## Tapia Ranch Water Supply Assignment

BOARD OF DIRECTORS MEETING

JULY 17, 2018

**IIEM** 6.1

#### Overview of Annexation Process

A

- Application/Deposit and Funding Agreement
  - Determine project demand
  - De termine BV-RRB Water Supply is a vailable

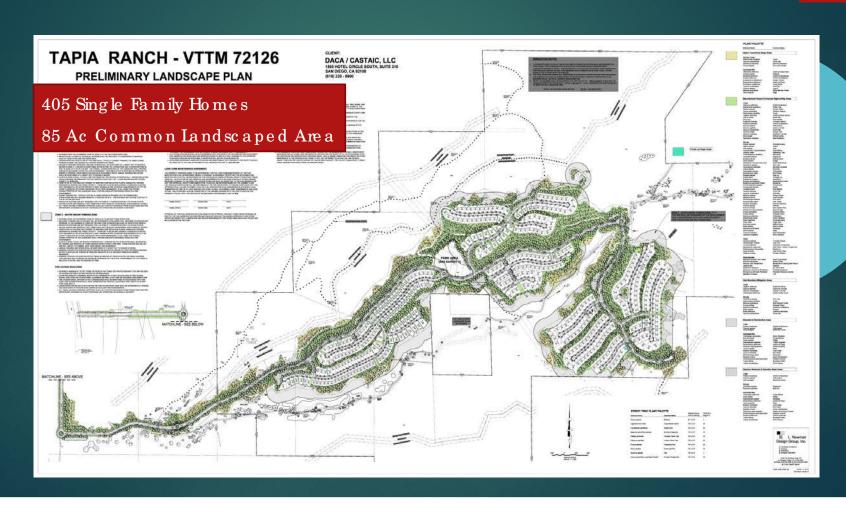
B

- Negotia te Annexa tion Agreement
- Initia te LAFCO process
- Applicant acquires entitlements/CEQA

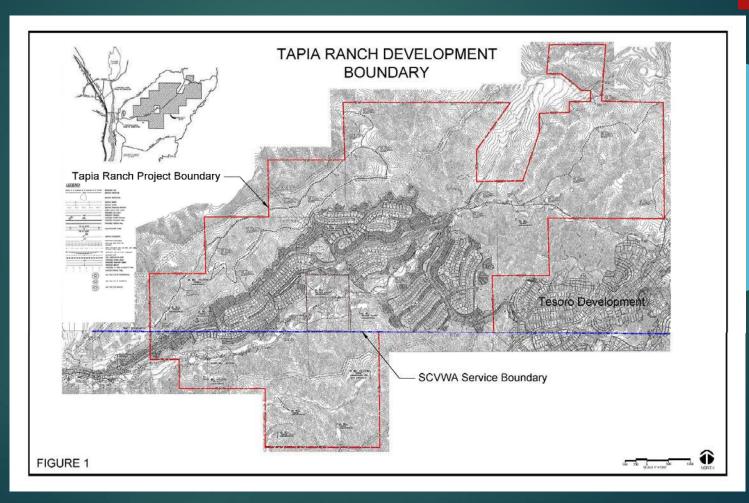
C

- Board Approval of Annexation Agreement and conditions precedent (including DWR Approval)
- IAFCO approval

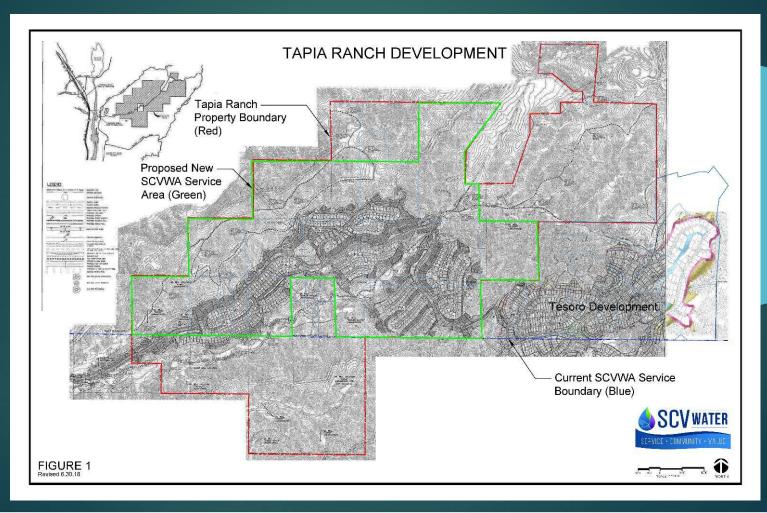
#### Tapia Canyon



#### Tapia Ranch Development Boundary



#### Re vise d Anne xa tio n Are a



#### BV-RRB Water Purchase

- ► September 2002 Final EIR by BV-RRB for project to create supply by reregulation of high flow Kern River water
- Oc to ber 2006 Final EIR by CLWA for Acquisition
  - ▶ 11,000 AF for in service area demand
  - ▶ 4,735 AF for five antic ip a ted annexations (Estimate of 750 AF for Tapia Canyon)
- May 2007 Purchase Agreement executed

