

MINUTES OF THE ADJOURNED MEETING OF THE  
BOARD OF DIRECTORS OF  
VISTA IRRIGATION DISTRICT

August 19, 2020

An Adjourned Meeting of the Board of Directors of Vista Irrigation District was held on Wednesday, August 19, 2020, at the offices of the District, 1391 Engineer Street, Vista, California.

**1. CALL TO ORDER**

Vice President Sanchez called the meeting to order at 9:00 a.m.

**2. ROLL CALL**

Directors present: Miller, Dorey, Sanchez, and MacKenzie.

Directors absent: Vasquez.

Staff present: Brett Hodgkiss, General Manager; Lisa Soto, Secretary of the Board; Don Smith, Director of Water Resources; Randy Whitmann, Director of Engineering; Frank Wolinski, Director of Operations and Field Services; Marlene Kelleher, Director of Administration. Staff present via teleconference: Ramae Ogilvie, Administrative Assistant.

Other attendees: Doug Gillingham of Gillingham Water and Don MacFarlane of DLM Engineering were present in the Boardroom. Present via teleconference: Dan Denham, Kelly Rogers, and Pierce Rossum, all of the San Diego County Water Authority; and Kevin Davis of Black & Veatch.

**3. PLEDGE OF ALLEGIANCE**

Director MacKenzie led the pledge of allegiance.

**4. APPROVAL OF AGENDA**

20-08-76 *Upon motion by Director Miller, seconded by Director Dorey and unanimously carried (4 ayes: Miller, Dorey, Sanchez, and MacKenzie; 1 absent: Vasquez), the Board of Directors approved the agenda as presented.*

**5. ORAL COMMUNICATIONS**

No public comments were presented on items not appearing on the agenda.

**6. CONSENT CALENDAR**

20-08-77 *Upon motion by Director Dorey, seconded by Director Miller and unanimously carried (4 ayes: Miller, Dorey, Sanchez, and MacKenzie; 1 absent: Vasquez), the Board of Directors approved the Consent Calendar, including Resolution Nos. 20-22, 20-23, and 20-24, ordering the final detachment of the Orchard Hills Reorganization, Ordering the final detachment of the San Marcos Highlands Reorganization, and approving disbursements, respectively.*

A. Acknowledgement of Easements

See staff report attached hereto. Staff recommended and the Board acknowledged existing easements via Parcel Map to subdivide one commercial parcel known as Vista Terrace Marketplace, consisting of approximately 5.37 gross acres owned by RJR Vacaville, LLC, located at 1280 East Vista Way, Vista (TM P18-0451; LN 2018-035; APN 173-050-29; DIV 1).

B. Acknowledgement of Easement and Final Detachment

See staff report attached hereto.

*The Board adopted Resolution No. 20-22 ordering the final detachment of the Orchard Hills Reorganization to change Vista Irrigation District boundaries over a 20-lot single-family residential development, consisting of approximately 12.54 acres owned by Warmington San Marcos Association, located along Richland Road within an unincorporated area between the City of Escondido and City of San Marcos (LN 2013-039; CF 500-369; LAFCO RO19-06; APNs 218-220-10, 218-220-17; DIV NO 5), by the following roll call vote:*

**AYES:** Directors Miller, Dorey, Sanchez, and MacKenzie  
**NOES:** None  
**ABSTAIN:** None  
**ABSENT:** President Vasquez

*Resolution No. 20-22 is on file in the official Resolution book of the District.*

C. Final Detachment

See staff report attached hereto.

*The Board adopted Resolution No. 20-23 ordering the final detachment of the San Marcos Highlands Reorganization to change Vista Irrigation District boundaries over a 187-lot single-family residential development, consisting of 45.22 acres owned by Diversified Projects LLC, located at the northern end of Las Posas Road, San Marcos (LN 2013-009; CF 500-370; LAFCO RO17-07, SA17-07; APNs 184-240-32, and 184-241-05 & 06; DIV NO 5), by the following roll call vote:*

**AYES:** Directors Miller, Dorey, Sanchez, and MacKenzie  
**NOES:** None  
**ABSTAIN:** None  
**ABSENT:** President Vasquez

*Resolution No. 20-23 is on file in the official Resolution book of the District.*

D. Minutes of Board of Directors meeting on August 5, 2020

The minutes of August 5, 2020 were approved as presented.

E. Resolution ratifying check disbursements

**RESOLUTION NO. 20-24**

**BE IT RESOLVED, that the Board of Directors of Vista Irrigation District does hereby approve checks numbered 64880 through 64967 drawn on Union Bank totaling \$478,699.28.**

**FURTHER RESOLVED that the Board of Directors does hereby authorize the execution of the checks by the appropriate officers of the District.**

**PASSED AND ADOPTED unanimously by a roll call vote of the Board of Directors of Vista Irrigation District this 19<sup>th</sup> day of August 2020.**

\* \* \* \* \*

**7. SAN DIEGO COUNTY WATER AUTHORITY REGIONAL CONVEYANCE SYSTEM FEASIBILITY REVIEW**

See staff report attached hereto.

General Manager Brett Hodgkiss stated that the Water Authority has been studying a Regional Conveyance System (RCS) to convey a supply of conserved water from Imperial Irrigation District (IID) and a supply from funding the lining of the All-American and Coachella canals to the San Diego region (Region). Both supplies are conveyed through the Colorado River Aqueduct owned and operated by Metropolitan Water District of Southern California (Metropolitan) via an exchange agreement, which expires in 2047. The RCS would provide conveyance independence from Metropolitan.

Mr. Hodgkiss stated that there will be two presentations on the RCS. Mr. Dan Denham, Deputy General Manager of the San Diego County Water Authority (Water Authority), and his team will present an overview of its Draft RCS Study (Draft Study) prepared by the engineering firm Black & Veatch and briefly discuss the next steps should the Water Authority Board of Directors elect to further evaluate the project. Mr. Don MacFarlane of DLM Engineering and Mr. Doug Gillingham of Gillingham Water will present the results of their independent analysis of the Draft Study.

Mr. Hodgkiss thanked Mr. Denham and his team for attending the meeting telephonically and advised him that his PowerPoint presentation was being shown simultaneously on the monitors in the Boardroom (attached hereto as Exhibit A). Mr. Denham stated that the alignments shown in the Draft Study were conceptual, and the cost estimates provided in the document were preliminary. Mr. Denham said that Phase A of the Draft Study was primarily focused on engineering and that Phase B, should the Water Authority Board of Directors choose to move forward with further evaluating the RCS, would explore partnership opportunities and analyze project economics.

Mr. Denham stated that the water received from IID as a result of the 2003 Quantification Settlement Agreement (QSA) is a low-cost, reliable source that meets 50 percent of the Region's demands. He noted that the initial exchange agreement with the Metropolitan to convey IID water into the Region ends in 2047. Mr. Denham reviewed a graph comparing the increase in Metropolitan's water rates and transportation charges to the gross domestic product implicit price deflator (GDPIPD) and the Consumer Price Index (CPI) illustrating that Metropolitan's rates have outpaced inflation over the past decade and beyond. He stated that the two-phase Draft Study is being conducted in an incremental approach with direction by the Board of Director and includes input from Water Authority Member Agencies as well. He stated that there are several "off-ramps" built into the process with the first opportunity to cease the study currently being discussed before moving on to Phase B.

Mr. Denham turned the presentation over to Mr. Kevin Davis of Black & Veatch to review the technical and financial aspects of Phase A of the Draft Study. Mr. Davis reviewed the three routes studied, Alternative 3A (northern route) and Alternatives 5A and 5C (southern routes). He noted that all three routes begin in the Imperial Valley at the end of the All American Canal and carry water to different points in the Water Authority's aqueduct system. Mr. Davis noted that Alternatives 5A and 5C have been studied multiple times in recent years, but Alternative 3A was last studied in 1996; therefore Alternative 3A required additional analysis to assure that it is feasible. Mr. Davis said that Alternatives 3A and 5A are economically competitive, but Alternative 5C is not recommended for further study due to the high energy costs associated with pumping the water over a mountain range (Alternatives 3A and 5A include tunnels through the mountain range instead). Mr. Davis estimated that a project of this size could take about 25 years to complete with the pre-construction activities taking about 10 years and construction activities taking another 15 years.

Mr. Pierce Rossum of the Water Authority reviewed the economic analysis in the Draft Study, which included a cost comparison of the RCS to the MWD exchange agreement beyond 2047 and the development of additional local water supplies. He noted that the economic analysis performed as part of Phase A of the Draft Study would be further refined in Phase B. Mr. Rossum reviewed the cost comparison of the three Alternative routes, including the capital cost and the annual operations, maintenance and replacement costs. He also compared the net present value of conveying 277,700 acre feet of water from 2045 through 2112 via RCS Alternative 3A to the development of additional local supplies and continuing the exchange agreement with Metropolitan; this comparison showed that the RCS Alternative 3A would be the lowest cost option.

Mr. Denham stated that based on the findings in Phase A of the Draft Study, Water Authority staff will be recommending to the Water Authority Board of Directors to move on to Phase B, which will include stakeholder outreach, economic sensitivity and probability assessments, and partnership analysis and development. Director Miller asked if the cost assumptions related to Metropolitan included the increased cost that would be associated with the proposed Delta tunnel project. Mr. Denham responded that these potential costs are not included in the assumptions nor are the costs for future rehabilitation, repair and maintenance of the Colorado River Aqueduct. The Board thanked Mr. Denham and his team for their presentation.

Mr. Don MacFarlane presented an overview of the RCS Feasibility Review, stating that scope of the project undertaken by him and Mr. Gillingham included reviewing the engineering and economic analysis contained in the Draft Study. Furthermore, the purpose of review was to help inform a decision on whether the Water Authority should continue, pause or table further efforts to evaluate and advance the project. He stated that he and Mr. Gillingham coordinated closely with Water Authority staff providing them with briefings and interim results. Mr. MacFarlane stated that the RCS Feasibility Review found that the project was technically feasible and that the estimate of project costs were reasonable.

Mr. Doug Gillingham presented the results of the economic analysis in RCS Feasibility Review, stating that all of the analysis was based on the economic model created by the Water Authority. He stated that the Water Authority's financial analysis of alternatives showed that Alternative 3A would save nearly \$19 billion when compared to continued reliance on MWD from 2045 to 2112. Mr. Gillingham noted however that he believed that the assumptions underpinning said analysis were not reasonable and that standard economic analysis did not support the conclusion.

Mr. Gillingham stated that when applying standard periods of economic analysis, Alternative 3A is shown to cost three times the Metropolitan exchange rate in the first year; over a typical 40-year cost analysis, the RCS gains some advantage, but is still 50 percent more than the Metropolitan exchange rate. He stated that Water Authority's economic analysis stretches over 92 years, but a more standard period

would be 40 years beyond the project’s funding mid-point (2040) to 2080. Mr. Gillingham stated that in this scenario, the upfront costs of the RCS begin to come out of the red (negative) in 2062; however, this is based on the assumption that Metropolitan rates will continue to escalate significantly faster than all other costs and continue to do so throughout the period. He said that if a lesser escalation rate were applied after the first 20 years, 3.7 percent (which is the Water Authority’s default escalation rate for the RCS) as opposed to 5.1 percent, the project would not go from red to black until 2078 and would never break even. Mr. Gillingham commented that the IID price escalation assumptions also warrant review.

Mr. Gillingham stated that the RCS Feasibility Review noted diminishing water demands regionally due to water efficiency measures implemented by homeowners and businesses, and the completion of local water projects by retail water agencies. He said that it is expected that this trend will continue, raising concerns that regional demands will not be sufficient to fully utilize the planned capacity of the RCS. He reviewed analysis related continuing a negotiated exchange agreement with Metropolitan, which he noted could offer some economic advantage over the RCS project.

Mr. MacFarlane stated that the recommendation of the RCS Feasibility Review is for the Water Authority to focus its efforts on long-term QSA supply planning, including extension of IID supply and Metropolitan exchange agreements, rather than pursuing the RCS at this time. He said that he believes the RCS project should be reviewed every 10 years or so to see if any of the underlying factors have changed that might warrant the project in the future.

Mr. Denham provided some brief clarifications. The Board thanked Mr. Denham and his team for their report and participation. At this time, Mr. Denham and his team concluded their participation in the meeting.

The Board discussed and commented on the information presented. The Board thanked Mr. MacFarlane and Mr. Gillingham for their presentation. Mr. Hodgkiss commented that the Water Authority Member Agencies believed the economics of the RCS warranted additional analysis now rather than during Phase B of the Draft Study. He also said that Water Authority Member Agencies are concerned about how the cost of the RCS, coupled with the cost of their own projects and lower water sales, could affect retail water rates. Mr. Hodgkiss acknowledged Kim Thorner, General Manager of Olivenhain Water District, for coordinating the effort for the RCS Feasibility Review and thanked Messrs. MacFarlane and Gillingham for their efforts.

## **8. CALIFORNIA SPECIAL DISTRICTS ASSOCIATION COMMITTEE AND EXPERT FEEDBACK TEAM NOMINATIONS FOR 2021**

See staff report attached hereto.

Mr. Hodgkiss stated that General Counsel and staff would like to continue to serve on their respective committees and Expert Feedback Teams. Directors Sanchez and MacKenzie indicated a desire to continue to serve on their respective committees. The Board Secretary said that she would submit all of the nominations to the California Special Districts Association (CSDA).

20-08-78	<i>Upon motion by Director MacKenzie, seconded by Director Dorey and unanimously carried (4 ayes: Miller, Dorey, Sanchez, and MacKenzie; 1 absent: Vásquez), the Board of Directors nominated Director MacKenzie to the Legislative and the Member Services Committees; Director Sanchez to the Professional Development Committee; Marlene Kelleher to the Fiscal Committee and the Revenue Expert Feedback Team; Phil Zamora to the Human Resource and Personnel Expert Feedback Teams; and David Cosgrove to the Expert Feedback Teams for Legal, Environment, and Public Works and Facilities.</i>
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**9. MATTERS PERTAINING TO THE ACTIVITIES OF THE SAN DIEGO COUNTY WATER AUTHORITY**

See staff report attached hereto.

Mr. Hodgkiss reported on the virtual Member Agencies' Manager's meeting the previous day in which part of the discussion was regarding the off-load of power to alleviate the need for rolling outages during the heat wave being experienced throughout California. Caroline Winn, Chief Executive Officer of San Diego Gas & Electric, attended the meeting and participated in the discussion regarding the Governor's August 17 Emergency Proclamation/Executive Order and the ability of water agencies to use emergency generators for pumping to help with the power conservation effort. Water agencies expressed a reluctance to use their emergency generators without confirmation from Air Pollution Control District (APCD) that they would not be penalized for doing so. Mr. Hodgkiss noted that the APCD had recently sent an email stating that the permitting requirements, regulations and laws restricting or prohibiting use of stationary and portable generators had been suspended for the period that the Governor's Executive Order is in place.

**10. MEETINGS AND EVENTS**

See staff report attached hereto.

Director Miller stated that he will be out of town for the September 2, 2020 Board meeting and will attend the meeting telephonically.

Director MacKenzie reported on a meeting of the CSDA Legislative Committee in which it was noted that the California State Assembly has forwarded to the Governor for approval legislation that would allow the Assembly to vote by proxy. She reported on a bill regarding telecommuting and another concerning property taxation reassessment disaster relief related to the COVID-19 pandemic. Director MacKenzie also reported on California Proposition 15, also known as the Schools and Communities First Initiative. If approved by California voters, this initiative would require commercial and industrial land and buildings to be taxed on how much they could be sold for instead of their original purchase price; the additional revenue generated by this change would go to schools and local governments.

**11. ITEMS FOR FUTURE AGENDAS AND/OR PRESS RELEASES**

See staff report attached hereto.

Mr. Hodgkiss stated that the monthly billing along with other related issues would be presented for discussion by the Board in late fall 2020. He noted that the Fiscal Year 2021 Capital Budget review would be scheduled for the second meeting in November 2020.

Director MacKenzie requested that review of the Quarterly Financials and the Fiscal Year 2021 Capital Budget be placed on the same Board meeting agenda. She also requested that a discussion regarding the District reserves and how funding is allocated to capital projects in the long-term cash flow analysis be included as part of the Fiscal Year 2021 Capital Budget review.

**12. COMMENTS BY DIRECTORS**

None were presented.

**13. COMMENTS BY GENERAL MANAGER**

Mr. Hodgkiss pointed out a sample letter provided for the information of the Board (attached hereto as Exhibit B). The letter, which offers alternative payment arrangements to individuals and businesses experiencing financial challenges during the COVID-19 pandemic, will be sent to 156 customers (about one-half of one percent of the District's total accounts) who are delinquent by more than one billing cycle.

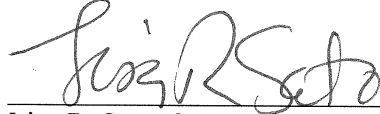
Mr. Hodgkiss wished Directors Miller and Dorey a happy birthday at the end of August.

**14. ADJOURNMENT**

There being no further business to come before the Board, at 11:39 a.m., Vice President Sanchez adjourned the meeting.

  
Patrick H. Sanchez, First Vice President

ATTEST:

  
\_\_\_\_\_

Lisa R. Soto, Secretary  
Board of Directors

VISTA IRRIGATION DISTRICT



## STAFF REPORT

Agenda Item: 6.A

Board Meeting Date:	August 19, 2020
Prepared By:	Matt Atteberry
Reviewed By:	Randy Whitmann
Approved By:	Brett Hodgkiss

SUBJECT: ACKNOWLEDGEMENT OF EASEMENTS

RECOMMENDATION: Acknowledge existing easements via Parcel Map to subdivide one commercial parcel known as Vista Terrace Marketplace, consisting of approximately 5.37 gross acres owned by RJR Vacaville, LLC, located at 1280 East Vista Way, Vista (TM P18-0451; LN 2018-035; APN 173-050-29; DIV 1).

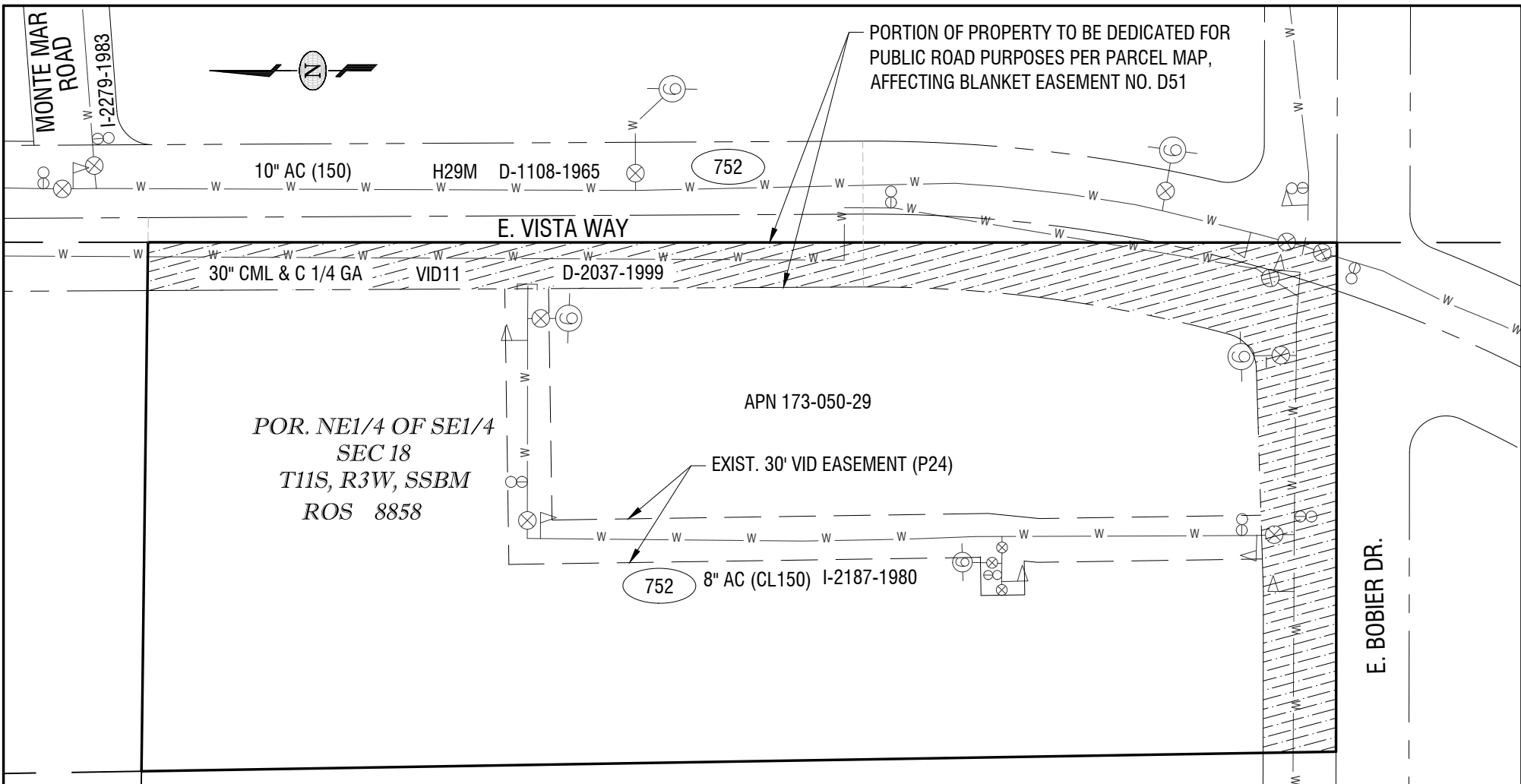
PRIOR BOARD ACTION: None.

FISCAL IMPACT: None.

SUMMARY: RJR Vacaville, LLC, is in the process of subdividing the Vista Terrace Marketplace commercial parcel into six parcels consisting of 5.37 gross acres located at 1280 East Vista Way in Vista. The lot is currently encumbered by a 30-foot wide Specific Easement (P24) that crosses the property for an existing 8-inch water main that feeds the commercial center; the property is also encumbered by Blanket Easement (D51). As part of the subdivision, the owner is dedicating right-of-way to the City of Vista along Bobier Drive and East Vista Way; acknowledgement of the easements will allow the owner to record the map with the County Recorder.

ATTACHMENT: Map



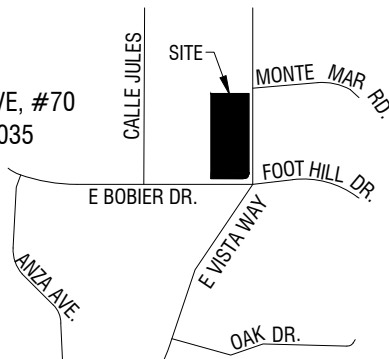


**LEGEND**

- W — WATER MAIN
- ∞ BLOW OFF
- ▽ AIR VENT
- ⊗ VALVE
- ⊙ 6" FIRE HYDRANT

PORTION OF PROPERTY TO BE DEDICATED FOR PUBLIC ROAD PURPOSES PER PARCEL MAP, AFFECTING BLANKET EASEMENT NO. D51 (NON-PLOTTABLE)

**OWNERS:**  
 RJR VACAVILLE, LLC  
 1180 S. BEVERLY DRIVE, #70  
 LOS ANGELES, CA 90035



**VICINITY MAP**



VISTA IRRIGATION DISTRICT		
VISTA TERRACE MARKETPLACE		
ACKNOWLEDGEMENT OF EASEMENTS		
APN 173-050-29	T.B. 1088 A4	
SCALE: 1/100	L.N. 2018-035	
APPD. BY MA	DATE 08/11/20	W.O.
DRAWN BY JS	DATE 08/10/20	
SHEET 1 of 1	MAP G10	
REVISED 8/11/20	JOSE SANCHEZ	VISTA LD18-075



## STAFF REPORT

Agenda Item: 6.B

**Board Meeting Date:** August 19, 2020  
**Prepared By:** Matt Atteberry  
**Reviewed By:** Randy Whitmann  
**Approved By:** Brett Hodgkiss

**SUBJECT:** ACKNOWLEDGEMENT OF EASEMENT AND FINAL DETACHMENT

**RECOMMENDATION:** Acknowledge existing easement via Tract Map 5570-1 and adopt Resolution No. 20-XX ordering the final detachment of the Orchard Hills Reorganization to change Vista Irrigation District boundaries over a 20-lot single-family residential development, consisting of approximately 12.54 acres owned by Warmington San Marcos Association, located along Richland Road within an unincorporated area between the City of Escondido and City of San Marcos (LN 2013-039; CF 500-369; LAFCO RO19-06; APNs 218-220-10, 218-220-17; DIV NO 5).

**PRIOR BOARD ACTION:** On November 20, 2019, the Board adopted Resolution No. 19-34 setting the terms and conditions of detachment for the Orchard Hills Reorganization.

**FISCAL IMPACT:** None.

**SUMMARY:** The Orchard Hills project involves a 12.54 acre, 20-lot single-family residential subdivision along Richland Road within the County of San Diego. The project is adjacent to the Borden Bench reach of the Vista Flume and encumbered by a portion of its 50-foot wide Specific Easement (B4); acknowledgement of the easement will allow the owner to record the map with the County Recorder.

The subdivision is located within the Vista Irrigation District's (District's) "Boot" service area and within Vallecitos Water District's (Vallecitos's) sphere of influence. The development is required to receive both water and sewer service from Vallecitos, and a boundary reorganization through the San Diego County Local Agency Formation Commission (LAFCO) was required. On October 7, 2019, LAFCO adopted their resolution approving and ordering the Orchard Hills Reorganization, and the District received LAFCO's Certificate of Completion and recorded documents for APNs 218-220-10 and -17 on November 8, 2019.

**DETAILED REPORT:** Orchard Hills was conditioned to execute an Irrevocable Offer of Dedication (IOD) with the County of San Diego (County) for a future trail along the northern border and within the Flume easement. To ensure that future trail improvements do not interfere with District operations or present risks to the Flume or public safety, the County's trail requirements for the project specified that the IOD is conditioned to restrict future public trail improvements within any portion of the District's easement until receiving written approval from the District (following Flume relocation or undergrounding). The form of the IOD's provisions regarding the Flume were reviewed and approved by District staff and legal counsel prior to its recording on July 7, 2020. The IOD is referenced on the Tract Map and right-of-way to the County along Richland Road is also being dedicated.

The owner of Orchard Hills, Warmington San Marcos Association, has fulfilled the District's conditions of final detachment for their project. Acknowledgement of the easement and adoption of this resolution will allow the owners to proceed with their development and direct staff to change District boundaries in accordance with LAFCO's order.

**ATTACHMENTS:**

- Map
- Draft Resolution
- Irrevocable Offer of Dedication
- LAFCO Certificate of Completion



TWIN OAKS SIPHON

ORCHARD HILLS  
DETACHMENT AREA

BORDEN BENCH

BEEHIVE SIPHON

CITY OF ESCONDIDO

CITY OF SAN MARCOS

TIDE WAY

RICHLAND ROAD

BORDEN ROAD

WOODLAND PARKWAY

RESOLUTION NO. 20-XX  
RESOLUTION AND ORDER FOR THE DETACHMENT OF  
CERTAIN LANDS FROM VISTA IRRIGATION DISTRICT  
ORCHARD HILLS REORGANIZATION  
(APNs 218-220-10, -17; LN 2013-039; CF 500-369;  
LAFCO RO19-06; DIV NO. 5)

WHEREAS, the owners of the property hereinafter described have initiated proceedings for detachment of a 12.54 acre parcel, which is currently undeveloped, from Vista Irrigation District (District) and annexation to Vallecitos Water District (Vallecitos); and

WHEREAS, such reorganization was approved by the Local Agency Formation Commission (LAFCO) by its Resolution No. 2019-023, adopted October 7, 2019, and LAFCO has authorized this District to order said detachment without notice and hearing; and

WHEREAS, this Board by its Resolution No. 19-34 adopted November 20, 2019, set certain terms and conditions for detachment, which terms and conditions were approved by LAFCO and have been satisfied and complied with.

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of Vista Irrigation District does hereby determine and order that:

1. Said lands will not be benefitted by the operations of this District.
2. The territory as hereinafter described is definite and certain and its description conforms to the orders of LAFCO.
3. All owners of the land have consented in writing to the proposed detachment.
4. The District is a registered-voter district.
5. Property owners have paid detachment fees in the amount of \$2,234.00 to the District.
6. All proceedings for the annexation of the territory to Vallecitos and detachment from the District have been completed.
7. By reason of the foregoing, the territory described in attached Exhibit A and shown on Exhibit B is hereby ordered detached from the District.

PASSED AND ADOPTED by the Board of Directors of Vista Irrigation District this 19<sup>th</sup> day of August 2020, by the following roll call vote:

AYES:  
NOES:  
ABSTAIN:  
ABSENT:

\_\_\_\_\_  
Patrick H. Sanchez, Vice President

ATTEST:

\_\_\_\_\_  
Lisa Soto, Secretary  
Board of Directors  
VISTA IRRIGATION DISTRICT



Jul 07, 2020 03:18 PM

OFFICIAL RECORDS

Ernest J. Dronenburg, Jr.,

SAN DIEGO COUNTY RECORDER

FEES: \$0.00 (SB2 Atkins: \$0.00)

PAGES: 10

Chicago Title

WHEN RECORDED, PLEASE RETURN THIS INSTRUMENT TO:

(MAIL STATION A45)

Clerk, Board of Supervisors  
San Diego County Administration Center  
1600 Pacific Highway  
San Diego, California 92101

SPACE ABOVE FOR RECORDER'S USE ONLY

**IRREVOCABLE OFFER OF DEDICATION OF REAL PROPERTY**  
**(FOR NON-MOTORIZED MULTI-USE RECREATIONAL PUBLIC TRAIL EASEMENT)**

NO TRANSFER TAX DUE

Document Transfer Tax: \$0

R & T Code 11922

Assessor's Parcel No.: 218-220-10& 218-220-17

Project: PDS2019-LDMAP-00331

W.O. No.: Manded 1023564 2020-0078

Work Task No.: WT-4409263

R.E.S. Parcel No.: 2020-0078-A

Log No.: E20-021

**Warmington San Marcos Associates, LLC, a California Limited Liability Company**

hereinafter designated **GRANTOR**, represents that it is the fee owner of the hereinafter described real property, which fee is subject to prior existing easements, including an easement to Vista Irrigation District ("District") dated June 16th, 1925 ("District Easement"), and for a valuable consideration, the receipt of which is hereby acknowledged, hereby makes an Irrevocable Offer of Dedication to the COUNTY OF SAN DIEGO, a Political Subdivision of the State of California herein designated **GRANTEE**, its successors and assigns, the hereinafter described real property for the following public purpose:

**NON-MOTORIZED MULTI-USE RECREATIONAL PUBLIC TRAIL EASEMENT**

The Grantor hereby offers to the Grantee a perpetual easement and right-of-way upon, through, under, over and across the hereinafter described real property, subject to the District Easement, for the construction, operation, maintenance and repair of a Non-Motorized Multi-Use Recreational Public Trail, together with the perpetual right to remove buildings, structures, trees, bushes, undergrowth, flowers, and any other obstructions interfering with the use of said easement and right-of-way by GRANTEE, its successors or assigns and in addition thereto, to remove soil and other materials within said right-of-way and to use the same in such manner and at such locations as said GRANTEE may, consistent with the District Easement, deem proper, needful or necessary in the construction, reconstruction and maintenance of said Non-Motorized Multi-Use Recreational Public Trail Easement or structures incidental thereto to be used for non-motorized uses such as pedestrian, equestrian and bicycling purposes, to have and to hold said Non-Motorized Multi-Use Recreational Public Trail Easement to the full extent of Grantor's rights thereto, together with the right to convey Grantor's interest in said Non-Motorized Multi-Use Recreational Public Trail Easement, or any portion of said easement, to other public agencies.

The real property referred to herein and made subject to said Offer of Dedication is situated in the unincorporated area of the County of San Diego, State of California, and is particularly described as follows:

Parcel No. 2020-0078-A

(7.2.2020)

(ENG/BNM:TJM)

THAT PORTION OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER AND LOTS 2 AND 5, OF FRACTIONAL SECTION 1, TOWNSHIP 12 SOUTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO UNITED STATES GOVERNMENT SURVEY APPROVED SEPTEMBER 17, 1189, IN THAT LAND DESCRIBED IN GRANT DEED TO WARMINGTON SAN MARCOS ASSOCIATES, LLC, A CALIFORNIA LIMITED LIABILITY

(CONT.)

COMPANY (WARMINGTON'S LAND) , RECORDED IN THE OFFICE OF THE SAN DIEGO COUNTY RECORDER OF SAID COUNTY OF SAN DIEGO ON FEBRUARY 21, 2020 AS DOCUMENT No. 2020-0090176, OF OFFICIAL RECORDS BEING MORE PARTICULARLY DESCRIBED IN EXHIBIT "A", ATTACHED HERETO CONSISTING OF TWO (3) PAGES AND MADE A PART HEREOF, AND SHOWN ON EXHIBIT "B", CONSISTING OF TWO (2) PAGES AND ATTACHED HERETO FOR ILLUSTRATIVE PURPOSES ONLY AND IS NOT INTENDED TO BE USED IN THE CONVEYANCE OF LAND.

The Grantor hereby further offers to the Grantee, its successors and assigns, subject to the District Easement, the privilege and right to access the herein described right-of-way with motorized equipment for the express purpose of construction, reconstruction and maintenance of said Non-Motorized Multi-Use Recreational Public Trail Easement or structures incidental thereto.

The Grantor hereby further offers to the Grantee, subject to the District Easement, the privilege and right to extend drainage facilities/structures, excavation and embankment slopes beyond the limits of the herein described right-of-way where required for the construction and maintenance of said Non-Motorized Multi-Use Recreational Public Trail Easement. RESERVING unto Grantor of the above described parcel of land, its successors or assigns, the right to eliminate such slopes and/or drainage structures or portions thereof, when in the written opinion of the County and/or District Engineer of Grantee, the necessity therefore is removed by substituting other protection, support and/or drainage facility, provided such substitution is first approved in writing by the Engineer(s).

The Grantor hereby further offers to Grantee all of Grantor's interest in trees, growths (growing or that may hereafter grow), and road building materials within said easement and right-of-way, including the right to take water, together with the right to use the same in such manner and at such locations as said Grantee may deem proper, needful or necessary, in the construction, reconstruction, improvement or maintenance of said easement and right-of-way.

The Grantor, for itself and its successors and assigns only, and not for or on behalf of any existing easement holder, hereby waives any claim for any and all damages to Grantor's remaining property contiguous to the easements and right-of-way hereby conveyed by reason of (a) the severance of the remainder from the part taken; and (b) the construction and use of the Non-Motorized Multi-Use Recreational Public Trail Easement for which the property is taken in the manner proposed by the Grantor whether or not the damage is caused by a portion of the project located on the part taken.

Notwithstanding any of the foregoing, Grantee shall not place any structures, improvements, trails, or appurtenances within the area of the District Easement, without prior written consent of the District. Such requirement for prior written consent shall continue until such time as the District has replaced its existing improvements within the District Easement, including the Vista Flume, with an underground pipeline, upgraded the Vista Flume with a pipeline located within the existing flume, or otherwise modified the existing improvements in such a way as there is no reasonable possibility of conflict between Grantee's public trail improvements and the Vista Irrigation District facilities within the District Easement. Thereafter, in the event of any conflict between the District's use of its easement, and any use by Grantee or any of its successors or assigns hereunder of the rights dedicated hereby, and as a condition of this grant, Grantee, on behalf of itself and all successors and assigns, shall meet and confer with the District in good faith, in an attempt to harmonize any such conflict. If after such good faith meet and confer the parties are unable to reasonably accommodate both entities' uses in the overlapping areas of their respective easements, as District may determine in the exercise of reasonable discretion, the District's easement rights within its easement area shall be considered prior in right.

This Offer of Dedication is made pursuant to Section 7050 of the Government Code of the State of California and may be accepted at any time by the city council of the city within which such real property is located at the time of acceptance or, if located in the unincorporated territory, by the Board of Supervisors of the County of San Diego.

This Offer of Dedication may be terminated and the right to accept the offer may be abandoned in accordance with the summary vacation procedures in Section 8300 et seq. of the Streets and Highways Code of the State of California. The termination and abandonment may be made by the city council of the city in which the real property is located, or if located in unincorporated territory, by the Board of Supervisors of San Diego County.

This Offer of Dedication shall be irrevocable and shall be binding on the Grantor(s), heirs, executors, administrators, successors, and assigns.

"Trail Defense and Indemnification Ordinance": The County of San Diego will defend and indemnify an owner of a parcel of land from claims, demands or liability for injury to person or property that occurs on the offer of said trail, or incidental to use of the offer of said trail, when used for any recreational purposes per County of San Diego County Code of Regulatory Ordinances, Title 8 Zoning and Land Use Regulations, Division 12, Trail Defense and Indemnification, Chapter 1 General Provisions, § SEC. 812.101, et seq., and any subsequent amendments thereto.

Dated this 6th day of July, 2020.

Warmington San Marcos Associates, LLC, a California Limited Liability Company

By: WRG Builder V, L.P., Its Developer Member/Manager

By: Warmington Residential California, Inc. a California Corporation, Its General Partner

By: [Signature]  
James J. Deckard, Senior Vice President

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document, to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CA }  
COUNTY OF Orange } SS

On July 6, 2020 before me, Jill Renee Cresap, a Notary Public, personally appeared James J. Deckard

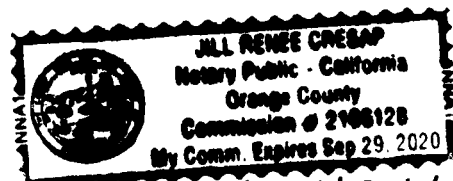
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/har/their authorized capacity(ies) and by his/har/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s), acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: [Signature]  
Jill Renee Cresap  
Name (typed or printed), Notary Public in and for said County and State

(FOR NOTARY SEAL OR STAMP)



Commission # 2166128  
exp. 9/29/20

GOVERNMENT CODE 27361.7

I CERTIFY UNDER PENALTY OF PERJURY THAT THE NOTARY SEAL ON THE DOCUMENT TO WHICH THIS STATEMENT IS ATTACHED READS AS FOLLOWS:

Name of the Notary: Jill Renee Cresap

Commission Number: 21666128 Date Commission Expires: 9-29-20

County Where Bond is Filed: Orange

Manufacturer or Vendor Number: NN A1  
(Located on both sides of the notary seal border)

Signature: Theresa Robert  
Firm Name (if applicable)


Place of Execution: San Diego, CA Date: 7-7-20



**CERTIFICATE OF ACKNOWLEDGEMENT**

I certify on behalf of the Board of Supervisors of the County of San Diego pursuant to authority conferred by Resolution No. 12-159 of said Board adopted on **October 10, 2012 (08)**, that the County of San Diego consents to the making of the foregoing Irrevocable Offer to dedicate real property and consents to recordation thereof of its duly authorized officer.

