Planned)<sup>(m)</sup></b>	<b>101,344</b>	<b>104,506</b>	<b>109,298</b>	<b>109,745</b>	<b>110,746</b>	<b>111,758</b>
<b>Demands<sup>(n)</sup></b>						
Demands with passive conservation <sup>(n)</sup>	82,100	89,300	97,600	104,300	109,600	115,100
Demands with passive and active conservation <sup>(n)</sup>	76,400	81,700	88,700	93,600	97,500	101,000



# SB 610 Requirement: Supply exceeds Demand

SUPPLY AND DEMAND COMPARISON with the Shadowbox Studios 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	101,344	76,400	24,944	88,689	81,000	7,689	105,643	77,830	27,813
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	125,555	90,570	34,985
2040	109,745	93,600	16,145	118,835	99,200	19,635	130,089	95,780	34,309
2045	110,746	97,500	13,246	119,836	103,400	16,436	131,020	99,670	31,350
2050	111,758	101,000	10,758	120,848	107,100	13,748	128,720	102,870	25,850

**Conclusion: Water Supply is sufficient to meet 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 will be sufficient to meet the projected demands associated with the proposed Shadowbox Studios Development as well as existing and planned future uses.



# Recommendation

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 Shadowbox Studios Development and direct staff to submit the WSA to the City of Santa Clarita.





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**Questions?**