#### BV-RRB Background (Continued)

- ▶ 2008 Downturn in housing market
- Only Legacy entered into Deposit and Funding Agreement
- ▶ 2008 Wanger Decision reduced SWP reliability
  - ▶ Agency reserved all BV-RRB water for in service area use
- ▶ 2012 3000 AF made available to Legacy and Tesoro Annexations
- ▶ 2014 Tapia undernew ownership approached Agency re annexation
- $\triangleright$  2016 2015 UWMP Adopted
- ▶ 2017 Deposit and Funding Agreement Executed for Tapia Canyon
- ▶ 2018 Water Resources and Watershed Committee reviewed BVRRB water supply availability

#### Water Demand Determination

- Approach
  - ► Sing le-family home demand based on lot size and demand factors from a djacent new construction
  - Common landscape areas based on developers landscape plans and current landscaping ordinances
  - ▶ Long-term estimated waterdemand of 489 AF/Yr

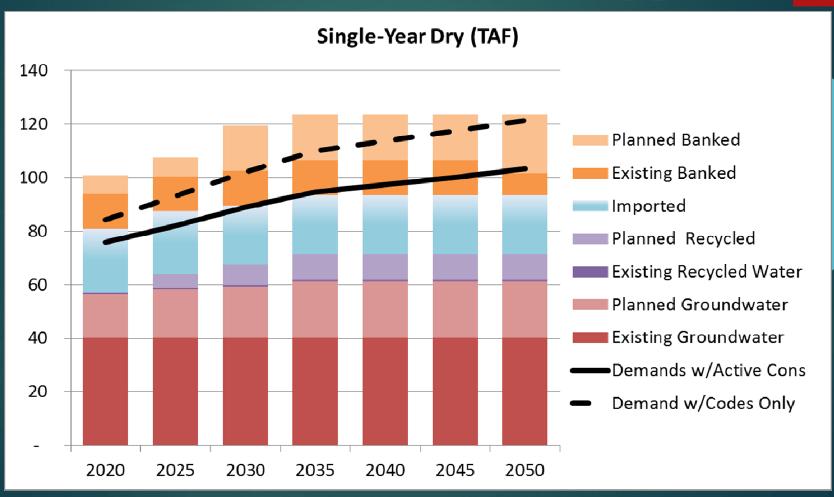
# Annexation Demands Included in 2015 SCV UWMP

Annexing Development	2015 UWMP	Current	
Potentially Using BV-RRB	Estim a te	Estim a te	
Supplie s	(AFY)	(AFY)	
Legacy	2,500	2,500	
Te so ro	500	389	
Ta p ia	575	489	
To ta l	3,575	3,378	

#### 2015 SCV UWMP – 2050 Water Balance

Supply Source	Average/ Normal	Sing le Dry-Ye a r	4-Year Drought	3-Year Drought
Existing Groundwater	31,545	40,215	36,175	35,875
Existing Recycled	450	450	450	450
Existing Imported	70,707	22,087	45,177	33,167
Bank/Exchanges		7,950	7,950	7,950
Future Groundwater	10,230	20,335	21,875	21,325
Future Recycled	9,604	9,604	9,604	9,604
Future Bank/Exchanges		22,000	22,000	22,000
To tal Supply	122,536	122,641	143,231	130,371
Demand w/ Active	93,900	103,300	103,300	103,300
Conse rva tion				
Surplus	28,636	19,342	39,931	27,071

#### 2015 UWMP - Demand and Supplies



#### Water Supply Reliability Analysis

- Alternative Water Supply Scenarios can be explored by reviewing the 2017 Water Supply Reliability Report Update
- ▶ Differs from UWMP Analysis
  - ► Employs a study period of 2017-2050
  - ▶ Demands increase throughout study period
  - ► Local and imported supplies vary with hydrology
  - ► Waterbanking/exchange programs are operated through 86 hydrologic sequences
  - ▶ Provides probabilities of meeting water demands