Dated: 7/7/2020

  
\_\_\_\_\_  
THOMAS J. McCABE, PLS  
Senior Land Surveyor  
Real Estate Services Division  
Department of General Services  
County of San Diego

## EXHIBIT "A"

### AN IRREVOCABLE OFFER OF DEDICATION

#### FOR NON-MOTORIZED, MULTI-USE TRAIL PURPOSES

THAT PORTION LYING WITHIN FRACTIONAL SECTION 1, TOWNSHIP 12 SOUTH, RANGE 3 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF SAN MARCOS, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE GOVERNMENT SURVEY APPROVED SEPTEMBER 17, 1889, WITHIN THAT LAND DESCRIBED IN A GRANT DEED TO WARMINGTON SAN MARCOS, LLC, A LIMITED LIABILITY COMPANY (WARMINGTON'S LAND), RECORDED FEBRUARY 21, 2020 AS DOCUMENT NO. 2020-0090176, OFFICIAL RECORDS, IN THE OFFICE OF THE RECORDER OF SAID COUNTY AS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A STRIP OF LAND, 45.00 FEET IN WIDTH MEASURED AT RIGHT ANGLES, LYING SOUTHWESTERLY, SOUTHERLY, AND WESTERLY OF THE FOLLOWING DESCRIBED LINE:

**COMMENCING** AT THE NORTHERLY TERMINUS OF THAT CERTAIN COURSE WHICH BEARS NORTH 37° 07' 38" WEST, AND HAVING A DISTANCE OF 904.07 FEET, AS SHOWN ON RECORD OF SURVEY MAP NO. 10574, FILED IN BOOK OF RECORD OF SURVEY MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, JUNE 12, 1986, SAID POINT ALSO BEING ON THE CENTERLINE OF RICHLAND ROAD, SAID CENTERLINE ALSO BEING THE WESTERLY LINE OF WARMINGTON'S LAND;

THENCE SOUTH 37° 07' 38" EAST 346.35 FEET ALONG THE CENTERLINE OF RICHLAND ROAD AND WESTERLY LINE OF WARMINGTONS LAND TO THE SOUTHERLY CORNER OF WARMINGTON'S LAND;

THENCE NORTH 52° 52' 22" EAST 659.00 FEET ALONG THE SOUTHEASTERLY LINE OF WARMINGTON'S LAND TO A POINT THAT LIES ON THAT CERTAIN COURSE ON THE CITY OF ESCONDIDO CORPORATE BOUNDARY, WHICH BEARS NORTH 19° 03' 39" EAST, AND HAVING A DISTANCE OF 36.01 FEET, AS SHOWN ON SAID RECORD OF SURVEY, SAID POINT ALSO BEING THE **TRUE POINT OF BEGINNING**;

THENCE NORTH 19° 03' 39" EAST 17.89 FEET ALONG SAID BOUNDARY, TO A 100.00 FEET RADIUS CURVE, CONCAVE SOUTHEASTERLY, SAID CURVE BEING ALONG SAID BOUNDARY;

THENCE NORTHEASTERLY ALONG SAID CURVE, 37.79 FEET, THROUGH A CENTRAL ANGLE OF 21° 39' 13";

THENCE NORTH 40° 42' 52" EAST 28.09 FEET ALONG SAID BOUNDARY, TO A 50.00 FEET RADIUS CURVE, CONCAVE NORTHWESTERLY, SAID CURVE BEING ALONG SAID BOUNDARY;

THENCE SOUTHEASTERLY ALONG SAID CURVE 45.29 FEET, THROUGH A CENTRAL ANGLE OF 51° 54' 14";

THENCE NORTH 11° 11' 22" WEST 36.68 FEET ALONG SAID BOUNDARY, TO A 30.00 FEET RADIUS CURVE, CONCAVE SOUTHWESTERLY, SAID CURVE BEING ALONG SAID BOUNDARY;

THENCE NORTHWESTERLY ALONG SAID CURVE, 47.59 FEET, THROUGH A CENTRAL ANGLE OF 90° 52' 51";

THENCE SOUTH 77° 55' 47" WEST 15.49 FEET ALONG SAID BOUNDARY, TO A 50.00 FEET RADIUS CURVE, CONCAVE NORTHERLY, SAID CURVE BEING ALONG SAID BOUNDARY;

THENCE WESTERLY ALONG SAID CURVE, 24.85 FEET, THROUGH A CENTRAL ANGLE OF 28° 28' 23";

THENCE NORTH 73° 35' 50" WEST 32.01 FEET ALONG SAID BOUNDARY, TO A 100.00 FEET RADIUS CURVE, CONCAVE NORTHEASTERLY, SAID CURVE BEING ALONG SAID BOUNDARY;

THENCE NORTHWESTERLY ALONG SAID CURVE, 24.94 FEET, THROUGH A CENTRAL ANGLE OF 14° 17' 24", TO THE BEGINNING OF A 200.00 FEET RADIUS COMPOUND CURVE, CONCAVE NORTHEASTERLY, WHOSE RADIUS BEARS NORTH 30° 41' 34" EAST, SAID COMPOUND CURVE BEING ALONG SAID BOUNDARY;

THENCE NORTHWESTERLY ALONG SAID COMPOUND CURVE, 60.57 FEET, THROUGH A CENTRAL ANGLE OF 17° 21' 08";

THENCE NORTH 41° 57' 18" WEST 14.82 FEET ALONG SAID BOUNDARY, TO A 250.00 FEET RADIUS CURVE, CONCAVE SOUTHWESTERLY, SAID CURVE BEING ALONG SAID BOUNDARY;

THENCE NORTHWESTERLY ALONG SAID CURVE, 68.12 FEET, THROUGH A CENTRAL ANGLE OF 15° 36' 41";

THENCE NORTH 57° 33' 59" WEST 12.85 FEET ALONG SAID BOUNDARY, TO A 50.00 FEET RADIUS CURVE, CONCAVE SOUTHERLY, SAID CURVE BEING ALONG SAID BOUNDARY;

THENCE WESTERLY ALONG SAID CURVE, 34.76 FEET, THROUGH A CENTRAL ANGLE OF 39° 50' 13";

THENCE SOUTH 82° 35' 48" WEST 19.11 FEET ALONG SAID BOUNDARY, TO A 50.00 FEET RADIUS CURVE, CONCAVE SOUTHERLY, SAID CURVE BEING ALONG SAID BOUNDARY;

THENCE WESTERLY ALONG SAID CURVE, 7.41 FEET, THROUGH A CENTRAL ANGLE OF 8° 29' 47";

THENCE SOUTH 74° 06' 01" WEST 53.69 FEET ALONG SAID BOUNDARY, TO A 50.00 FEET RADIUS CURVE, CONCAVE NORTHEASTERLY, SAID CURVE BEING ALONG SAID BOUNDARY;

THENCE NORTHWESTERLY ALONG SAID CURVE, 68.85 FEET, THROUGH A CENTRAL ANGLE OF 78° 53' 43";

THENCE NORTH 27° 00' 16" WEST 49.69 FEET ALONG SAID BOUNDARY, TO A 100.00 FEET RADIUS CURVE, CONCAVE SOUTHWESTERLY, SAID CURVE BEING ALONG SAID BOUNDARY;

THENCE NORTHWESTERLY ALONG SAID CURVE, 46.12 FEET, THROUGH A CENTRAL ANGLE OF 26° 25' 28";

THENCE NORTH 53° 25' 44" WEST 56.83 FEET ALONG SAID BOUNDARY, TO A 100.00 FEET RADIUS CURVE, CONCAVE SOUTHERLY, SAID CURVE BEING ALONG SAID BOUNDARY;

THENCE WESTERLY ALONG SAID CURVE, 97.74 FEET, THROUGH A CENTRAL ANGLE OF 56° 00' 10";

THENCE SOUTH 70° 34' 06" WEST 159.29 FEET ALONG SAID BOUNDARY, TO A 100.00 FEET RADIUS CURVE, CONCAVE NORTHERLY, SAID CURVE BEING ALONG SAID BOUNDARY;

THENCE WESTERLY ALONG SAID CURVE, 78.37 FEET, THROUGH A CENTRAL ANGLE OF 44° 54' 04";

THENCE NORTH 64° 31' 50" WEST 402.73 FEET ALONG SAID BOUNDARY, TO A 100.00 FEET RADIUS CURVE, CONCAVE NORTHEASTERLY, SAID CURVE BEING ALONG SAID BOUNDARY;

THENCE NORTHWESTERLY ALONG SAID CURVE, 34.55 FEET, THROUGH A CENTRAL ANGLE OF 19° 47' 52";

THENCE NORTH 44° 43' 58" WEST 44.05 FEET, ALONG SAID BOUNDARY TO AN ANGLE POINT;

THENCE NORTH 76° 18' 58" WEST 32.07 FEET ALONG SAID BOUNDARY, TO A POINT WHICH BEARS SOUTH 76° 18' 58" EAST 31.24 FEET FROM THE NORTHERLY TERMINUS OF THAT CERTAIN COURSE, BEING A CURVE ON THE CENTERLINE OF RICHLAND ROAD, WITH A RADIUS OF 200.00 FEET, A LENGTH OF 131.61, AND A CENTRAL ANGLE OF 37° 42' 12", AS SHOWN ON SAID RECORD OF SURVEY, SAID POINT ALSO BEING 30.00 FEET EASTERLY OF, MEASURED AT RIGHT ANGLES, SAID CENTERLINE OF RICHLAND ROAD, SAID POINT ALSO BEING THE POINT OF TERMINUS OF SAID 45.00 FEET WIDE STRIP.

THE SIDELINES OF SAID 45.00 FEET WIDE STRIP TO BE LENGTHENED OR SHORTENED TO TERMINATE SOUTHEASTERLY AT THAT CERTAIN AFOREMENTIONED COURSE WHICH BEARS NORTH 52° 52' 22" EAST, HAVING A DISTANCE OF 659.00 FEET, AND TO TERMINATE NORTHWESTERLY ON A CURVE 30.00 FEET EASTERLY FROM, MEASURED AT RIGHT ANGLES, THE CENTERLINE OF RICHLAND ROAD, AS SHOWN ON SAID RECORD OF SURVEY.

AS DESCRIBED HEREIN EXHIBIT "A" AND GRAPHICALLY SHOWN ON EXHIBIT "B" ATTACHED HERETO AND MADE A PART HEREOF.

SAID 45-FEET WIDE STRIP OF LAND CONTAINING 73,675.36 SQUARE FEET. (1.691 ACRES MORE OR LESS)

THIS LEGAL DESCRIPTION WAS PREPARED BY OR UNDER THE DIRECTION OF:

 4/20/20

TIMOTHY J DAVIS, CA PLS 8332

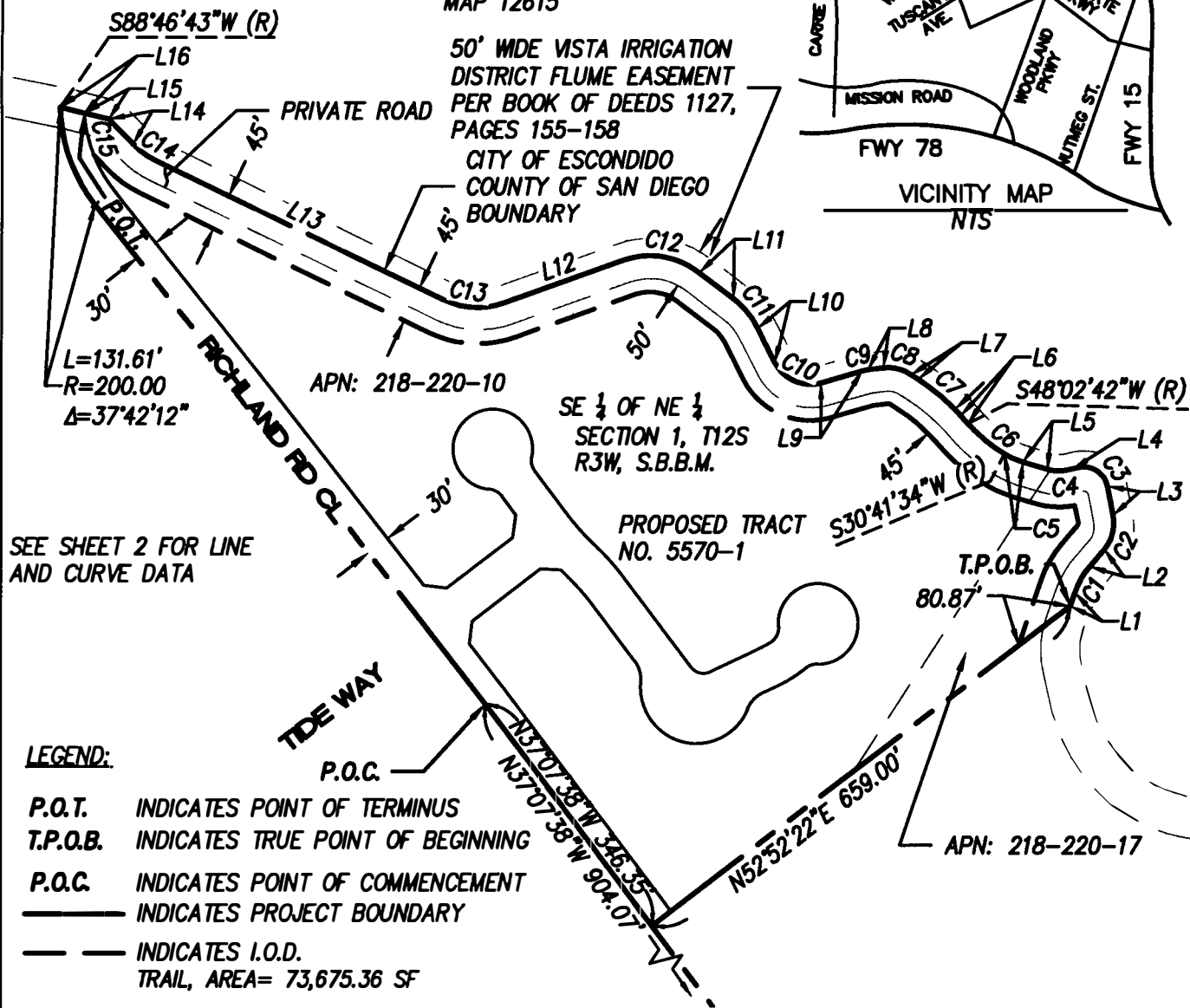
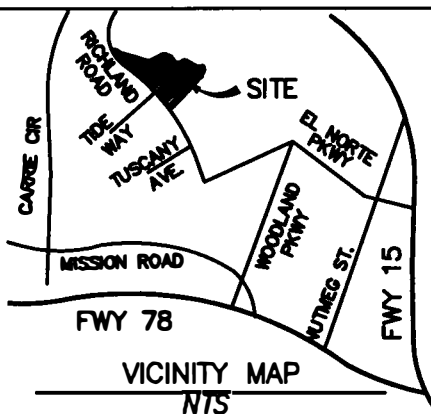


# EXHIBIT 'B'

CITY OF ESCONDIDO  
TRACT NO. 683-H  
MAP 12615

50' WIDE VISTA IRRIGATION  
DISTRICT FLUME EASEMENT  
PER BOOK OF DEEDS 1127,  
PAGES 155-158

CITY OF ESCONDIDO  
COUNTY OF SAN DIEGO  
BOUNDARY



SEE SHEET 2 FOR LINE  
AND CURVE DATA

### LEGEND:

- P.O.T. INDICATES POINT OF TERMINUS
- T.P.O.B. INDICATES TRUE POINT OF BEGINNING
- P.O.C. INDICATES POINT OF COMMENCEMENT
- INDICATES PROJECT BOUNDARY
- - - INDICATES I.O.D. TRAIL, AREA= 73,675.36 SF



2020-0078-A

## COUNTY OF SAN DIEGO

PAGE 1 OF 2

DATE: 3-13-2020
SCALE 1" = 200'
TRACT NO. 5570-1

### IRREVOCABLE OFFER OF DEDICATION FOR PUBLIC TRAIL EASEMENT

DRAWN BY: DP
CHECK BY: TD
APPROVED BY:

## EXHIBIT 'B'

Curve Table				Parcel Line Table		
Curve #	Length	Radius	Delta	Line #	Length	Direction
C1	37.79'	100.00'	21°39'13"	L1	17.89'	N19°03'39"E
C2	45.29'	50.00'	51°54'14"	L2	28.09'	N40°42'52"E
C3	47.59'	30.00'	90°52'51"	L3	36.68'	N11°11'22"W
C4	24.85'	50.00'	28°28'23"	L4	15.49'	S77°55'47"W
C5	24.94'	100.00'	14°17'24"	L5	32.01'	N73°35'50"W
C6	60.57'	200.00'	17°21'08"	L6	14.82'	N41°57'18"W
C7	68.12'	250.00'	15°36'41"	L7	12.85'	N57°33'59"W
C8	34.76'	50.00'	39°50'13"	L8	19.11'	S82°35'48"W
C9	7.41'	50.00'	8°29'47"	L9	53.69'	S74°06'01"W
C10	68.85'	50.00'	78°53'43"	L10	49.69'	N27°00'16"W
C11	46.12'	100.00'	26°25'28"	L11	56.83'	N53°25'44"W
C12	97.74'	100.00'	56°00'10"	L12	159.29'	S70°34'06"W
C13	78.37'	100.00'	44°54'04"	L13	402.73'	N64°31'50"W
C14	34.55'	100.00'	19°47'52"	L14	44.05'	N44°43'58"W
C15	53.86'	170.00'	18°09'08"	L15	32.07'	N76°18'58"W
				L16	31.24'	S76°18'58"E

**2020-0078-A**

## COUNTY OF SAN DIEGO

PAGE 2 OF 2

DATE: 3-13-2020	<b>IRREVOCABLE OFFER OF DEDICATION FOR PUBLIC TRAIL EASEMENT</b>	DRAWN BY: DP
SCALE 1" = 200'		CHECK BY: TD
TRACT NO. 5570-1		APPROVED BY:

H:\10001\5570-1 - Maricopa - Ordinal 111 522 and Final Engineering\Map\Exhibit\2020-03-08 111\2020-03-08-02-Ordinal 111.dwg

DOC# 2019-0516833



Nov 08, 2019 02:45 PM  
OFFICIAL RECORDS  
Ernest J. Dronenburg, Jr.,  
SAN DIEGO COUNTY RECORDER  
FEES: \$0.00 (SB2 Atkins: \$0.00)

PAGES: 9

RECORDING REQUESTED BY:

San Diego County  
Local Agency Formation Commission (LAFCO)

AND WHEN RECORDED MAIL TO:

LAFCO  
9335 Hazard Way, Suite 200  
San Diego, California 92123  
MS: O216

THIS SPACE FOR RECORDER'S USE ONLY

**Certificate of Completion**  
**"Orchard Hills Reorganization"**  
Annexation to Vallecitos Water District  
Detachment from Vista Irrigation District  
LAFCO File No. RO19-06

(Please fill in document title(s) on above line(s))

THIS PAGE ADDED TO PROVIDE ADEQUATE SPACE FOR RECORDING INFORMATION

**SAN DIEGO COUNTY**  
**Local Agency Formation Commission**  
**9335 Hazard Way, Suite 200**  
**San Diego, California 92123**  
**MS: O-216**

**CERTIFICATE OF COMPLETION**

“Orchard Hills Reorganization”

| Annexation to Vallecitos Water District

Detachment from Vista Irrigation District | LAFCO File No. RO19-06

Pursuant to Government Code Sections 57200 and 57201, this Certificate is hereby issued.

The name of each city and/or district included in this reorganization, all located within San Diego County, and the type of jurisdictional change ordered for each district are as follows:

<u>District</u>	<u>Type of Change of Organization</u>
Vallecitos Water District	Annexation
Vista Irrigation District	Detachment

A certified copy of the resolution ordering this reorganization without an election is attached hereto and by reference incorporated herein.

A legal description and map of the boundaries of the above-cited reorganization are included in said resolution.

All terms and conditions have been satisfied.

I hereby certify that I have examined the above-cited resolution for a reorganization and have found that document to be in compliance with the Commission's resolution approving said reorganization.

I further certify that a master property tax exchange agreement pertinent to these jurisdictional changes is on file.

  
\_\_\_\_\_  
Keene Simons, Executive Officer

Date: November 8, 2019



**RESOLUTION NO. 2019-023**

**SAN DIEGO COUNTY LOCAL AGENCY FORMATION COMMISSION**

**MAKING DETERMINATIONS, APPROVING AND ORDERING A REORGANIZATION**

**“ORCHARD HILLS REORGANIZATION”  
ANNEXATION TO THE VALLECITOS WATER DISTRICT WITH  
CONCURRENT DETACHMENT FROM VISTA IRRIGATION DISTRICT  
LAFCO FILE NO: RO19-06**

**WHEREAS**, on March 20, 2019, the landowner, Warmington Residential California, Inc., filed a petition to initiate proceedings and an application with the San Diego County Local Agency Formation Commission, hereinafter referred to as “Commission,” pursuant to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code § 56000, et seq.); and

**WHEREAS**, the application seeks approval for reorganization of approximately 12.55 acres of unincorporated territory located within the Vallecitos Water District sphere of influence and includes the principal action to annex all of the affected territory to the Vallecitos Water District; and

**WHEREAS**, the reorganization application also seeks concurrent action to detachment the affected territory from the Vista Irrigation District; and

**WHEREAS**, an applicable master property tax exchange resolution approved by the San Diego County Board of Supervisors on September 16, 2009 applies to the proposed reorganization; and

**WHEREAS**, the Commission’s Executive Officer has reviewed the proposed reorganization and prepared a report with recommendations; and

**WHEREAS**, the Executive Officer’s report and recommendations on the proposed reorganization has been presented to the Commission in the manner provided by law; and

**WHEREAS**, the Commission heard and fully considered all the evidence presented at a noticed public hearing on October 7, 2019

**NOW, THEREFORE, BE IT RESOLVED**, the Commission hereby finds, determines, and orders the following:

1. The hearing was held on the date set therefore, and due notice of said hearing was given in the manner required by law.
2. At the hearing, the Commission called for, heard, and considered all public comments by interested parties and read and considered the Executive Officer’s report.
3. The Commission serves as responsible agency under the California Environmental Quality Act (CEQA) in considering one distinct “project” associated with the reorganization proposal and as detailed in the Executive Officer’s report: (a) the reorganization itself. The Commission’s findings follow.

- a) The County of San Diego serves as lead agency under CEQA for the reorganization and boundary changes therein to annex all of the affected territory to the Vallecitos Water District with a concurrent detachment from Vista Irrigation District. The County has determined this activity and underlying development entitlements is a project under CEQA but is exempt from further review per State CEQA Guidelines Section 15183: Projects Consistent with a Community Plan or Zoning because the project is consistent with the development density and use characteristics established by the County of San Diego General Plan, as analyzed by the General Plan Update PEIR, and all required findings were made. The Commission has independently reviewed the cited exemption and concurs with the County's findings as a responsible agency.
4. The Commission APPROVES the reorganization without modifications and subject to conditions as provided. Approval involves all of the following:
    - a) Annexation of all 12.55 acres of the affected territory to the Vallecitos Water District as shown in "Exhibit A" and described in "Exhibit B."
    - b) Concurrent detachment of the affected territory from the Vista Irrigation District as shown in "Exhibit A" and described in "Exhibit B."
  5. The Commission CONDITIONS the approvals on the following terms being satisfied by October 7, 2020 unless an extension is requested and approved by the Executive Officer:
    - a) Completion of the 30-day reconsideration period provided under Government Code § 56895.
    - b) Submittal to the Commission of final maps and geographic descriptions of the affected territory and the associated boundary changes as approved by the Commission conforming to the requirements of the State Board of Equalization – Tax Services Division.
    - c) Submittal to the Commission of the following payments:
      - A check made payable to LAFCO in the amount of \$50.00 to reimburse for filing notices with the County-Clerk Recorder's Office consistent with the findings in this resolution.
      - A check made payable to LAFCO in the amount of \$730.92 to reimburse for the public hearing notice publications.
      - A check made payable to the State Board of Equalization for processing fees in the amount of \$800.00.
  6. The proposal is assigned the following distinctive short-term designation:

"Orchard Hills Reorganization" (Vallecitos Water District)
  7. The affected territory as designated by the Commission is uninhabited as defined in Government Code Section 56046. All subject landowners have provided written consent to the proposal and no subject has submitted written opposition to a waiver of protest proceedings.
  8. The Commission waives conducting authority proceeding requirements under Government Code § 56662 and consistent with policy.

9. Vallecitos Water District and Vista Irrigation District are registered-voter districts.
10. Vallecitos Water District and Vista Irrigation District both utilize the regular assessment roll of the County of San Diego.
11. The affected territory will be liable for any existing bonds, contracts, and/or obligations of the Vallecitos Water District as provided under Government Code § 57328, and will be subject to any previously authorized taxes, benefit assessments, fees, or charges of the Vallecitos Water District as provided under Government Code Section 57330.
12. The effective date of the proposal shall be the date of recordation of the Certificate of Completion following completion of all terms.
13. As allowed under Government Code § 56107, the Commission authorizes the Executive Officer to make non-substantive corrections to this resolution to address any technical defect, error, irregularity, or omission.
14. All general terms governing annexations and detachments authorized under Government Code Section 57300-57354 apply to this reorganization.

\*\*

PASSED AND ADOPTED by the Commission on 7<sup>th</sup> of October 2019 by the following vote:

AYES: Desmond, Jacob, Kersey, MacKenzie, Salas, Vanderlaan, Wells, and Willis

NOES: None

ABSENT: Cate and Cox

ABSTAIN: None

\*\*

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**STATE OF CALIFORNIA |  
COUNTY OF SAN DIEGO**

I, KEENE SIMONDS, Executive Officer of the Local Agency Formation Commission of the County of San Diego, State of California, hereby certify that I have compared the foregoing copy with the original resolution adopted by said Commission at its regular meeting on October 7, 2019, which original resolution is not on file in my office; and that same contains a full, true, and correct transcript therefrom and of the whole thereof.

Witness my hand this 8<sup>th</sup> day of November 2019.

  
Keene Simonds, Executive Officer  
San Diego Local Agency Formation Commission

## EXHIBIT A

### GEOGRAPHIC DESCRIPTION

All that certain real property, situate in portion of Section 1, Township 12 South, Range 13 West, San Bernardino Meridian, in the County of San Diego, State of California, described as follows:

Commencing at the intersection between Richland Road and Tuscany Avenue; thence along the center line of Richland Road North  $37^{\circ}07'38''$  West 534.92 feet to the **Point of Beginning**;

Thence, (1) North  $37^{\circ}07'38''$  West 346.35 feet to a point on a line;

Thence, (2) North  $38^{\circ}07'21''$  West 477.65 feet to a point on a line;

Thence, (3) North  $38^{\circ}55'29''$  West 315.29 feet to the beginning of a curve;

Said curve (4) turning to the right through an angle of  $37^{\circ}42'12''$ , having a radius of 200.00 feet, and whose long chord bears North  $20^{\circ}04'23''$  West 129.25 feet to a point of intersection with a non-tangential line;

Thence, (5) South  $76^{\circ}18'58''$  East 63.94 feet to a point on a line;

Thence, (6) South  $44^{\circ}43'58''$  East 43.76 feet to the beginning of a curve;

Said curve (7) turning to the left through an angle of  $19^{\circ}47'52''$ , having a radius of 100.00 feet, and whose long chord bears South  $54^{\circ}37'54''$  East 34.38 feet;

Thence, (8) South  $64^{\circ}31'50''$  East 402.73 feet to the beginning of a curve;

Said curve (9) turning to the left through an angle of  $44^{\circ}54'05''$ , having a radius of 100.00 feet, and whose long chord bears South  $86^{\circ}58'52''$  East 76.38 feet;

Thence, (10) North  $70^{\circ}34'06''$  East 159.29 feet to the beginning of a curve;

Said curve (11) turning to the right through an angle of  $56^{\circ}00'10''$ , having a radius of 100.00 feet, and whose long chord bears South  $81^{\circ}25'49''$  East 93.90 feet;

Thence, (12) South  $53^{\circ}25'44''$  East 56.83 feet to the beginning of a curve;

Said curve (13) turning to the right through an angle of  $26^{\circ}25'28''$ , having a radius of 100.00 feet, and whose long chord bears South  $40^{\circ}13'00''$  East 45.71 feet;

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Commission of San Diego

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Thence, (14) South 27° 00' 16" East 49.69 feet to the beginning of a curve;

Said curve (15) turning to the left through an angle of 78° 53' 43", having a radius of 50.00 feet, and whose long chord bears South 66° 27' 07" East 63.54 feet;

Thence, (16) North 74° 06' 01" East 53.69 feet to the beginning of a curve;

Said curve (17) turning to the right through an angle of 08° 29' 47", having a radius of 50.00 feet, and whose long chord bears North 78° 20' 55" East 7.41 feet;

Thence, (18) North 82° 35' 48" East 19.11 feet to the beginning of a curve;

Said curve (19) turning to the right through an angle of 39° 50' 12", having a radius of 50.00 feet, and whose long chord bears South 77° 29' 06" East 34.07 feet;

Thence, (20) South 57° 33' 59" East 12.85 feet to the beginning of a curve;

Said curve (21) turning to the right through an angle of 15° 36' 41", having a radius of 250.00 feet, and whose long chord bears South 49° 45' 38" East 67.91 feet;

Thence, (22) South 41° 57' 18" East 14.82 feet to the beginning of a curve;

Said curve (23) turning to the left through 17° 21' 08", having a radius of 200.00 feet, and whose long chord bears South 50° 37' 52" East 60.34 feet to the beginning of a non-tangential curve;

Said curve (24) turning to the left through an angle of 14° 17' 25", having a radius of 100.00 feet, and whose long chord bears South 66° 27' 08" East 24.88 feet;

Thence, (25) South 73° 35' 50" East 32.01 feet to the beginning of a curve;

Said curve (26) turning to the left through an angle of 28° 28' 23", having a radius of 50.00 feet, and whose long chord bears South 87° 50' 01" East 24.59 feet;

Thence, (27) North 77° 55' 47" East 15.49 feet to the beginning of a curve;

Said curve (28) turning to the right through an angle of 90° 52' 40", having a radius of 30.00 feet, and whose long chord bears South 56° 37' 48" East 42.75 feet;

Thence, (29) South 11° 11' 22" East 36.68 feet to the beginning of a curve;

Said curve (30) turning to the right through an angle of 51° 54' 14", having a radius of 50.00 feet, and whose long chord bears South 14° 45' 45" West 43.76 feet;

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Thence, (31) South 40° 42' 52" West 28.09 feet to the beginning of a curve;

Said curve (32) turning to the left through an angle of 21° 39' 13", having a radius of 100.00 feet, and whose long chord bears South 29° 53' 16" West 37.57 feet;

Thence, (33) South 19° 03' 39" West 17.53 feet to a point on a line;

Thence, (34) South 52° 52' 22" West a distance of 659.66 feet to the **Point of Beginning** and containing 12.55 acres of land more or less.

*For assessment purposes only. This description of land is not a legal property description as defined in the Subdivision Map Act and may not be used as the basis for an offer for sale of the land described.*

Approved by the Local Agency Formation  
Commission of San Diego

OCT - 7 2019

*Kang*

**EXHIBIT B**

ANNEXATION TO VISTA WATER DISTRICT  
BEING A PORTION OF SECTION  
1, T. 12S, R. 13W, S.D.M.  
COUNTY OF SAN DIEGO

Line #/ Curve #	Length	Bearing/ Delta	Radius
1	346.35	S37°07'38"E	
2	477.65	S38°07'21"E	
3	315.29	S38°55'29"E	
4	131.61'	37°42'12"	200.00'
5	63.94	N76°18'58"W	
6	43.76	N44°43'58"W	
7	34.55'	19°47'52"	100.00'
8	402.73	N64°31'50"W	
9	78.37'	44°54'05"	100.00'
10	159.29	S70°34'06"W	
11	97.74'	56°00'10"	100.00'
12	56.83	N53°25'44"W	
13	46.12'	26°25'28"	100.00'
14	49.69	N27°00'16"W	
15	68.85'	78°53'43"	50.00'
16	53.69	S74°06'01"W	
17	7.41'	8°29'47"	50.00'
18	19.11	S82°35'48"W	

Line #/ Curve #	Length	Bearing/ Delta	Radius
19	34.76'	39°50'12"	50.00'
20	12.85	N57°33'59"W	
21	68.12'	15°36'41"	250.00'
22	14.82	N41°57'18"W	
23	60.57'	17°21'08"	200.00'
24	24.94'	14°17'25"	100.00'
25	32.01	N73°35'50"W	
26	24.85'	28°28'23"	50.00'
27	15.49	S77°55'47"W	
28	47.58'	90°52'40"	30.00'
29	36.68	N11°11'22"W	
30	45.29'	51°54'14"	50.00'
31	28.09'	N40°42'52"E	
32	37.79'	21°39'13"	100.00'
33	17.53'	N19°03'39"E	
34	659.66'	N52°52'22"E	

APN: 187-720-03

APN: 218-220-17

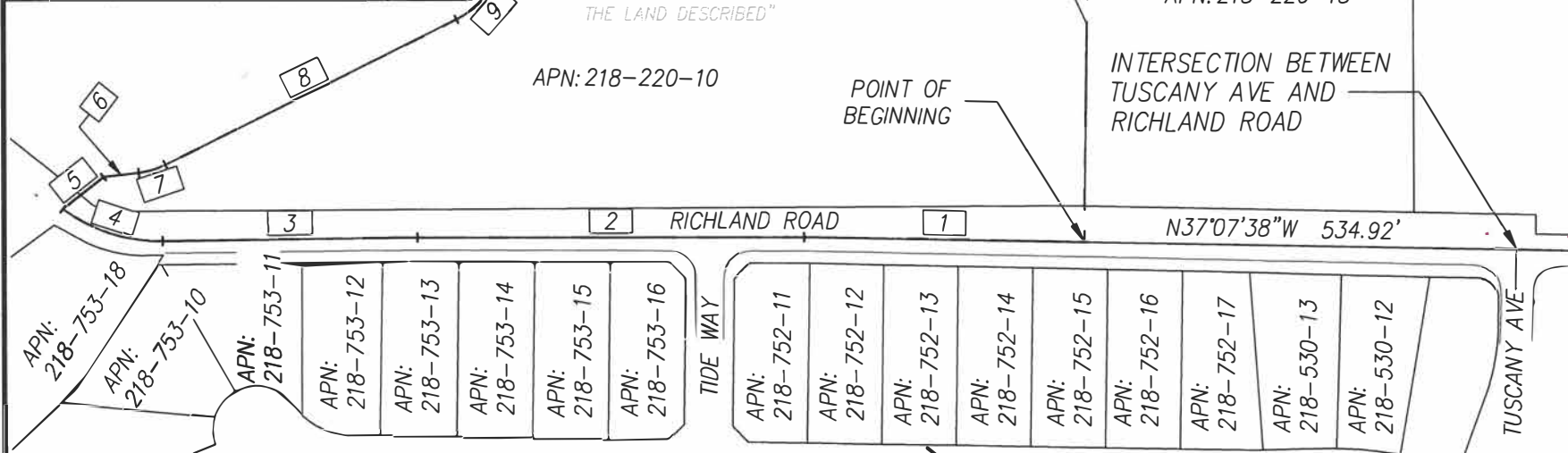
APN: 218-220-18

APN: 218-220-10

DISCLAIMER:  
"FOR ASSESSMENT PURPOSES ONLY, THIS  
DESCRIPTION OF LAND IS NOT A LEGAL  
PROPERTY DESCRIPTION AS DEFINED IN THE  
SUBDIVISION MAP ACT AND MAY NOT BE USED  
AS THE BASIS FOR AN OFFER FOR SALE OF  
THE LAND DESCRIBED"

POINT OF  
BEGINNING

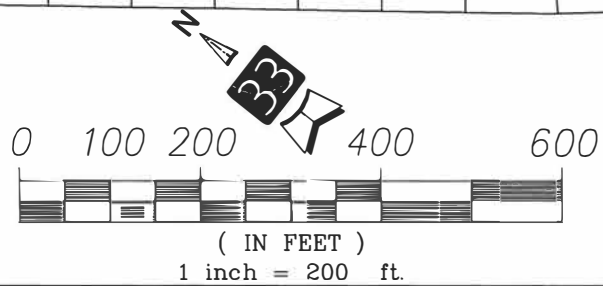
INTERSECTION BETWEEN  
TUSCANY AVE AND  
RICHLAND ROAD



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Commission of San Diego

OCT 7 2019

--- PROPOSED VISTA WATER DISTRICT SEWER BOUNDARY  
--- PROPOSED VISTA WATER DISTRICT SEWER BOUNDARY



**latitude 33**  
PLANNING & ENGINEERING  
9968 Hibert Street 2<sup>nd</sup> Floor, San Diego, CA 92131  
Tel 858.751.0633

H:\1500\1586.10 - Warminton - Orchard Hill SCR and Final Engineering\Engineering\Exhibits\2019-02-28 Legal Description Exhibits\1586.10 Legal Description.dwg  
3/5/2019 3:32:35 PM



## STAFF REPORT

Agenda Item: 6.C

Board Meeting Date: August 19, 2020  
Prepared By: Matt Atteberry  
Reviewed By: Randy Whitmann  
Approved By: Brett Hodgkiss

SUBJECT: FINAL DETACHMENT

RECOMMENDATION: Adopt Resolution No. 20-XX ordering the final detachment of the San Marcos Highlands Reorganization to change Vista Irrigation District boundaries over a 187-lot single-family residential development, consisting of 45.22 acres owned by Diversified Projects LLC, located at the northern end of Las Posas Road, San Marcos (LN 2013-009; CF 500-370; LAFCO RO17-07, SA17-07; APNs 184-240-32, and 184-241-05 & 06; DIV NO 5).

PRIOR BOARD ACTION: On September 18, 2019, the Board adopted Resolution No. 19-27 setting the terms and conditions of detachment for the San Marcos Highlands Reorganization.

FISCAL IMPACT: None.

SUMMARY: The San Marcos Highlands Reorganization involves a 187 single-family residential unit subdivision located at the northern end of Las Posas Road in San Marcos. The project is located on approximately 289 acres of unimproved land with a developable area of 66.53 acres with 45.22 acres located within Vista Irrigation District (District) and the remaining 21.31 acres located within Vallecitos Water District (Vallecitos). All properties that will receive sewer service from Vallecitos were required to also annex into Vallecitos for water service. The owner requested a variance with Vallecitos to exclude the dedicated open space areas from their annexation requirements since this area would not need sewer or water service.

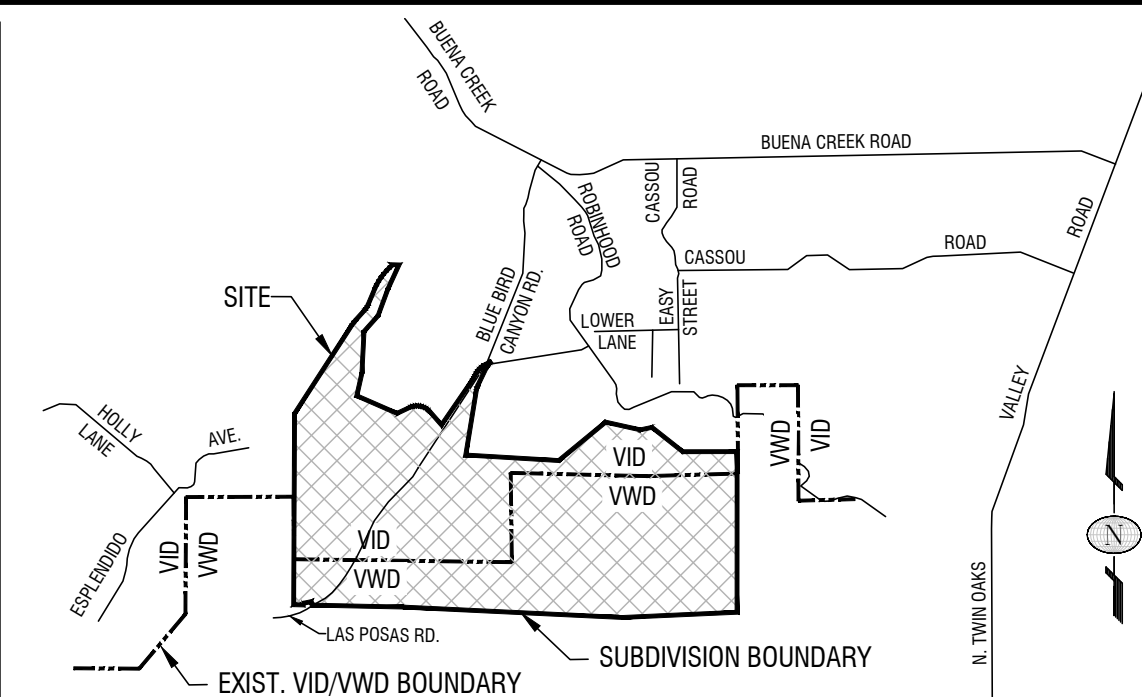
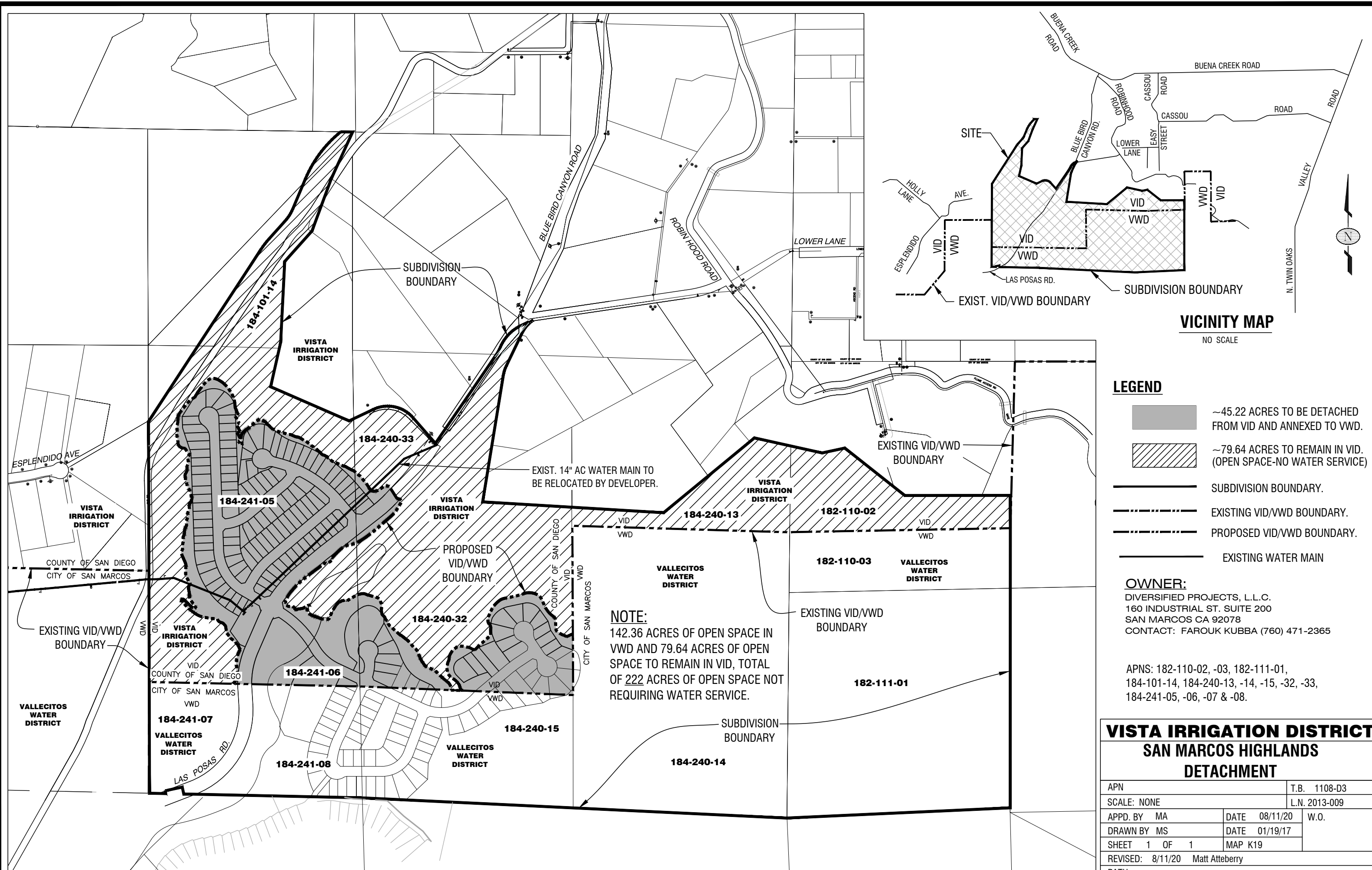
On November 4, 2019, San Diego County Local Agency Formation Commission (LAFCO) adopted their resolution approving and ordering the San Marcos Highlands Reorganization. On July 15, 2020, the District received LAFCO's Certificate of Completion and recorded documents for APNs 184-240-32, and 184-241-05 & 06. The owner, Diversified Projects LLC, has fulfilled the District's conditions of final detachment for their project located at the northern end of Las Posas Road in San Marcos.

