# Tapia Ranch Water Supply Assignment

BOARD OF DIRECTORS MEETING

JULY 17, 2018

ITEM 6.1

# Overview of Annexation Process

**A**

- Application/Deposit and Funding Agreement
  - Determine project demand
  - Determine BV-RRB Water Supply is available

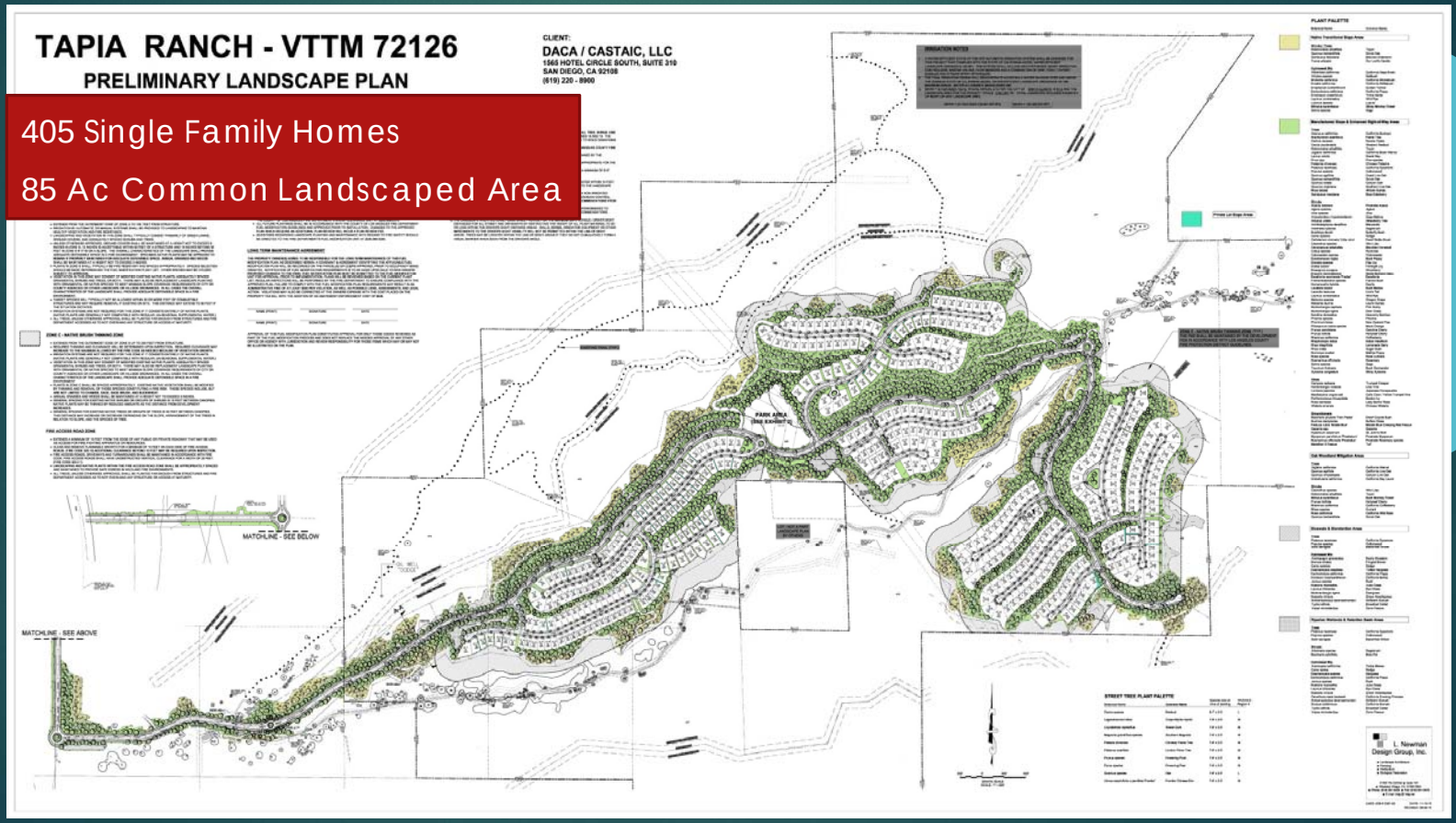
**B**

- Negotiate Annexation Agreement
- Initiate LAFCO process
- Applicant acquires entitlements/CEQA