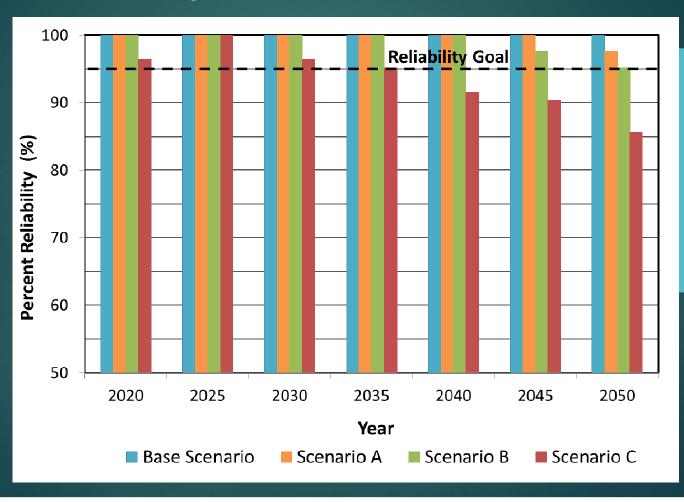
#### Water Supply Reliability Plan Scenarios Evaluated

#### BASE SCENARIO:

Based on 2015 UWMP demand, supply, and storage program assumptions

Base scenario with:  • SWP supplies via CA WaterFix  • Moderate supply reductions • Reduced SWP supply re liability • Large reduction in SWP supply re liability • Additional limits on ground water supplies and recycled water use	SCENARIO A	SCENARIO B	SCENARIO C
	• SWP supplies via CA	<ul> <li>Moderate supply reductions</li> <li>Reduced SWP supply re liability</li> <li>Less increase in Saugus pumping capacity and</li> </ul>	<ul> <li>Large supply reductions</li> <li>Large reduction in SWP supply reliability</li> <li>Additional limits on ground water supplies</li> </ul>

#### Initia l Re lia b ility of Sc e na rio s



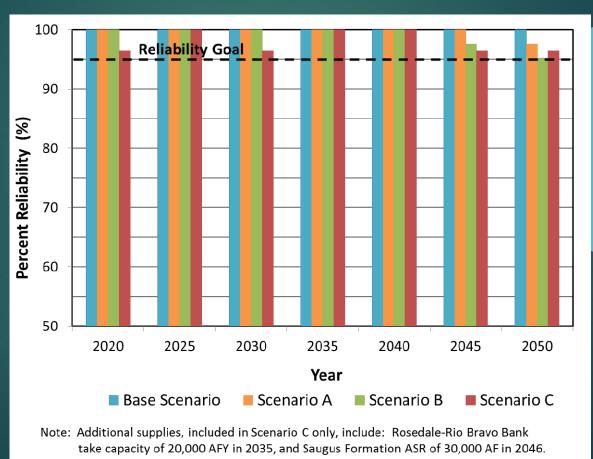
#### 2050 Base Case vs. Scenario C

So urc e	Normal-Year		Single Dry-Year		
	Ba se Ca se	Scenario C	Ba se Ca se	Scenario C	Diffe re nc e
SWP Table A	60,000	42,800	7,600	7,600	
Rosedale Bank	N/A	N/A	20,000	10,000	10,000
Ne w ha ll Se m itro p ic Ba nk	N/A	N/A	4,950	No t in Sc e na rio	4,950
Ne w Bank	N/A	N/A	5,000	Not in Scenario	5,000
Alluvium	31,100 (Max) 29,000 (50% Prob.)	31,100 (Max) 27,400 (50%Prob.)	27,400	20,600	6,800
Saugus	10,700	10,700	33,200	10,700	22,500
				To tal	49,250

#### Scenario C: Mitigation Actions

- Conclusions:
  - ▶ Storage programs rather than additional supplies
  - ► Additional with drawal capacity from storage programs
- Can achieve 95% reliability goal through various programs and/or combinations of programs
- ▶ Po te ntia l a c tio ns use d in re lia b ility e va lua tio n:
  - Existing Rights Rosedale-Rio Bravo Banking Program
    - ▶ Increased take capacity to 20 TAFY by 2035
  - Access to Five Point Rights in Semitropic (Part of NR Specific Plan)
  - ► Create Saugus Formation Water Bank
- ▶ Otherprograms could a chieve similar reliability results

#### Re liability of Scenarios with Scenario C Potential Actions Evaluated



### Tapia Canyon Payment for Past Acquisition and Carrying Costs

Type of Cost	Tapia Canyon Share
Ac q uisitio n C o st	706,109
Carrying Cost (2007-2018)	3,399,083
Water Sales Credits	<u>330,075</u>
To ta l	3,775,117

#### Conclusion

- ► Sufficient BV-RRB water supply is a vailable under 2015 UWMP planning assumptions
- ► Under less optimistic planning assumptions, the Agency has sufficient average water supplies and dry-year demands can be met through investments in storage programs

#### Recommendations

► The Water Resources and Watershed Committee recommends that the Board of Directors approve a resolution determining that 489 acre-feet per year of Buena Vista-Rosedale Rio Bravo Water Supply is available for possible use for the proposed Tapia Annexation.