Adoption of this resolution will direct staff to change District boundaries in accordance with LAFCO's order.

ATTACHMENTS:

- Map
- Draft resolution
- LAFCO Certificate of Completion





**VICINITY MAP**  
NO SCALE

**LEGEND**

- ~45.22 ACRES TO BE DETACHED FROM VID AND ANNEXED TO VWD.
- ~79.64 ACRES TO REMAIN IN VID. (OPEN SPACE-NO WATER SERVICE)
- SUBDIVISION BOUNDARY.
- EXISTING VID/VWD BOUNDARY.
- PROPOSED VID/VWD BOUNDARY.
- EXISTING WATER MAIN

**OWNER:**  
 DIVERSIFIED PROJECTS, L.L.C.  
 160 INDUSTRIAL ST. SUITE 200  
 SAN MARCOS CA 92078  
 CONTACT: FAROUK KUBBA (760) 471-2365

APNS: 182-110-02, -03, 182-111-01,  
 184-101-14, 184-240-13, -14, -15, -32, -33,  
 184-241-05, -06, -07 & -08.

**NOTE:**  
 142.36 ACRES OF OPEN SPACE IN VWD AND 79.64 ACRES OF OPEN SPACE TO REMAIN IN VID, TOTAL OF 222 ACRES OF OPEN SPACE NOT REQUIRING WATER SERVICE.

**VISTA IRRIGATION DISTRICT  
 SAN MARCOS HIGHLANDS  
 DETACHMENT**

APN	T.B. 1108-D3	
SCALE: NONE	L.N. 2013-009	
APPD. BY MA	DATE 08/11/20	W.O.
DRAWN BY MS	DATE 01/19/17	
SHEET 1 OF 1	MAP K19	
REVISED: 8/11/20 Matt Atteberry		
PATH: LN2017-018 San Marcos Highlands\Old LN Files\LN 2013-009\DETACHMENT		

RESOLUTION NO. 20-XX

RESOLUTION AND ORDER FOR THE DETACHMENT OF  
CERTAIN LANDS FROM VISTA IRRIGATION DISTRICT

SAN MARCOS HIGHLANDS REORGANIZATION  
(APNs 184-240-32, AND 184-241-05 & 06; LN 2013-009; CF 500-370;  
AFCO RO17-07, SA17-07; DIV NO. 5)

WHEREAS, the owners of the property hereinafter described have initiated proceedings for detachment of 45.22 acres, which is currently undeveloped, from Vista Irrigation District (District) and annexation to Vallecitos Water District (Vallecitos); and

WHEREAS, such reorganization was approved by the Local Agency Formation Commission (LAFCO) by its Resolution No. 2019-024, adopted November 4, 2019, and LAFCO has authorized this District to order said detachment without notice and hearing; and

WHEREAS, this Board by its Resolution No. 19-27 adopted September 18, 2019, set certain terms and conditions for detachment, which terms and conditions were approved by LAFCO and have been satisfied and complied with.

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of Vista Irrigation District does hereby determine and order that:

1. Said lands will not be benefitted by the operations of this District.
2. The territory as hereinafter described is definite and certain and its description conforms to the orders of LAFCO.
3. All owners of the land have consented in writing to the proposed detachment.
4. The District is a registered-voter district.
5. Property owners have paid detachment fees in the amount of \$2,495.00 to the District.
6. All proceedings for the annexation of the territory to Vallecitos and detachment from the District have been completed.
7. By reason of the foregoing, the territory shown in attached Exhibit A and described on Exhibit B is hereby ordered detached from the District are changed as to exclude said territory.

PASSED AND ADOPTED by the Board of Directors of Vista Irrigation District this 19<sup>th</sup> day of August 2020, by the following roll call vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

---

Patrick H. Sanchez, Vice President

ATTEST:

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Lisa Soto, Secretary  
Board of Directors  
VISTA IRRIGATION DISTRICT

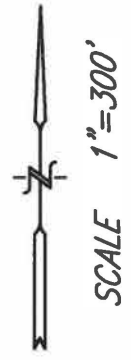
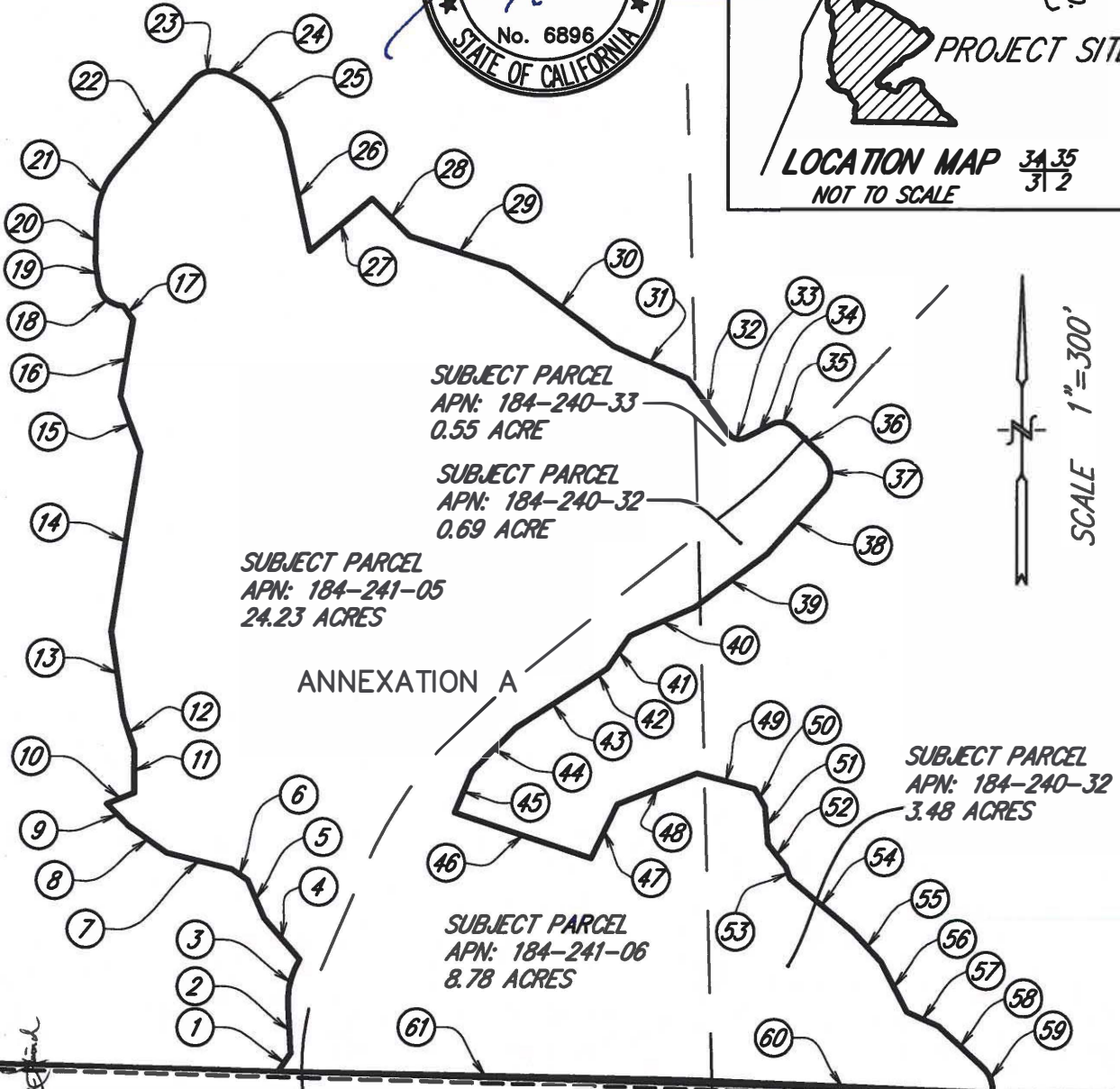
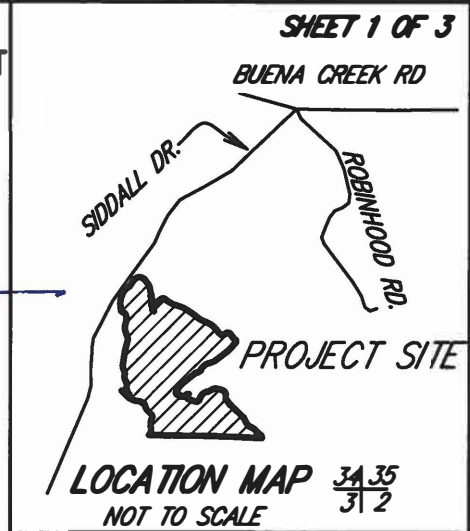
EXHIBIT A

DETACHMENT FROM VISTA IRRIGATION DISTRICT WITH  
CONCURRENT ANNEXATION TO VALLECITOS WATER DISTRICT  
AREA C

SHEET 1 OF 3

LEGEND

- ===== EXISTING VISTA IRRIGATION DISTRICT BOUNDARY
- PROPOSED VISTA IRRIGATION



NOV 1 2019

*Kearney*

APN 184-241-07

APN 184-241-08

APN 184-240-15

**DISCLAIMER:**  
FOR ASSESSMENT PURPOSES ONLY. THE DESCRIPTION OF LAND IS NOT A LEGAL PROPERTY DESCRIPTION AS DEFINED IN THE SUBDIVISION MAP ACT AND MAY NOT BE USED AS A BASIS FOR AN OFFER FOR SALE OF THE LAND DESCRIBED.

LAFCO RESOLUTION NO. R017-07;SA17-07	SCALE: 1"=300'	37.73 ACRES
APN 184-240-32, 184-241-06, & 184-241-05		DATE: 5/24/2019
VALLECITOS WATER DISTRICT ANNEXATION NO. R017-07;SA17-07 PORTION OF SECTION 34, T11S, R31W SBBM, SAN DIEGO COUNTY		EXCEL ENGINEERING 440 STATE PLACE ESCONDIDO, CA 92029 PHONE (760) 745-8118

Approved by the Local Agency Formation Commission of San Diego

## COURSES

NO.	BRNG/DELTA	RADIUS	LENGTH
①	N34°49'53"E	—	40.33'
②	N03°19'26"W	—	86.76'
③	34°32'30"	150.00'	90.43'
④	N40°51'12"W	—	100.01'
⑤	N23°11'55"W	—	76.16'
⑥	N56°18'36"W	—	36.06'
⑦	N75°57'50"W	—	123.69'
⑧	N54°27'44"W	—	86.02'
⑨	N45°00'00"W	—	56.57'
⑩	N68°11'55"E	—	53.85'
⑪	N00°00'00"E	—	80.00'
⑫	N18°26'06"W	—	63.92'
⑬	N08°10'44"W	—	155.89'
⑭	N09°01'14"E	—	333.35'
⑮	N19°47'59"W	—	107.96'
⑯	N09°09'31"E	—	144.09'
⑰	N34°22'37"W	—	30.67'
⑱	83°38'56"	45.00'	65.70'
⑲	N08°03'27"W	—	42.27'
⑳	N01°27'47"E	—	75.66'
㉑	40°27'50"	145.00'	102.40'
㉒	N40°53'00"E	—	215.05'
㉓	71°29'38"	50.00'	62.39'
㉔	N67°37'22"W	—	15.49'
㉕	55°35'05"	170.00'	164.92'
㉖	N12°02'16"W	—	202.24'
㉗	N50°01'20"E	—	148.69'
㉘	N45°25'28"W	—	98.76'
㉙	N72°21'28"W	—	189.58'
㉚	N53°28'41"W	—	239.63'

## COURSES

NO.	BRNG/DELTA	RADIUS	LENGTH
㉛	N66°05'52"W	—	150.83'
㉜	N36°44'16"W	—	126.12'
㉝	80°36'49"	25.00'	35.17'
㉞	N62°38'54"E	—	55.15'
㉟	70°11'39"	32.00'	39.20'
㊱	N47°09'27"W	—	77.85'
㊲	88°59'05"	45.00'	69.89'
㊳	N41°49'38"E	—	158.56'
㊴	N53°45'54"E	—	165.15'
㊵	N66°20'17"E	—	129.85'
㊶	N35°00'10"E	—	72.25'
㊷	N65°30'51"E	—	40.39'
㊸	N57°20'51"E	—	160.15'
㊹	N45°26'05"E	—	112.27'
㊺	N22°44'31"E	—	81.69'
㊻	N71°23'20"W	—	263.21'
㊼	N26°28'52"E	—	109.97'
㊽	N68°52'19"E	—	157.74'
㊾	N75°09'05"W	—	109.24'
㊿	N30°09'30"W	—	38.46'
①	N04°12'48"W	—	67.81'
②	N38°18'00"W	—	53.21'
③	N19°51'19"W	—	23.97'
④	N50°28'32"W	—	152.05'
⑤	N42°46'24"W	—	75.97'
⑥	N27°25'13"W	—	103.07'
⑦	N65°37'13"W	—	64.07'
⑧	N47°28'15"W	—	108.99'
⑨	51°15'16"	60.00'	53.67'
⑩	N87°40'56"W	—	553.79'
⑪	N88°47'49"W	—	762.41'

Approved by the Local Agency Formation  
Commission of San Diego

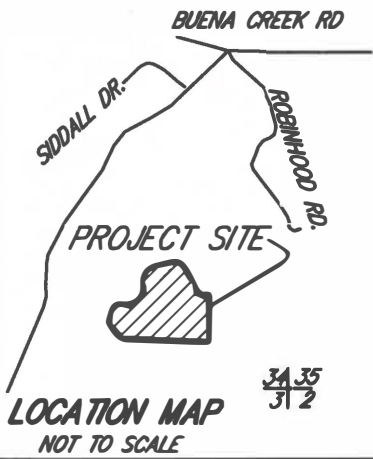
NOV - 4 2019

*Kearney*

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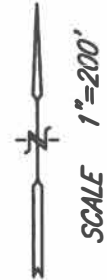
SHEET 3 OF 3

DETACHMENT FROM VISTA IRRIGATION DISTRICT WITH  
CONCURRENT ANNEXATION TO VALLECITOS WATER DISTRICT  
AREA C

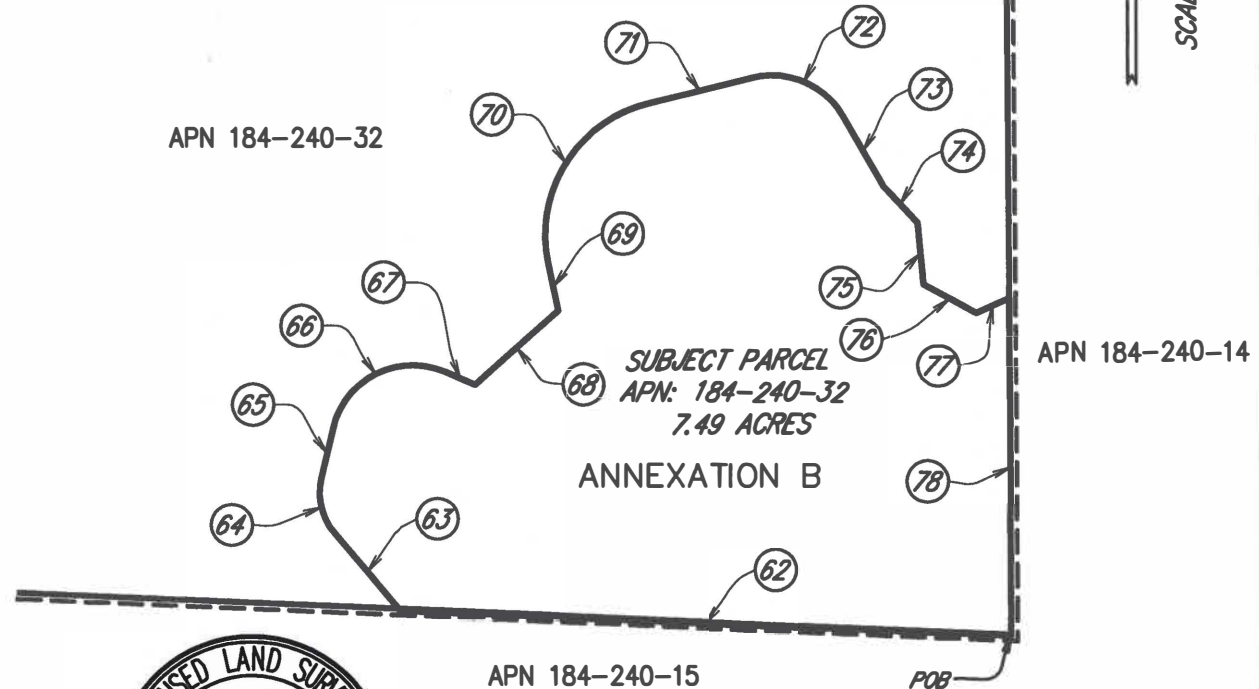


LEGEND

- EXISTING VISTA IRRIGATION DISTRICT BOUNDARY
- PROPOSED VISTA IRRIGATION



APN 184-240-32



COURSES

NO.	BRNG/DELTA	RADIUS	LENGTH
62	N87°40'56"W	—	673.49'
63	N39°49'39"W	—	112.41'
64	53°00'21"	70.00'	64.76'
65	N13°10'42"E	—	55.83'
66	99°59'44"	90.00'	157.07'
67	N66°49'33"W	—	36.22'
68	N48°08'44"E	—	122.64'
69	N11°36'25"W	—	54.07'
70	87°31'56"	150.00'	229.16'
71	N75°55'32"E	—	118.67'
72	74°23'15"	90.00'	116.85'
73	N29°41'13"W	—	89.30'
74	N43°14'43"W	—	54.47'
75	N05°16'30"W	—	68.75'
76	N61°16'40"W	—	66.08'
77	N65°31'13"E	—	40.07'
78	N00°17'21"W	—	372.43'



DISCLAIMER:  
FOR ASSESSMENT PURPOSES ONLY. THE DESCRIPTION OF LAND  
IS NOT A LEGAL PROPERTY DESCRIPTION AS DEFINED IN THE  
SUBDIVISION MAP ACT AND MAY NOT BE USED AS A BASIS  
FOR AN OFFER FOR SALE OF THE LAND DESCRIBED.

LAFCO RESOLUTION NO. R017-07;SA17-07	SCALE: 1" = 200'	7.49 ACRES
APN 184-240-32	DATE: 05/08/19	
VALLECITOS WATER DISTRICT ANNEXATION NO. R017-07;SA17-07	EXCEL ENGINEERING	
PORTION OF SECTION 34, T11S, R3W	440 STATE PLACE	
SBBM, SAN DIEGO COUNTY	ESCONDIDO, CA 92029	
	PHONE (760) 745-8118	

EXHIBIT B

**ANNEXATION NO. RO17-07; SA17-07**

**SAN MARCOS HIGHLANDS REORGANIZATION**

**DETACHMENT FROM VISTA IRRIGATION DISTRICT WITH  
CONCURRENT ANNEXATION TO VALLECITOS WATER DISTRICT**

**GEOGRAPHIC DESCRIPTION**

**AREA C**

**ANNEXATION "A"**

ALL THAT CERTAIN REAL PROPERTY, SITUATED IN A PORTION OF SECTION 34, TOWNSHIP 11 SOUTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

**COMMENCING** AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 34;

THENCE SOUTH 88°47'49" EAST A DISTANCE OF 504.38 FEET TO THE **TRUE POINT OF BEGINNING**.

THENCE (1) NORTH 34°49'53" EAST A DISTANCE OF 40.33 FEET;

THENCE (2) NORTH 03°19'26" WEST A DISTANCE OF 86.76 FEET TO THE BEGINNING OF A 150.00 FOOT RADIUS CURVE, CONCAVE EASTERLY;

THENCE (3) NORTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 34°32'30", AN ARC LENGTH OF 90.43 FEET;

THENCE (4) NORTH 40°51'12" WEST A DISTANCE OF 100.01 FEET;

THENCE (5) NORTH 23°11'55" WEST A DISTANCE OF 76.16 FEET;

THENCE (6) NORTH 56°18'36" WEST A DISTANCE OF 36.06 FEET;

THENCE (7) NORTH 75°57'50" WEST A DISTANCE OF 123.69 FEET;

THENCE (8) NORTH 54°27'44" WEST A DISTANCE OF 86.02 FEET;

THENCE (9) NORTH 45°00'00" WEST A DISTANCE OF 56.57 FEET;

THENCE (10) NORTH 68°11'55" EAST A DISTANCE OF 53.85 FEET;

THENCE (11) NORTH 00°00'00" EAST A DISTANCE OF 80.00 FEET;

THENCE (12) NORTH 18°26'06" WEST A DISTANCE OF 63.92 FEET;

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NOV - 4 2019



THENCE (13) NORTH 08°10'44" WEST A DISTANCE OF 155.89 FEET;

THENCE (14) NORTH 09°01'14" EAST A DISTANCE OF 333.35 FEET;

THENCE (15) NORTH 19°47'59" WEST A DISTANCE OF 107.96 FEET;

THENCE (16) NORTH 09°09'31" EAST A DISTANCE OF 144.09 FEET;

THENCE (17) NORTH 34°22'37" WEST A DISTANCE OF 30.67 FEET TO THE BEGINNING OF A 45.00 FOOT RADIUS CURVE, CONCAVE NORTHEASTERLY;

THENCE (18) NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 83°38'56", AN ARC LENGTH OF 65.70 FEET;

THENCE (19) NORTH 08°03'27" WEST A DISTANCE OF 42.27 FEET;

THENCE (20) NORTH 01°27'47" EAST A DISTANCE OF 75.66 FEET TO THE BEGINNING OF A 145.00 FOOT RADIUS CURVE, CONCAVE EASTERLY;

THENCE (21) NORTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 40°27'50", AN ARC LENGTH OF 102.40 FEET;

THENCE (22) NORTH 40°53'00" EAST A DISTANCE OF 215.05 FEET TO THE BEGINNING OF A 50.00 FOOT RADIUS CURVE, CONCAVE SOUTHERLY;

THENCE (23) EASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 71°29'38", AN ARC LENGTH OF 62.39 FEET;

THENCE (24) SOUTH 67°37'22" EAST A DISTANCE OF 15.49 FEET TO THE BEGINNING OF A 170.00 FOOT RADIUS CURVE, CONCAVE SOUTHWESTERLY;

THENCE (25) SOUTHEASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 55°35'05", AN ARC LENGTH OF 164.92 FEET;

THENCE (26) SOUTH 12°02'16" EAST A DISTANCE OF 202.24 FEET;

THENCE (27) NORTH 50°01'20" EAST A DISTANCE OF 148.69 FEET;

THENCE (28) SOUTH 45°25'28" EAST A DISTANCE OF 98.76 FEET;

THENCE (29) SOUTH 72°21'28" EAST A DISTANCE OF 189.58 FEET;

THENCE (30) SOUTH 53°28'41" EAST A DISTANCE OF 239.63 FEET;

THENCE (31) SOUTH 66°05'52" EAST A DISTANCE OF 150.83 FEET;

THENCE (32) SOUTH 36°44'16" EAST A DISTANCE OF 126.12 FEET TO THE BEGINNING OF A 25.00 FOOT RADIUS CURVE, CONCAVE NORTHERLY;

THENCE (33) EASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 80°36'49", AN ARC LENGTH OF 35.17 FEET;

THENCE (34) NORTH 62°38'54" EAST A DISTANCE OF 55.15 FEET TO THE BEGINNING OF A 32.00 FOOT RADIUS CURVE, CONCAVE SOUTHERLY;

THENCE (35) EASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 70°11'39", AN ARC LENGTH OF 39.20 FEET;

THENCE (36) SOUTH 47°09'27" EAST A DISTANCE OF 77.85 FEET TO THE BEGINNING OF A 45.00 FOOT RADIUS CURVE, CONCAVE WESTERLY;

THENCE (37) SOUTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 88°59'05", AN ARC LENGTH OF 69.89 FEET;

THENCE (38) SOUTH 41°49'38" WEST A DISTANCE OF 158.56 FEET;

THENCE (39) SOUTH 53°45'54" WEST A DISTANCE OF 165.15 FEET;

THENCE (40) SOUTH 66°20'17" WEST A DISTANCE OF 129.85 FEET;

THENCE (41) SOUTH 35°00'10" WEST A DISTANCE OF 72.25 FEET;

THENCE (42) SOUTH 55°30'51" WEST A DISTANCE OF 40.39 FEET;

THENCE (43) SOUTH 57°20'51" WEST A DISTANCE OF 160.15 FEET;

THENCE (44) SOUTH 45°26'05" WEST A DISTANCE OF 112.27 FEET;

THENCE (45) SOUTH 22°44'31" WEST A DISTANCE OF 81.69 FEET;

THENCE (46) SOUTH 71°23'20" EAST A DISTANCE OF 263.21 FEET;

THENCE (47) NORTH 26°28'52" EAST A DISTANCE OF 109.97 FEET;

THENCE (48) NORTH 68°52'19" EAST A DISTANCE OF 157.74 FEET;

THENCE (49) SOUTH 75°09'05" EAST A DISTANCE OF 109.24 FEET;

THENCE (50) SOUTH 30°09'30" EAST A DISTANCE OF 38.46 FEET;

THENCE (51) SOUTH 04°12'48" EAST A DISTANCE OF 67.81 FEET;

THENCE (52) SOUTH 38°18'00" EAST A DISTANCE OF 53.21 FEET;

THENCE (53) SOUTH 19°51'19" EAST A DISTANCE OF 23.97 FEET;

THENCE (54) SOUTH 50°28'32" EAST A DISTANCE OF 152.05 FEET;

THENCE (55) SOUTH 42°46'24" EAST A DISTANCE OF 75.97 FEET;

THENCE (56) SOUTH 27°25'13" EAST A DISTANCE OF 103.07 FEET;

Approved by the Local Agency Formation  
Commission of San Diego

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THENCE (57) SOUTH 65°37'13" EAST A DISTANCE OF 64.07 FEET;

THENCE (58) SOUTH 47°28'15" EAST A DISTANCE OF 108.99 FEET TO THE BEGINNING OF A 60.00 FOOT RADIUS CURVE, CONCAVE WESTERLY;

THENCE (59) SOUTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 51°15'16", AN ARC LENGTH OF 53.67 FEET;

THENCE (60) NORTH 87°40'56" WEST A DISTANCE OF 553.79 FEET;

THENCE (61) NORTH 88°47'49" WEST A DISTANCE OF 762.41 FEET TO THE TRUE POINT OF BEGINNING.

CONTAINING 37.73 ACRES OR 1,643,565.45 SQUARE FEET MORE OR LESS.

FOR ASSESSMENT PURPOSES ONLY. THIS DESCRIPTION OF LAND IS NOT A LEGAL PROPERTY DESCRIPTION AS DEFINED IN THE SUBDIVISION MAP ACT AND MAY NOT BE USED AS THE BASIS FOR AN OFFER FOR SALE OF LAND DESCRIBED.

### **ANNEXATION "B"**

**BEGINNING** AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 34;

THENCE (62) NORTH 87°40'56" WEST A DISTANCE OF 673.49 FEET;

THENCE (63) NORTH 39°49'39" WEST A DISTANCE OF 112.41 FEET TO THE BEGINNING OF A 70.00 FOOT RADIUS CURVE, CONCAVE EASTERLY;

THENCE (64) NORTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 53°00'21", AN ARC LENGTH OF 64.76 FEET;

THENCE (65) NORTH 13°10'42" EAST A DISTANCE OF 55.83 FEET TO THE BEGINNING OF A 90.00 FOOT RADIUS CURVE, CONCAVE SOUTHEASTERLY;

THENCE (66) NORTHEASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 99°59'44", AN ARC LENGTH OF 157.07 FEET;

THENCE (67) SOUTH 66°49'33" EAST A DISTANCE OF 36.22 FEET;

THENCE (68) NORTH 48°08'44" EAST A DISTANCE OF 122.64 FEET;

THENCE (69) NORTH 11°36'25" WEST A DISTANCE OF 54.07 FEET TO THE BEGINNING OF A 150.00 FOOT RADIUS CURVE, CONCAVE SOUTHEASTERLY;

THENCE (70) NORTHEASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 87°31'56", AN ARC LENGTH OF 229.16 FEET;

THENCE (71) NORTH 75°55'32" EAST A DISTANCE OF 118.67 FEET TO THE BEGINNING OF A

90.00 FOOT RADIUS CURVE, CONCAVE SOUTHWESTERLY;

THENCE (72) SOUTHEASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 74°23'15", AN ARC LENGTH OF 116.85 FEET;

THENCE (73) SOUTH 29°41'13" EAST A DISTANCE OF 89.30 FEET;

THENCE (74) SOUTH 43°14'43" EAST A DISTANCE OF 54.47 FEET;

THENCE (75) SOUTH 05°16'30" EAST A DISTANCE OF 68.75 FEET;

THENCE (76) SOUTH 61°16'40" EAST A DISTANCE OF 66.08 FEET;

THENCE (77) NORTH 65°31'13" EAST A DISTANCE OF 40.07 FEET;

THENCE (78) SOUTH 00°17'21" EAST A DISTANCE OF 372.43 FEET TO THE POINT OF BEGINNING.

CONTAINING 7.49 ACRES OR 326,334.53 SQUARE FEET MORE OR LESS.

FOR ASSESSMENT PURPOSES ONLY. THIS DESCRIPTION OF LAND IS NOT A LEGAL PROPERTY DESCRIPTION AS DEFINED IN THE SUBDIVISION MAP ACT AND MAY NOT BE USED AS THE BASIS FOR AN OFFER FOR SALE OF LAND DESCRIBED.

Approved by the Local Agency Formation  
Commission of San Diego

NOV - 4 2019



DOC# 2020-0004898



Jan 06, 2020 02:07 PM

OFFICIAL RECORDS

Ernest J. Dronenburg, Jr.,

SAN DIEGO COUNTY RECORDER

FEES: \$0.00 (SB2 Atkins: \$0.00)

PAGES: 30

RECORDING REQUESTED BY:

San Diego County  
Local Agency Formation Commission (LAFCO)

AND WHEN RECORDED MAIL TO:

LAFCO  
9335 Hazard Way, Suite 200  
San Diego, California 92123  
MS: O216

THIS SPACE FOR RECORDER'S USE ONLY

**Certificate of Completion**

“San Marcos Highlands Reorganization”

Annexation to the City of San Marcos with Concurrent Annexations to  
San Marcos Fire Protection District and Vallecitos Water District and  
Detachments from Vista Fire Protection District and Vista Irrigation District  
with Associated Sphere of Influence Amendments  
LAFCO File No. RO17-07 et al.

(Please fill in document title(s) on above line(s))

THIS PAGE ADDED TO PROVIDE ADEQUATE SPACE FOR RECORDING INFORMATION

Rec. Form #R25  
**SAN DIEGO COUNTY**  
**Local Agency Formation Commission**  
9335 Hazard Way, Suite 200  
San Diego, CA 92123  
MS: O-216

**CERTIFICATE OF COMPLETION**

"San Marcos Highlands Reorganization" | City of San Marcos | LAFCO File No. RO17-07 et al.

Pursuant to Government Code Sections 57200 and 57201, this Certificate is hereby issued.

The name of each city and/or district included in this reorganization, all located within San Diego County, and the type of jurisdictional change ordered for each district are as follows:

<u>City/District</u>	<u>Type of Change of Organization</u>
City of San Marcos	Annexation
San Marcos Fire Protection District	Annexation
Vallecitos Water District	Annexation
Vista Fire Protection District	Detachment
Vista Irrigation District	Detachment

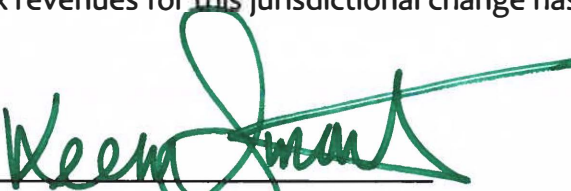
A certified copy of the resolution ordering this reorganization without an election is attached hereto and by reference incorporated herein.

A legal description and map of the boundaries of the above-cited reorganization are included in said resolution.

The terms and conditions, of the reorganization are included in said resolution and have been completed.

I hereby certify that I have examined the above-cited resolution for the reorganization and have found that document to be in compliance with the Commission's resolution approving said reorganization.

I further certify that a master tax exchange resolution governing the exchange of property tax revenues for this jurisdictional change has been submitted to this office.

  
\_\_\_\_\_  
Keene Simonds, Executive Officer

Date: December 20, 2019

**RESOLUTION NO. 2019-024**

**SAN DIEGO COUNTY LOCAL AGENCY FORMATION COMMISSION**

**MAKING DETERMINATIONS, APPROVING AND ORDERING A REORGANIZATION**

**“SAN MARCOS HIGHLANDS REORGANIZATION”**

**ANNEXATION TO THE CITY OF SAN MARCOS, SAN MARCOS FIRE PROTECTION DISTRICT,  
AND VALLECITOS WATER DISTRICT WITH CONCURRENT DETACHMENTS FROM  
VISTA FIRE PROTECTION DISTRICT AND VISTA IRRIGATION DISTRICT  
WITH ASSOCIATED SPHERE OF INFLUENCE AMENDMENTS  
LAFCO FILE NO: RO17-07 ET AL.**

**WHEREAS**, on June 7, 2017, the landowner, Farouk Kubba, filed a petition to initiate proceedings and an application with the San Diego County Local Agency Formation Commission, hereinafter referred to as “Commission,” pursuant to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code § 56000, et seq.); and

**WHEREAS**, the application seeks approval for reorganization of approximately 124.91 acres of unincorporated territory and includes the principal action to annex all of the affected territory to the City of San Marcos; and

**WHEREAS**, the reorganization application also seeks concurrent actions to annex 11.2 and 45.2 acres to San Marcos Fire Protection District and Vallecitos Water District, respectively, with corresponding detachments from the Vista Fire Protection District and Vista Irrigation District; and

**WHEREAS**, an applicable master property tax transfer agreement applies to the proposed reorganization dated March 8, 1988; and

**WHEREAS**, the Commission’s Executive Officer has reviewed the proposed reorganization and prepared a report with recommendations; and

**WHEREAS**, the Executive Officer’s report and recommendations on the proposed reorganization and need for conforming sphere of influence amendments has been presented to the Commission in the manner provided by law; and

**WHEREAS**, the Commission heard and fully considered all the evidence presented at a noticed public hearing along with reviewing the necessary concurrent sphere of influence amendments for consistency under Government Code Section 56375.5 on November 4, 2019.

**NOW, THEREFORE, BE IT RESOLVED**, the Commission hereby finds, determines, and orders the following:

1. The hearing was held on the date set therefore, and due notice of said hearing was given in the manner required by law.
2. At the hearing, the Commission called for, heard, and considered all public comments by interested parties and read and considered the Executive Officer's report.
3. The Commission serves as lead and responsible agency under the California Environmental Quality Act (CEQA) in considering two distinct "projects" associated with the reorganization proposal and as detailed in the Executive Officer's report: (a) accommodating sphere of influence amendments and (b) the reorganization itself. The Commission's findings follow.
  - a) The San Diego Local Agency Formation Commission serves as lead agency under CEQA for the accommodating sphere of influence amendments to include the respective affected territory within the sphere of the Vallecitos Water District and concurrently exclude the respective affected territory from the spheres of the Vista Fire Protection District and the Vista Irrigation District. Staff has determined the activity is a project under CEQA but is exempt from the further review under the "general rule" provision provided under State CEQA Guidelines Section 15061(b)(3). This exemption appropriately applies given it can be seen with certainty spheres are planning policies and any amendments do not make any changes to the environment or authorize any new uses or services.
  - b) The City of San Marcos serves as lead agency under CEQA for the reorganization and boundary changes therein to annex all of the affected territory to the City along with proportional annexations to San Marcos FPD and Vallecitos WD and concurrent detachments from Vista FPD and Vista ID. San Marcos has determined this activity and underlying development entitlements is a project under CEQA and prepared and adopted a Final Environmental Impact Report (FEIR) as part of a noticed hearing held on November 15, 2016. The FEIR attests the project will not have a significant and adverse impact on the environment after all feasible mitigation measures are implemented. The Commission has independently reviewed the FEIR and concurs with San Marcos' findings as a responsible agency.

4. The Commission APPROVES the following sphere of influence amendments subject to successful recordation of the associated proposed reorganization and in doing so makes the statements required under § 56425 and provided in “Exhibit A.”
  - a) The sphere of influence for the Vallecitos Water District is amended to include the affected territory as shown in “Exhibit E” including portions of Assessor Parcel Numbers 184-240-32, 184-240-33, 184-241-05, and 184-241-06.
  - b) The sphere of influence for Vista Fire Protection District is amended to exclude the affected territory as shown in “Exhibit F” including Assessor Parcel Numbers 184-101-14, 184-102-18, 184-102-32, 184-102-44, and 184-240-32 (portion).
  - c) The sphere of influence for Vista Irrigation District is amended to exclude the affected territory as shown in “Exhibit E” including portions of Assessor Parcel Numbers 184-240-32, 184-240-33, 184-241-05, and 184-241-06.
5. The Commission APPROVES the reorganization without modifications and subject to conditions as provided. Approval involves all of the following:
  - a) Annexation of all 124.9 acres of the affected territory to the City of San Marcos as shown in “Exhibit B-1” and described in “Exhibit B-2.”
  - b) Annexation of 11.2 acres of the affected territory to the San Marcos Fire Protection District and concurrent detachment from the Vista Fire Protection District as shown in “Exhibit C-1” and described in “Exhibit C-2.”
  - c) Annexation of 45.2 acres of the affected territory to the Vallecitos Water District and concurrent detachment from the Vista Irrigation District as shown in “Exhibit D-1” and described in “Exhibit D-2.”
6. The Commission CONDITIONS the approvals on the following terms being satisfied by November 4, 2020 unless an extension is requested and approved by the Executive Officer:
  - a) Completion of the 30-day reconsideration period provided under Government Code § 56895.
  - b) Submittal to the Commission of final maps and geographic descriptions of the affected territory and the associated boundary changes as approved by the

Commission conforming to the requirements of the State Board of Equalization – Tax Services Division.

c) Submittal to the Commission of the following payments:

- A check made payable to LAFCO in the amount of \$100.00 to reimburse for filing notices with the County-Clerk Recorder’s Office consistent with the findings in this resolution.
- A check made payable to LAFCO in the amount of \$346.90 to reimburse for the public hearing notice publication.
- A check made payable to the State Board of Equalization for processing fees in the amount of \$4,000.00.

7. The proposal is assigned the following distinctive short-term designation:

“San Marcos Highlands Reorganization” (City of San Marcos )

8. The affected territory shall not be re-designated or re-zoned by the City of San Marcos for a period of no less than two years following the recordation of a Certificate of Completion unless exempting procedures are satisfied under Government Code § 56375(e).
9. The affected territory as designated by the Commission is uninhabited as defined in Government Code Section 56046. All subject landowners have provided written consent to the proposal and no subject has submitted written opposition to a waiver of protest proceedings.
10. The Commission waives conducting authority proceeding requirements under Government Code § 56662 and consistent with policy.
11. San Marcos Fire Protection District, Vallecitos Water District, Vista Fire Protection District and Vista Irrigation District are registered-voter districts.
12. City of San Marcos, San Marcos Fire Protection District, Vallecitos Water District, Vista Fire Protection District, and Vista Irrigation District all utilize the regular assessment roll of the County of San Diego.



13. The affected territory will be liable for any existing bonds, contracts, and/or obligations of the City of San Marcos, San Marcos Fire Protection District, and Vallecitos Water District as provided under Government Code § 57328, and will be subject to any previously authorized taxes, benefit assessments, fees, or charges of the City of San Marcos, San Marcos Fire Protection District, and Vallecitos Water District as provided under Government Code Section 57330.
14. The effective date of the proposal shall be the date of recordation of the Certificate of Completion following completion of all terms.
15. As allowed under Government Code § 56107, the Commission authorizes the Executive Officer to make non-substantive corrections to this resolution to address any technical defect, error, irregularity, or omission.
16. All general terms governing annexations and detachments authorized under Government Code Section 57300-57354 apply to this reorganization.

\*\*

PASSED AND ADOPTED by the Commission on 4<sup>th</sup> of November 2019 by the following vote:

AYES: Desmond, Kersey, MacKenzie, McNamara (voting), Vanderlaan, and Willis  
NOES: None  
ABSENT: Cate, Cox, Jacob, Salas, and Wells  
ABSTAINING: None

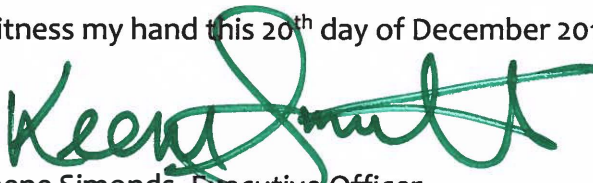
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**STATE OF CALIFORNIA |  
COUNTY OF SAN DIEGO**

I, KEENE SIMONDS, Executive Officer of the Local Agency Formation Commission of the County of San Diego, State of California, hereby certify that I have compared the foregoing copy with the original resolution adopted by said Commission at its regular meeting on November 4, 2019, which original resolution is not on file in my office; and that same contains a full, true, and correct transcript therefrom and of the whole thereof.

Witness my hand this 20<sup>th</sup> day of December 2019.