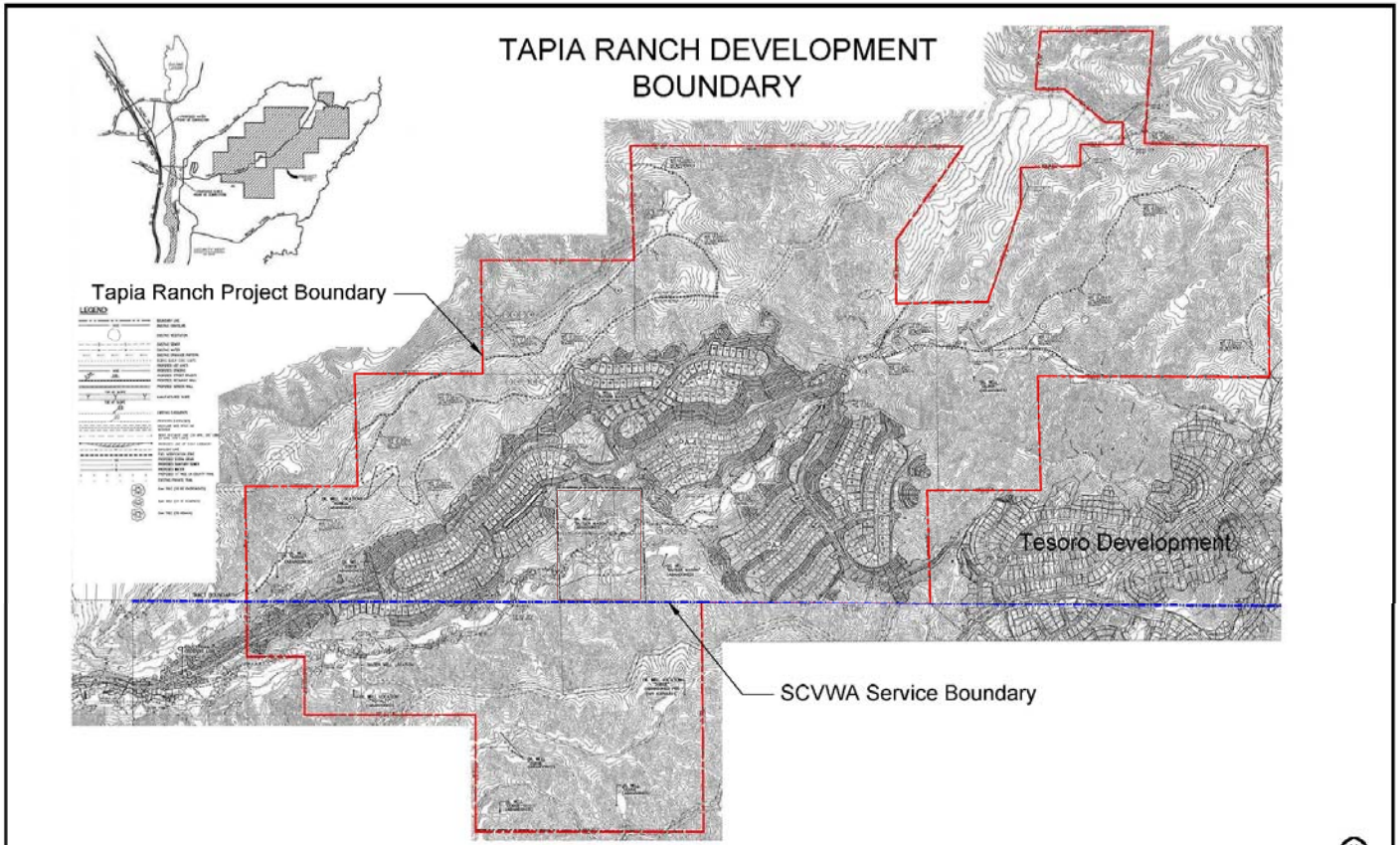
**C**

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

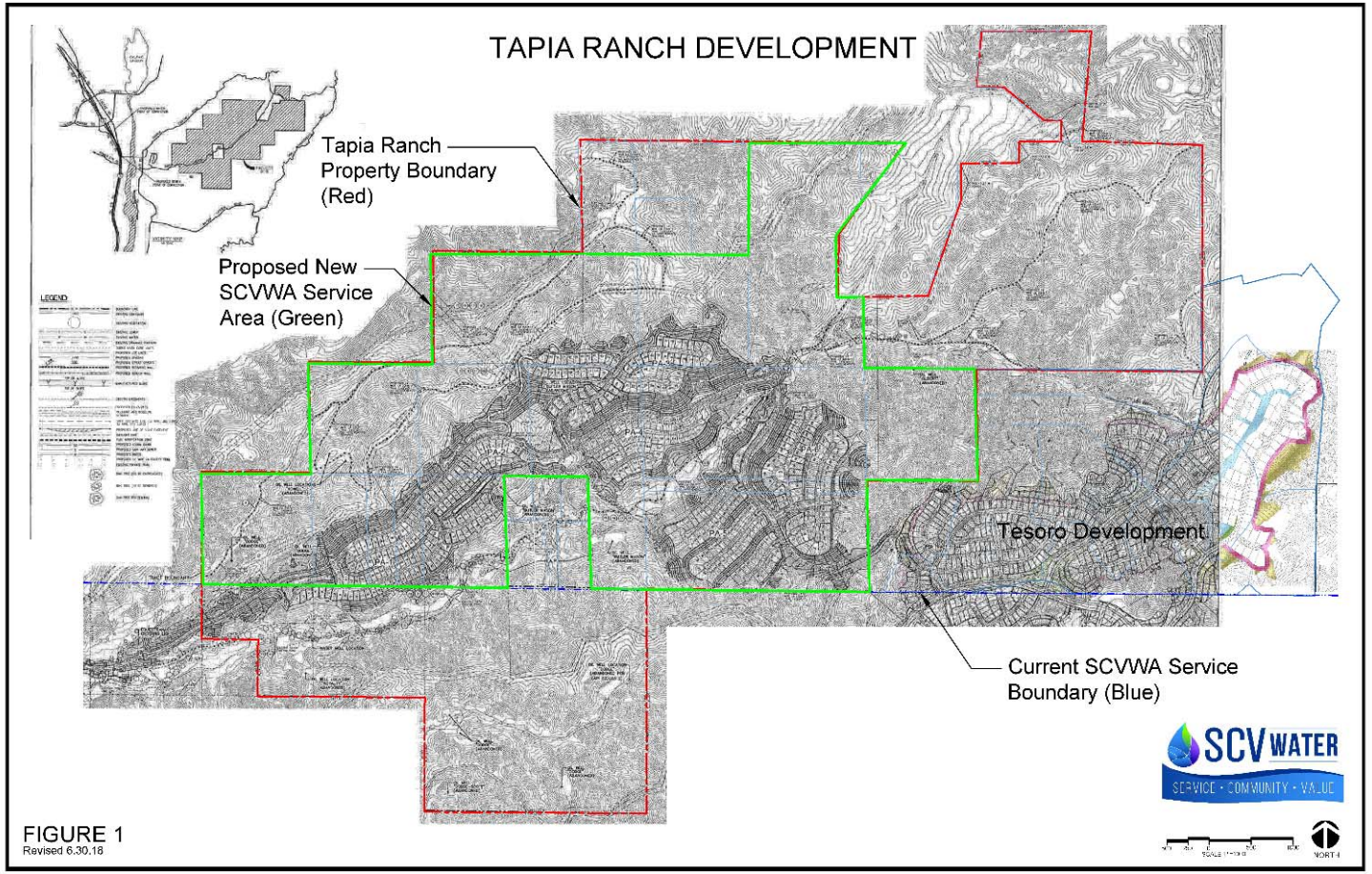
# Tapia Canyon



# Tapia Ranch Development Boundary



# Revised Annexation Area



# BV-RRB Water Purchase

- September 2002 Final EIR by BV-RRB for project to create supply by reregulation of high flow Kern River water
- October 2006 Final EIR by CLWA for Acquisition
  - 11,000 AF for in service area demand
  - 4,735 AF for five anticipated 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 under new ownership approached Agency re annexation
- 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
  - Single-family home demand based on lot size and demand factors from adjacent new construction
  - Common landscape areas based on developers landscape plans and current landscaping ordinances
  - Long-term estimated water demand of 489 AF/Yr

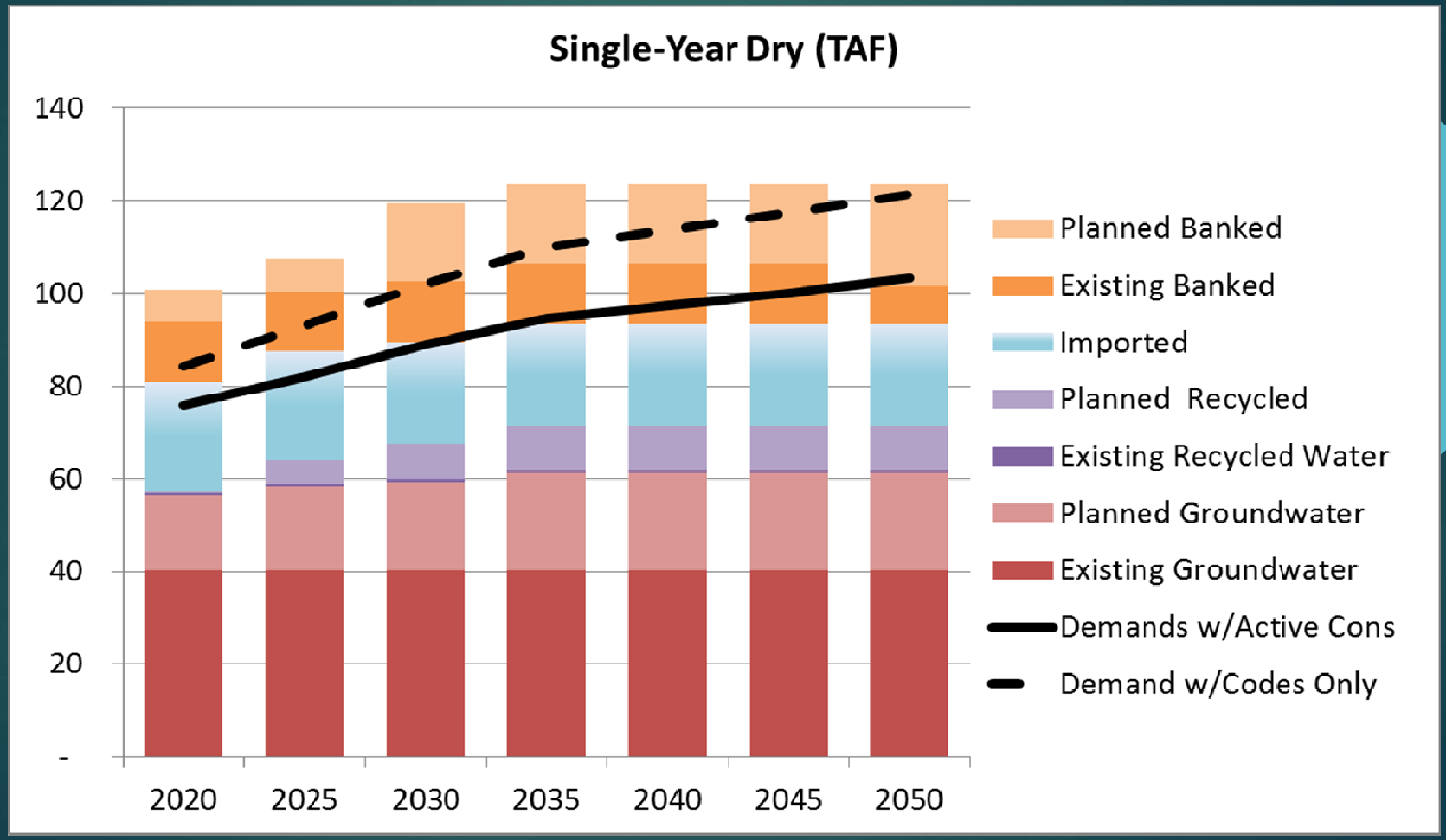
# Annexation Demands Included in 2015 SCV UWMP