Keene Simonds, Executive Officer  
San Diego Local Agency Formation Commission

EXHIBIT A

NOV - 4 2019

Government Code Section 56425  
Sphere of Influence Determinations



**(1) The present and planned land uses, including agricultural and open-space lands.**

---

The affected territory is entirely unincorporated and presently planned for low density residential uses by the County of San Diego as part of the North County Metro Community Planning Area and Twin Oaks Valley Subregion. The affected territory includes 11 parcels totaling approximately 124.9 acres. The subject parcels are unimproved with unassigned situs addresses. The City of San Marcos has adopted General Plan and pre-zoning assignments as part of a specific plan approval that covers 265.8 acres and includes all of the affected territory. An associated tentative subdivision map approval provides for the development of 189 single-family residential lots within the specific plan area with the majority concentrated in an approximate 50.0-acre portion of the affected territory. The remaining portion of the affected territory has been dedicated for passive uses as part of a 210.8 acre open space reserve. These planned uses are consistent with the proposal's purpose to synch urban services in support of the residential development and accompanying municipal greenbelt. The affected territory has not been cultivated for agricultural products and is not subject to the Williamson Act. The lands are not considered prime agriculture under LAFCO law.

**(2) The present and probable need for public facilities and services in the area.**

---

Planned residential uses within the affected territory as described above merits organized and elevated municipal services. This need is substantiated by the landowner's intent to proceed and develop the affected territory as part of a 189-lot single-family residential subdivision consistent with the City of San Marcos' General Plan and Zoning Ordinance.

**(3) The present capacity of public facilities and adequacy of public services the agency provides or is authorized to provide.**

---

The City of San Marcos, San Marcos FPD, and Vallecitos WD would directly assume municipal service responsibilities for all of the affected territory upon reorganization. San Marcos and its subsidiary district, San Marcos FPD, presently provide a range of municipal services within their jurisdictional boundaries and highlighted by community planning, fire protection and emergency medical, parks and recreation, police (via contract with the San Diego County Sheriff), solid waste, and public works (streets and traffic). The Vallecitos WD presently provides water, wastewater, and recycled water services within its jurisdictional boundary. The level and adequacy of these agencies' municipal services were last reviewed by LAFCO in 2007 and 2008 and determined to be adequate for present and planned needs. Information collected and analyzed in reviewing the reorganization affirms these agencies have sufficient capacities to extend services to the affected territory without adversely impacting existing constituents.

- (4) The existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency.**
- 

The affected territory has existing communities of interest with the City of San Marcos through common economic and social ties tied to its standing inclusion with its sphere of influence and expectation therein that future development would occur in the City. These existing communities of interest also extend to the San Marcos FPD as a San Marcos subsidiary. Expanding the Vallecitos WD sphere to include the affected territory is consistent and supports these referenced communities of interests given the District's role as primary provider of both public water and wastewater services within San Marcos.

- (5) The present and probable need for those public facilities and services of any disadvantaged unincorporated communities within the existing sphere of influence.**
- 

The affected territory as described above is not located within a census tract qualifying as a disadvantaged unincorporated community under LAFCO policy.

Approved by the Local Agency Formation  
Commission of San Diego

**NOV - 4 2019**



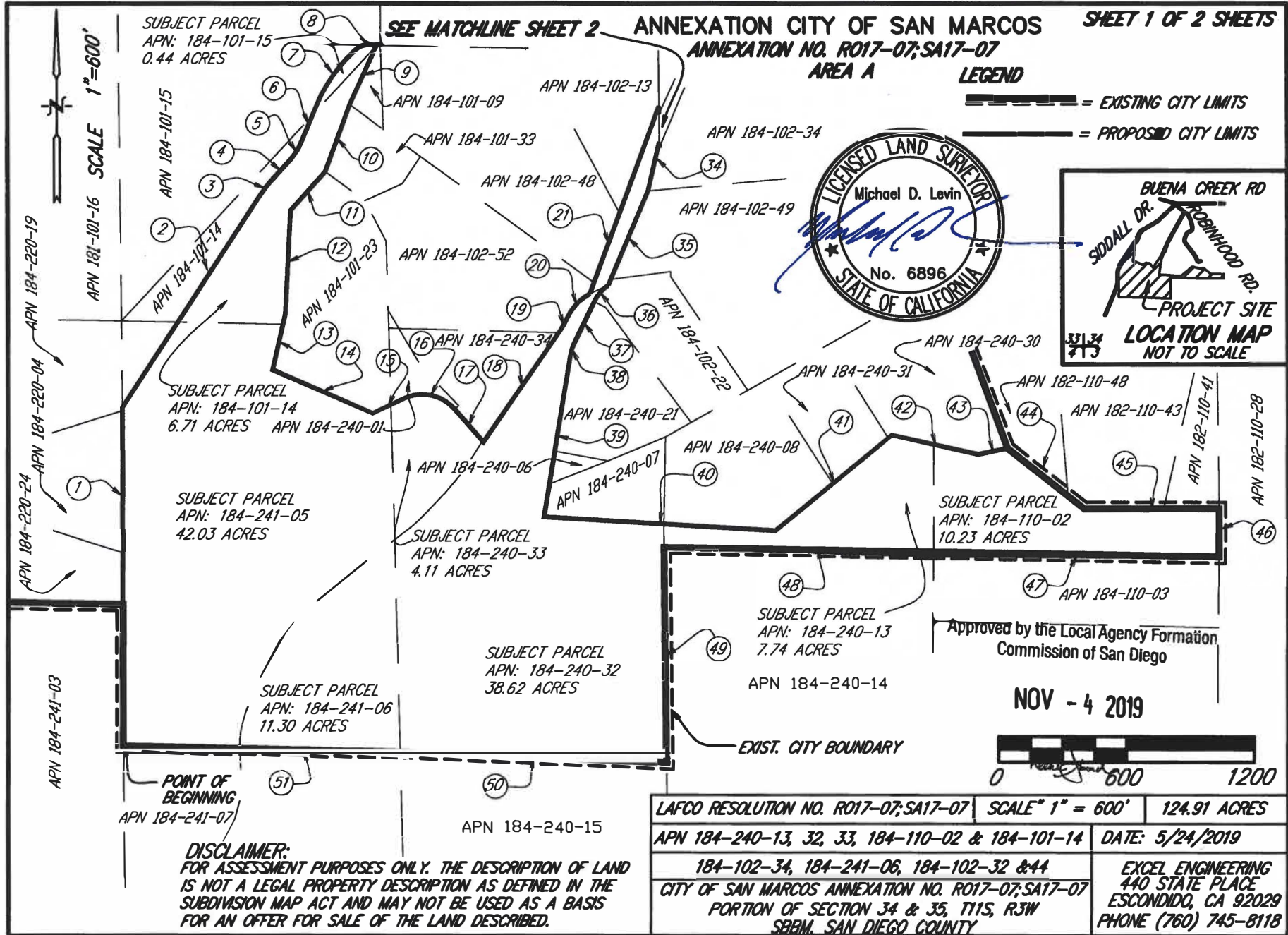
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Approved by the Local Agency Formation  
Commission of San Diego

**NOV - 4 2019**

*Kearney Stander*

# EXHIBIT B-1

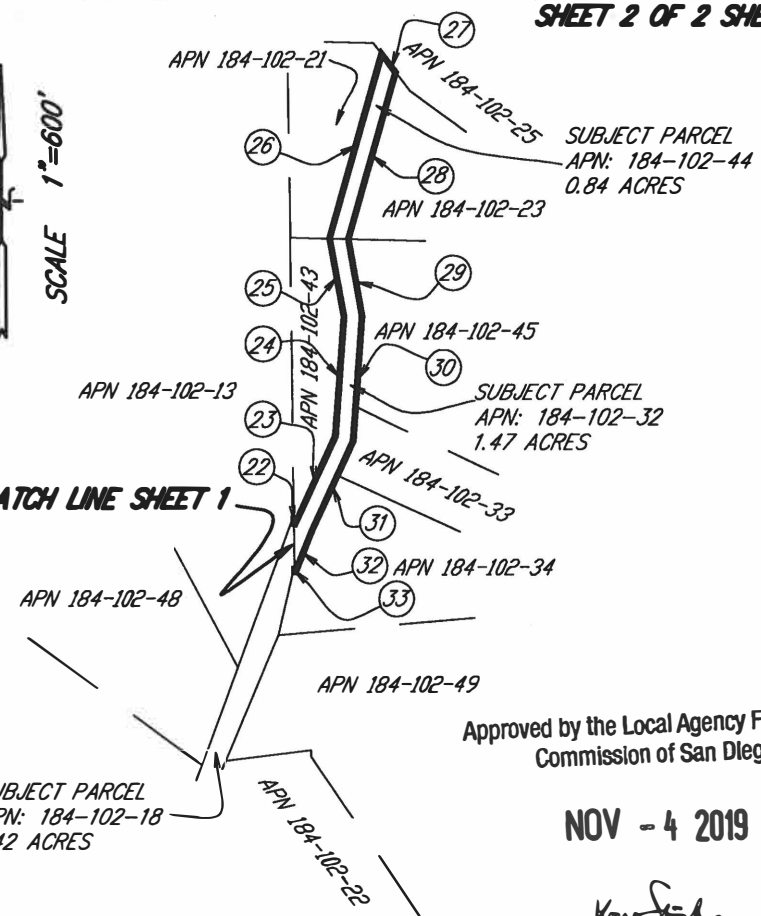


COURSES

NO	BEARING/DELTA	LENGTH	RADIUS	CHORD
1	N 00°09'14" W	1592.50'	—	—
2	N 32°56'10" E	1192.05'	—	—
3	09°00'37"	76.27'	485.00'	76.19'
4	N 41°56'47" E	146.30'	—	—
5	19°04'35"	84.90'	255.00'	84.51'
6	N 22°52'12" E	199.00'	—	—
7	28°17'09"	352.98'	715.00'	349.41'
8	S 88°46'55" E	71.26'	—	—
9	S 24°40'40" W	305.85'	—	—
10	S 20°14'42" W	334.92'	—	—
11	S 41°54'12" W	245.00'	—	—
12	S 02°51'57" W	485.85'	—	—
13	S 12°45'34" W	271.88'	—	—
14	S 66°27'27" E	512.49'	—	—
15	N 64°40'37" E	161.86'	—	—
16	74°17'16"	259.31'	200.00'	241.53'
17	S 41°02'28" E	204.85'	—	—
18	N 34°31'47" E	633.45'	—	—
19	11°13'29"	64.61'	329.82'	64.51'
20	37°53'43"	165.37'	250.03'	162.37'
21	N 20°13'50" E	938.79'	—	—
22	S 00°30'54" E	36.79'	—	—
23	N 24°32'55" E	328.98'	—	—
24	N 04°20'38" E	396.29'	—	—
25	N 09°55'14" W	264.22'	—	—
26	N 15°53'08" E	636.12'	—	—
27	S 36°44'16" E	75.50'	—	—
28	S 15°53'08" W	576.54'	—	—
29	S 09°55'14" E	257.98'	—	—
30	S 04°20'38" W	414.52'	—	—
31	S 24°36'17" W	331.62'	—	—
32	S 21°49'03" W	151.23'	—	—
33	N 00°30'54" W	27.10'	—	—
34	S 13°09'15" W	235.36'	—	—
35	S 22°44'26" W	482.29'	—	—
36	29°40'13"	103.57'	200.00'	102.41'
37	S 25°38'21" W	218.71'	—	—
38	16°19'52"	57.01'	200.03'	56.82'
39	S 09°18'25" W	768.91'	—	—
40	S 86°33'32" E	1085.83'	—	—



SEE MATCH LINE SHEET 1



Approved by the Local Agency Formation Commission of San Diego

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*Kerry Fisher*

41	N 50°34'58" E	705.69'	—	—
42	S 77°27'41" E	414.84'	—	—
43	N 77°54'36" E	139.50'	—	—
44	S 51°38'43" E	458.10'	—	—
45	N 89°54'39" E	632.87'	—	—
46	S 00°02'15" W	228.01'	—	—
47	N 89°41'12" W	1338.80'	—	—
48	N 88°17'13" W	1261.74'	—	—
49	S 00°41'07" E	1014.18'	—	—
50	N 87°40'04" W	1247.31'	—	—
51	N 88°46'45" W	1299.26'	—	—

# EXHIBIT B-2

## ANNEXATION NO. RO17-07; SA17-07 SAN MARCOS HIGHLANDS REORGANIZATION ANNEXATION TO THE CITY OF SAN MARCOS GEOGRAPHIC DESCRIPTION

### AREA A

ALL THAT CERTAIN REAL PROPERTY, SITUATED IN A PORTION OF SECTION 34, TOWNSHIP 11 SOUTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE END OF THE 16<sup>TH</sup> CALL IN THE BOUNDARY OF THE CITY OF SAN MARCOS, AS ESTABLISHED BY THEIR ORDINANCE NO. 65-62 DESIGNATED AS ANNEXATION NO. 65-B "PALOMAR ANNEXATION";

THENCE, (1) NORTH 00°09'14" WEST A DISTANCE OF 1592.50 FEET;

THENCE, (2) NORTH 32°56'10" EAST A DISTANCE OF 1192.05 FEET, TO THE BEGINNING OF A CURVE;

THENCE, (3) ALONG A CURVE HAVING A 485.00 FOOT RADIUS CONCAVE TO THE SOUTHEAST THROUGH A CENTRAL ANGLE OF 9°00'37", AN ARC LENGTH OF 76.27 FEET;

THENCE, (4) NORTH 41°56'47" EAST A DISTANCE OF 146.30 FEET, TO THE BEGINNING OF A CURVE;

THENCE, (5) ALONG A CURVE HAVING A 255.00 FOOT RADIUS CONCAVE TO THE NORTHWEST THROUGH A CENTRAL ANGLE OF 19°04'35", AN ARC LENGTH OF 84.90 FEET;

THENCE, (6) NORTH 22°52'12" EAST A DISTANCE OF 199.00 FEET, TO THE BEGINNING OF A CURVE;

THENCE, (7) ALONG A CURVE HAVING A 715.00 FOOT RADIUS CONCAVE TO THE SOUTHEAST THROUGH A CENTRAL ANGLE OF 28°17'09", AN ARC LENGTH OF 352.98 FEET;

THENCE, (8) SOUTH 88°46'55" EAST A DISTANCE OF 71.26 FEET;

THENCE, (9) SOUTH 24°40'40" WEST A DISTANCE OF 305.85 FEET;

THENCE, (10) SOUTH 20°14'42" WEST A DISTANCE OF 334.92 FEET;

THENCE, (11) SOUTH 41°54'12" WEST A DISTANCE OF 245.00 FEET;

THENCE, (12) SOUTH 02°51'57" WEST A DISTANCE OF 485.85 FEET;

THENCE, (13) SOUTH 12°45'34" WEST A DISTANCE OF 271.88 FEET;

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THENCE, (14) SOUTH 66°27'27" EAST A DISTANCE OF 512.49 FEET;

THENCE, (15) NORTH 64°40'37" EAST A DISTANCE OF 161.86 FEET, TO THE BEGINNING OF A CURVE;

THENCE, (16) ALONG A CURVE HAVING A 200.00 FOOT RADIUS CONCAVE TO THE SOUTH THROUGH A CENTRAL ANGLE OF 74°17'16", AN ARC LENGTH OF 259.31 FEET;

THENCE, (17) SOUTH 41°02'28" EAST A DISTANCE OF 204.85 FEET;

THENCE, (18) NORTH 34°31'47" EAST A DISTANCE OF 633.45 FEET, TO THE BEGINNING OF A CURVE;

THENCE, (19) ALONG A CURVE HAVING A 329.82 FOOT RADIUS CONCAVE TO THE NORTH WEST THROUGH A CENTRAL ANGLE OF 11°13'29", AN ARC LENGTH OF 64.61 FEET, TO THE BEGINNING OF A CURVE;

THENCE, (20) ALONG A CURVE HAVING A 250.03 FOOT RADIUS CONCAVE TO THE SOUTHEAST THROUGH A CENTRAL ANGLE OF 37°53'43", AN ARC LENGTH OF 165.37 FEET;

THENCE, (21) NORTH 20°13'50" EAST A DISTANCE OF 938.79 FEET;

THENCE, (22) SOUTH 00°30'54" EAST A DISTANCE OF 36.79 FEET;

THENCE, (23) NORTH 24°32'55" EAST A DISTANCE OF 328.98 FEET;

THENCE, (24) NORTH 04°20'38" EAST A DISTANCE OF 396.29 FEET;

THENCE, (25) NORTH 09°55'14" WEST A DISTANCE OF 264.22 FEET;

THENCE, (26) NORTH 15°53'08" EAST A DISTANCE OF 636.12 FEET;

THENCE, (27) SOUTH 36°44'16" EAST A DISTANCE OF 75.50 FEET;

THENCE, (28) SOUTH 15°53'08" WEST A DISTANCE OF 576.54 FEET;

THENCE, (29) SOUTH 09°55'14" EAST A DISTANCE OF 257.98 FEET;

THENCE, (30) SOUTH 04°20'38" WEST A DISTANCE OF 414.52 FEET;

THENCE, (31) SOUTH 24°36'17" WEST A DISTANCE OF 331.62 FEET;

THENCE, (32) SOUTH 21°49'03" WEST A DISTANCE OF 151.23 FEET;

THENCE, (33) NORTH 00°30'54" WEST A DISTANCE OF 27.10 FEET;

THENCE, (34) SOUTH 13°09'15" WEST A DISTANCE OF 235.36 FEET;

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THENCE, (35) SOUTH 22°44'26" WEST A DISTANCE OF 482.29 FEET;

THENCE, (36) ALONG A CURVE HAVING A 200.00 FOOT RADIUS CONCAVE TO THE SOUTHEAST THROUGH A CENTRAL ANGLE OF 29°40'13", AN ARC LENGTH OF 103.57 FEET;

THENCE, (37) SOUTH 25°38'21" WEST A DISTANCE OF 218.71 FEET, TO THE BEGINNING OF A CURVE;

THENCE, (38) ALONG A CURVE HAVING A 200.03 FOOT RADIUS CONCAVE TO THE EAST THROUGH A CENTRAL ANGLE OF 16°19'52", AN ARC LENGTH OF 57.01 FEET;

THENCE, (39) SOUTH 09°18'25" WEST A DISTANCE OF 768.91 FEET;

THENCE, (40) SOUTH 86°33'32" EAST A DISTANCE OF 1085.83 FEET;

THENCE, (41) NORTH 50°34'58" EAST A DISTANCE OF 705.69 FEET;

THENCE, (42) SOUTH 77°27'41" EAST A DISTANCE OF 414.84 FEET;

THENCE, (43) NORTH 77°54'36" EAST A DISTANCE OF 139.50 FEET;

THENCE, (44) SOUTH 51°38'43" EAST A DISTANCE OF 458.10 FEET;

THENCE, (45) NORTH 89°54'39" EAST A DISTANCE OF 632.87 FEET;

THENCE, (46) SOUTH 00°02'15" WEST A DISTANCE OF 228.01 FEET;

THENCE, (47) NORTH 89°41'12" WEST A DISTANCE OF 1338.80 FEET;

THENCE, (48) NORTH 88°17'13" WEST A DISTANCE OF 1261.74 FEET;

THENCE, (49) SOUTH 00°41'07" EAST A DISTANCE OF 1014.18 FEET;

THENCE, (50) NORTH 87°40'04" WEST A DISTANCE OF 1247.31 FEET;

THENCE, (51) NORTH 88°46'45" WEST A DISTANCE OF 1299.26 FEET TO THE POINT OF BEGINNING.

SAID PORTION OF LAND CONTAINS, 124.91 ACRES MORE OR LESS.

FOR ASSESSMENT PURPOSES ONLY. THIS DESCRIPTION OF LAND IS NOT A LEGAL PROPERTY DESCRIPTION AS DEFINED IN THE SUBDIVISION MAP ACT AND MAY NOT BE USED AS THE BASIS FOR AN OFFER FOR SALE OF LAND DESCRIBED.

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# EXHIBIT C-1

SHEET 1 OF 2 SHEETS

## DETACHMENT FROM VISTA FIRE PROTECTION DISTRICT WITH CONCURRENT ANNEXATION TO SAN MARCOS FIRE PROTECTION DISTRICT

SCALE 1"=500'

**DISCLAIMER:**  
FOR ASSESSMENT PURPOSES ONLY. THE DESCRIPTION OF LAND IS NOT A  
LEGAL PROPERTY DESCRIPTION AS DEFINED IN THE SUBDIVISION MAP ACT  
AND MAY NOT BE USED AS A BASIS FOR AN OFFER FOR SALE OF THE  
LAND DESCRIBED.



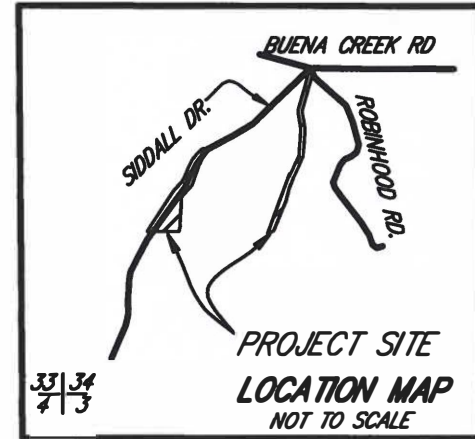
### LEGEND

T.P.O.B. = TRUE POINT OF BEGINNING

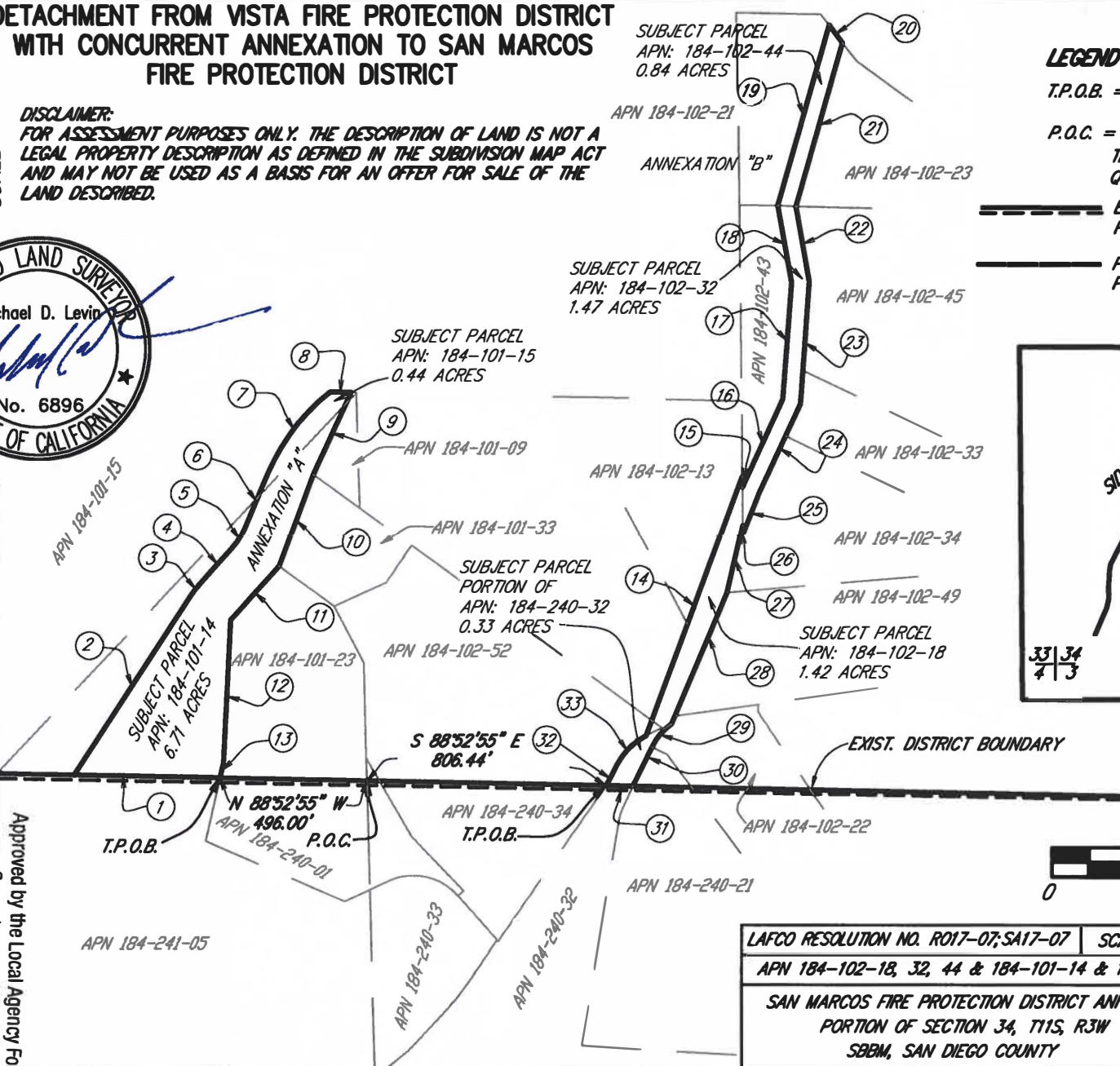
P.O.C. = POINT OF COMMENCEMENT  
THE N.E. CORNER OF THE S.W.  
QUARTER OF SECTION 34.

--- EXISTING SAN MARCOS FIRE  
PROTECTION DISTRICT BOUNDARY

— PROPOSED SAN MARCOS FIRE  
PROTECTION DISTRICT BOUNDARY



SEE SHEET 2 FOR CURVE  
AND LINE TABLES



LAFCO RESOLUTION NO. R017-07; SA17-07	SCALE: 1" = 500'	10.93 ACRES
APN 184-102-18, 32, 44 & 184-101-14 & 15		DATE: 12/22/16
SAN MARCOS FIRE PROTECTION DISTRICT ANNEXATION PORTION OF SECTION 34, T11S, R3W SBBM, SAN DIEGO COUNTY		EXCEL ENGINEERING 440 STATE PLACE ESCONDIDO, CA 92029 PHONE (760) 745-8118

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Commission of San Diego

*Kevin F...*

COURSES				
NO	BEARING/DELTA	LENGTH	RADIUS	CHORD
①	N 88°52'55" W	493.61'	————	
②	N 32°56'10" E	713.89'	————	
③	09°00'37"	76.27'	485.00'	76.19'
④	N 41°56'47" E	146.30'	————	
⑤	19°04'35"	84.90'	255.00'	84.51'
⑥	N 22°52'12" E	199.00'	————	
⑦	28°17'09"	352.98'	715.00'	349.41'
⑧	S 88°46'55" E	71.26'	————	
⑨	S 24°40'40" W	305.85'	————	
⑩	S 20°14'42" W	334.92'	————	
⑪	S 41°54'12" W	245.00'	————	
⑫	S 02°51'57" W	485.85'	————	
⑬	S 12°45'34" W	51.83'	————	
⑭	N 20°13'50" E	938.79'	————	
⑮	S 00°30'54" E	36.79'	————	
⑯	N 24°32'55" E	328.98'	————	
⑰	N 04°20'38" E	396.29'	————	
⑱	N 09°55'14" W	264.22'	————	
⑲	N 15°53'08" E	636.12'	————	
⑳	S 36°44'16" E	75.50'	————	
㉑	S 15°53'08" W	576.54'	————	
㉒	S 09°55'14" E	257.98'	————	
㉓	S 04°20'38" W	414.52'	————	
㉔	S 24°36'17" W	331.62'	————	
㉕	S 21°49'03" W	151.23'	————	
㉖	N 00°30'54" W	27.10'	————	
㉗	S 13°09'15" W	235.36'	————	
㉘	S 22°44'26" W	482.29'	————	
㉙	29°40'13"	103.57'	200.00'	102.41'
㉚	S 25°38'21" W	147.56'	————	
㉛	N 88°52'55" W	91.65'	————	
㉜	11°13'29"	64.61'	329.82'	64.51'
㉝	37°53'43"	165.37'	250.03'	162.37'

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*Kenny F...*

# EXHIBIT C-2

## DETACHMENT NO. RO17-07; SA17-07

### SAN MARCOS HIGHLANDS REORGANIZATION

#### DETACHMENT FROM VISTA FIRE PROTECTION DISTRICT WITH CONCURRENT ANNEXATION TO SAN MARCOS FIRE PROTECTION DISTRICT GEOGRAPHIC DESCRIPTION

##### ANNEXATION "A"

ALL THAT CERTAIN REAL PROPERTY, SITUATE IN A PORTION OF SECTION 34, TOWNSHIP 11 SOUTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

**COMMENCING** AT THE NORTHEAST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 34;

THENCE NORTH 88°52'55" WEST A DISTANCE OF 496.00 FEET TO THE **TRUE POINT OF BEGINNING**;

THENCE, (1) NORTH 88°52'55" WEST A DISTANCE OF 493.61 FEET;

THENCE, (2) NORTH 32°56'10" EAST A DISTANCE OF 713.89 FEET, TO THE BEGINNING OF A CURVE;

THENCE, (3) ALONG A CURVE HAVING A 485.00 FOOT RADIUS CONCAVE TO THE SOUTHEAST THROUGH A CENTRAL ANGLE OF 9°00'37", AN ARC LENGTH OF 76.27 FEET;

THENCE, (4) NORTH 41°56'47" EAST A DISTANCE OF 146.30 FEET, TO THE BEGINNING OF A CURVE;

THENCE, (5) ALONG A CURVE HAVING A 255.00 FOOT RADIUS CONCAVE TO THE NORTHWEST THROUGH A CENTRAL ANGLE OF 19°04'35", AN ARC LENGTH OF 84.90 FEET;

THENCE, (6) NORTH 22°52'12" EAST A DISTANCE OF 199.00 FEET, TO THE BEGINNING OF A CURVE;

THENCE, (7) ALONG A CURVE HAVING A 715.00 FOOT RADIUS CONCAVE TO THE SOUTHEAST THROUGH A CENTRAL ANGLE OF 28°17'09", AN ARC LENGTH OF 352.98 FEET;

THENCE, (8) SOUTH 88°46'55" EAST A DISTANCE OF 71.26 FEET;

THENCE, (9) SOUTH 24°40'40" WEST A DISTANCE OF 305.85 FEET;

THENCE, (10) SOUTH 20°14'42" WEST A DISTANCE OF 334.92 FEET;

THENCE, (11) SOUTH 41°54'12" WEST A DISTANCE OF 245.00 FEET;

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Commission of San Diego

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THENCE, (12) SOUTH 02°51'57" WEST A DISTANCE OF 485.85 FEET;

THENCE, (13) SOUTH 12°45'34" WEST A DISTANCE OF 51.83 FEET TO THE **TRUE POINT OF BEGINNING.**

SAID PORTION OF LAND CONTAINS, 7.15 ACRES MORE OR LESS.

FOR ASSESSMENT PURPOSES ONLY. THIS DESCRIPTION OF LAND IS NOT A LEGAL PROPERTY DESCRIPTION AS DEFINED IN THE SUBDIVISION MAP ACT AND MAY NOT BE USED AS THE BASIS FOR AN OFFER FOR SALE OF LAND DESCRIBED.

ANNEXATION "B"

**COMMENCING** AT THE NORTHEAST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 34;

THENCE SOUTH 88°52'55" EAST A DISTANCE OF 806.44 FEET TO THE **TRUE POINT OF BEGINNING;**

THENCE, (32) ALONG A CURVE HAVING A 329.82 FOOT RADIUS CONCAVE TO THE NORTH WEST THROUGH A CENTRAL ANGLE OF 11°13'29", AN ARC LENGTH OF 64.61 FEET, TO THE BEGINNING OF A CURVE;

THENCE, (33) ALONG A CURVE HAVING A 250.03 FOOT RADIUS CONCAVE TO THE SOUTHEAST THROUGH A CENTRAL ANGLE OF 37°53'43", AN ARC LENGTH OF 165.37 FEET;

THENCE, (14) NORTH 20°13'50" EAST A DISTANCE OF 938.79 FEET;

THENCE, (15) SOUTH 00°30'54" EAST A DISTANCE OF 36.79 FEET;

THENCE, (16) NORTH 24°32'55" EAST A DISTANCE OF 328.98 FEET;

THENCE, (17) NORTH 04°20'38" EAST A DISTANCE OF 396.29 FEET;

THENCE, (18) NORTH 09°55'14" WEST A DISTANCE OF 264.22 FEET;

THENCE, (19) NORTH 15°53'08" EAST A DISTANCE OF 636.12 FEET;

THENCE, (20) SOUTH 36°44'16" EAST A DISTANCE OF 75.50 FEET;

THENCE, (21) SOUTH 15°53'08" WEST A DISTANCE OF 576.54 FEET;

THENCE, (22) SOUTH 09°55'14" EAST A DISTANCE OF 257.98 FEET;

THENCE, (23) SOUTH 04°20'38" WEST A DISTANCE OF 414.52 FEET;

THENCE, (24) SOUTH 24°36'17" WEST A DISTANCE OF 331.62 FEET;

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THENCE, (25) SOUTH 21°49'03" WEST A DISTANCE OF 151.23 FEET;

THENCE, (26) NORTH 00°30'54" WEST A DISTANCE OF 27.10 FEET;

THENCE, (27) SOUTH 13°09'15" WEST A DISTANCE OF 235.36 FEET;

THENCE, (28) SOUTH 22°44'26" WEST A DISTANCE OF 482.29 FEET;

THENCE, (29) ALONG A CURVE HAVING A 200.00 FOOT RADIUS CONCAVE TO THE SOUTHEAST THROUGH A CENTRAL ANGLE OF 29°40'13", AN ARC LENGTH OF 103.57 FEET;

THENCE, (30) SOUTH 25°38'21" WEST A DISTANCE OF 147.56 FEET;

THENCE, (31) NORTH 88°52'55" WEST A DISTANCE OF 91.65 FEET, TO THE **TRUE POINT OF BEGINNING**.

SAID PORTION OF LAND CONTAINS, 4.06 ACRES MORE OR LESS.

FOR ASSESSMENT PURPOSES ONLY. THIS DESCRIPTION OF LAND IS NOT A LEGAL PROPERTY DESCRIPTION AS DEFINED IN THE SUBDIVISION MAP ACT AND MAY NOT BE USED AS THE BASIS FOR AN OFFER FOR SALE OF LAND DESCRIBED.

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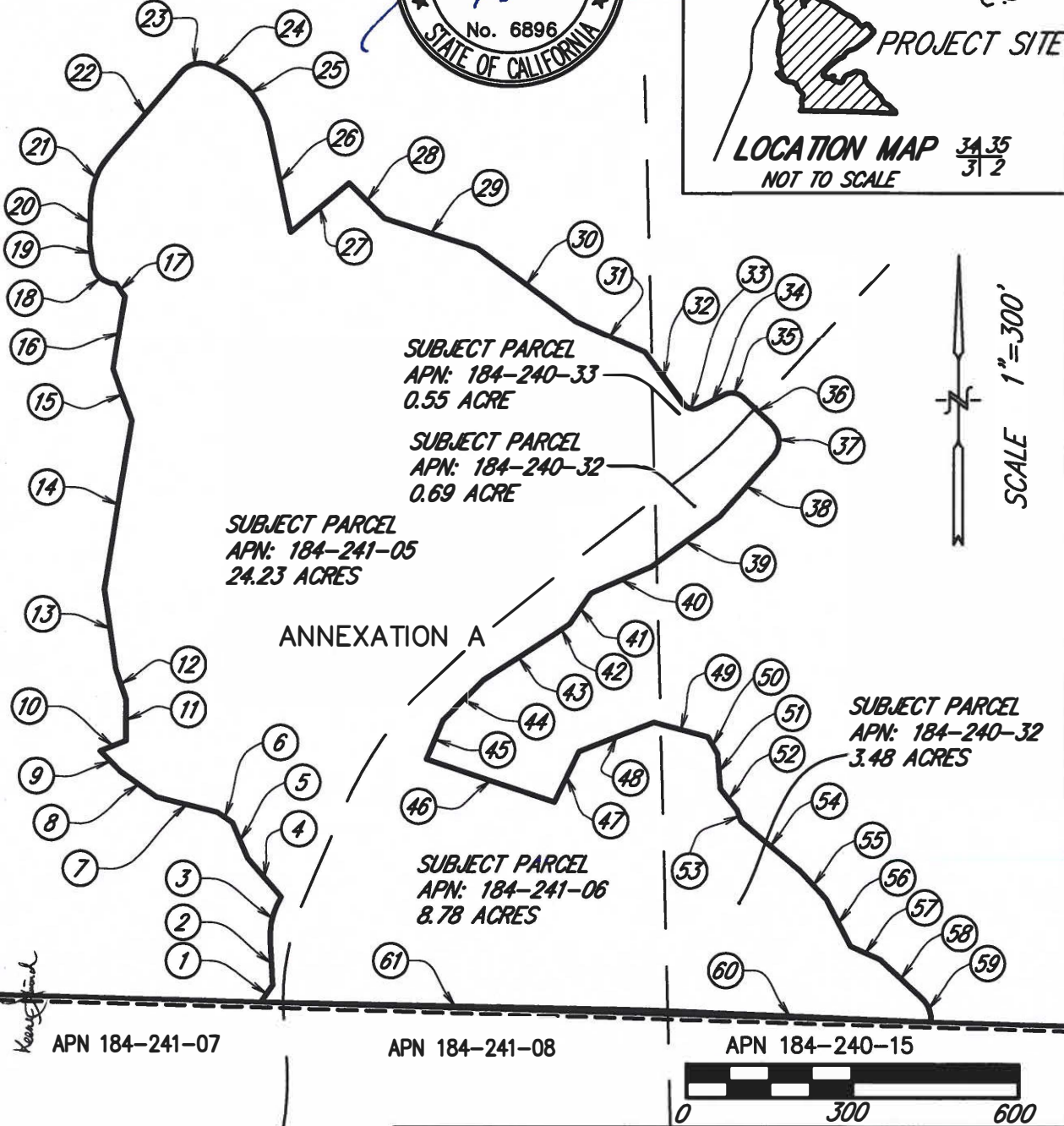
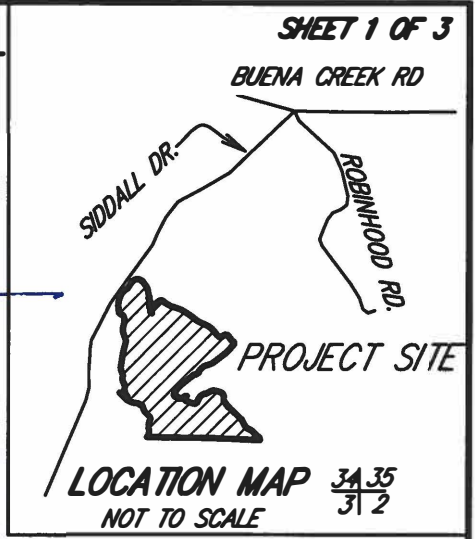
# EXHIBIT D-1

DETACHMENT FROM VISTA IRRIGATION DISTRICT WITH  
CONCURRENT ANNEXATION TO VALLECITOS WATER DISTRICT  
AREA C

SHEET 1 OF 3

**LEGEND**

-  EXISTING VISTA IRRIGATION DISTRICT BOUNDARY
-  PROPOSED VISTA IRRIGATION



NOV 1 2019

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DESCRIPTION OF LAND IS NOT A LEGAL  
PROPERTY DESCRIPTION AS DEFINED IN THE  
SUBDIVISION MAP ACT AND MAY NOT BE  
USED AS A BASIS FOR AN OFFER FOR SALE  
OF THE LAND DESCRIBED.

LAFCO RESOLUTION NO. R017-07;SA17-07	SCALE: 1"=300'	37.73 ACRES
APN 184-240-32, 184-241-06, & 184-241-05	DATE: 5/24/2019	
VALLECITOS WATER DISTRICT ANNEXATION NO. R017-07;SA17-07 PORTION OF SECTION 34, T11S, R31W SBBM, SAN DIEGO COUNTY	EXCEL ENGINEERING 440 STATE PLACE ESCONDIDO, CA 92029 PHONE (760) 745-8118	

## COURSES

NO.	BRNG/DELTA	RADIUS	LENGTH
①	N34°49'53"E	—	40.33'
②	N03°19'26"W	—	86.76'
③	34°32'30"	150.00'	90.43'
④	N40°51'12"W	—	100.01'
⑤	N23°11'55"W	—	76.16'
⑥	N56°18'36"W	—	36.06'
⑦	N75°57'50"W	—	123.69'
⑧	N54°27'44"W	—	86.02'
⑨	N45°00'00"W	—	56.57'
⑩	N68°11'55"E	—	53.85'
⑪	N00°00'00"E	—	80.00'
⑫	N18°26'06"W	—	63.92'
⑬	N08°10'44"W	—	155.89'
⑭	N09°01'14"E	—	333.35'
⑮	N19°47'59"W	—	107.96'
⑯	N09°09'31"E	—	144.09'
⑰	N34°22'37"W	—	30.67'
⑱	83°38'56"	45.00'	65.70'
⑲	N08°03'27"W	—	42.27'
⑳	N01°27'47"E	—	75.66'
㉑	40°27'50"	145.00'	102.40'
㉒	N40°53'00"E	—	215.05'
㉓	71°29'38"	50.00'	62.39'
㉔	N67°37'22"W	—	15.49'
㉕	55°35'05"	170.00'	164.92'
㉖	N12°02'16"W	—	202.24'
㉗	N50°01'20"E	—	148.69'
㉘	N45°25'28"W	—	98.76'
㉙	N72°21'28"W	—	189.58'
㉚	N53°28'41"W	—	239.63'

## COURSES

NO.	BRNG/DELTA	RADIUS	LENGTH
㉛	N66°05'52"W	—	150.83'
㉜	N36°44'16"W	—	126.12'
㉝	80°36'49"	25.00'	35.17'
㉞	N62°38'54"E	—	55.15'
㉟	70°11'39"	32.00'	39.20'
㊱	N47°09'27"W	—	77.85'
㊲	88°59'05"	45.00'	69.89'
㊳	N41°49'38"E	—	158.56'
㊴	N53°45'54"E	—	165.15'
㊵	N66°20'17"E	—	129.85'
㊶	N35°00'10"E	—	72.25'
㊷	N65°30'51"E	—	40.39'
㊸	N57°20'51"E	—	160.15'
㊹	N45°26'05"E	—	112.27'
㊺	N22°44'31"E	—	81.69'
㊻	N71°23'20"W	—	263.21'
㊼	N26°28'52"E	—	109.97'
㊽	N68°52'19"E	—	157.74'
㊾	N75°09'05"W	—	109.24'
㊿	N30°09'30"W	—	38.46'
①	N04°12'48"W	—	67.81'
②	N38°18'00"W	—	53.21'
③	N19°51'19"W	—	23.97'
④	N50°28'32"W	—	152.05'
⑤	N42°46'24"W	—	75.97'
⑥	N27°25'13"W	—	103.07'
⑦	N65°37'13"W	—	64.07'
⑧	N47°28'15"W	—	108.99'
⑨	51°15'16"	60.00'	53.67'
⑩	N87°40'56"W	—	553.79'
⑪	N88°47'49"W	—	762.41'

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Commission of San Diego

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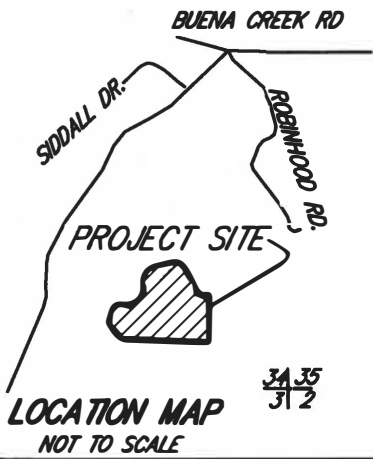
*Kearney*



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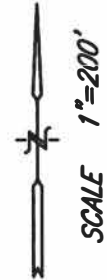
SHEET 3 OF 3

DETACHMENT FROM VISTA IRRIGATION DISTRICT WITH  
CONCURRENT ANNEXATION TO VALLECITOS WATER DISTRICT  
AREA C

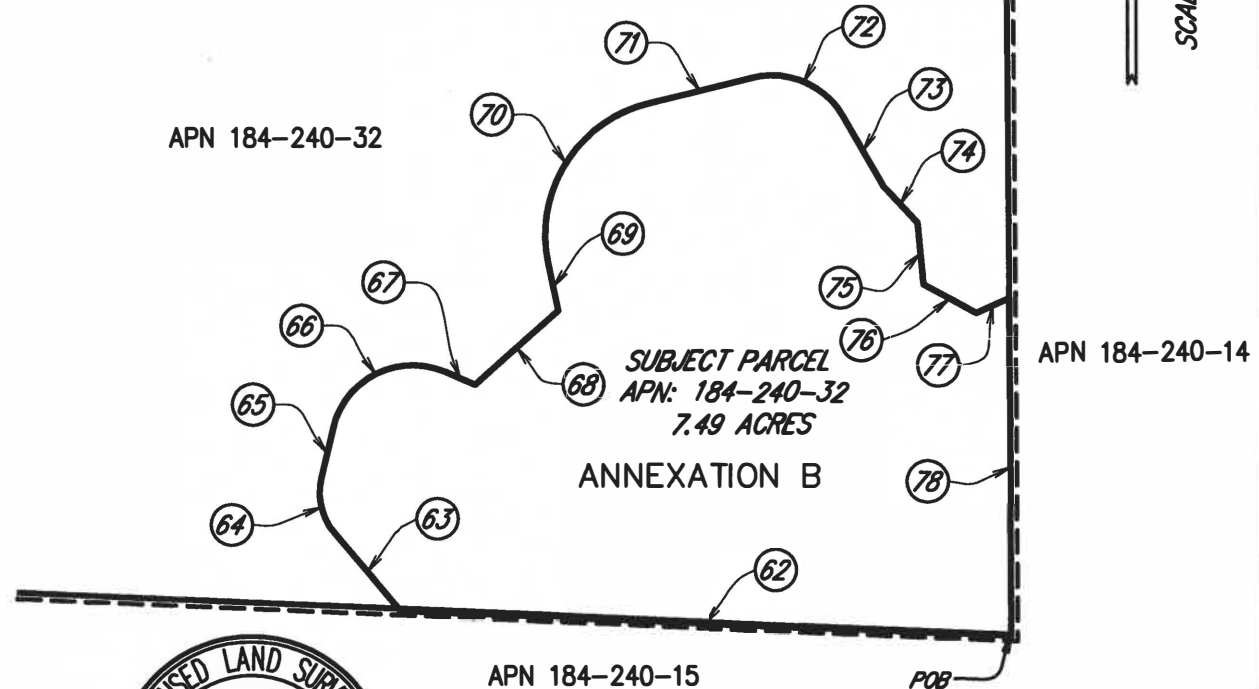


LEGEND

- EXISTING VISTA IRRIGATION DISTRICT BOUNDARY
- PROPOSED VISTA IRRIGATION



APN 184-240-32



COURSES

NO.	BRNG/DELTA	RADIUS	LENGTH
62	N87°40'56"W	—	673.49'
63	N39°49'39"W	—	112.41'
64	S3°00'21"	70.00'	64.76'
65	N13°10'42"E	—	55.83'
66	S99°59'44"	90.00'	157.07'
67	N66°49'33"W	—	36.22'
68	N48°08'44"E	—	122.64'
69	N11°36'25"W	—	54.07'
70	S87°31'56"	150.00'	229.16'
71	N75°55'32"E	—	118.67'
72	S74°23'15"	90.00'	116.85'
73	N29°41'13"W	—	89.30'
74	N43°14'43"W	—	54.47'
75	N05°16'30"W	—	68.75'
76	N61°16'40"W	—	66.08'
77	N65°31'13"E	—	40.07'
78	N00°17'21"W	—	372.43'



DISCLAIMER:  
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IS NOT A LEGAL PROPERTY DESCRIPTION AS DEFINED IN THE  
SUBDIVISION MAP ACT AND MAY NOT BE USED AS A BASIS  
FOR AN OFFER FOR SALE OF THE LAND DESCRIBED.

LAFCO RESOLUTION NO. R017-07; SA17-07	SCALE: 1" = 200'	7.49 ACRES
APN 184-240-32	DATE: 05/08/19	
VALLECITOS WATER DISTRICT ANNEXATION NO. R017-07; SA17-07	EXCEL ENGINEERING	
PORTION OF SECTION 34, T11S, R3W	440 STATE PLACE	
SBBM, SAN DIEGO COUNTY	ESCONDIDO, CA 92029	
	PHONE (760) 745-8118	

# EXHIBIT D-2

## ANNEXATION NO. RO17-07; SA17-07

### SAN MARCOS HIGHLANDS REORGANIZATION

### DETACHMENT FROM VISTA IRRIGATION DISTRICT WITH CONCURRENT ANNEXATION TO VALLECITOS WATER DISTRICT GEOGRAPHIC DESCRIPTION

#### AREA C

#### ANNEXATION "A"

ALL THAT CERTAIN REAL PROPERTY, SITUATED IN A PORTION OF SECTION 34, TOWNSHIP 11 SOUTH, RANGE 3 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

**COMMENCING** AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 34;

THENCE SOUTH 88°47'49" EAST A DISTANCE OF 504.38 FEET TO THE **TRUE POINT OF BEGINNING**.

THENCE (1) NORTH 34°49'53" EAST A DISTANCE OF 40.33 FEET;

THENCE (2) NORTH 03°19'26" WEST A DISTANCE OF 86.76 FEET TO THE BEGINNING OF A 150.00 FOOT RADIUS CURVE, CONCAVE EASTERLY;

THENCE (3) NORTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 34°32'30", AN ARC LENGTH OF 90.43 FEET;

THENCE (4) NORTH 40°51'12" WEST A DISTANCE OF 100.01 FEET;

THENCE (5) NORTH 23°11'55" WEST A DISTANCE OF 76.16 FEET;

THENCE (6) NORTH 56°18'36" WEST A DISTANCE OF 36.06 FEET;

THENCE (7) NORTH 75°57'50" WEST A DISTANCE OF 123.69 FEET;

THENCE (8) NORTH 54°27'44" WEST A DISTANCE OF 86.02 FEET;

THENCE (9) NORTH 45°00'00" WEST A DISTANCE OF 56.57 FEET;

THENCE (10) NORTH 68°11'55" EAST A DISTANCE OF 53.85 FEET;

THENCE (11) NORTH 00°00'00" EAST A DISTANCE OF 80.00 FEET;

THENCE (12) NORTH 18°26'06" WEST A DISTANCE OF 63.92 FEET;

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THENCE (13) NORTH 08°10'44" WEST A DISTANCE OF 155.89 FEET;

THENCE (14) NORTH 09°01'14" EAST A DISTANCE OF 333.35 FEET;

THENCE (15) NORTH 19°47'59" WEST A DISTANCE OF 107.96 FEET;

THENCE (16) NORTH 09°09'31" EAST A DISTANCE OF 144.09 FEET;

THENCE (17) NORTH 34°22'37" WEST A DISTANCE OF 30.67 FEET TO THE BEGINNING OF A 45.00 FOOT RADIUS CURVE, CONCAVE NORTHEASTERLY;

THENCE (18) NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 83°38'56", AN ARC LENGTH OF 65.70 FEET;

THENCE (19) NORTH 08°03'27" WEST A DISTANCE OF 42.27 FEET;

THENCE (20) NORTH 01°27'47" EAST A DISTANCE OF 75.66 FEET TO THE BEGINNING OF A 145.00 FOOT RADIUS CURVE, CONCAVE EASTERLY;

THENCE (21) NORTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 40°27'50", AN ARC LENGTH OF 102.40 FEET;

THENCE (22) NORTH 40°53'00" EAST A DISTANCE OF 215.05 FEET TO THE BEGINNING OF A 50.00 FOOT RADIUS CURVE, CONCAVE SOUTHERLY;

THENCE (23) EASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 71°29'38", AN ARC LENGTH OF 62.39 FEET;

THENCE (24) SOUTH 67°37'22" EAST A DISTANCE OF 15.49 FEET TO THE BEGINNING OF A 170.00 FOOT RADIUS CURVE, CONCAVE SOUTHWESTERLY;

THENCE (25) SOUTHEASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 55°35'05", AN ARC LENGTH OF 164.92 FEET;

THENCE (26) SOUTH 12°02'16" EAST A DISTANCE OF 202.24 FEET;

THENCE (27) NORTH 50°01'20" EAST A DISTANCE OF 148.69 FEET;

THENCE (28) SOUTH 45°25'28" EAST A DISTANCE OF 98.76 FEET;

THENCE (29) SOUTH 72°21'28" EAST A DISTANCE OF 189.58 FEET;

THENCE (30) SOUTH 53°28'41" EAST A DISTANCE OF 239.63 FEET;

THENCE (31) SOUTH 66°05'52" EAST A DISTANCE OF 150.83 FEET;

THENCE (32) SOUTH 36°44'16" EAST A DISTANCE OF 126.12 FEET TO THE BEGINNING OF A 25.00 FOOT RADIUS CURVE, CONCAVE NORTHERLY;

THENCE (33) EASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 80°36'49", AN ARC LENGTH OF 35.17 FEET;

THENCE (34) NORTH 62°38'54" EAST A DISTANCE OF 55.15 FEET TO THE BEGINNING OF A 32.00 FOOT RADIUS CURVE, CONCAVE SOUTHERLY;

THENCE (35) EASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 70°11'39", AN ARC LENGTH OF 39.20 FEET;

THENCE (36) SOUTH 47°09'27" EAST A DISTANCE OF 77.85 FEET TO THE BEGINNING OF A 45.00 FOOT RADIUS CURVE, CONCAVE WESTERLY;

THENCE (37) SOUTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 88°59'05", AN ARC LENGTH OF 69.89 FEET;

THENCE (38) SOUTH 41°49'38" WEST A DISTANCE OF 158.56 FEET;

THENCE (39) SOUTH 53°45'54" WEST A DISTANCE OF 165.15 FEET;

THENCE (40) SOUTH 66°20'17" WEST A DISTANCE OF 129.85 FEET;

THENCE (41) SOUTH 35°00'10" WEST A DISTANCE OF 72.25 FEET;

THENCE (42) SOUTH 55°30'51" WEST A DISTANCE OF 40.39 FEET;

THENCE (43) SOUTH 57°20'51" WEST A DISTANCE OF 160.15 FEET;

THENCE (44) SOUTH 45°26'05" WEST A DISTANCE OF 112.27 FEET;

THENCE (45) SOUTH 22°44'31" WEST A DISTANCE OF 81.69 FEET;

THENCE (46) SOUTH 71°23'20" EAST A DISTANCE OF 263.21 FEET;

THENCE (47) NORTH 26°28'52" EAST A DISTANCE OF 109.97 FEET;

THENCE (48) NORTH 68°52'19" EAST A DISTANCE OF 157.74 FEET;

THENCE (49) SOUTH 75°09'05" EAST A DISTANCE OF 109.24 FEET;

THENCE (50) SOUTH 30°09'30" EAST A DISTANCE OF 38.46 FEET;

THENCE (51) SOUTH 04°12'48" EAST A DISTANCE OF 67.81 FEET;

THENCE (52) SOUTH 38°18'00" EAST A DISTANCE OF 53.21 FEET;

THENCE (53) SOUTH 19°51'19" EAST A DISTANCE OF 23.97 FEET;

THENCE (54) SOUTH 50°28'32" EAST A DISTANCE OF 152.05 FEET;

THENCE (55) SOUTH 42°46'24" EAST A DISTANCE OF 75.97 FEET;

THENCE (56) SOUTH 27°25'13" EAST A DISTANCE OF 103.07 FEET;

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THENCE (57) SOUTH 65°37'13" EAST A DISTANCE OF 64.07 FEET;

THENCE (58) SOUTH 47°28'15" EAST A DISTANCE OF 108.99 FEET TO THE BEGINNING OF A 60.00 FOOT RADIUS CURVE, CONCAVE WESTERLY;

THENCE (59) SOUTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 51°15'16", AN ARC LENGTH OF 53.67 FEET;

THENCE (60) NORTH 87°40'56" WEST A DISTANCE OF 553.79 FEET;

THENCE (61) NORTH 88°47'49" WEST A DISTANCE OF 762.41 FEET TO THE TRUE POINT OF BEGINNING.

CONTAINING 37.73 ACRES OR 1,643,565.45 SQUARE FEET MORE OR LESS.

FOR ASSESSMENT PURPOSES ONLY. THIS DESCRIPTION OF LAND IS NOT A LEGAL PROPERTY DESCRIPTION AS DEFINED IN THE SUBDIVISION MAP ACT AND MAY NOT BE USED AS THE BASIS FOR AN OFFER FOR SALE OF LAND DESCRIBED.

### **ANNEXATION "B"**

**BEGINNING** AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 34;

THENCE (62) NORTH 87°40'56" WEST A DISTANCE OF 673.49 FEET;

THENCE (63) NORTH 39°49'39" WEST A DISTANCE OF 112.41 FEET TO THE BEGINNING OF A 70.00 FOOT RADIUS CURVE, CONCAVE EASTERLY;

THENCE (64) NORTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 53°00'21", AN ARC LENGTH OF 64.76 FEET;

THENCE (65) NORTH 13°10'42" EAST A DISTANCE OF 55.83 FEET TO THE BEGINNING OF A 90.00 FOOT RADIUS CURVE, CONCAVE SOUTHEASTERLY;

THENCE (66) NORTHEASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 99°59'44", AN ARC LENGTH OF 157.07 FEET;

THENCE (67) SOUTH 66°49'33" EAST A DISTANCE OF 36.22 FEET;

THENCE (68) NORTH 48°08'44" EAST A DISTANCE OF 122.64 FEET;

THENCE (69) NORTH 11°36'25" WEST A DISTANCE OF 54.07 FEET TO THE BEGINNING OF A 150.00 FOOT RADIUS CURVE, CONCAVE SOUTHEASTERLY;

THENCE (70) NORTHEASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 87°31'56", AN ARC LENGTH OF 229.16 FEET;

THENCE (71) NORTH 75°55'32" EAST A DISTANCE OF 118.67 FEET TO THE BEGINNING OF A

90.00 FOOT RADIUS CURVE, CONCAVE SOUTHWESTERLY;

THENCE (72) SOUTHEASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 74°23'15", AN ARC LENGTH OF 116.85 FEET;

THENCE (73) SOUTH 29°41'13" EAST A DISTANCE OF 89.30 FEET;

THENCE (74) SOUTH 43°14'43" EAST A DISTANCE OF 54.47 FEET;

THENCE (75) SOUTH 05°16'30" EAST A DISTANCE OF 68.75 FEET;

THENCE (76) SOUTH 61°16'40" EAST A DISTANCE OF 66.08 FEET;

THENCE (77) NORTH 65°31'13" EAST A DISTANCE OF 40.07 FEET;

THENCE (78) SOUTH 00°17'21" EAST A DISTANCE OF 372.43 FEET TO THE POINT OF BEGINNING.

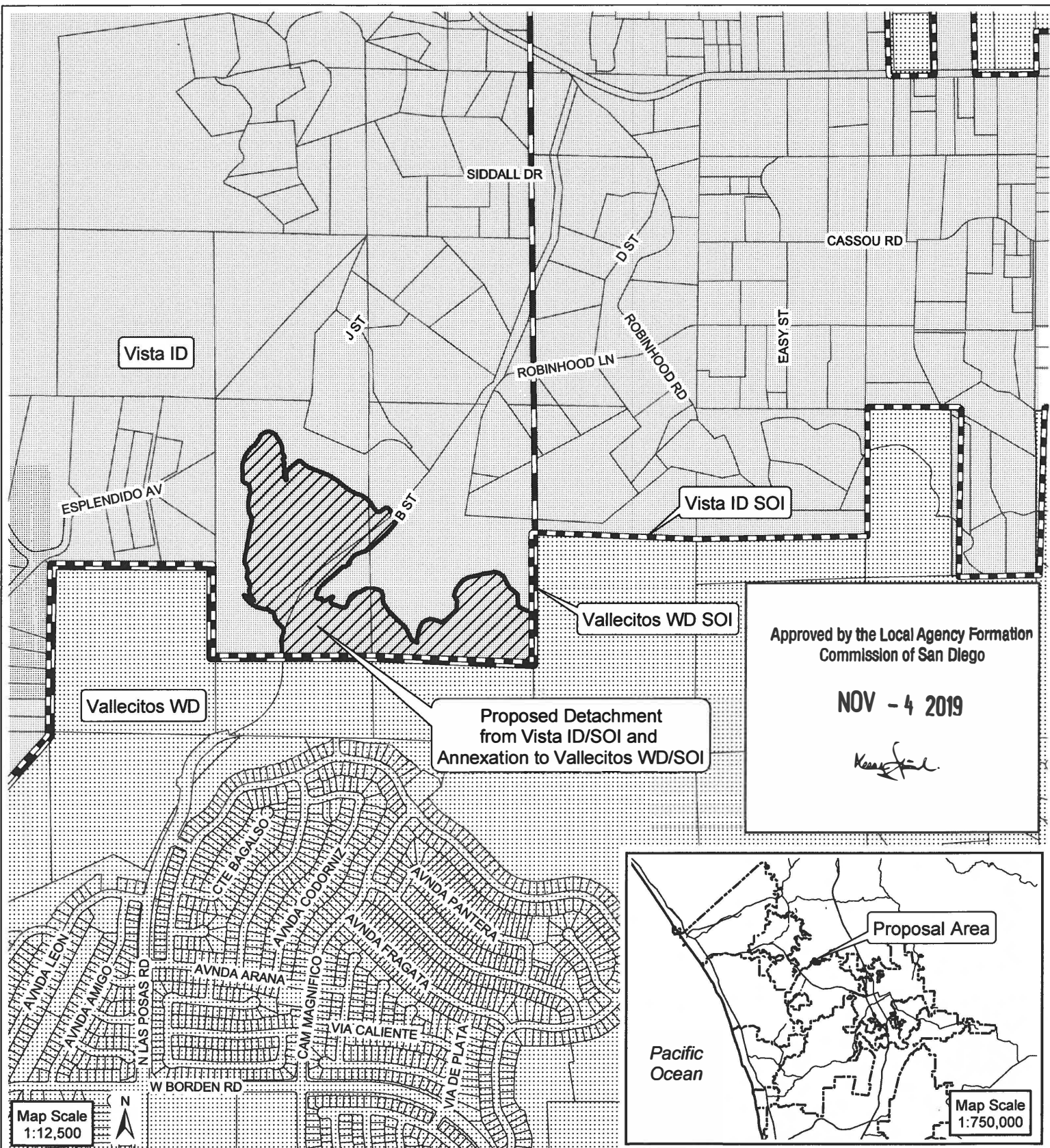
CONTAINING 7.49 ACRES OR 326,334.53 SQUARE FEET MORE OR LESS.

FOR ASSESSMENT PURPOSES ONLY. THIS DESCRIPTION OF LAND IS NOT A LEGAL PROPERTY DESCRIPTION AS DEFINED IN THE SUBDIVISION MAP ACT AND MAY NOT BE USED AS THE BASIS FOR AN OFFER FOR SALE OF LAND DESCRIBED.

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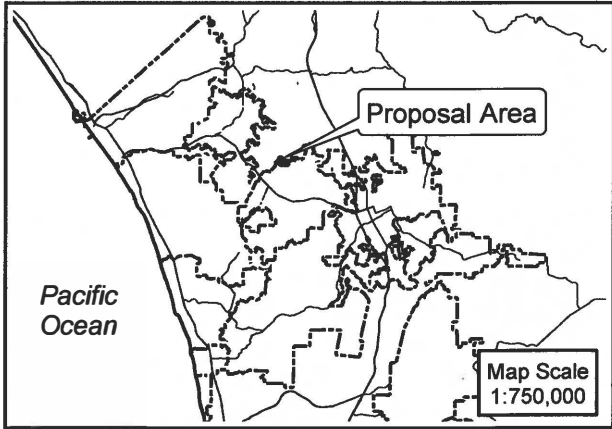
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*Kenny Seal*

Proposed Detachment  
from Vista ID/SOI and  
Annexation to Vallecitos WD/SOI

Map Scale  
1:12,500



### Vista ID/SOI and Vallecitos WD/SOI

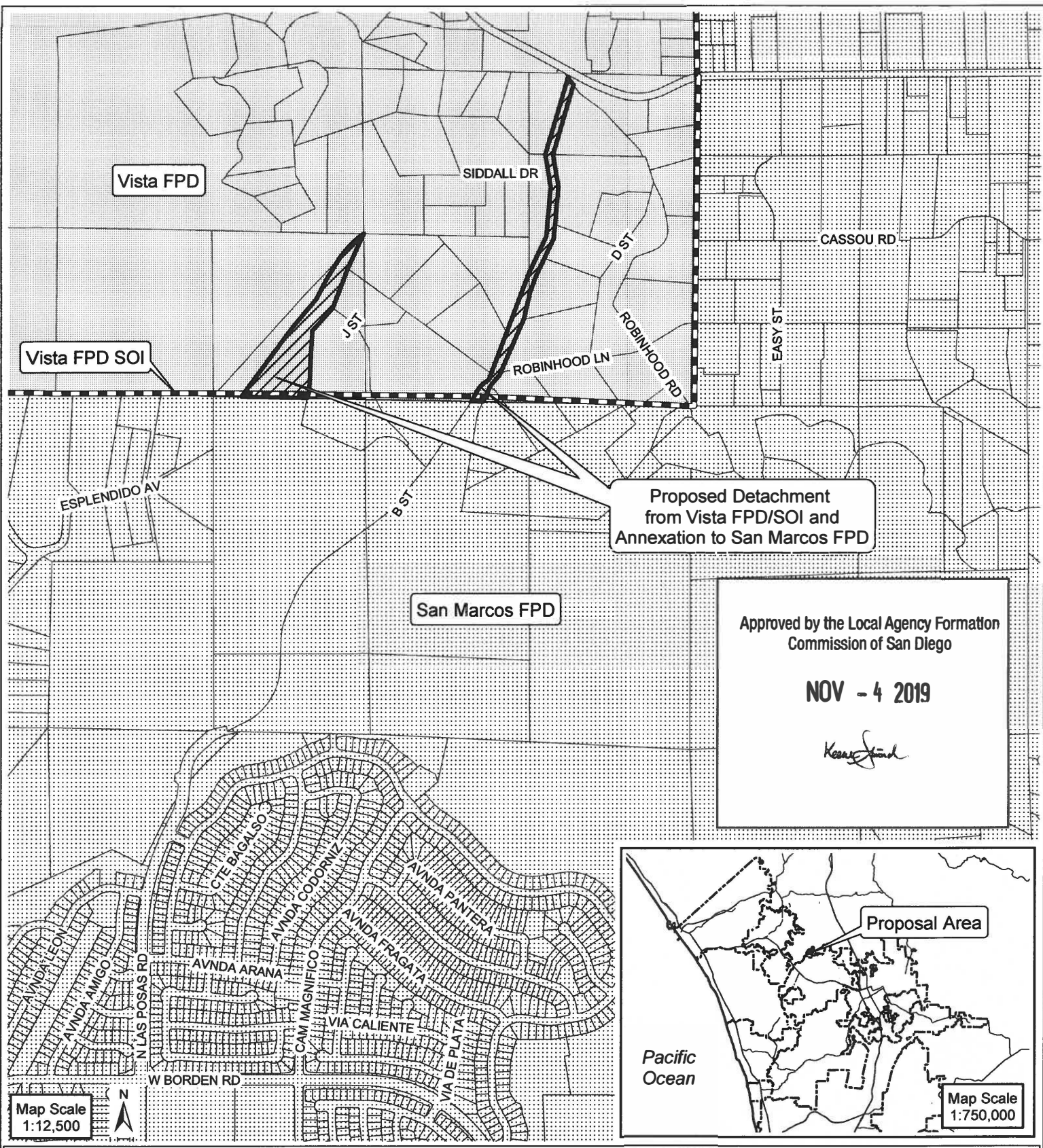
### Exhibit E

- Proposal Area
  - Vista ID
  - Vista ID SOI
  - Vallecitos WD
  - Vallecitos WD SOI
- SOI = Sphere of Influence

SA17-07 PROPOSED "SAN MARCOS HIGHLANDS REORGANIZATION"  
RO17-07



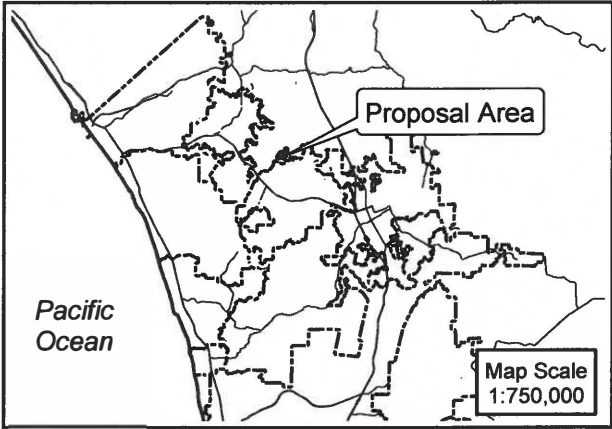
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*Kearney Ford*



Map Scale  
1:12,500

Map Scale  
1:750,000

### Vista FPD/SOI and San Marcos FPD

### Exhibit F

- Proposal Area
- Vista FPD
- Vista FPD SOI
- San Marcos FPD
- SOI = Sphere of Influence

SA17-07 PROPOSED "SAN MARCOS HIGHLANDS REORGANIZATION"  
RO17-07



# Cash Disbursement Report



Payment Dates 07/23/2020 - 08/5/2020

Payment Number	Payment Date	Vendor	Description	Amount
64880-64885	07/29/2020	Refund Checks 64880-64885	Customer Refunds	2,709.75
64886	07/29/2020	Refund Check 64886	Customer Refund	22.99
64887	07/29/2020	Refund Check 64887	Customer Refund	2,051.62
64888	07/29/2020	Allied Trench Shoring Service	SCADA Supplies	345.33
64889	07/29/2020	Amazon Capital Services	First Aid Supplies	98.72
	07/29/2020		Warehouse Non-Stock Supplies	182.91
	07/29/2020		Shelf Tags	28.04
	07/29/2020		Floor Mats - Truck 46	103.86
64890	07/29/2020	Asbury Environmental Services	Used Oil Pickup	160.00
64891	07/29/2020	AT&T	3680/CALNET3 06/13/20-07/12/20 - Phones	349.14
	07/29/2020		0230/CALNET3 6/13/20 -7/12/20 - Teleconference	48.07
64892	07/29/2020	Basic pacific	Flexible Spending Service/Cobra 07/2020	308.00
64893	07/29/2020	Boot World Inc	Footwear Program (2)	360.00
64894	07/29/2020	California Crafted Marble, Inc	Kitchen Countertop Installation - Dam House	6,115.00
64895	07/29/2020	Canon Solutions America, Inc	Canon Supplies & Service	17.88
64896	07/29/2020	CDW Government Inc	Logitech Webcams (3)	160.07
64897	07/29/2020	Cecilia's Safety Service Inc	Traffic Control - Poinsettia Ave	855.00
	07/29/2020		Traffic Control - York Drive & Montgomery Dr	6,507.50
	07/29/2020		Traffic Control - Hillside Terrace	1,710.00
	07/29/2020		Traffic Control - Watson Way	712.50
	07/29/2020		Traffic Control -Foothill Dr	1,140.00
64898	07/29/2020	760Print	Printing Reflection Newsletter-Summer 2020	2,173.28
64899	07/29/2020	Citi Cards	Kitchen & Building Supplies	61.67
	07/29/2020		Kitchen & Building Supplies	520.33
	07/29/2020		Kitchen & Building Supplies	68.59
	07/29/2020		Kitchen & Building Supplies	128.64
	07/29/2020		Kitchen & Building Supplies	238.28
	07/29/2020		Kitchen & Building Supplies	372.30
	07/29/2020		GFI FaxMaker Online Service	12.75
	07/29/2020		Cal-OSHA Reporter Subscription Renewal	427.00
	07/29/2020		Refreshments for Training Classes	123.77
	07/29/2020		Service Award	164.74
	07/29/2020		Cloud Base Phone System - COVID-19	327.58

Payment Number	Payment Date	Vendor	Description	Amount
64900	07/29/2020	City of Oceanside	Weese Treatment 04/2020	44,729.45
64901	07/29/2020	City of Vista	Permit Fees 04/2020 - 06/2020	5,753.76
64902	07/29/2020	Coastal Chlorination & Backflow	Chlorination of Water Main	372.00
64903	07/29/2020	Core & Main	Lid 8" Slotted Valve (VID) (100)	2,305.73
	07/29/2020		Lid 8" Slotted Valve (VID) (100)	2,305.73
64904	07/29/2020	County of San Diego	Permit Fees 06/2020	4,036.30
64905	07/29/2020	StratoGuard LLC	Mailbox Licenses 07/31/20 - 07/30/21 (100)	2,925.00
64906	07/29/2020	Electrical Sales Inc	SCADA Signal Wire	504.54
64907	07/29/2020	Ferguson Waterworks	Regulator Control Rebuild Kits (10)	1,234.05
	07/29/2020		Regulator Control Valves (20)	1,340.14
	07/29/2020		Calder Coupling 4" Clay x 4" PVC (10)	64.95
	07/29/2020		Copper Reducer 1.5" Street x 1" (2)	9.48
	07/29/2020		1" Gaskets - 1/8" Thick (100)	35.72
	07/29/2020		4" PVC SDR 35 Sewer and Drain Pipe (40')	45.47
64908	07/29/2020	Galey Homes Inc	Refund Inspection/ As-Built Deposits	10,348.00
64909	07/29/2020	Glennie's Office Products Inc	Office Supplies	31.49
	07/29/2020		Office Supplies	16.67
	07/29/2020		Office Supplies	48.84
	07/29/2020		Office Supplies	181.35
	07/29/2020		COVID-19 Supplies	546.62
	07/29/2020		Office Supplies	94.64
64910	07/29/2020	Gonzaga University	Scholarship Contest Award	1,000.00
64911	07/29/2020	Grainger	Garden Hose Adapters (13)	66.85
	07/29/2020		Sump Pump (1)	584.01
64912	07/29/2020	HELIX Environmental Planning, Inc	Warner Ranch Ditch Repair 07/2020	287.50
64913	07/29/2020	Jan-Pro of San Diego	Janitorial Service 07/2020	4,497.00
64914	07/29/2020	Kelly Paper	Door Hangers (2000)	81.67
64915	07/29/2020	Leon Perrault Trucking & Materials	Trucking & Material 06/2020	11,286.13
64916	07/29/2020	Lightning Messenger Express	Messenger Service 07/10/20	52.50
64917	07/29/2020	Matheson Tri-Gas Inc	Welding Rods (2)	27.08
64918	07/29/2020	McMaster-Carr Supply Company	Water Quality Supplies	322.44
64919	07/29/2020	Moody's	Dump Fees (2)	400.00
	07/29/2020		Dump Fee (1)	200.00
64920	07/29/2020	Murraysmith, Inc	Four Reservoirs Seismic Analysis 06/2020	23,254.50
64921	07/29/2020	Mutual of Omaha	LTD/STD/Life Insurance 08/2020	6,733.88
64922	07/29/2020	NAPA Auto Parts	Bearings (2)	8.64
	07/29/2020		Filters (2)	23.66
64923	07/29/2020	North County Auto Parts	Battery Isolation Switches (2)	146.22

Payment Number	Payment Date	Vendor	Description	Amount
64924	07/29/2020	North County Lawnmower Inc	Weed Whip String	122.73
64925	07/29/2020	Pacific Pipeline Supply	3/4" x 1" Meter Bushing - Ford #A34-NL (10)	97.43
	07/29/2020		Calder Coupling 4" Clay x 4" PVC (4)	25.98
	07/29/2020		Curbstops (4)	310.92
	07/29/2020		Bolt Kits (31)	1,643.43
	07/29/2020		Pipe Supports (4)	254.63
64926	07/29/2020	Pacific Safety Center	CPR/FA/AED Training 07/14/20	495.00
	07/29/2020		CPR/FA/AED Training 07/07/20	495.00
64927	07/29/2020	Plateau Pest Solutions Inc	Bee & Hive Removal (1)	75.00
	07/29/2020		Bee Removal (1)	50.00
	07/29/2020		Bee & Hive Removal (1)	75.00
	07/29/2020		Bee Removal (1)	50.00
	07/29/2020		Bee & Hive Removal (1)	75.00
	07/29/2020		Bee Removal (1)	50.00
	07/29/2020		Bee & Hive Removal (1)	75.00
64928	07/29/2020	Powerland Equipment, Inc	Mower Deck (48A)- John Deere 48in. Accel Deep	1,187.41
	07/29/2020		Pole Saw Parts	72.31
64929	07/29/2020	Pacific Waterjet	Aluminum Plates (2)	544.00
64930	07/29/2020	Richard Brady & Associates, Inc	HB Reservoir Rehabilitation 06/2020	244,866.00
64931	07/29/2020	San Diego Gas & Electric	Electric 07/2020 - Henshaw	8,513.46
	07/29/2020		Electric 07/2020 - Warner Ranch House	41.06
64932	07/29/2020	Sloan Electric Company	Motor for Pump #3 - Station 4	2,127.11
64933	07/29/2020	Society for Human Resource Management	Membership Renewal 09/2020-08/2021	219.00
64934	07/29/2020	Southland Pipe Corp.	Fabricated Spool #1 (1)	5,551.06
	07/29/2020		Fabricated Spool #2 (2)	3,602.32
	07/29/2020		Fabricated Spool #3 (1)	3,197.14
	07/29/2020		Fabricated Spool #4 (1)	2,878.37
	07/29/2020		Class 300 6-inch Slip-on Weld Flange (6)	299.74
	07/29/2020		Class 300 6-inch 90 Degree FL x FL Elbow (1)	375.95
	07/29/2020		Class 300 4-inch Slip-on Weld Flange (2)	82.27
	07/29/2020		Class 300 6-inch x 12" Long FL x FL Spool (1)	320.74
	07/29/2020		Class 300 4-inch 45 Degree FL x FL Elbow (2)	543.96
	07/29/2020		Class 300 8-inch 90 Degree FL x FL Elbow (2)	1,011.44
	07/29/2020		Class 300 8-inch x 12" Long FL x FL Spool (1)	457.90
	07/29/2020		Class 300 8-inch Slip-on Weld Flange (7)	628.95
64935	07/29/2020	Superior Ready Mix Concrete	Concrete	948.65
64936	07/29/2020	Bend Genetics, LLC	HABS Testing	580.00
	07/29/2020		HABS Testing	1,837.50

Payment Number	Payment Date	Vendor	Description	Amount
64937	07/29/2020	TS Industrial Supply	Gloves Thickster Nitrile LG (10 boxes)	172.66
	07/29/2020		Gloves Thickster Nitrile XL (10 boxes)	172.66
	07/29/2020		Hammer 10" Tomahawk (8)	343.91
	07/29/2020		Striping Paint Blue #750 (12)	65.25
	07/29/2020		Marking Paint Blue #203 (24)	97.23
	07/29/2020		Sea Electrical Tape (20)	20.78
	07/29/2020		Sqwincher Fruit Punch (200)	50.88
	07/29/2020		Marking Paint White #207 (12)	48.62
	07/29/2020		MultiMax Ear Plug (Uncorded) (200)	47.41
	07/29/2020		Duct Tape #398 (3)	34.42
	07/29/2020		3" Stiff Wall Scraper (2)	11.26
	07/29/2020		Striping Paint White #710 (24)	130.51
	07/29/2020		Shovel Square Point (3)	72.26
	07/29/2020		Blade 14" Diamond Concrete (3)	672.88
	07/29/2020		Shovel Round Point (6)	144.51
	07/29/2020		Towel Wypall X80 (5)	184.57
	07/29/2020		Shut-Off Tool #85 (1)	308.51
	07/29/2020		Shovel 4" Trench (3)	62.51
	07/29/2020		Measuring Tape 25' Engineering (5)	105.54
	07/29/2020		Wrench Crescent 12" Adjustable (1)	36.26
64938	07/29/2020	UniFirst Corporation	Uniform Service	325.21
	07/29/2020		Uniform Service	325.21
	07/29/2020		Uniform Service	399.51
	07/29/2020		Uniform Service	325.21
64939	07/29/2020	Verizon Wireless	Air Cards 06/13/20 - 07/12/20	152.04
	07/29/2020		Cell Phones	1,404.56
64940-64945	08/05/2020	Refund Checks 64940-64945	Customer Refunds	1,447.75
64946	08/05/2020	Refund Check 64946	Customer Refund	9.40
64947	08/05/2020	Refund Check 64947	Customer Refund	233.00
64948	08/05/2020	Airgas USA LLC	Oxygen & Acetylene/Maintenance Fees	660.28
64949	08/05/2020	Escondido Metal Supply	Pechstein Roof Ridge Caps (20)	893.06
	08/05/2020		Screws (300)	24.36
	08/05/2020		Screws (300)	22.73
	08/05/2020		Screws (300)	(24.36)
	08/05/2020		Steel Channel - Truck 69 (1)	38.89
64950	08/05/2020	Amazon Capital Services	Peg Boards, Hooks, Locks	198.12
	08/05/2020		Floor mat - Truck 46	93.41
	08/05/2020		Lumber Rack Tie Down Straps - Truck 69	151.74

Payment Number	Payment Date	Vendor	Description	Amount
	08/05/2020		Floor mat - Truck 46	(103.86)
	08/05/2020		Tubular Frame For Social Distancing - COVID-19	238.12
64951	08/05/2020	Big Drip Plumbing	Meter Tie-Backs - Montgomery	5,675.00
64952	08/05/2020	Blubandoo Incorporated	Cooling Neck Gaiters (25) - Wellness Grant	312.39
64953	08/05/2020	CARB/PERP	ARB/PERF Portable Asphalt Cold Planer Permit Fee	420.00
64954	08/05/2020	Core & Main	Coupling 8" Deflection C900 (8)	545.58
	08/05/2020		Tubing 1" Copper Soft 60' (300)	1,234.05
	08/05/2020		Service Saddle 8x2 PVC (2)	339.91
	08/05/2020		Angle Ball Valve 2" FNPT X MNPT (CurbStop)(5)	1,472.20
	08/05/2020		Ell 6" DI POxFL 22.5 Degree (1)	77.60
	08/05/2020		Nozzle 1.5" Fire Hose (1)	13.91
	08/05/2020		Coupling 6" Deflection C900 (9)	257.20
	08/05/2020		Reducer 4x3 DI FL (1)	43.68
	08/05/2020		Nut Bolt Gasket Kit (6" gasket) 3/4 x 3 1/4 (25)	257.09
	08/05/2020		Tee 2" Copper (1)	22.95
	08/05/2020		Service Saddle 8x1 PVC (2)	253.31
	08/05/2020		Ell 6" DI PO 22.5 Degree (3)	215.96
	08/05/2020		Ell 10" Cast Iron PO 11.25 Degree (1)	152.63
	08/05/2020		Fire Hydrant Spool 6x12 DI (1)	91.80
	08/05/2020		Coupling 2" Brass (4)	61.70
	08/05/2020		Fire Hydrant Spool 6x18 DI (1)	115.83
64955	08/05/2020	Diamond Environmental Services	Portable & Stationary Restroom Service	317.25
64956	08/05/2020	DIRECTV	Direct TV Service	97.99
64957	08/05/2020	Eurofins Eaton Analytical Inc	Mid-Lake Samples	330.00
64958	08/05/2020	Jackson & Blanc	Quarterly HVAC Service At VID Headquarters	2,309.00
64959	08/05/2020	Partsmaster	Shop Supplies - Garage	83.15
64960	08/05/2020	North County Industrial Park	Association Fees 08/2020	879.30
64961	08/05/2020	Rutan & Tucker LLP	Legal 06/2020	3,630.50
	08/05/2020		Legal 06/2020	164.95
64962	08/05/2020	Volvo Construction Equipment & Services	Filter - E2	191.93
	08/05/2020		Track Retainer Nuts - E1	53.57
64963	08/05/2020	San Diego Gas & Electric	Gas Usage At VID Headquarters - 07/2020	129.57
	08/05/2020		Electrical Usage At VID Headquarters - 07/2020	2,937.67
64964	08/05/2020	SDG&E Customer Payment Services - CP61C	Electrical Design for "E" Reservoir & Pump Station Project	5,298.00
64965	08/05/2020	Shred-it USA LLC	Shredding Service	118.88
64966	08/05/2020	Sunrise Materials Inc	Concrete Accelerator	48.71
64967	08/05/2020	Johnson Controls Security Solutions LLC	Burglar & Access Control Service & Monitoring	2,660.23
<b>Grand Total:</b>				<b>478,699.28</b>



## STAFF REPORT

Board Meeting Date: August 19, 2020  
Approved By: Brett Hodgkiss

**SUBJECT:** SAN DIEGO COUNTY WATER AUTHORITY REGIONAL CONVEYANCE SYSTEM FEASIBILITY REVIEW

**RECOMMENDATION:** Receive informational report.

**PRIOR BOARD ACTION:** None.

**FISCAL IMPACT:** The cost of the independent consultant's review of the San Diego County Water Authority (Water Authority) Regional Conveyance System (RCS) totaled \$72,000; each participating agency will contribute \$4,000 towards the cost.