| Annexing Development Potentially Using BV-RRB Supplies | 2015 UWMP Estimate (AFY) | Current Estimate (AFY) |
|---|---|---|
| Legacy | 2,500 | 2,500 |
| Tesoro | 500 | 389 |
| Tapia | 575 | 489 |
| Total | 3,575 | 3,378 |

# 2015 SCV UWMP – 2050 Water Balance

| Supply Source | Average/ Normal | Single Dry-Year | 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 |
| Total Supply | 122,536 | 122,641 | 143,231 | 130,371 |
| Demand w/ Active Conservation | 93,900 | 103,300 | 103,300 | 103,300 |
| Surplus | 28,636 | 19,342 | 39,931 | 27,071 |

# 2015 UWMP - Demand and Supplies



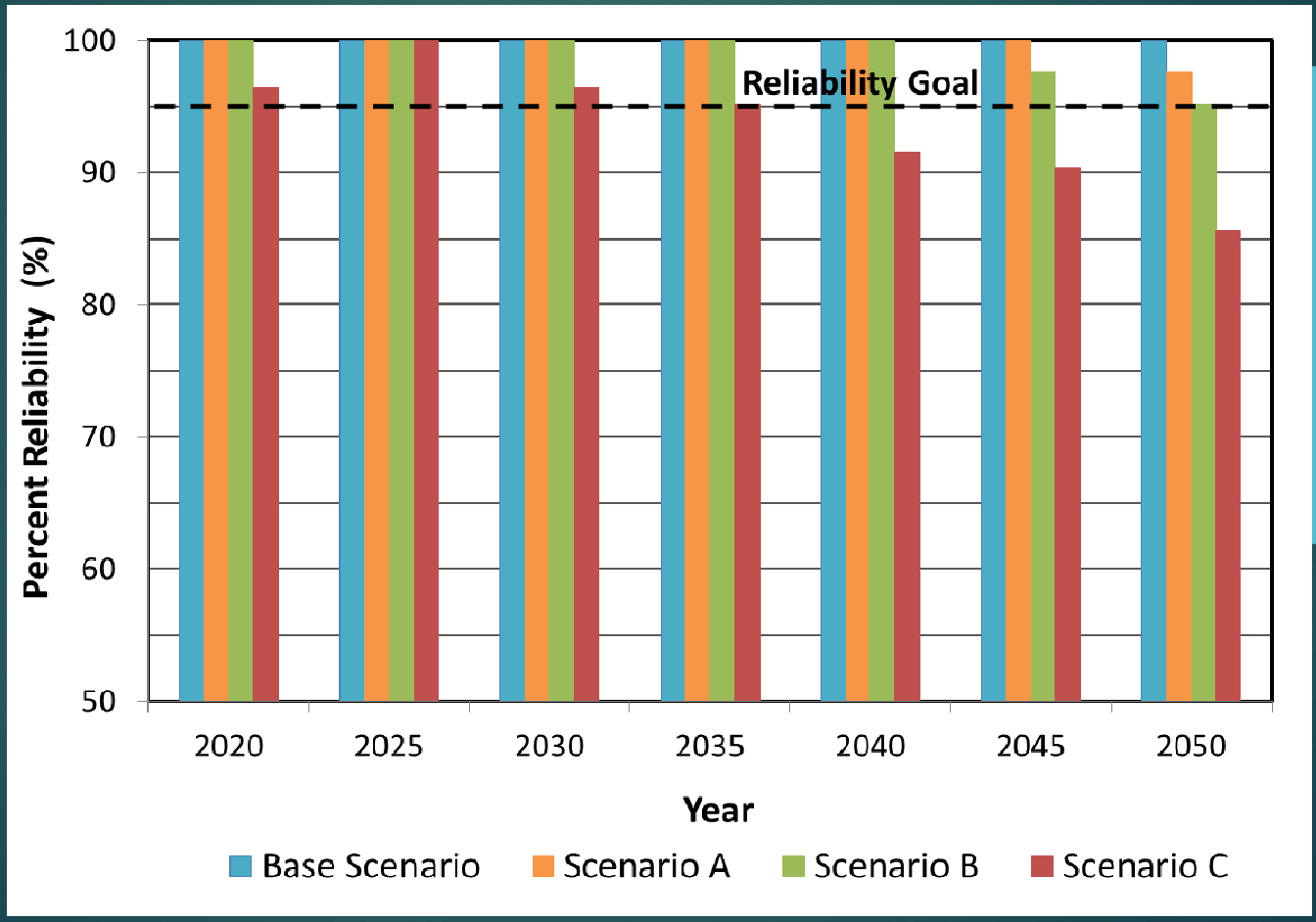
# Water Supply Reliability Analysis

- 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
  - Water banking/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** | | |
|---|---|---|
| SCENARIO A | SCENARIO B | SCENARIO C |
| Base scenario with:<br>• SWP supplies via CA WaterFix | Base scenario with:<br>• Moderate supply reductions<br>• Reduced SWP supply reliability<br>• Less increase in Saugus pumping capacity and recycled water use | Base scenario with:<br>• Large supply reductions<br>• Large reduction in SWP supply reliability<br>• Additional limits on groundwater supplies and recycled water use |