**SUMMARY:** As Director Miller and staff have informed the Board, the Water Authority has been studying a RCS to convey a supply of conserved water from Imperial Irrigation District and a supply from funding the lining of the All-American and Coachella canals to the San Diego region. Both supplies are conveyed through the Colorado River Aqueduct owned and operated by Metropolitan Water District of Southern California (Metropolitan) via an exchange agreement, which expires in 2047. The RCS would provide conveyance independence from Metropolitan.

**DETAILED REPORT:** The Water Authority contracted with Black & Veatch to perform engineering and limited economic analysis on the RCS and Hunter Pacific Group to review the financial analysis performed by Black & Veatch. Based on Hunter Pacific Group's review, Black & Veatch updated costs to incorporate key findings. More specifically, tunneling and operational storage costs were revised and detailed design costs that were included in the economic analysis but not the financial analysis were added; as a result, the cost of the RCS increased from approximately \$4.3 billion to nearly \$5 billion.

Black & Veatch's draft study (draft study) finds that the RCS (Alignments 3A and 5A) is economically competitive with other alternatives, including development of local supply projects and continuing to convey water through Metropolitan, and provides long-term reliability and low-cost water to the region. Given the magnitude of the project as well as its impact on future water rates, 18 of the Water Authority's member agencies, including Vista Irrigation District, commissioned DLM Engineering to provide independent engineering and economic analysis and to help inform a decision on whether the Water Authority should continue, pause, or table further efforts to evaluate and advance the project. The San Diego County Water Authority Regional Conveyance System Feasibility Review (RCS Feasibility Review), prepared by DLM Engineering and Gillingham Water, represents a review of the Water Authority's draft study on the RCS.

The following are summary observations presented in the RCS Feasibility Review:

- The draft study's finding that the RCS is technically feasible appears reasonable, as does its estimate of project costs.
- The draft study's finding that the RCS is economically competitive with other supply and transportation options is not reasonable; DLM Engineering and Gillingham Water find the RCS to be substantially more costly than other options.
- A Negotiated Exchange option appears to offer an economic advantage.

It is important to note that preparation of the RCS Feasibility Review was a transparent process, with Water Authority staff receiving briefings on interim results. The process was implemented to avoid any surprises when the Water Authority received the final RCS Feasibility Review. The consultants and member agency managers appreciated the Water Authority's support and cooperation during the RCS review process.

Don MacFarlane, DLM Engineering, and Doug Gillingham, Gillingham Water, will present the results of their independent analysis of the RCS.

**ATTACHMENTS:**

- San Diego County Water Authority Regional Conveyance System Feasibility Review
- Regional Conveyance System Map
- Presentation Slides

# Member Agency Managers Group

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Report of the MAM Independent Consultant:

## **SDCWA Regional Conveyance System Feasibility Review**

July 2020



Prepared by:



In association with:





# Member Agency Managers Group

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Report of the MAM Independent Consultant:  
**SDCWA Regional Conveyance System  
Feasibility Review**

July 2020

Prepared by:



In association with:



A handwritten signature in blue ink, reading "Donald L MacFarlane".

Don MacFarlane, P.E.  
Project Manager



A handwritten signature in blue ink, reading "Douglas P. Gillingham".

Doug Gillingham, P.E., BCEE



The contents of this report represent the analysis and professional judgement of the above authors.

# PROJECT TEAM AND ACKNOWLEDGEMENTS

---

## CONSULTANT TEAM

### DLM Engineering

Don MacFarlane, P.E.

### Gillingham Water

Doug Gillingham, P.E. BCEE



## PARTICIPATING MEMBER AGENCIES

Escondido, City of  
Fallbrook Public Utility District  
Helix Water District  
Lakeside Water District  
Oceanside, City of  
Olivenhain Municipal Water District  
Otay Water District  
Padre Dam Municipal Water District  
Rainbow Municipal Water District  
Ramona Municipal Water District  
Rincon Del Diablo Municipal Water District  
San Diego, City of  
San Dieguito Water District  
Sweetwater Authority  
Vallecitos Water District  
Valley Center Municipal Water District  
Vista Irrigation District  
Yuima Municipal Water District

### MAM Coordination Lead:

Kimberly Thorner, Esq. –  
General Manager, Olivenhain MWD

**Thank you also** to the San Diego County Water Authority for providing draft reports and the draft economic model, and access to staff for coordination review and comments during the development of our work.

### SDCWA Study Coordination Review Team

Kelly Rogers, P.E. (IC coordination lead)  
Dan Denham  
Pierce Rossum  
Mojgan Poursadighi, P.E.  
Jim Fisher, P.E.  
Nathan Faber, P.E.  
Kevin Davis, P.E. (Black & Veatch)  
John Beckmanis, P.E. (Black & Veatch)

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# Executive Summary

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Our review of the Water Authority's Regional Conveyance System (RCS) June 2020 project reports leads us to the following summary observations:

## 1) **The Draft Study's finding of RCS technical feasibility appears reasonable, as does its estimate of project costs.**

The engineering components of the Draft Study are sound and demonstrate the technical feasibility of an RCS project. Also, the estimates of the project's capital and annual costs appear to us generally reasonable, with only modest exceptions as noted in our report.

## 2) **The Draft Study's finding that the project is economically competitive with other supply and transportation options is not reasonable. We find the project to be substantially more costly than other options.**

The Draft Study's economic analysis states the RCS project is "cost-competitive with" and "provides significant savings" in comparison to MWD Reliance (Exchange) and other supply and transportation scenario options. Our review finds otherwise for the following reasons:

- **The project is not cost-effective when evaluated using reasonable assumptions of MWD price escalation.** The Draft Study's economic findings are predicated on the assumption that MWD rates will escalate at levels substantially higher than all other water supply costs throughout an extended 92-year period of analysis. Our review demonstrates the assumed escalation is not economically sustainable, and its occurrence therefore highly implausible. Over the long-term, MWD will either have to reduce the costs that drive the rate escalation, shift costs away from volumetric-based charges to firm unavoidable fixed charges, or a combination of the two. When the economic model inputs for MWD price escalation are modified accordingly, the project loses any cost advantage and becomes significantly more costly than the other options.
- **There is significant risk of long-term Water Authority sales being insufficient to utilize the project's planned capacity.** The Draft Study's assessment of project economic risks omits the possibility, or probability, that long-term Water Authority sales will decline to levels below its 330,000 AF/yr of core supplies, putting at risk the ability to utilize a RCS facility at full capacity and thereby further diminishing the project's cost-feasibility. Until such time as a new Water Authority demand forecast provides sound evidence to the contrary, we recommend project planning recognize the likelihood of long-term declines in Water Authority sales.

## 3) **A Negotiated Exchange option appears to offer economic advantage.**

The option of a negotiated exchange rate with MWD, with price escalation set at the industry-standard construction cost index, may offer significant cost advantage in comparison to the other supply and transportation options, and may warrant further consideration.

## 4) **Recommendation: Refocus long-term QSA supply planning.**

The technical and economic feasibility of the RCS have now been advanced to reasonable levels of planning certainty. Rather than investing further in the evaluation of an RCS project, it appears the larger QSA planning uncertainties facing the Water Authority now revolve around the extension of the IID Supply and MWD Exchange agreements, the opportunity for a Negotiated Exchange agreement, and the consequences of long-term Water Authority sales declines. Accordingly, it appears budgets and staffing schedules set aside for RCS investigations could be applied more productively to refining those more consequential planning uncertainties.

# 1. Introduction

---

## 1.1. Purpose

This report presents our review of a draft study by the San Diego County Water Authority (Water Authority, or SDCWA) to evaluate the technical and economic feasibility of a Regional Conveyance System (RCS) project. Our report was commissioned by 18 of the Water Authority Member Agency Managers (MAM) to provide independent engineering and economic analysis, and to help inform the decision on whether the Water Authority should continue, pause, or table further efforts to evaluate and advance the project.

## 1.2. Background

### Water Authority Reports and Presentations and Files Reviewed

The Water Authority has studied variations of a RCS project many times since its formation in 1947, but past iterations have not advanced beyond the planning review phase. For its current round of evaluation, the Water Authority has produced or commissioned the following reports and presentations, and these are the documents we have reviewed to conduct our work.

Document / File	Author / Date	Abbreviation used in this report
1. Draft Regional Conveyance System Study Phase A	Black & Veatch (B&V) / June 2020	Draft Study
2. Independent 3rd Party Review of Financial Analysis for the Regional Conveyance System	Hunter Pacific Group (HPG) / May 2020	Independent Cost Review
3. Water Authority Transmittal Letter of June 12, 2020	SDCWA / June 2020	Draft Study Transmittal Letter
4. Water Authority RCS board presentation to March 12 special board meeting	SDCWA / March 2020	March Board Presentation Materials
5. SDCWA letter to member agencies of April 27	SDCWA / April 2020	SDCWA Letter of April 27
6. Economic Model	SDCWA / June 2020 Revised by IC / July 2020	Economic Model

### Water Authority Phase B Go/No Go decision

The Water Authority has recently completed a round of engineering analysis and limited economic analysis, work it refers to as Phase A. The Water Authority is now considering whether to proceed with additional investigations it refers to as Phase B. These additional investigations would include:

- Multi-use, partnerships & funding
- Conveyance alignment & tunneling site layouts
- Geotechnical desktop study
- Additional risk analysis
- Additional economic analysis (if needed to supplement the work contained in this report)

The Water Authority’s QSA Supplies and MWD Exchange Agreement

Through the Quantification Settlement Agreement (QSA) the Water Authority has acquired a 200,000 acre-foot per year (AF/yr) supply of conserved water from the Imperial Irrigation District (IID) and also a 77,700 AF/yr supply from funding the lining of the All American and Coachella Canals. These supplies, known collectively as the “QSA supplies”, make up the majority of the Water Authority’s long-term supply portfolio. The agreement with IID expires in 2047, but has an option to renew for 30 years to 2077 by mutual agreement. Beginning in 2035, the current pricing terms of the agreement shift from a Federal inflation index (Gross Domestic Product Implicit Price Deflator) to either a market-based formula or to the Base Contract Price terms, which are based on MWD rates and other factors. The canal lining supply expires in 2112.

Currently, both the IID and Canal Lining supplies are conveyed to the Water Authority via the Colorado River Aqueduct (CRA) owned and operated by the Metropolitan Water District of Southern California (Metropolitan, or MWD), through an Exchange Agreement that expires in 2047. The 2020 exchange rate is \$482 per acre-foot (AF).

The Regional Conveyance System Concept

The RCS would be an 85 to 132-mile long conveyance system, depending on the alignment, to convey the IID and Canal Lining supplies directly to San Diego County as shown in **Figure 1-1**. The facility would provide an alternative and redundant conveyance capability for the San Diego region and could be funded, built, owned, and operated by the Water Authority. The supplies would originate at the western end of the All American Canal (AAC), at its connection to the Westside Main Canal. For the Northern Alignment (3A), , water from the AAC would be conveyed through approximately 47 miles of canal, 39 miles of pipeline, and 47 miles of tunnel. The total pump lift is approximately 2,000 feet.

The Water Authority has stated they would not proceed with the RCS unless the IID supply can be secured through 2112.

**FIGURE 1-1: RCS Study Area and Alignments**



Source: SDCWA

One major difference between the CRA and the RCS is the need to desalinate the supply. The CRA takes its supply from Lake Havasu where generally the level of total dissolved solids (TDS) is acceptable for delivery to Metropolitan's member agencies directly or through blending with State Water Project supplies. At the RCS All American Canal diversion point, the TDS has increased to the point where desalination is required for use in the Water Authority service area. The RCS includes a 154 million gallon per day (mgd) reverse osmosis (RO) membrane desalination treatment plant located in the Imperial Valley, with the stated goal of delivering water with a TDS concentration of no more than 500 milligrams per liter (mg/l). For comparison, existing supplies delivered by Metropolitan are typically in that same range, but may at times trend up to approximately 600 mg/l during periods when the Skinner service area (inclusive of SDCWA) is being supplied predominantly from Metropolitan's Colorado River supplies and less so from the State Water Project (SWP).

The RCS would provide conveyance independence from Metropolitan, and the Draft Study finds the project is cost competitive with other alternatives including continuing conveyance through Metropolitan and the development of local San Diego County supplies.

### 1.3. Scope of Services

In general, the Independent Consultant (IC) scope of services includes:

1. Review of the Draft Study, Independent Cost Review, and Water Authority presentations and correspondence. Provide comments on the engineering and economic aspects of the work.
2. Review of the Water Authority's Economic Model. Provide comments on the Water Authority's analysis. Prepare sensitivity analysis of assumptions and develop and evaluate additional alternatives.
3. Coordinate with the Member Agency Managers and the Water Authority staff.
4. Prepare a summary report of findings (this report).

### 1.4. Review Process

The participating Member Agency Managers specified that this would be a transparent process and that interim results would be provided to the Water Authority staff as soon as they had been reviewed by the MAM. This process was implemented to avoid surprises when the Water Authority received this report.

The Water Authority hosted an initial RCS briefing for the IC on June 19 focused on presentation of the Economic Model. For the following three weeks, the IC and Water Authority staff met to review approaches, answer questions, provide comments and present results. For two of the three follow-up meetings, the IC briefed the MAM in the morning and then presented the same presentation to Water Authority staff that afternoon.

The MAM and IC appreciate the Water Authority's cooperation and support of the project review and transparent process.

## 1.5. The Economic Model

Soon after the Water Authority distributed the Draft Study on June 12, the IC through the MAM requested the Water Authority make available the Economic Model referenced by the Draft Study for review. The Water Authority agreed to this request and provided the model to the IC on June 19. The Water Authority noted the model was in draft form, and the IC acknowledged this limitation.

The Economic Model has proven extremely useful to our review, and we are thankful to the Water Authority for making it available to us. The main value of the Economic Model lies in its easy ability to test the sensitivity of findings about the economic merits of the RCS to changes in economic and financial inputs, for factors such as the period of analysis, interest and discount rates, MWD price escalation rates, and more.

The model contains highly granular data on more than 100 line items of capital and annual cost estimates developed by the Draft Study, and allocates these over time, including accounting for multiple tranches of bond financing.

### Economic Model Comprehensive Cost Accounting

We have been asked about the comprehensiveness of the model's cost accounting, in particular about the following two items, which we address here:

- **Inclusion of IID AAC Wheeling Costs:** The model accounts for the cost to compensate IID for use of their capacity in the AAC. This is a relatively modest cost (2020 cost is \$17/AF, escalating at 2.5 percent per year per the Economic Model's default settings), and is in addition to approximately \$140 million in annual costs reported by the Draft Study for alignment alternative 3A.
- **Inclusion of RO Concentrate Losses:** As described above, the Draft Study's design concept includes a desalting plant located in the Imperial Valley to reduce the water's dissolved mineral content prior to the first RCS pump lift. This treatment process would generate a waste stream of RO concentrate totaling approximately 20,000 AF/yr, reducing the Water Authority's available QSA supplies by a like amount, from 277,700 AF/yr to 257,000 AF/yr. Although this quantity of water is lost to the Water Authority and will not be conveyed through the RCS system under the terms of the Transfer Agreement the Water Authority must still pay the supply price to IID.

Rather than using this reduced volume as the denominator for unit cost calculations, the Economic Model instead accounts for the cost of an equivalent volume of MWD Tier 1 purchases as an additional annual cost of the project. This cost is in addition to the approximately \$140 million in annual costs reported by the Draft Study for alignment alternative 3A. In this way the model presents costs for a supply to San Diego of 277,700 AF/yr, equal to the full amount of QSA supply before losses to desalting.

### IC Modifications to Economic Model

In the course of our work, we have modified the original draft model provided by the Water Authority to include an expanded Dashboard, with expanded functionality for sensitivity testing and with additional graphical reporting of how project costs and benefits are distributed over time. The Economic Model is referenced frequently in our report, in particular in Section 2 on Economic Analysis. Most of the figures and dollar amounts reported in Section 2 are from the



model. The latest version of the model, **Version 1.1 dated 07/20/20**, accompanies and is an integral part of this report. Additional information on the Economic Model, including a complete list of the model's input variables and default settings, is included in **Appendix B** of our report.

## 1.6. Supply and Transportation Scenario Alternatives

The Draft Study presents the net present value costs of the RCS in comparison to MWD Reliance and Local Supply Development alternatives. The Economic Model supplements these by parsing the MWD Reliance option into three different options, resulting in five options total inclusive of the RCS option. The RCS option also has its own alignment alternatives, of which alternative 3A, the Northern Alignment, is the least costly. We have elected to present results and comparisons for that alignment only, to the exclusion of the more costly 5A and 5C described in the Draft Study, and the revised model dashboard includes only the 3A alignment option of the RCS.

The five supply options are defined below:

- **RCS 3A:** RCS alignment alternative 3A (Northern Alignment) is the least costly and is used here for comparison. RCS becomes operational in 2045.
- **MWD Exchange Ends 2047:** This option assumes the MWD Exchange Agreement expires without renewal at the end of 2047, along with the IID agreement. SDCWA then transitions to buying 200,000 AF/yr of MWD Tier 1 supply. Canal lining water continues at the MWD Exchange Rate. (This option is titled “MWD Reliance” in the Draft Study.)
- **MWD Exchange Ends 2077:** Similar to above, but the IID and MWD Exchange agreements are extended through 2077.
- **MWD Exchange Ends 2112:** IID and MWD Exchange agreements are both extended to 2112, in alignment with the end date for Canal water.
- **2048 Local Supply:** The IID agreement expires at the end of 2047, after which SDCWA transitions to 200,000 AF/yr of new local supply development projects.

To this list the IC has added a sixth option:

- **MWD Negotiated Exchange:** This option replaces the current exchange agreement with new terms through 2112, with price escalation tied to the Engineering News Record 20-Cities Construction Cost Index (ENR\_CCI).

All six options are included in the Economic Model accompanying this report.

## 1.7. What Next? Member Agency Manager Use of This Report

We recommend the Member Agency Managers provide the information in this report to their SDCWA board representatives, and that collectively they work with the Water Authority to apply whatever is useful in our review to the budgeting and supply planning questions concerned.

The Water Authority has described its evaluation of RCS feasibility as part of a triad of long-term supply and transportation planning issues that also includes the potential for extension of the IID supply agreement and the extension of the MWD Exchange agreement. The technical and economic feasibility of the RCS have now been advanced to reasonable levels of planning certainty, and are no longer the weak leg of the planning triad. Further investigation of the RCS

therefore appears unwarranted at this time. Likewise, additional refinement of the project’s engineering design is unlikely to alter the key findings already available. Rather than investing further in the evaluation of an RCS project, it appears the larger planning uncertainties facing the Water Authority now revolve around the extension of the IID Supply and MWD Exchange agreements, and long-term demand and water sales projections, and that budgets and staffing schedules set aside for RCS investigations could be applied more productively to refining those opportunities.

## 1.8. Report Organization

The remainder of the briefing document is organized into sections as follows. The report also includes appendices as listed in the Table of Contents.

<u>Section:</u>	<u>Page</u>
• <b>SECTION 2:</b> Economic Analysis .....	8
• <b>SECTION 3:</b> Engineering, Cost, and Risk Review .....	22

## 2. Economic Analysis

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### 2.1. The Draft Study’s economic analysis is insufficient to support informed decision-making. We have endeavored to provide the additional information needed.

The Draft Study states the RCS project is “cost-competitive with” and “provides significant savings” in comparison to MWD Reliance (Exchange) and other supply and transportation scenario options. In reaching these findings, the Draft Study’s economic analysis has utilized unusually long evaluation timeframes, and has relied on certain price escalation assumptions that are highly implausible. The brevity of the Draft Study’s economic review, amounting to two pages out of a more than 500 page report, is insufficient to support informed decision-making, and insufficient to provide transparent and objective rationale to the public and ratepayers at large. Our review in this section addresses these issues, and seeks to provide key parts of the supplemental information needed.

### 2.2. The RCS is not cost-effective under standard measures of economic efficiency.

The Water Authority’s draft economic analysis has overlooked conventional public works and utility economic feasibility reporting methods in favor of a non-standard approach. Before addressing the Water Authority’s approach and why we find it insufficient to support informed decision-making, it is important first to understand the typical public works economic review methods that have been overlooked.

#### **Standard First-Year Unit Cost Analysis**

Most economic assessments of public agency water supply projects begin with a basic comparative measure of first-year unit costs in dollars per acre-foot. The first step of this process is to gauge the capital costs of the project, as well as the ongoing annual costs of operations, maintenance, repair, and replacement (OMRR) necessary to sustain the project over its economic lifetime. For the RCS project, the Draft Study and the Independent Cost Review have combined to develop capital and OMRR costs to a level of detail sufficient to support planning decisions. These costs are summarized in **Table 2-1**.

**TABLE 2-1: RCS Cost Estimates**

<b>RCS 3A</b>	<b>March Board</b>	<b>Independent Cost Review</b>	<b>Draft Study</b>
<b>Capital</b>	\$4.2 B	\$5.3 B	<b>\$5.0 B</b>
<b>Annual (OMRR)</b>	\$130 M	\$130 M	<b>\$143 M</b>

Using the June final draft cost numbers, the calculation of first-year unit costs then proceeds as follows:

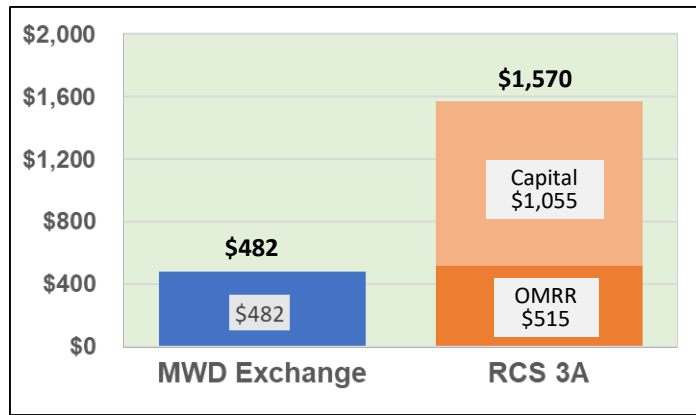
**RCS First-Year Typical Analysis** (in 2020 Dollars, exclusive of supply):

- 1) Escalate five years to Mid-Point of Construction: \$5.0B → **\$5.8B**
- 2) Amortize (40 yrs., 4%): → **\$293M/yr**
- 3) Calculate Total Equivalent Annual Costs: + \$143M/yr = **\$436M/yr**
- 4) Divide by Yield for Unit Cost: ÷ 277,700 AF/yr = **\$1,570/AF**

Note: A previous version of this calculation presented in draft form amortized the project capital at an interest rate of 3 percent per year. We have increased the rate used here to 4 percent per year to be closer to the Draft Study’s default rate of 5 percent per year, recognizing current market conditions are lower. MAM financial officers have advised the actual rate could be driven upwards by the magnitude of the debt undertaking.

Finally, first-year unit cost of the project is compared to its most relevant alternative, in this case the conveyance of the Water Authority’s QSA supplies via the terms of the existing MWD Exchange Agreement. For calendar year 2020, the MWD exchange price is \$482/AF. The comparison is illustrated in **Figure 2-1**.

**FIGURE 2-1: First-Year Unit Cost Comparison in Dollars per Acre-Foot**  
(RCS 3A vs. MWD Exchange; transportation only, exclusive of supply costs; in 2020 dollars)



On a standard first-year unit cost basis, the RCS project fairs poorly in comparison to the current MWD exchange rate. However, the first-year unit cost analysis is only a snapshot, and does not account for the potential for some costs to escalate at different rates over time.

**Standard 30 or 40 Year Cost Analysis**

To address the limitations of a first-year unit cost analysis, a conventional economic review would supplement that snapshot with an assessment of project costs over a period of time. The time period is commonly set at 30 or 40 years, corresponding to capital finance borrowing terms. The alignment of the time period of economic analysis with the term of the financing reflects two common principles, neither of which are written in stone but nevertheless reflect common practices and thinking for analyzing these types of projects . These are:

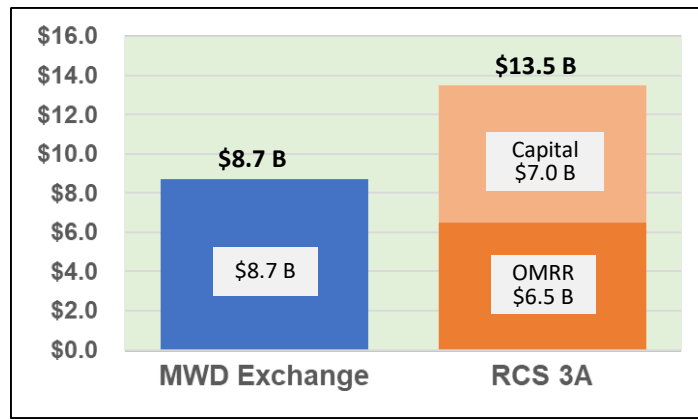
- 1) **Benefit-Cost Nexus:** Project costs should be paid by project beneficiaries. This same general point is contained in the Water Authority’s 2015 Long Range Financing Plan, which cites as Guiding Principles (Section 2.1.3):
  - a. Ensure all beneficiaries of services pay a fair share of costs; and
  - b. Support intergenerational equity
- 2) **Future Uncertainty:** Predictions about the future are uncertain and become more so with longer periods of forecast. Economic analysis typically discounts future costs and benefits in part to account for this uncertainty.

Because the Water Authority has the capability of bonding with 40 year terms, we will use that period for analysis. A standard 40-year net present value (NPV) analysis would proceed with the following calculations:

- **RCS Capital Costs:** The \$5.8 billion RCS capital cost (escalated to mid-point of construction) is amortized over 40 years at an interest rate of 4 percent per year (same interest rate as for First Year unit cost analysis), and brought back to present worth at the Draft Study’s default discount rate of 3 percent. NPV = \$6.5 billion.
- **RCS Annual Costs:** The \$143 million of RCS annual costs are escalated for 40 years at the Draft Study’s default OMRR rate of 3.7 percent, and then brought back to present worth at the Draft Study’s default discount rate of 3 percent. NPV = \$7.0 billion.
- **MWD Exchange Costs:** MWD Exchange costs, calculated as \$482/AF times 277,700 AF/yr, are escalated for 40 years at the Draft Study’s default rate of 5.1 percent, and then brought back to present worth at the Draft Study’s default discount rate of 3 percent. NPV = \$8.7 billion.

The resulting cost comparison is depicted in **Figure 2-2**. In comparison to the comparison presented in Figure 2-1, the data of Figure 2-2 indicate the RCS is still more expensive than the MWD Exchange alternative, but a lesser ratio. This demonstrates the effect of the differential escalation rates compounding over forty years.

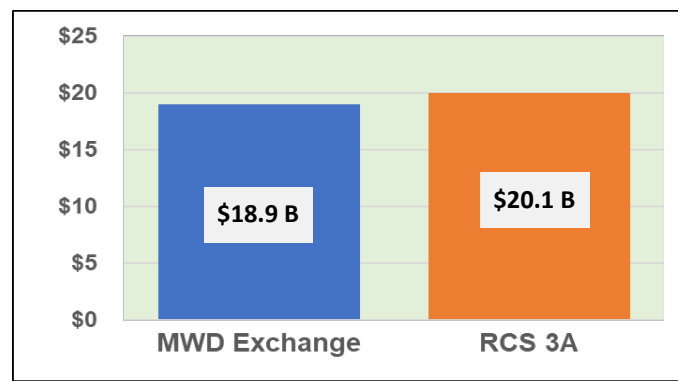
**FIGURE 2-2: Forty-Year Cost Comparison**  
 (RCS 3A vs. MWD Exchange 2047; transportation only, exclusive of supply costs)  
 (in billions of 2020 dollars)



## **Modified 40-Year / 60-Year Cost Analysis**

The period of analysis question for the RCS is complicated by the 25-year schedule identified in the Draft Study for project planning, permitting, design, and construction. A more detailed analysis is available using the Economic Model. Applying the model to this situation, we can set the period of analysis to 40 years from the dollar-weighted midpoint of project financing in 2040. This extends the period of analysis to 2080, 60 years from now. Setting the period of review in this manner and holding all other input variables (interest and discount rates, capital and OMRR escalation rates, MWD price escalation rates, etc.) constant at the Economic Model's default assumption values, results in the cost comparison presented in **Figure 2-3**.

**FIGURE 2-3: Sixty-Year Cost Comparison**  
(RCS 3A vs. MWD Exchange 2047; transportation only, exclusive of supply costs)  
(in billions of 2020 dollars)



The analysis of the RCS project over a 60-year escalation period presents much more positive results than those of the first-year unit cost approach depicted in Figure 2-1 and the 40-year analysis presented in Figure 2-2. The project is still more costly than its default alternative (we will define this and the other alternatives later in this section), and while still not cost-advantaged, is close enough to be considered cost-competitive.

As we will describe later, we find certain of the assumptions used to generate this cost-competitive outcome to be highly implausible, but the comparison of Figure 2-3 nevertheless serves to demonstrate the potential for Period of Analysis to exert strong influence on economic outcomes. This then raises the question of what would happen to the project economic analysis if we evaluated the project over even longer periods.

### **2.3. The RCS project is non-standard, and may warrant non-standard economic evaluation. Extended period analysis deserves consideration, but needs transparent review.**

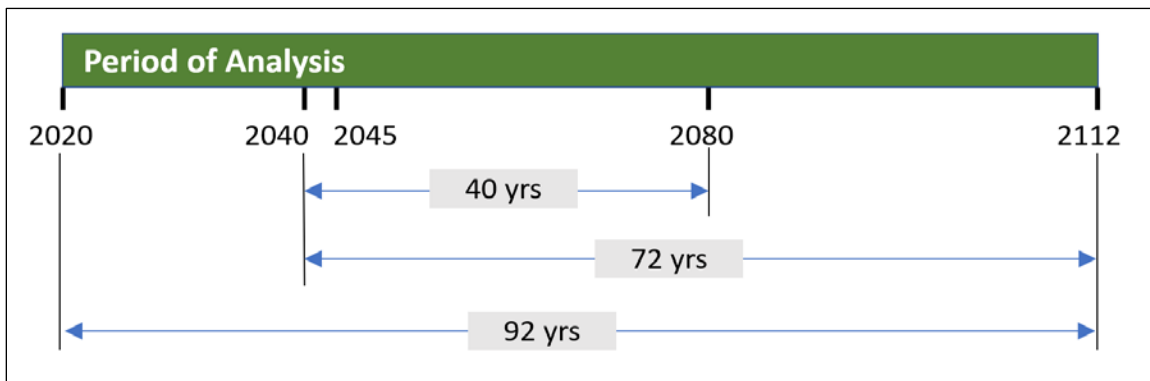
The RCS is a non-standard project not just in the magnitude of its cost, but also in the extent of the 25-year schedule identified in the Draft Study for project planning, permitting, design, and construction. The project would also be built to have a design life well in excess of standard periods of economic analysis. This of itself is not unusual – many water facility capital investments have long design lifetimes – but lends support to the possibility of evaluating the economic merits of the project over longer than standard time periods.

## Extended Period Analysis

This is the approach utilized in the Draft Study. The Draft Study presents an economic analysis of the project conducted using a period of analysis extending to the year 2112. The selected date aligns with the end-date of the Water Authority's Canal Lining supply agreements, but otherwise has no significance to economic theory or analysis.

This timescale is illustrated in **Figure 2-4**, where 2040 is the approximate midpoint of project financing, 2045 is the project on-line date, 2080 is the end-date of a 40-year analysis period subsequent to the midpoint of project financing, and 2112 is the selected end date of the Draft Study's period of analysis.

**FIGURE 2-4: Period of Analysis Timeline**



## Transparency Required

An extension of the period of analysis to 92 years from now, or to 72 years past the projected midpoint of project financing, is neither right nor wrong, but is unusual and requires an explanation of: 1) the rationale for why such an extended period may be appropriate, and 2) the distribution of costs and benefits over time.

Both explanations are absent in the Draft Study and in presentations made to date to the Water Authority board, and both are necessary to provide transparency and completeness of review essential to informed decision-making. The first is easily remedied by stating the case for why the RCS project deserves extended period consideration, even though it fares poorly when evaluated over conventional terms. The second is remedied by applying the Economic Model to the analysis of costs and benefits over time, as presented in the next section. With this information available to a decision-making body, the decision becomes a matter of policy for their consideration.

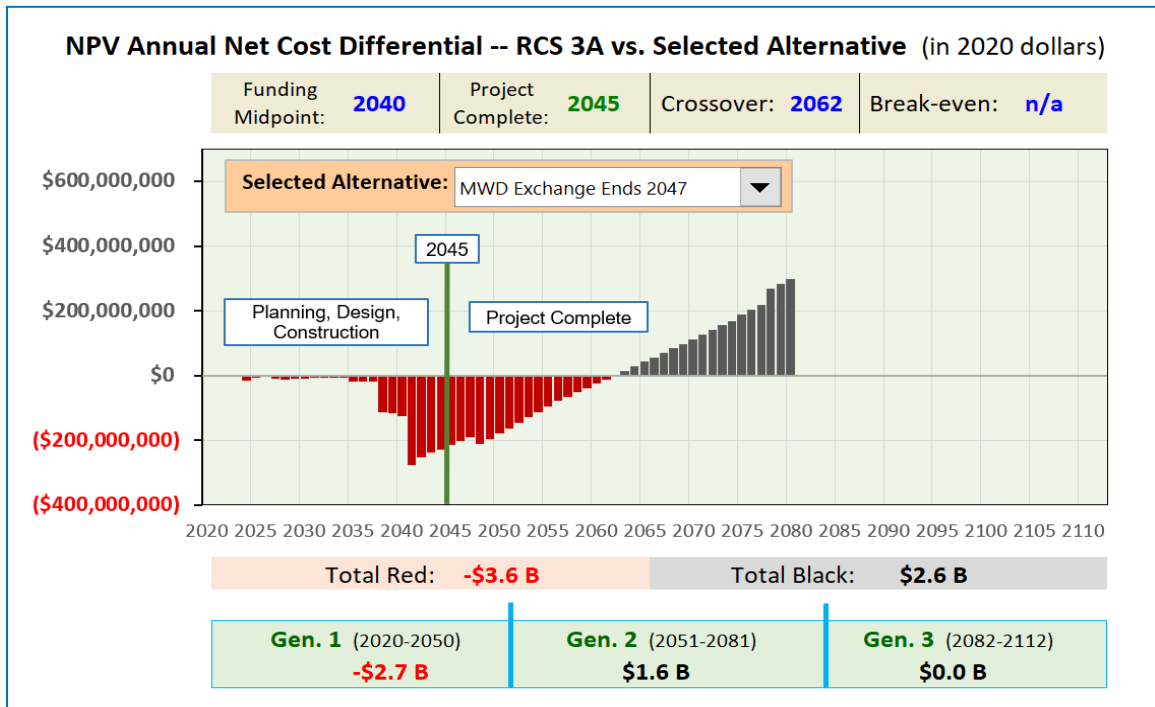
### 2.4. An extended period of analysis entails generational transfers of costs and benefits.

If an extended period of analysis is warranted given the unusual timescale of the RCS, then the economic evaluation should identify the distribution of costs and benefits over time. Put another way, if the RCS is a generational project, then the economic analysis should examine the generational transfers of costs and benefits. We have adapted the Economic Model to provide this generational analysis.

## Case 1: Period of Analysis Ending 2080

We begin with the same comparison of alternatives illustrated in Figure 2-3 for the period of analysis extending to 2080, 60 years from now and 40 years past the midpoint of project financing, and with all input variables (interest and discount rates, capital and OMRR escalation rates, MWD price escalation rates, etc.) set at the Economic Model’s default assumption values. (A complete list of model default inputs is included in **Appendix B**.) This results in the time period distribution of net costs and benefits presented in **Figure 2-5** and further described below.

**FIGURE 2-5: Cost and Benefit Distribution for Period Ending 2080**  
(RCS 3A vs. MWD Exchange 2047)



The data in Figure 2-5 provides a much broader understanding of the economic comparison than the simple total NPV comparison of Figure 2-3. The red/black bar chart illustrates how the project at first incurs additional net losses in comparison to its alternative, and then transitions to providing net benefits. The data boxes above the chart note key dates, including the Crossover year when net losses transition to net benefits, and the year of break-even, when cumulative benefits begin to exceed net losses. Data boxes at the bottom summarize the cumulative totals of net losses and net gains, and the net loss or gain to each of three generations spanning the 92-year period of analysis. For this example, losses outweigh benefits, and the project does not achieve a break-even date.

## Case 2: Period of Analysis Ending 2112

The next step is to extend the period of analysis to 2112, the sole period examined in the Draft Study. This extends the economic analysis to 92 years from now and 72 years past the midpoint of project financing. Applying the economic model with this extended period, while keeping all other inputs at the levels, results in the time period distribution of net costs and benefits presented in **Figure 2-6**.



**FIGURE 2-6: Cost and Benefit Distribution for Period Ending 2112**  
(RCS 3A vs. MWD Exchange 2047)

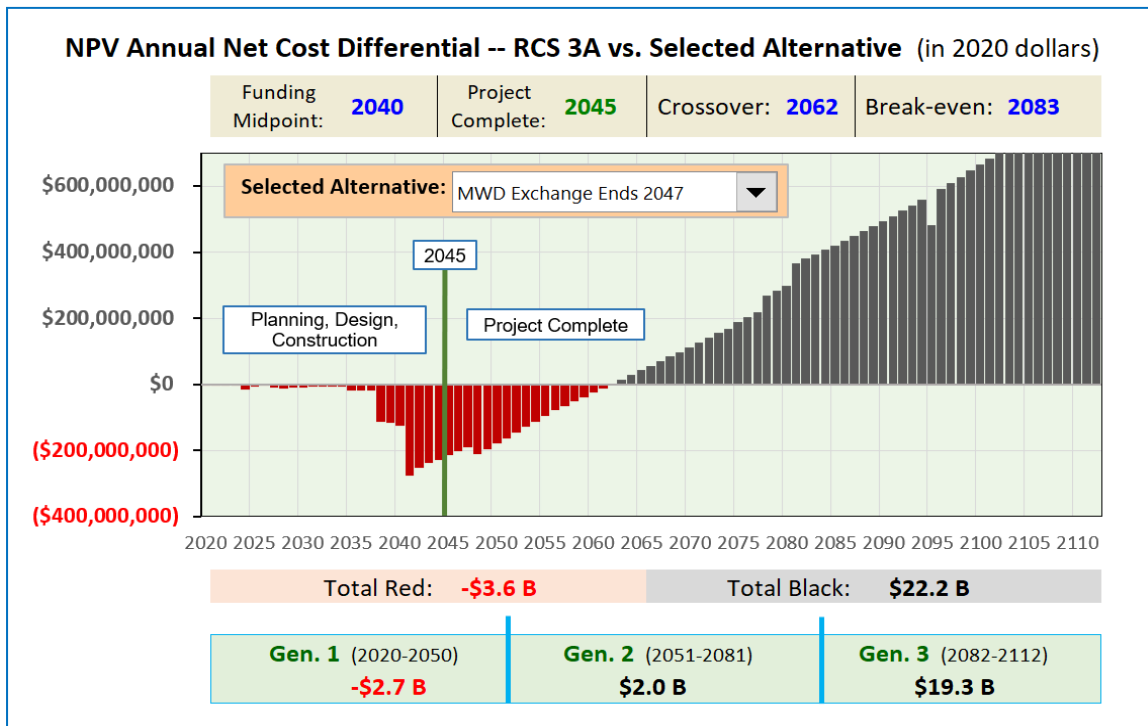


Figure 2-6 illustrates that for every year the period of analysis is extended beyond standard terms, the RCS gains additional advantage as black bars are added with ever-increasing net benefits. Although the chart ends at 2112, the analysis could be extended further, and this would result in still further advantage for the RCS, but conditioned on the validity or accuracy of the model input assumptions. With reference to our previous observation about forecast uncertainty increasing the further out in time the forecast, there are different levels of certainty associated with the red bars and the black bars. The occurrence and magnitude of the red bars has a high degree of certainty, as these are costs that arise from the financing of almost \$6 billion in capital. In contrast, the black bars have a high degree of uncertainty, as they arise from a mix of assumptions about of MWD price escalation rates and other factors whose future is unknown.