# Initial Reliability of Scenarios



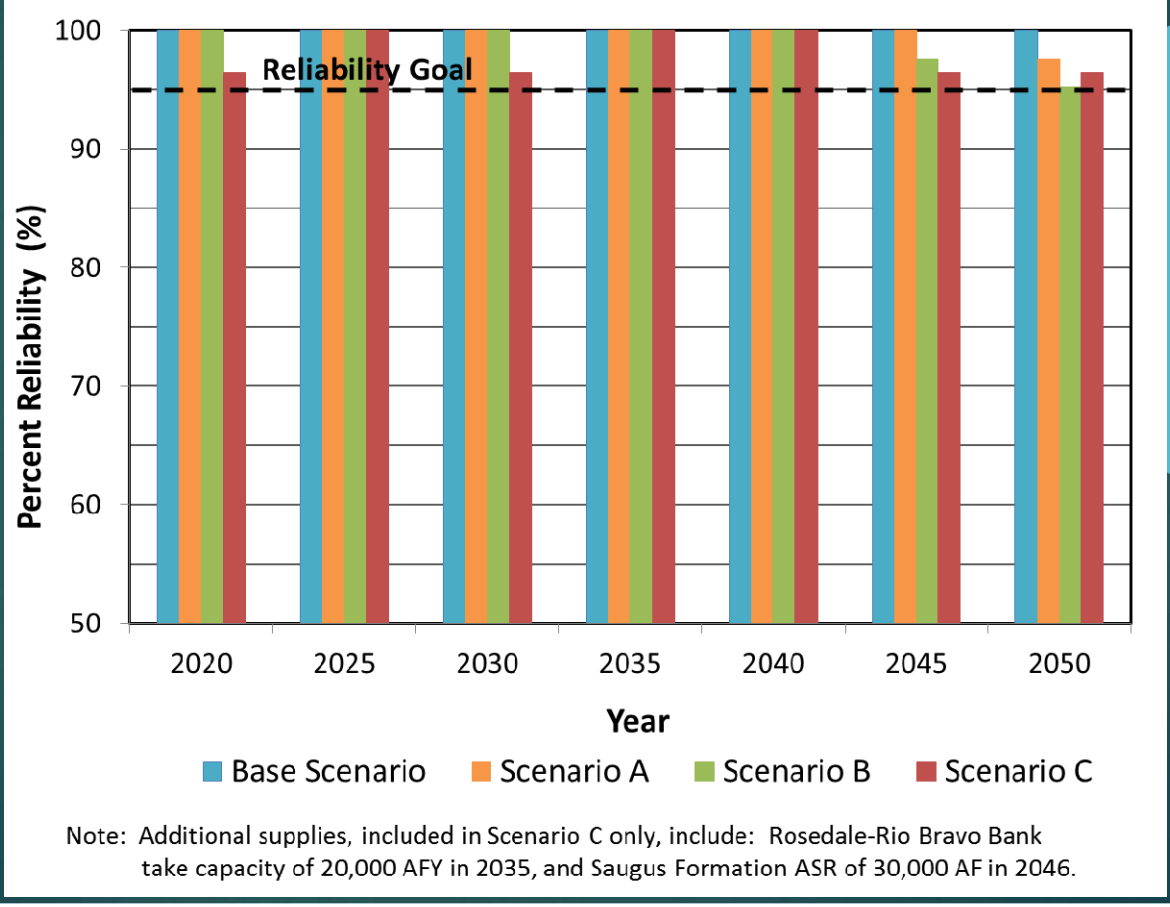
# 2050 Base Case vs. Scenario C

| Source | Normal-Year | | Single Dry-Year | | |
|---|---|---|---|---|---|
| | Base Case | Scenario C | Base Case | Scenario C | Difference |
| SWP Table A | 60,000 | 42,800 | 7,600 | 7,600 | |
| Rosedale Bank | N/A | N/A | 20,000 | 10,000 | 10,000 |
| Newhall Semitropic Bank | N/A | N/A | 4,950 | Not in Scenario | 4,950 |
| New Bank | N/A | N/A | 5,000 | Not in Scenario | 5,000 |
| Alluvium | 31,100 (Max)<br>29,000 (50% Prob.) | 31,100 (Max)<br>27,400 (50%Prob.) | 27,400 | 20,600 | 6,800 |
| Saugus | 10,700 | 10,700 | 33,200 | 10,700 | 22,500 |
| | | | | Total | 49,250 |

# Scenario C: Mitigation Actions

- Conclusions:
  - Storage programs rather than additional supplies
  - Additional withdrawal capacity from storage programs
- Can achieve 95% reliability goal through various programs and/or combinations of programs
- Potential actions used in reliability evaluation:
  - Existing Rights Rosedale-Rio Bravo Banking Program
    - Increased take capacity to 20 TAFY by 2035
  - Access to FivePoint Rights in Semitropic (Part of NR Specific Plan)
  - Create Saugus Formation Water Bank
- Other programs could achieve similar reliability results

# Reliability of Scenarios with Scenario C Potential Actions Evaluated




Note: Additional supplies, included in Scenario C only, include: Rosedale-Rio Bravo Bank take capacity of 20,000 AFY in 2035, and Saugus Formation ASR of 30,000 AF in 2046.

# Tapia Canyon Payment for Past Acquisition and Carrying Costs

| Type of Cost | Tapia Canyon Share |
|---|---|
| Acquisition Cost | 706,109 |
| Carrying Cost (2007-2018) | 3,399,083 |
| Water Sales Credits | 330,075 |
| Total | 3,775,117 |

# Conclusion

- Sufficient BV-RRB water supply is available 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.