**The merits of generation transfers are a policy matter.**

The contrast of Figure 2-6 with Figure 2-5 is dramatic. The addition of 32 years to the period of analysis adds 32 progressively higher black bars to the right of the chart, resulting in a cumulative advantage for the RCS over its alternative of approximately \$19 billion (sum of Total Red and Total Black). The project does not achieve Break-even until 2083, 43 years after the mid-point of project financing, but after that the gains continue to accrue. We see that Generation 1 incurs a net loss of almost \$3 billion, but the amount seems modest in comparison to the gains accruing to future generations and to Generation 3 in particular. While the overall Net Present Value clearly favors the RCS, the generational transfers entailed make clear that a decision to invest in the project entails policy matters broader than just the overall Net Present Value.

## 2.5. The Draft Study’s assumptions of MWD price escalation are highly implausible.

The Draft Study over-extrapolates a 20-year historical trendline of MWD price escalation, applying the historical trend unchanged throughout the period of analysis. As we demonstrate in this subsection, this assumption is highly implausible.

Accurate forecasting of long term water rates is difficult. Many factors drive the price of water, including capital costs, increased operating cost, and changing sales volumes. A standard assumption on rate forecasting is that the further out the forecast horizon, the more inaccurate the future projection, because it is impossible to anticipate with any accuracy future conditions and their effect on rates. When forecasting future water rates, most projections will trend back to assumptions on underlying inflation or some small increment above inflation so as not to overstate the compounding effect of escalation factors. This is also reflected in the more standard approach to the length of an economic analysis so as not to skew the results based on diminishing accuracy of forecasted key variables and cost drivers.

### Escalation rates have limits; systems adapt and adjust

The economic analysis presented in the Draft Study assumes MWD prices will escalate at 5.1 percent per year throughout the 92-year period of analysis. Additional data presented by Water Authority staff at its March 12, 2020 special board meeting documented that MWD Tier 1 Supply prices have a 20-year escalation average of 5.1 percent per year and that the Exchange rate components (System Access + Water Stewardship + System Power) have a collective 20-year escalation average of 4.5 percent per year. The Draft Study uses the higher 5.1 percent rate for both Tier 1 Supply and Exchange rates.

The effect of MWD rates escalating at 5.1 percent per year over 92 years is illustrated in **Table 2-2**. The table includes for reference a typical member agency local supply project, which consistent with the default assumptions of the Economic Model has initial costs inflating at 3 percent per year, but then being discounted back to present worth at the same 3 percent rate.



**Implausible Extrapolations.** Yes, if trends had continued Lake Mead would have gone dry, but the unacceptability of that outcome led governments and institutions to change course. Systems adapt and adjust to unsustainable forecasts.

**TABLE 2-2: MWD Price Escalation at 5.1%/yr Over 92 Years**

NPV in 2020 dollars	2020	2045	2085	2112
Pure Water (example)	\$2,300/AF	\$2,300/AF	\$2,300/AF	\$2,300/AF
MWD Tier 1 Raw All-In	\$840/AF	\$1,400/AF	\$3,100/AF	\$5,400/AF

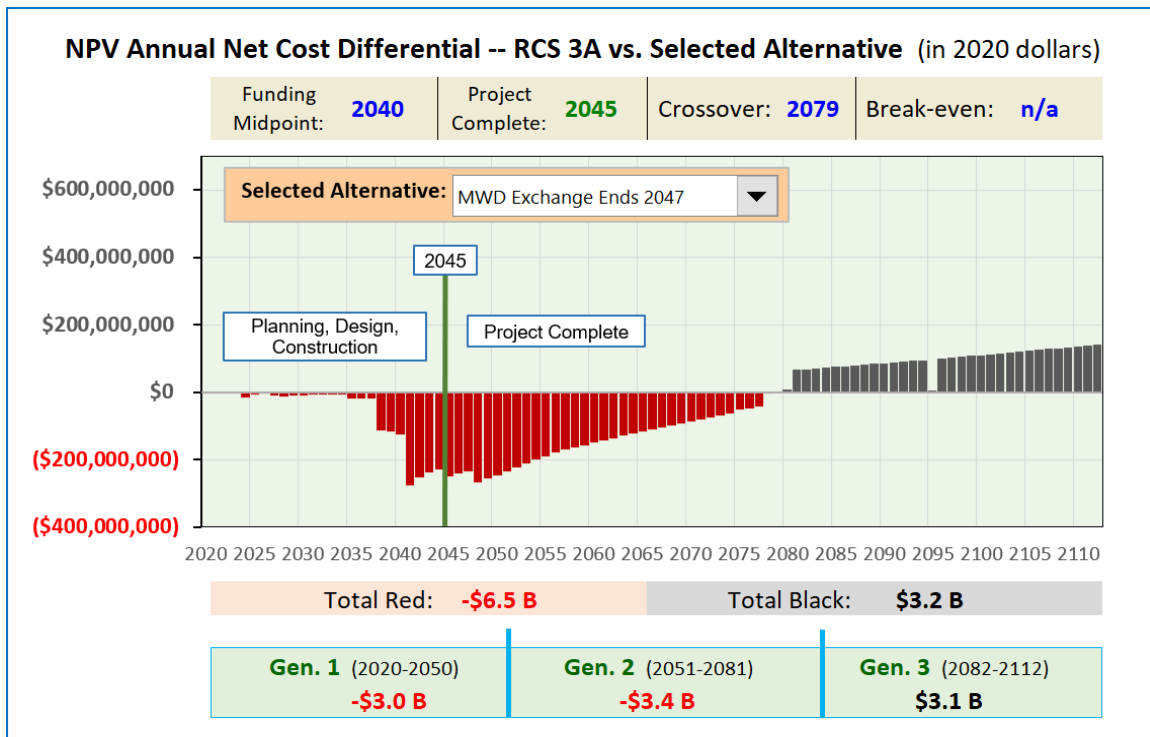
The point is that MWD price escalation at 5.1 percent over the entire 92 year period of analysis is not sustainable, and is therefore highly unlikely to occur; the system will need to adapt and adjust. Rather than basing economic analysis on such an unlikely occurrence, it seems to us prudent, and much more plausible, to assume MWD will make adaptations and adjustments to prevent rates from increasing to the point where they drive away most or all of their water sales. Whether those adjustments entail reductions in the costs driving the price increases, shifting costs to unavoidable fixed charges, or other measures is beyond the scope of our review. Nevertheless, the finding holds that rates are highly unlikely to increase at these levels relative to other supply options for the simple reason they cannot.

### Lesser escalation rates quickly move the RCS from black to red

The draft economic analysis presented in the Draft Study is highly sensitive to changes in assumptions about MWD price escalation. The effect of reducing the MWD escalation rates or capping the term of the escalation, is significant, quickly reducing the future benefits illustrated previously in Figure 2-6. For comparison, **Figure 2-7** presents the same analysis with the same extended period through 2112, but with the following adjustments to MWD price escalation:

- **Tier 1 Supply:** Rates escalate at the default 5.1 percent per year, but only for 20 years, and thereafter, escalate at the default melded OMRR rate of 3.7 percent per year. The 3.7 percent rate is the same that applies to OMRR escalation for the RCS.
- **Exchange Rate:** The composite exchange rate escalates at its 20-year average of 4.5 percent per year rather than the Draft Study’s default of 5.1 percent, and after 20 years, the escalation declines to the default melded OMRR rate of 3.7 percent per year.

**FIGURE 2-7: Cost and Benefit Distribution with Modified MWD Price Escalation**  
(RCS 3A vs. MWD Exchange 2047) (Period of analysis through 2112)



The modest changes to the long term MWD price escalations eliminate the \$19 billion cost advantage of the RCS reflected in Figure 2-6, and result instead in the net \$3 billion disadvantage reflected in Figure 2-7. The actual future of MWD price escalation is uncertain, but we are confident the escalation rates underlying the data in Figure 2-7 represent a much more plausible scenario than those for Figure 2-6. On this basis we conclude the project is not cost-effective.

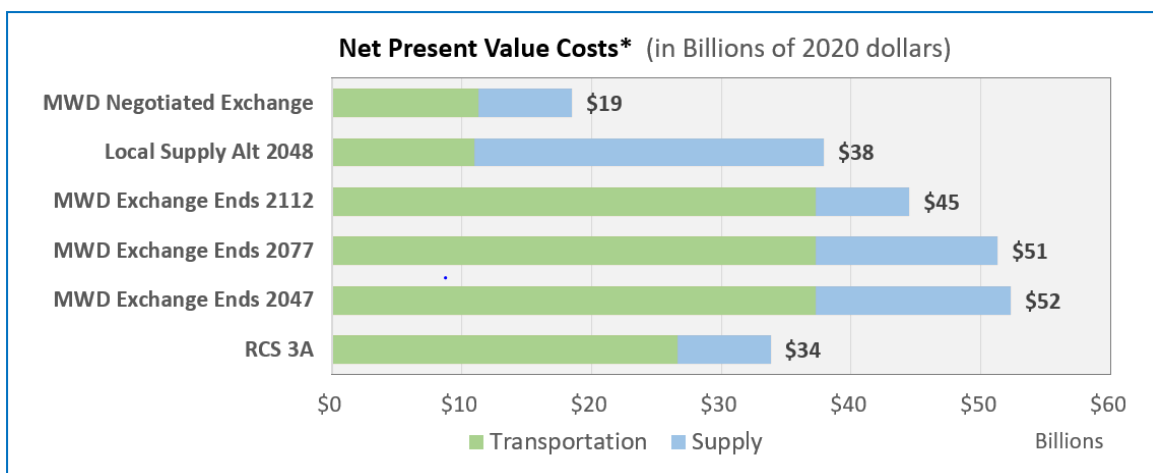
## 2.6. A Negotiated Exchange option appears economically advantageous.

As requested by the Member Agency Managers, we modified the Economic Model to include an additional option we have labeled Negotiated Exchange. This option would replace the current Exchange Agreement with new terms through 2112, with price escalation tied to the Engineering News Record 20-Cities Construction Cost Index (ENR\_CCI). These financial terms were contained in MWD’s December 2019 Settlement Offer to the Water Authority, and in the Water Authority’s subsequent counter-offer to MWD. The MWD offer allowed for an additional increase beyond the ENR escalator for transportation-allocated costs of the Delta Conveyance project, and the Water Authority’s counter-offer did not. We have included functionality in the model to examine the scenario with or without the Delta Conveyance included.

Our analysis of this option is limited to the economic aspects derived from the settlement offers, and does not extend in any way to the legal aspects of the offers, which are beyond our scope of work.

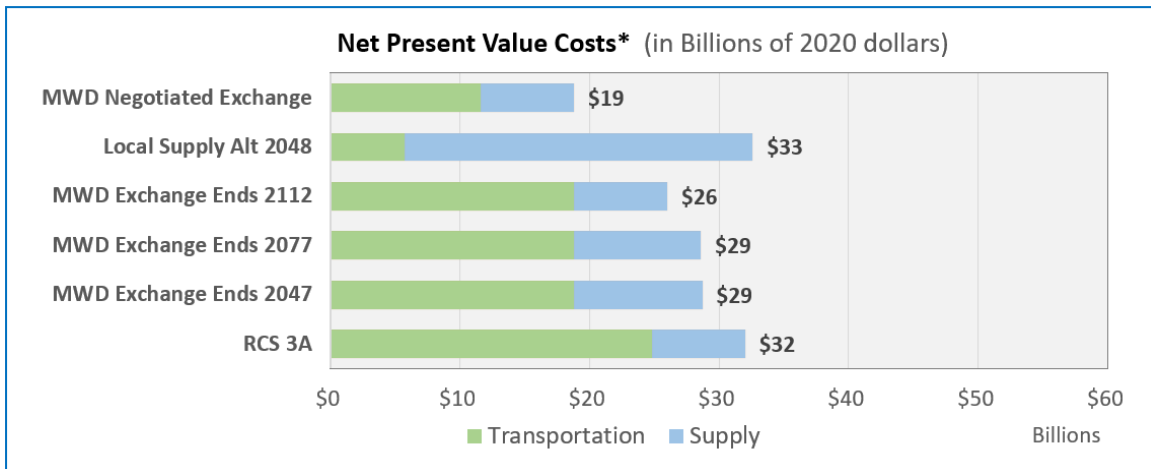
Beginning with all of the Draft Study’s default financial and economic assumptions, and maintaining the period of analysis at 92 years, the Negotiated Exchange option provides a Net Present Value advantage as illustrated in **Figure 2-8**. The alternative provides an advantage of approximately \$15 billion in comparison to the RCS alternative, and \$26 billion in comparison to the least costly MWD Exchange alternative. This is with the Delta Conveyance included; with the Delta Conveyance excluded the advantage would increase by an additional two to three billion dollars depending on assumptions.

**FIGURE 2-8: Net Present Value Comparison with SDCWA Default Inputs**  
(Period of analysis through 2112)



Because the data in Figure 2-8 assumes MWD rates are escalating at unsustainable levels, the results overstate the benefit of the Negotiated Exchange option relative to the other options, and relative to the other MWD Exchange options in particular. Adjusting the MWD Tier 1 Supply and Exchange escalation rates in the same exact manner as for Figure 2-7, 20 years at 5.1 and 4.5 percent respectively, then 3.7 percent thereafter, we arrive at the Net Present Value comparison illustrated in **Figure 2-9**.

**FIGURE 2-9: Net Present Value Comparison with Modified MWD Price Escalation**  
(Period of analysis through 2112)



With MWD price escalation modified to reflect a more likely rate forecast scenario, the Negotiated Exchange option still maintains a benefit of \$7 billion in comparison to the next least-costly alternative, and \$10 billion in comparison to the Draft Study’s default alternative of MWD Exchange 2047.

**MWD rate structure adjustments could alter these projections.**

The above analysis of the Negotiated Exchange option, as well as all of the previous comparisons, rely on an assumption that MWD will maintain its existing rate structure intact, complete with its heavy reliance on volumetric commodity charges. A shift by MWD of costs from volumetric commodity charges to fixed charges could reduce its commodity rates, and in the process could reduce the avoided costs that provide the economic advantage of a Negotiated Exchange option. This same consideration would apply to the RCS option, reducing the potential benefits of the project. Detailed consideration of the future of MWD rate structures is beyond our scope of work.

**2.7. The Draft Study’s assumptions of IID Supply price escalation do not account for risk of future price increases above inflation.**

The contractual price paid by the Water Authority for IID transfer water is currently indexed to a published inflation factor, the federal Gross Domestic Product Implicit Price Deflator (GDPIDP). According to the 2009 Amended Water Transfer Agreement, the use of the index ends after 2034 and transitions or resets to a market based price.

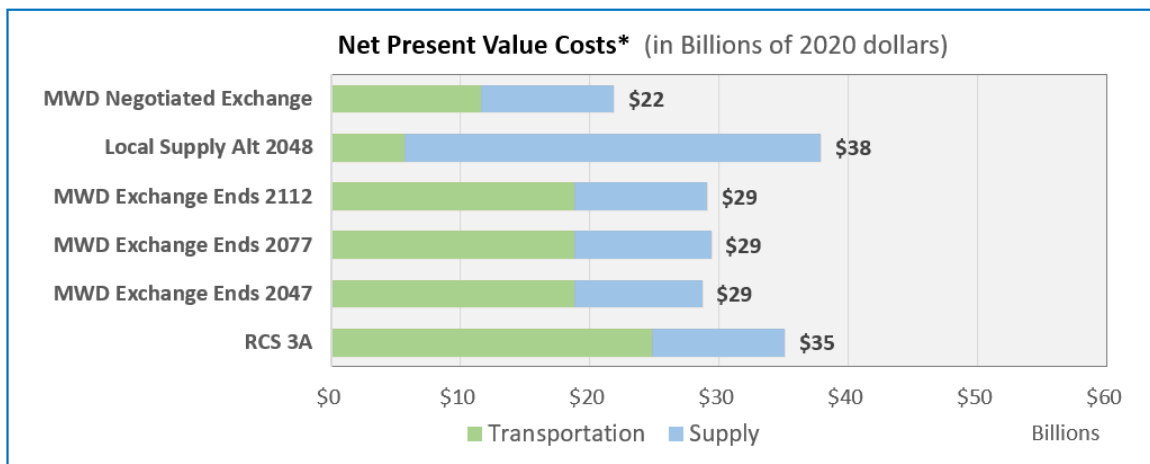
The Draft Study’s economic analysis assumes a continuation of IID supply costs at the underlying rate of inflation. This is in contrast to, and appears to us inconsistent with, the assumption that MWD will increase well above underlying inflation. Under the terms of the Transfer Agreement, the use of the GDPIP index expires at the end of 2034, to be replaced either by a market-based process if an established market exists, or by the agreement’s Base Contract Price which is based on MWD rates. This at a minimum would appear to introduce a significant risk, if not the likelihood that IID supply prices under the Transfer Agreement will escalate over the long-term at rates greater than inflation, contrary to the Draft Study’s assumptions. Any increase in the assumed rate of IID price escalation further disadvantages the RCS in comparison to the MWD Exchange 2047 option.

We have adapted the Economic Model to include additional functionality for IID supply price escalation sensitivity testing. We will use Figure 2-9 as a point of comparison. Figure 2-9 presents NPV results with MWD Tier 1 and Exchange escalation rates adjusted from default conditions to be fixed for 20 years at 5.1 and 4.5 percent respectively, and thereafter at 3.7 percent. Leaving all of those adjustments in place, we will next adjust the IID price escalation assumptions as follows:

- Initial Escalation Rate: 1.9 percent, equal to the 20-year average of the GDPIP
- Time-Out Date: Initial escalation rate ends after 2034, as per the Transfer Agreement
- Subsequent Escalation Rate: 3.5 percent, reflecting a small discount from the Economic Model’s default OMRR escalation of 3.7 percent

With those modifications entered into the Economic Model, the NPV comparison of the supply and transportation alternatives is as depicted in **Figure 2-10**.

**FIGURE 2-10: Net Present Value Comparison with Modified IID Price Escalation**  
(Period of analysis through 2112)



Notice the NPV cost premium for the RCS has now grown in comparison to the other alternatives, and that the MWD Exchange 2047, 2077, and 2112 options have reached a level of parity with each other. The data presented in Figure 2-10 is just one of many scenarios that could be evaluated with the Economic Model, and suggests there may be opportunity to apply the model to support further investigation of alternative QSA supply and transportation futures.

## 2.8. Grant funding, if available, could reduce the RCS cost premium in comparison to the other alternatives.

The Draft Study notes the prospect that the project could receive State, Federal, or other funding assistance, reducing the capital cost incurred by the Water Authority and boosting the project's economic status in comparison to the other supply and transportation alternatives.

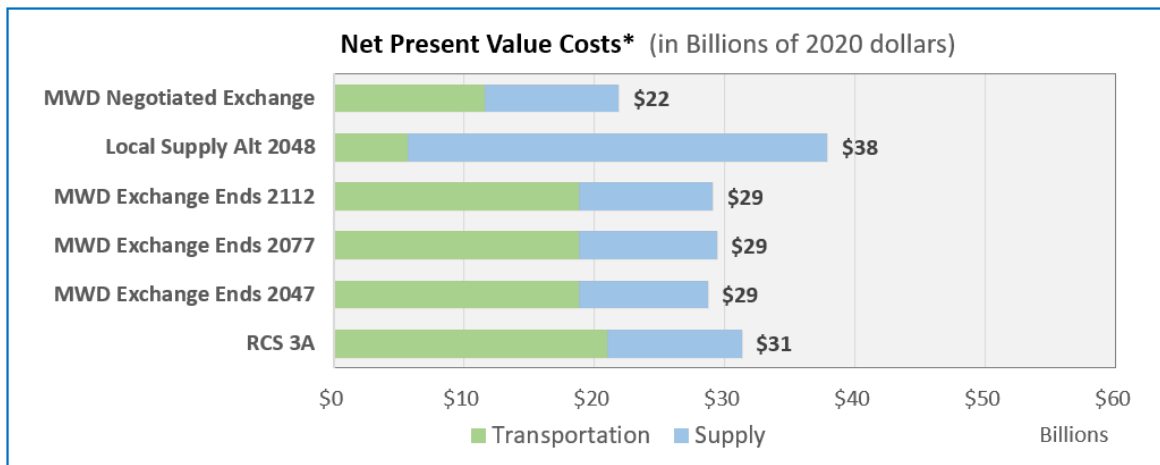
Some of the member agency managers have suggested the prospect of grant funding is unlikely, citing probable opposition from the remainder of the MWD service area and from the other Colorado River basin states. Conversely, Water Authority staff have pointed to project's role in securing the IID Transfer and maintaining peace on the river. Resolving the divide between those opinions is beyond the limits of our scope.

We have adapted the Economic Model to provide sensitivity testing of RCS capital costs. Using the Figure 2-10 scenario as a point of comparison, we can adjust the RCS capital cost as follows:

- **RCS Capital Cost Adjustment:** Assume 50 percent of project capital is grant funded, reducing the capital cost to the Water Authority from \$5.0 billion (before escalation to midpoint) to \$2.5 billion.

With that modification entered into the Economic Model, and otherwise maintaining all of the same settings as for Figure 2-10, the NPV comparison of the supply and transportation alternatives is as depicted in **Figure 2-11**.

**FIGURE 2-11: Net Present Value Comparison with 50% Capital Grant Funding**  
(Period of analysis through 2112)



The effect of the grant funding is to reduce the project's NPV by approximately \$4 billion, bringing the project closer in cost to the other alternatives but still more expensive.

## 2.9. The Local Supply option is specific to SDCWA local project development and is not intended to reflect the economic merits of local project development by member agencies.

Several of the MAMs have asked us to comment on the nature of the Local Supply option and on the economic data reported on the option by Economic Model.

### Contrast Between SDCWA and Member Agency Local Supply Economics

The first thing to note about the Local Supply option is that it is intended to reflect the economics of local supply development by SDCWA, not by member agencies. When SDCWA evaluates the economics of such a project, its logical point of comparison is to the cost and reliability of MWD Tier 1 supplies. In contrast, when a member agency evaluates a similar (if smaller) project, their logical point of comparison is to all-in SDCWA rates, which are currently on the order of \$600/AF higher than MWD rates. In addition, for the case of a Pure Water type local project, a member agency may be in a better position to benefit from the avoided costs of such a project to its local wastewater system. For these and other reasons, member agencies are likely to find economic merit in local projects that would be too costly for SDCWA.

### Project Sizing

The second thing to note about the Local Supply option is that SDCWA has sized the option for the full 200,000 AF/yr needed to replace its IID supply after 2047. (Per the option definition, the IID agreement would be allowed to expire after 2047 and SDCWA would then need to replace that supply from MWD or from local supply development.) SDCWA has based the option on a large seawater desalination facility such as could possibly be built at Camp Pendleton. The Economic Model includes a default cost for this option of \$3,000/AF in 2020 dollars. We concur with the use of this default setting when the intent is to gauge the costs of SDCWA project development independent of the member agencies.

In contrast, individual projects undertaken by member agencies will necessarily be sized at capacities less than the full 200,000 AF/yr of IID supply. Whether a combination of individual projects could achieve this threshold is a matter of speculation, but it appears at least plausible and perhaps likely that a combination of local projects could replace a significant share of the IID supply.

### Additional Testing Using Economic Model

The Economic Model allows for testing of the Local Supply option across a range of input assumptions. Member agencies can use the model to test the results of modified local supply options populated by multiple smaller member agency projects. Additional notes on the model and on testing suggestions are included in **Appendix B**.



## 2.10. Potential rate increases to fund an RCS can be estimated using the Red/Black charts.

In Figure 2-7 (“Cost and Benefit Distribution with Modified MWD Price Escalation”), the cumulative net costs of the RCS project before the economic crossover point in 2079 total \$6.5 billion. Annual net costs exceed \$200 million per year from 2041 through 2054, a period of 15 years. During this period, average net costs are approximately \$230 million per year. If these costs were funded by the Water Authority Merged Supply Rate and/or its Transportation Charge then depending on the Water Authority annual sales volume they would result in the All-In rate increases listed in **Table 2-3**. Note that the rate increases shown are just those needed to fund the RCS, and are in addition to other rate increases the Water Authority will need to fund its ongoing operations, capital program, and MWD purchase and exchange costs.

**TABLE 2-3: SDCWA Rate Increase to Fund \$230M/yr in New Costs**  
(in 2020 dollars)

Period	Average Annual Cost	Rate Increase for Given SDCWA Annual Sales Volume in AF				
		200,000	250,000	300,000	350,000	400,000
2041-2054	\$230 M	\$1,150/AF	\$920/AF	\$770/AF	\$660/AF	\$580/AF
2038-2077	\$160 M	\$800/AF	\$640/AF	\$530/AF	\$460/AF	\$400/AF

Prior to 2041 and after 2054 continuing to 2079, lesser increases would be needed to fund the net costs. After 2079, net costs transition to net benefits and water rates would then be reduced in comparison to the selected RCS point of comparison.

Some of the member agency finance directors have noted that additional rate impacts might arise from debt coverage ratio policies, credit rating requirements, bond requirements, and related issues associated with the issuance of approximately \$6 billion in debt. Analysis of these issues is beyond the scope of our review.

### 3. Engineering, Cost, and Risk Review

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#### 3.1. **Engineering Review: The engineering components of the Draft Study are sound and demonstrate the technical feasibility of an RCS project.**

The Draft Study’s engineering work updates the many previous studies prepared on the topic, and advances the conceptual project design by demonstrating the potential merits of a Northern Alignment alternative, by incorporating desalting operations and a Westside Main Canal parallel, and via other improvements. Our high-level review of the project’s engineering has identified only modest opportunities for revision, and we find the project engineering overall to be sound.

Our comments on the Draft Study’s engineering and general planning aspects are listed below:

- 1) 1.5 Previous Studies: Include the 2002 Regional Colorado River Conveyance Feasibility Study.
- 2) 3.2 TOVDS Delivery Point Day Tank Level Control: The text of this section needs clarification; it is not clear how storage in the day tank is to be regulated. If the goal of the day tank is to be able to feed the rejection tower at a normal water elevation (NWL) of 1140, this suggests the bottom of the tank needs to be above that elevation, and equipped with a 400 cfs flow control facility (FCF) regulating flow out of the tank, otherwise the tank is just floating at the rejection tower NWL as regulated by the existing pressure control facility (PCF) and not providing any operating storage. Also, the text should note the significant topographic and environmental constraints to siting a tank at this elevation in Twin Oaks vicinity. These constraints, and the addition of a FCF if needed, would add to project costs.
- 3) 7.4 Summary of Environmental Issues re: Greenhouse Gas Emissions: Even though this section is mostly conceptual and directed toward a process description, it should note GHG emissions as an issue of concern for the RCS. Data in the report indicates the RCS 3A will have an energy footprint of approximately 2,800 kWh/AF, or approximately 40 percent greater than for conveyance via the Colorado River Aqueduct. This leads to the possibility that the RCS might not be the environmentally preferred alternative for project environmental documentation under the California Environmental Quality Act (CEQA) and the National Environmental Project Act (NEPA). Depending on the nature of federal environmental permits and approvals needed for the project, this could present risk to project approval.
- 4) 9.0 Screening Criteria and Evaluation: The methodology of combining costs and benefits into a scoring matrix is problematic. We recommend costs be pulled out into their own category and then weighed against benefits, reflecting the way budgets and policy are typically evaluated in the public agency and utility arena.



**Weighing Costs and Benefits.** Costs and benefits are the two sides of the balance scale. Matrix scoring evaluations that combine costs and benefits into a single scoring rubric fail to capture this real-world balancing act.

- 5) 10.12 Report Summary re: Cost Competitiveness: The summary text states, “Alternatives 3A and 5A are economically competitive and provide long-term reliability and low cost water to the region”, and “As discussed in the key findings summarized above, Alignments 3A and 5A are viable alternatives to the current status quo for the Water Authority.” Our analysis in Section 2 of this report demonstrates otherwise, and the summary text should be revised to present a more accurate and complete assessment of the project’s economics.

### 3.2. Cost Analysis: We have only minor comments and suggestions for consideration.

The independent review of the project cost estimates commissioned by the Water Authority appears to have been a valuable undertaking that has helped refine and validate the current estimates. Our high-level review of the project’s costs has identified modest questions and concerns as identified in our report, but these are not of a magnitude to alter the overall economics of the project. Although much attention is paid in the Draft Study and related documents to capital costs, these are a minority of the project’s life-cycle costs, and their share diminishes as the economic period of analysis increases. Annual costs are a more significant driver of RCS life-cycle costs, and life-cycle costs are more sensitive to changes in annual costs than to capital costs.

Our cost-related review comments are listed below:

- 1) Construction Management (CM) Costs: The report estimates CM costs at approximately 22 percent of construction costs before contingencies. The 22 percent figure warrants further review and comparison to the Water Authority’s historical CM costs on projects such as the San Vicente Pipeline tunnel. Also, the application of the selected percentage to construction costs before contingencies is unusual and warrants re-consideration or explanation.
- 2) Labor Cost Multipliers: The report uses a labor cost multiplier of 1.6. This appears low if the intent is to include comprehensive labor costs inclusive of payroll overhead, office space, equipment, and administrative and managerial overhead.
- 3) Replacement Costs: The report identifies a replacement cost averaging approximately \$2.5M per year for Alternative 3A. This appears unduly low for a \$5B capital project, amounting to only 0.05 percent of capital costs. Replacement costs should be revisited, with a recognition that it is not possible to ensure all project components meet their design lifetimes. Construction, material, and equipment flaws may arise decades after project completion and lead to unexpected costs.
- 4) Tunnel Repair Costs: Depending on the return interval of large movements on the Elsinore Fault and depending on the probability of those movements damaging the tunnel, the cost analysis should consider including a sinking fund repair line item for tunnel repairs. Tunnel repairs could be enormously expensive if required, and might warrant a sinking fund of millions or tens of millions of dollars per year.
- 5) TOVDS Deliver Point Day Tank: See our comments on this item in Section 3.1.
- 6) Response to HPG Comments: We recommend the final version of the report provide specific responses to each of the findings and recommendations of the Independent Cost Review.

### 3.3. Risk Review: The risk of declining water demands appears real and warrants consideration.

The Draft Study does not account for the risk of declining demands in its Risk Registry. We think it likely that long-term Water Authority demands are at significant risk of declining to below 330,000 AF/yr, perhaps by a considerable margin, and for this reason we recommend the Draft Study be revised to address demand risk.

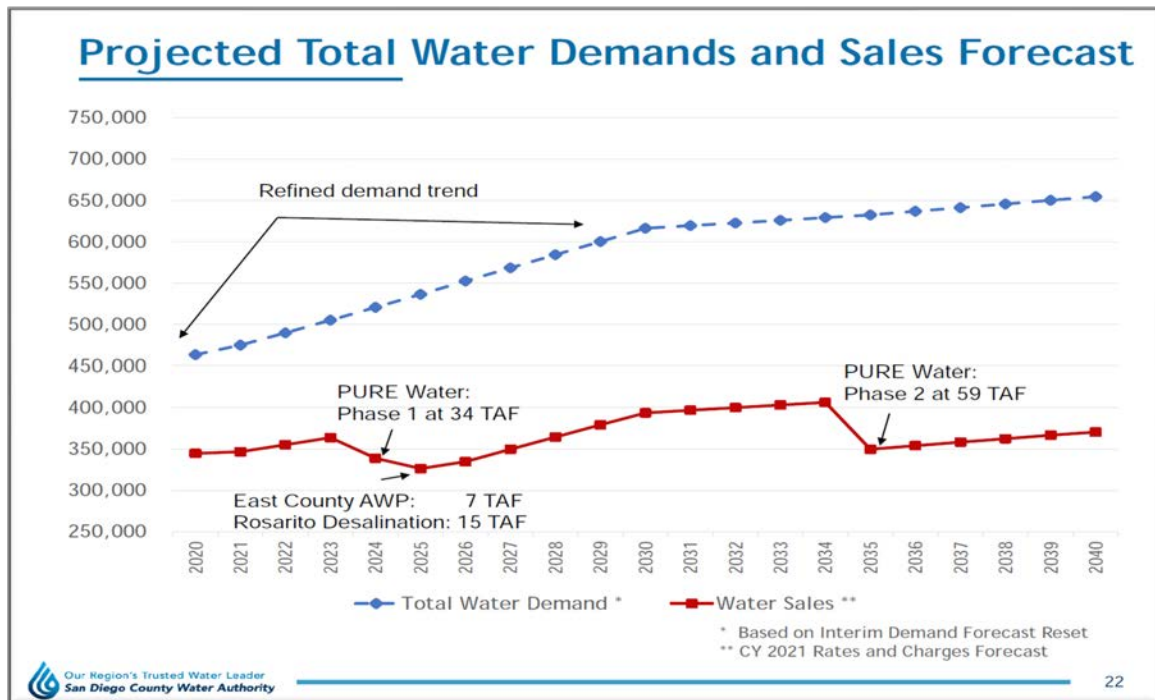
The 330,000 AF/yr threshold is significant because it represents the Water Authority’s current core supply of water, the rounded total of 277,700 AF/yr of QSA supplies and 50,000 AF/yr of ocean desal. Of these, the Water Authority is obligated to pay for the IID and desal supplies regardless of whether it uses them. If demands dropped below the 330,000 AF/yr threshold, the Water Authority might need to leave some of its core supply unused. If such reductions are to its QSA supplies, then an RCS facility built at a capacity to match full QSA supplies could become oversized. If the RCS could no longer be operated at capacity, the unit costs of the facility would increase, jeopardizing the potential to ever recover the capital investment in the project.

Also, it is clear from the Draft Study that downsizing the RCS would result in significant cost-inefficiencies, particularly with regard to the project’s tunnels which for constructability reasons must be sized for 14 foot or 16 foot diameter bores regardless of finished inside diameter. This makes it unlikely the demand risk could be mitigated by downsizing the facility without compounding the project’s economic challenges.

#### Water Authority Demand Forecast

The Water Authority’s current demand forecast is summarized in **Figure 3-1**, which is a presentation slide presented by Water Authority staff at its March 12 special board meeting.

**FIGURE 3-1: SDCWA Current Demand Forecast**



Source: Presentation Materials from SDCWA board meeting of March 12, 2020

The upper blue line of the chart depicts total regional water demands. The lower red line depicts Water Authority sales, which are lower than regional demands by a volume equal to member agency local supplies. As new local supplies come on line in future years, the red line adjusts accordingly. The message of the chart is that Water Authority demands (sales) are a function of 1) regional demands, and 2) member agency local supply development. The chart depicts total regional demands increasing over time, but member agency local project development increasing as well, with the result that long-term Water Authority demands remain in a range of approximately 330,000 to 400,000 AF/yr. The Draft Study relies on this forecast to conclude that long-term Water Authority demands will remain safely above the 330,000 AF/yr threshold.

In presenting this slide, Water Authority staff have noted the forecast is founded in work from the agency's 2015 Urban Water Management Plan, and that the Water Authority is in the process of developing new demand forecasts due out later this year. Further, they have noted the initial upward slope of the blue line, which continues to an inflection point in 2030, arises from the 2015 forecast assumption that unit demands post-2008 have been depressed by various extenuating circumstances, and will gradually return to pre-2008 levels, completing this return in 2030.

#### Possible Forecast Modifications

We are not aware of any member agencies that believe their per-capita water demands will return to pre-2008 levels. Further, considering increasing water prices, advancing conservation practices, changing landscape ethics, and pending dictates of the State Water Resources Control Board, we find it more likely that per capita demands are more likely to continue their decline than resume an increase.

Nevertheless, if we make only one adjustment to Figure 2-10, it would be to bring the initial upward slope of the blue line down to the slope of the post-2030 section of the line, while holding its 2020 value at approximately 460,000 AF/yr. This reduces the red line post-2030 by approximately 125,000 AF/yr, bringing Water Authority sales down to the vicinity of 250,000 AF/yr in the later years of the chart. This revision is illustrated in **Figure 3-2** (next page).

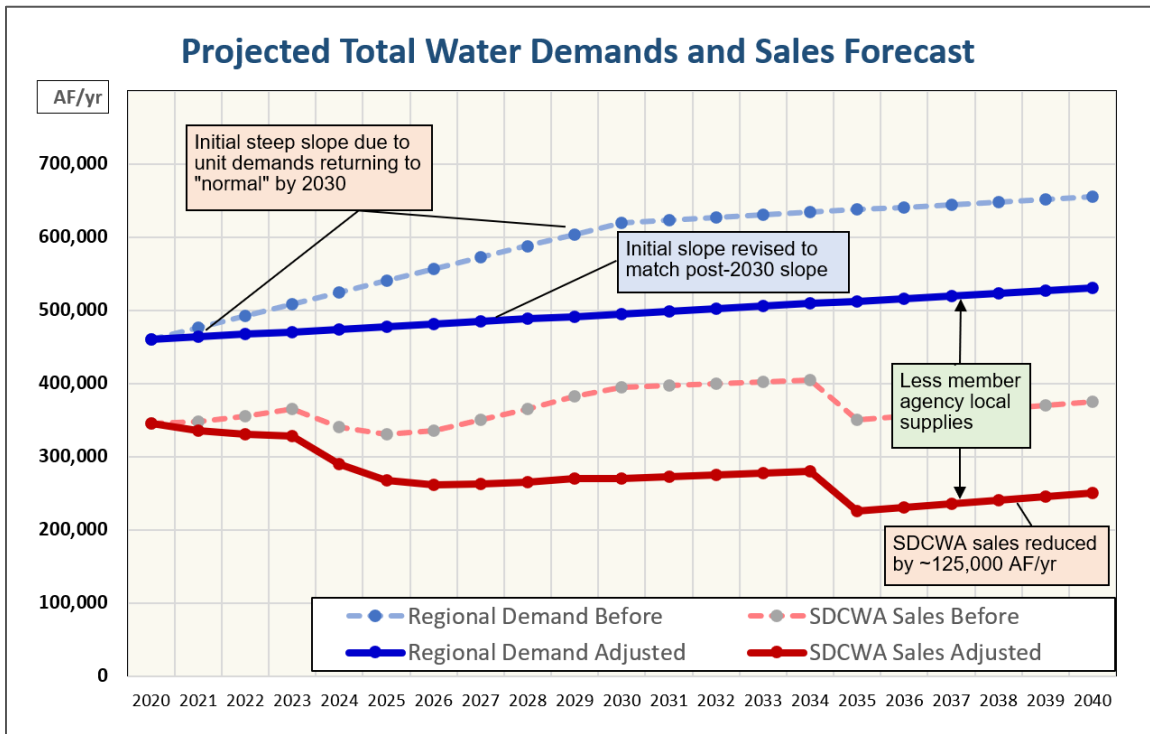
#### Resulting Upward Incentive for Member Agency Local Supply Development

The downward adjustment of the blue Regional Demand line has a compounding effect on Water Authority sales. Not only does the reduction in regional demand lead to a direct reduction in Water Authority sales, but it also drives Water Authority rate increases as fixed costs are distributed to a declining sales volume. This in turn creates additional economic incentive of member agency local supply development, which if it occurred would further diminish Water Authority sales.

#### The Future of Ocean Outfalls?

Some of the member agencies have also noted the possibility that ocean discharge regulations could be modified in the future to ban or significantly reduce wastewater discharges, and that legislation has been introduced to this effect. This would create further incentive or even requirements for Pure Water type local supply development, further diminishing Water Authority sales.

**FIGURE 3-2: Conceptual Adjusted Water Authority Sales Forecast**



Demand Risk Summary

The Water Authority’s new demand forecasts are eagerly awaited. In the meantime, any consideration of the RCS should account for the probability that long-term demands for Water Authority water will be insufficient to utilize the full 330,000 AF/yr of the combined core supplies. Demands may even decline below 250,000 AY/yr, the combined IID and Seawater Desalination supplies. The Water Authority should consider the impact on demands if there is State legislation that prohibits wastewater treatment plants discharging to the ocean.

## **APPENDICES:**

- A. Comments from Member Agency Chief Financial Officers**
  
- B. Economic Model Overview and User's Guide**

# **APPENDIX A: Comments from Member Agency Chief Financial Officers**

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## **A.1. Summary Comments**

A draft version of this reports main economic findings and a draft of the Economic Model were made available to a group of member agency chief financial officers for quality review and comment. Their comments are summarized below:

- An assumption that MWD's rates will increase by 5.1 percent for 92 years is not realistic. At this escalation, the MWD rate would double every 14.4 years and this could significantly overestimate MWD's rates 20+ years out. This assumption also assumes MWD will not change its rate structure for the next 100 years.
- An assumption of 5 percent interest rates for project bonds may be too low. For the Water Authority to take on \$5 billion in debt, it would be challenging to meet debt service coverage ratios and this may result in a lower credit rating. If the project is funded by a Public-Private Partnership, the interest rate will be higher. A cost of funds closer to 6.5 percent seems far more reasonable.
- The Water Authority analysis should include the cost of stranded or underutilized assets resulting from the RCS. In particular, what is the Water Authority's share of MWD's cost to operate, maintain, repair, and replace their conveyance facilities? Are there Water Authority facilities that are stranded or underutilized? It seems very probable that MWD will alter its rate structure at some point to collect the cost of maintaining the Water Authority's underutilized capacity, rather than charging the other member agencies for these costs.
- In making assumptions, there should be a link between the IID and MWD rate escalation. Assuming IID's rates escalate at only 2.5 percent while MWD's rates increase 5.1 percent is too large of a difference. It is not unreasonable to assume that the IID costs will increase at or near the same levels as MWD. The Water Authority's most readily available alternative supply of 200,000 acre-feet is MWD. The assumption that IID would not push hard for higher rates, once the Water Authority committed to the pipeline, is overly optimistic. A term sheet for a long-term rate schedule should be negotiated with IID before this project is started.
- The RCS project should be decided by a ballot measure, financed with General Obligation Bonds, and paid for by residents on the property tax bills. The charge should be in a meter equivalent like the Water Authority's Infrastructure Access Rate.
- The period of analysis and generational equity is important and should be explained and discussed with the Water Authority Board of Directors. For the RCS, what are the costs and benefits, by generation. Note that costs of public facilities paid by previous generations benefit us today; an analysis beyond 30- to 40-years should be included.
- The Water Authority should explain the basis for all of their assumptions, in all alternatives, complete a sensitivity analysis on them, and perform probability analysis.
- The Water Authority should break down the transportation costs by capital and operation and maintenance.



- As member agencies reduce demands on the Water Authority, what impact does that have on the RCS?
- In the economic analysis, the Water Authority should treat the local supply alternative as a project, like the other alternatives, rather than simply escalating \$3,000/AF.
- RCS repair and replacement costs may be underestimated.
- Is there a benefit to pursuing longer-term debt?
- Periodically, if the project progresses, and before debt is issued, review the assumptions and costs, and provide additional project off ramps.
- Is there an opportunity to connect member agency reservoirs in the south County, that are not currently connected?
- Could the Water Authority monetize the value of the IID water to another entity, like the Central Arizona Project (or even MWD), to offset the cost of a local water supply?
- For each alternative, identify the quantifiable and non-quantifiable project and environmental risks.
- Is there a value that should be given to a local water supply because it is a long-term, drought-proof supply?
- The Water Authority should review the IC modifications to their model to help identify any improvements.

# APPENDIX B: Economic Model Overview and Guide

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## B.1. Model Overview and Background

The RCS Economic Model is a spreadsheet model providing analysis of SDCWA's proposed Colorado River Regional Conveyance System (RCS). The RCS would convey water from the Imperial Valley to San Diego over or through the Laguna Mountain range and provide an alternative to use of the MWD's Colorado River Aqueduct (CRA) for delivery of SDCWA's IID Transfer and All American Canal Lining water. The model allows for comparison of the RCS to other water supply and transportation options in terms of Net Present Value (NPV), annual net benefits, and other metrics. Key economic input variables, including the term of analysis, escalation rates, and other factors, are readily adjustable by the user to test the sensitivity of outcomes to input.

The original version of the model was developed by SDCWA and dated June 18, 2020. SDCWA made that version available to the IC, and subsequently the IC has modified the model to provide an upgraded Dashboard with enhanced sensitivity analysis capabilities and graphical summaries.

Projects of the magnitude of the RCS are inherently political. Informed analysis of project economics, provided at the earliest practicable stage of project development, can help guide policy making and help ensure that projects of merit gather support, and those lacking merit be tabled or dismissed. Our goal for the model is to provide a user-friendly tool to test economic assumptions and to support objective and transparent review of the RCS project.

## B.2. Supply and Transportation Scenario Alternatives

The Draft Study presents the net present value costs of the RCS in comparison to MWD Reliance and Local Supply Development alternatives. The Economic Model supplements these by parsing the MWD Reliance option into three different options, resulting in five options total inclusive of the RCS option. The RCS option also has its own alignment alternatives, of which alternative 3A, the Northern Alignment, is the least costly. We have elected to present results and comparisons for that alignment only, to the exclusion of the more costly 5A and 5C described in the Draft Study, and the revised model dashboard includes only the 3A alignment option of the RCS.

The five supply and transportation options are defined below:

- **RCS 3A:** RCS alignment alternative 3A (Northern Alignment) is the least costly and is used here for comparison. RCS becomes operational in 2045.
- **MWD Exchange Ends 2047:** This option assumes the MWD Exchange Agreement expires without renewal at the end of 2047, along with the IID agreement. SDCWA then transitions to buying 200,000 AF/yr of MWD Tier 1 supply. Canal lining water continues at the MWD Exchange Rate. (This option is titled "MWD Reliance" in the Draft Study.)
- **MWD Exchange Ends 2077:** Similar to above, but the IID and MWD Exchange agreements are extended through 2077.
- **MWD Exchange Ends 2112:** IID and MWD Exchange agreements are both extended to 2112, in alignment with the end date for Canal water.
- **2048 Local Supply:** The IID agreement expires at the end of 2047, after which SDCWA transitions to 200,000 AF/yr of new local supply development projects.

To this list the IC has added a sixth option:

- MWD Negotiated Exchange:** This option replaces the current exchange agreement with new terms through 2112, with price escalation tied to the Engineering News Record 20-Cities Construction Cost Index (ENR\_CCI).

### B.3. Model Economic and Financial Inputs and Default Settings

The model’s main economic and financial inputs are included in the dashboard, and are described below by category. The left-hand column displays a screenshot of an input section of the model, and the right-hand column contains notes and explanations. All model descriptions in this report are for **version 1.1 dated 07/20/20**.

When the model is first opened, all inputs are set to the default conditions utilized by the Draft Study.

**Financial Terms and Project Costs**

Interest Rate (Conventional) <small>(SDCWA Default = 5.0%)</small>	<input type="text" value="5.00%"/>
Discount Rate <small>(SDCWA Default = 3.0%)</small>	<input type="text" value="3.00%"/>
End Date for NPV Calculation <small>(SDCWA Default = 2112)</small>	<input type="text" value="2112"/>
RCS Capital Cost 2020 <small>(SDCWA Default = \$5.0B)</small>	<input type="text" value="\$5.0 B"/>
RCS Annual Costs (OMRR) 2020 <small>(SDCWA Default = \$140M)</small>	<input type="text" value="\$140 M"/>

**Notes**

Default setting is conservative by current market standards, but may be appropriate given challenge of \$5B financing

SDCWA advises the default discount rate reflects general water system cost escalation

Default period runs 92 years through 2112

Per the Draft Study, RCS 3A, the least costly alignment alternative, has a capital cost of \$5.0 B and an annual OMRR cost of \$140 M

**MWD Price Escalation Rates**

**Tier 1 Supply** (20-yr avg. = 5.1%)

Initial Rate	Continuing For	Thereafter
<input type="text" value="5.10%"/> <small>5.17%</small>	<input type="text" value="100 Yrs"/>	<input type="text" value="3.70%"/>

**Exchange Rate (SA+WS+SP)** (20-yr avg. = 4.5%)

Initial Rate	Continuing For	Thereafter
<input type="text" value="5.10%"/> <small>5.28%</small>	<input type="text" value="100 Yrs"/>	<input type="text" value="3.70%"/>

**Negotiated Exchange Option**  On  Off  
(See Rate worksheet for adtl. adjustments)

**Escalation Rate**   
(ENR 20-Cities 20-yr avg. = 3.2%)

**Beginning Exchange Rate**   
(2020 Rate = \$482/AF)

**Add Delta Fix?**  Yes  No

**% Allocated to Transportation**   
IC recommended default = 75%

**Effective Escalation Rate =**   
over period 2020 to NPV end date

**Notes**

Default Tier 1 Supply escalation is 5.1%/yr continuing for the duration of the 92-year period. The Time-out function and subsequent escalation rate inputs are additions by the IC. We recommend settings of 20 years and 3.7%.

The Exchange Rate escalation default is 5.1%, even though the 20-year average is 4.5%. We recommend the lower rate. The time-out date and subsequent escalation rate are set by the Tier 1 inputs.

The Negotiated Exchange option and settings additions made by the IC to the original model. Our recommended defaults are as listed.

This section allows costs for a Delta Conveyance project to be added to the exchange rate over and above the specified escalation rate. Additional inputs for the Delta Conveyance option are included in the Rate Forecasting worksheet. The gray-shaded box reports the effective escalation rate inclusive of the Delta Conveyance.

**QSA Supply Cost Escalation** (SDCWA Default = 2.5%)

Initial Rate	Continuing Through	Thereafter
2.50%	2112	3.50%

**Notes**

Default QSA (IID and Canal supply) escalation is 2.5%, continuing for the duration of the period. The Time-out function and subsequent escalation rate inputs are additions by the IC. We recommend settings of 2134, corresponding to the date after which IID rates become subject to new terms, and 3.5%, reflecting a small discount from the default 3.7% OMRR escalation used for Tier 1 supply.

Also, we recommend the initial escalation rate be set at 1.9%, the current 20-year average of the GDP Implicit Price Deflator specified in the IID agreement as the determinant of rate escalation through 2034.

**Local (San Diego) Supply Assumptions (Post 2045)**

(See Rate worksheet for adtl. adjustments)

Local Water Supply Cost 2020 (\$/AF) (SDCWA / BV default = \$3,000/AF)	\$3,000
Percent Arising from Capital (IC suggested default = 60%)	60%

**Notes**

The Draft Study default is \$3,000 AF in 2020 dollars. We have modified the model to recognize a percentage of the unit cost as capital and finance that over a defined term. Additional inputs are included in the Rate Forecasting worksheet.

**Construction & Operations Escalators** (defaults in blue)

Operations & Maintenance	3	3.00%
Energy	4	4.00%
Labor	3	3.00%
Major Replacements	3	3.00%
Melded OMRR (Per 3A Costs)		3.68%
Construction	3	3.00%

**Notes**

The Draft Study defaults are as listed.

The Melded OMRR value is calculated as a weighted average of the prior escalators as applied to the dollar distribution of the RCS 3A annual costs. This melded value is used as the OMRR escalator for the portion of local supply costs not allocated to capital.

The Draft Study default for construction escalation is 3 percent. For comparison, the 20-year average of the ENR 20-Cities CCI is 3.2%.

**Miscellaneous Assumptions**

RCS Delivered AF	277,700
MWD's '21 & '22 Rates Baseline (If No, rates escalated from 2020 baseline)	Yes
Interest Only Until Operational	Yes
Debt Term (years) (SDCWA default = 40 years)	40

**Notes**

The delivery volume is part of the original model version and is not fully functional. We recommend leaving the value set at the QSA total of 277,700 AF/yr.

The Yes/No options allow for adjustments to the MWD rate escalation baseline, and to adjust whether RCS financing is interest-only until project completion. The Draft Study defaults are as shown.

The RCS finance term can be set at 30 or 40 years. The default is 40 years.

## B.4. Model Outputs

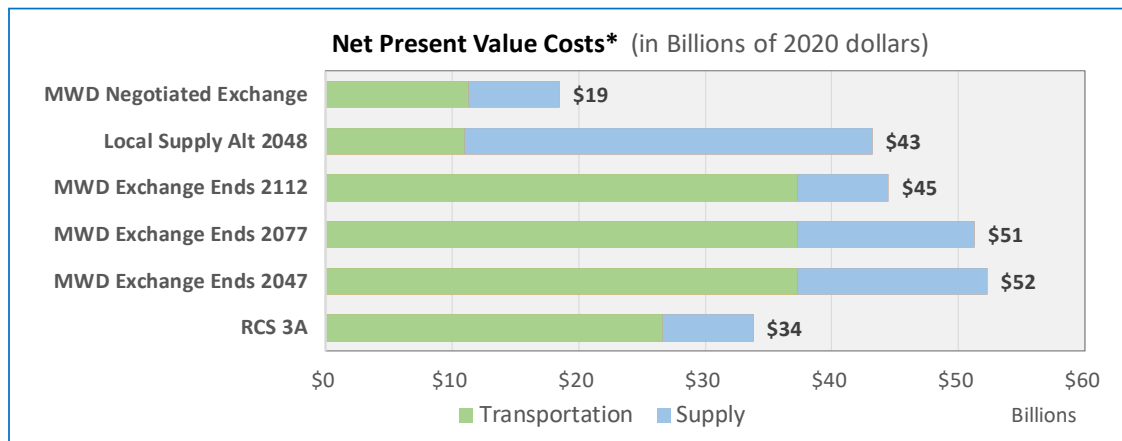
The right-hand side of the dashboard displays results, in three sections.

### Uppermost Section (Green/Blue chart)

The uppermost section presents a tabular summary of Net Present Value for each of the options, and below this the same data is presented in a horizontal bar graph. We refer to the bar chart at the Green/Blue chart. Aside from formatting modifications and the addition of the Negotiated Exchange option, this part of the dashboard is unchanged from the original model version provided by SDCWA.

A screenshot of this section is shown below and reflects the model results when all of the Draft Study’s default inputs are applied.

Net Present Value Analysis (2020 Dollars)*				
Supply Option	Transportation	Supply	Total	Unit Cost
RCS 3A	\$26,600,000,000	\$7,200,000,000	\$33,800,000,000	\$1,790/AF
MWD Exchange Ends 2047	\$37,300,000,000	\$15,000,000,000	\$52,300,000,000	\$2,770/AF
MWD Exchange Ends 2077	\$37,300,000,000	\$14,000,000,000	\$51,300,000,000	\$2,720/AF
MWD Exchange Ends 2112	\$37,300,000,000	\$7,200,000,000	\$44,500,000,000	\$2,360/AF
Local Supply Alt 2048	\$11,000,000,000	\$32,200,000,000	\$43,200,000,000	\$2,290/AF
MWD Negotiated Exchange	\$11,300,000,000	\$7,200,000,000	\$18,500,000,000	\$980/AF



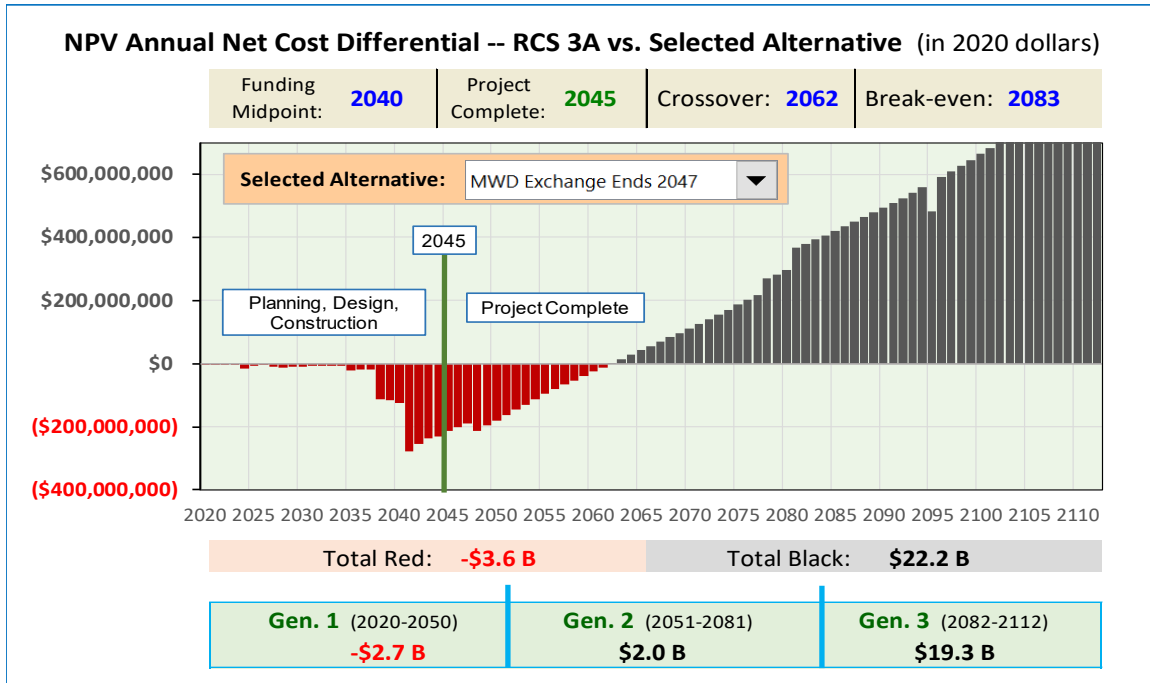
### Middle Section (Red/Black chart)

The middle section presents the NPV Annual Net Cost Differential chart, also known as the Red/Black chart. The chart and accompanying data summaries detail the annual cost differential between the RCS 3A project and whichever alternative is selected by the user. When the model opens, the alternative selected is the MWD Exchange 2047 option because this is the default point of comparison used by the Draft Study. This part of the dashboard was added by the IC.

The Red/Black chart is important because it supplements the Green/Blue chart’s depiction of total NPV over the period of analysis with detail on how RCS costs and benefits are distributed over time.

The period of the charted data can be truncated by adjusting downward the NPV End Date variable in the Financial Terms input section at left.

A screenshot of this section is shown below and reflects the model results when all of the Draft Study’s default inputs are applied.

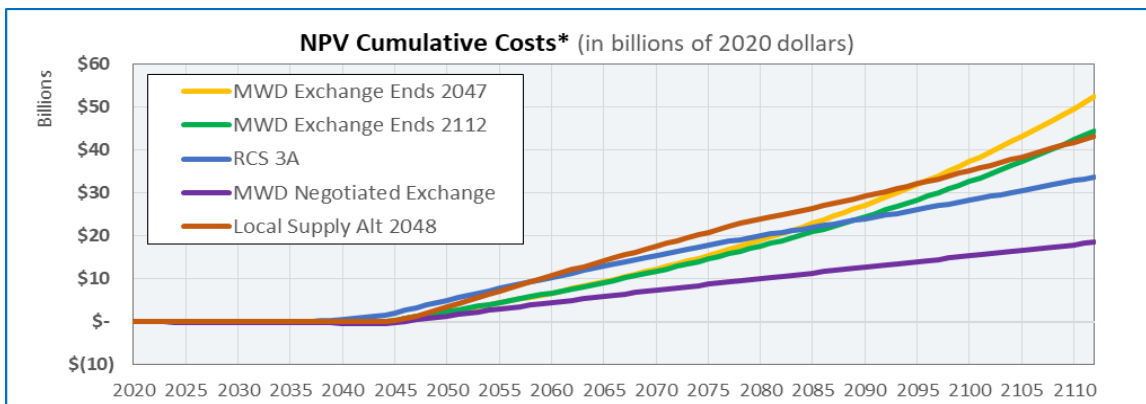


Other key data outputs listed in this section are:

- **Data windows above the chart** indicate the year of Crossover from net losses to net gains, and the year of breakeven, when upfront project investments are recouped.
- **Red / Black data windows below the chart** indicate the cumulative net draws and returns over the period of analysis.
- **Generational Cost Summary boxes below the chart** indicate the net cumulative NPV cost and benefits to each of three generations.

### Lower Section (Cumulative Cost Chart)

The lower section of the results area contains a chart displaying cumulative costs in 2020 dollars over time for each of the alternatives. This chart was included in the original model on another worksheet and moved to the dashboard by the IC. A screenshot of this section is shown below and reflects the model results when all of the Draft Study’s default inputs are applied.



## B.5. Instructions

- 1) **General -- Start with the Dashboard:** The **RCS Dashboard** worksheet provides summary cost and economic comparisons, and the ability to easily adjust most of the key input variables. Adjustable inputs are indicated by **orange cell shading**. Use these to test the sensitivity of results to changes in assumptions.
- 2) **Intermediate User Adjustments:** See the **Rate Forecasting** worksheet for additional user adjustments relative to the Negotiated Exchange, Local Water, and other options. The adjustments on this worksheet are generally less consequential than those on the Dashboard, but may be of interest to some users.

## B.6. Architecture

The Spreadsheet is structured into worksheets as follows. Additional notes and instructions are included in the main worksheets.

- **Hello:** Description, architecture, and general instructions
- **RCS Dashboard:** Main user-input and results summary page
- **Rate Forecasting:** Generates year-by-year costs for the non-RCS supply and transportation options
- **Cash Flows:** Generates the cash-flow analysis summarized on the Dashboard.
- **Other Worksheets:** The worksheets to the right of the Other Worksheets tab contain detailed cost estimates and cost scheduling data for each of the three RCS alignment alternatives. Only Alternative 3A, the least costly of the three, is used in the Dashboard.

## B.7. User Notes / Suggestions for Sensitivity Testing

We suggest new users experiment with the following sensitivity testing.

- **End Date for NPV Calculation:** The model opens at the default setting of 2112 as the end date for NPV calculation. Experiment with dialing down the end date in increments. Note the black bars truncate from right to left on the Red/Black chart, driving down RCS project benefits.
- **MWD Rate Escalation:** The model opens with MWD rates escalating at 5.1 percent per year for the full period of analysis. Experiment with timing-out the initial escalation rates, and with adjusting the initial rate for Exchange escalation downward to its 20-year average. Escalation rates can also be dialed up. This testing demonstrates the comparison of RCS results to MWD Exchange results to be highly sensitive to MWD rate escalation assumptions.
- **Local Supply Adjustments:** Adjust Local Supply unit costs on the dashboard. Also, experiment with alternative settings for QSA price escalation, perhaps setting this closer to MWD price escalation levels. This testing demonstrates the comparison of the Local Supply option to other options is sensitive to local supply unit costs and to QSA escalation rates.
- **Negotiated Exchange Option:** Experiment with alternative NPV end dates and MWD escalation rates to test the sensitivity of the Negotiated Exchange option to changes in these variables.

# REGIONAL CONVEYANCE SYSTEM ALIGNMENTS



SOURCE: San Diego County Water Authority



# Regional Colorado River Conveyance Feasibility Study Report of the **MAM Independent Consultant**



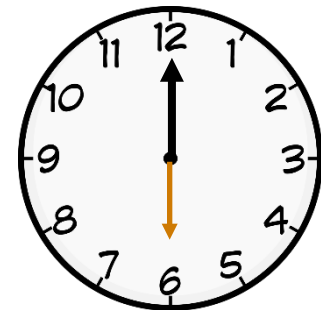
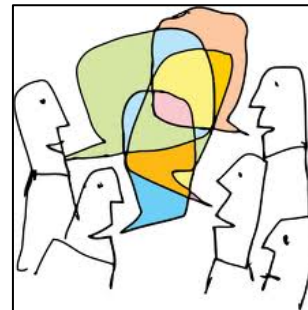
Presented to: Vista Irrigation District  
August 19, 2020



**G**ILLINGHAM WATER

# Agenda

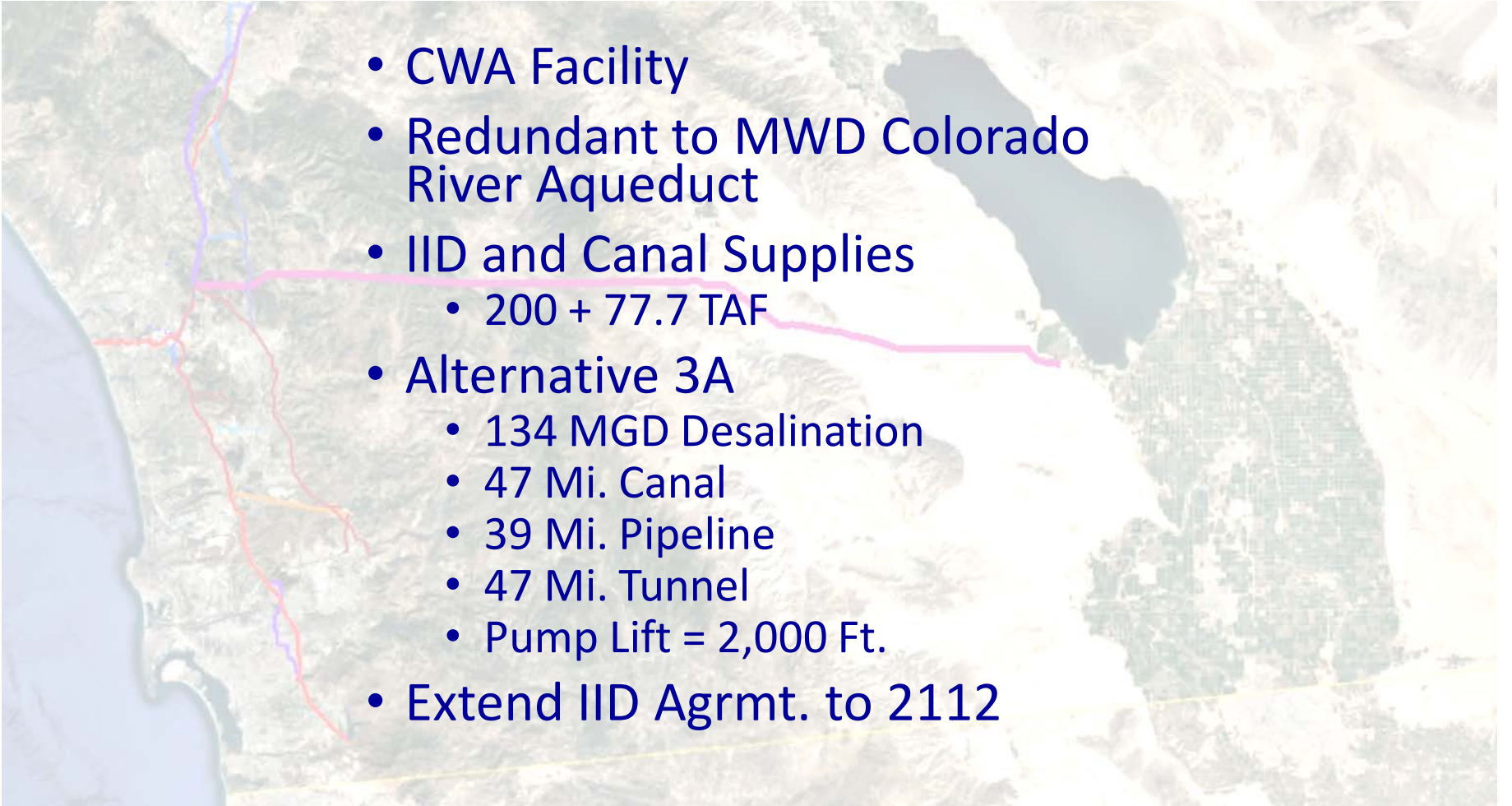
1. **INTRODUCTION / BACKGROUND / PROCESS** – Don MacFarlane
2. **RCS TECHNICAL REVIEW** – Don MacFarlane
3. **RCS ECONOMIC REVIEW** – Doug Gillingham
4. **NEGOTIATED EXCHANGE** – Doug Gillingham
5. **CONCLUSIONS AND RECOMMENDATIONS** – Don MacFarlane



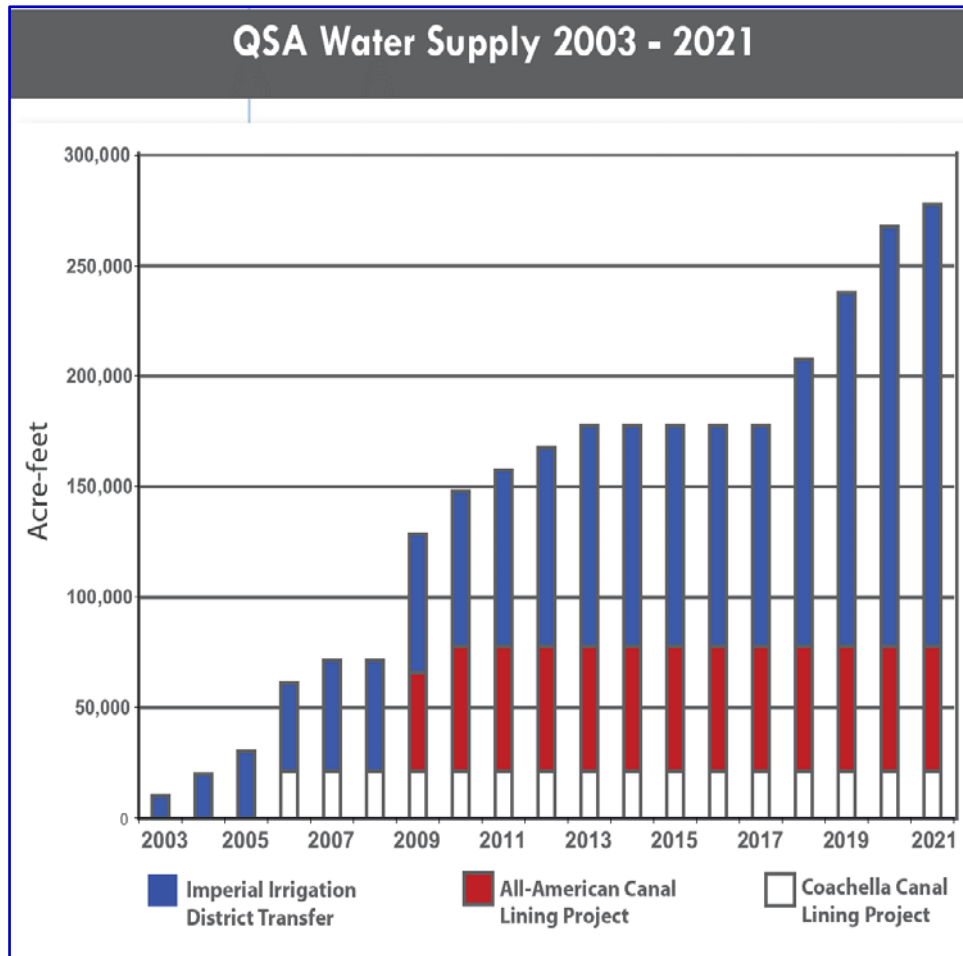
# Regional Conveyance System -- OVERVIEW



# Regional Conveyance System -- OVERVIEW

- 
- CWA Facility
  - Redundant to MWD Colorado River Aqueduct
  - IID and Canal Supplies
    - 200 + 77.7 TAF
  - Alternative 3A
    - 134 MGD Desalination
    - 47 Mi. Canal
    - 39 Mi. Pipeline
    - 47 Mi. Tunnel
    - Pump Lift = 2,000 Ft.
  - Extend IID Agrmt. to 2112

# SDCWA QSA Supplies and Key Dates



## Key Dates:

- **2035:** IID price becomes subject to new terms
- **2047:** IID agreement up for 30-yr extension through 2077
- **2047:** MWD Exchange Agreement expires year-end
- **2112:** End date for Canal Lining agreement

# Independent Consultant Review -- SCOPE



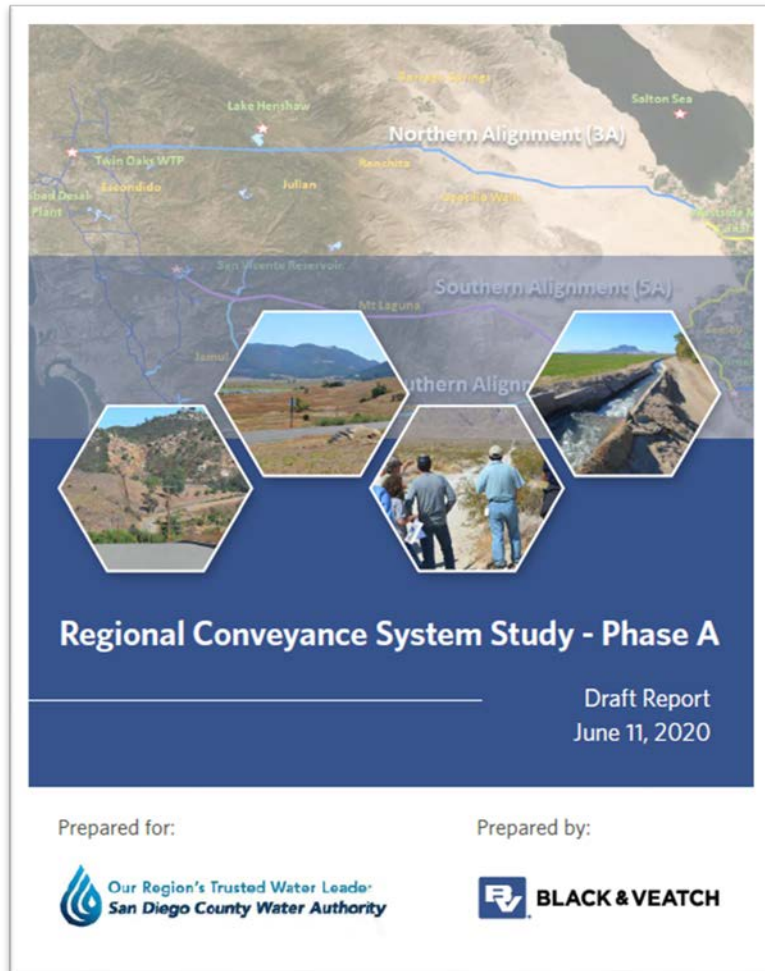
## Hired by 18 MAMs to:

- Review RCS Draft Study and related documents
  - Technical
  - Economic Analysis
  - Economic Model
- Coordinate with SDCWA staff / Open review process
- Provide analysis and recommendations for use by individual MAMs

## 2) Engineering and Cost Review



# Engineering and Cost Review



## June Engineering Reports - Reasonable Assessments

- Capital cost, except interest during construction and cost of funds
- Annual costs, repair and replacement may be low
- Main issue with economic analysis



# B&V and HPG Reports Provide Reasonable Cost Guidance

RCS 3A	BV Costs -- March	HPG	BV Costs -- June
Capital	\$4.2 B	\$5.3 B	<b>\$5.0 B</b>
Annual (OMRR)	\$130 M	\$130 M	<b>\$143 M</b>

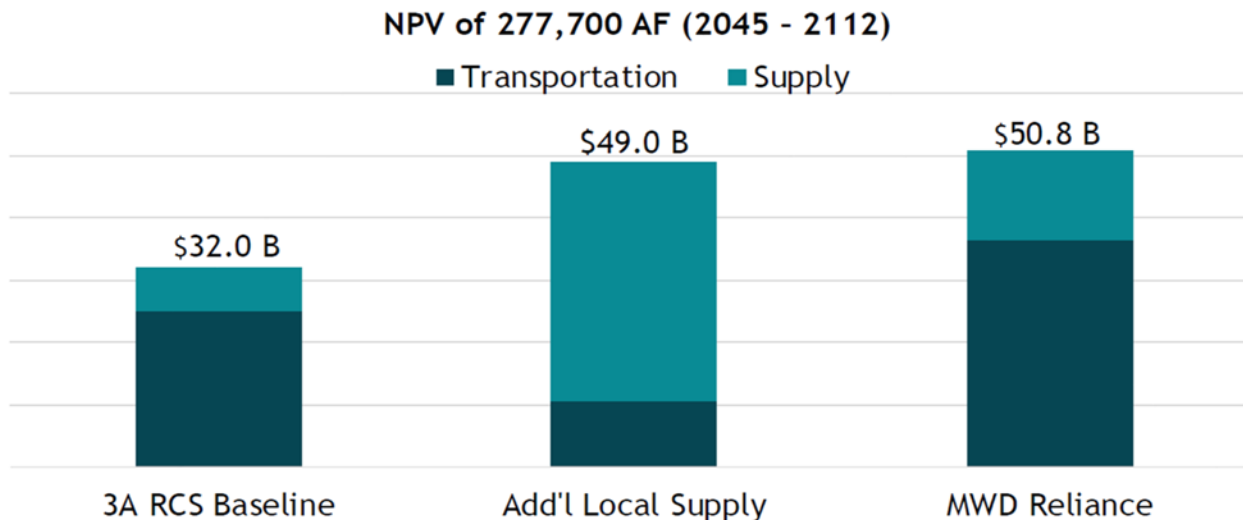
# 3) Economic Analysis Review



# Draft Study key economic findings

## Cost Comparison of Key Options

2020\$	Alternative 3A	Alternative 5A	Alternative 5C
Capital Cost	\$4.95 Billion	\$4.96 Billion	\$4.86 Billion
Annual Operations, Maintenance & Replacement Costs	\$143 Million	\$149 Million	\$258 Million



# Draft Study key economic findings

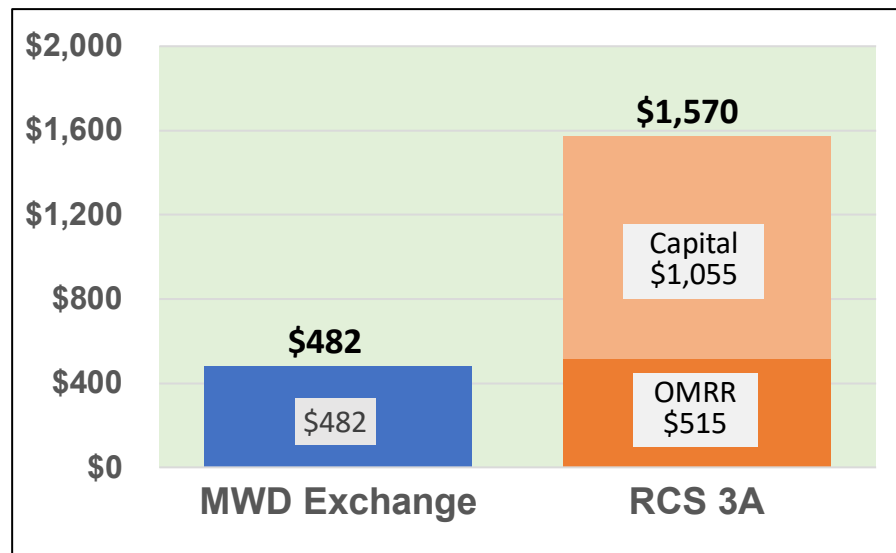
- NPV analysis spans 92 years
- MWD rates escalate significantly faster than all other costs, for the full 92-year period of analysis
- Water Authority demands will be sufficient to utilize the full QSA supply through 2112

## Economic Analysis Review:

# 1) RCS is not cost-competitive over standard periods of economic analysis.

## Typical First-Year Unit Cost Analysis (in PW 2020 Dollars):

- 1) Escalate to **Mid-Point** of Construction: \$5.0B → **\$5.8B**
- 2) Amortize (40 yrs, 4%): → **\$293M/yr**
- 3) Calculate Total Equivalent Annual Costs: + \$143M/yr = **\$436M/yr**
- 4) Divide by Yield for Unit Cost: ÷ 277,700 AF/yr = **\$1,570/AF**

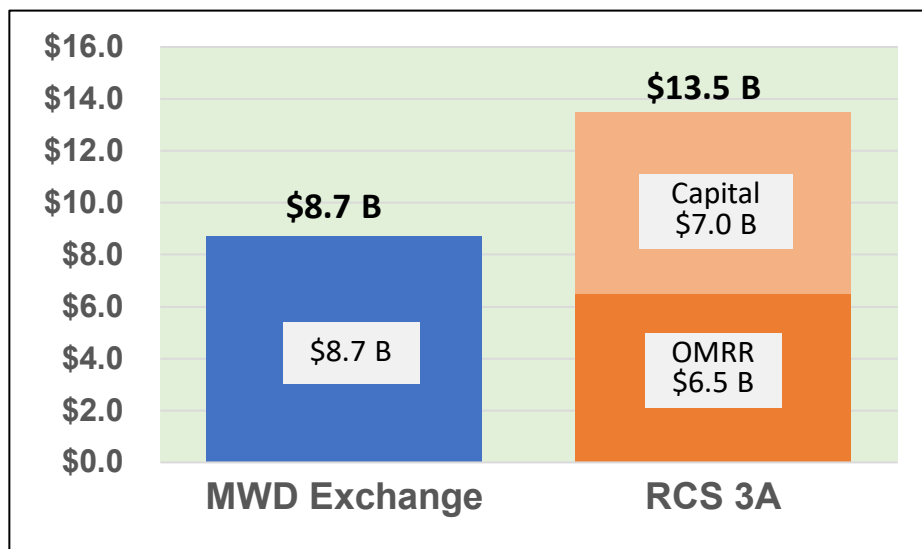


## Economic Analysis Review:

1) RCS is not cost-competitive over standard periods of economic analysis.

### Typical Forty-Year Cost Analysis (in PW 2020 Dollars):

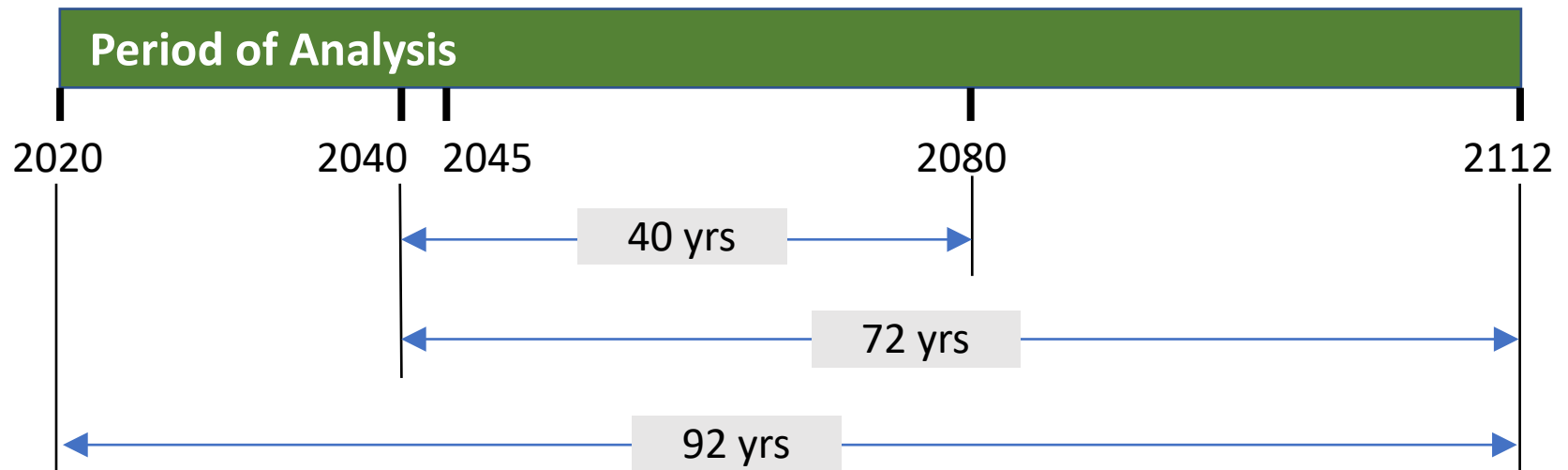
- MWD Exchange rates inflate at 5.1%/yr over 40 years
- RCS OMRR costs inflate at 3.7%/yr over 40 years
- RCS Capital financed at 4% over 40 years
- Forty years of costs brought back to PW at 3.0%/yr



## Economic Analysis Review:

### 1) RCS is not cost-competitive over standard periods of economic analysis.

- But the project is non-standard, and may warrant non-standard economic evaluation

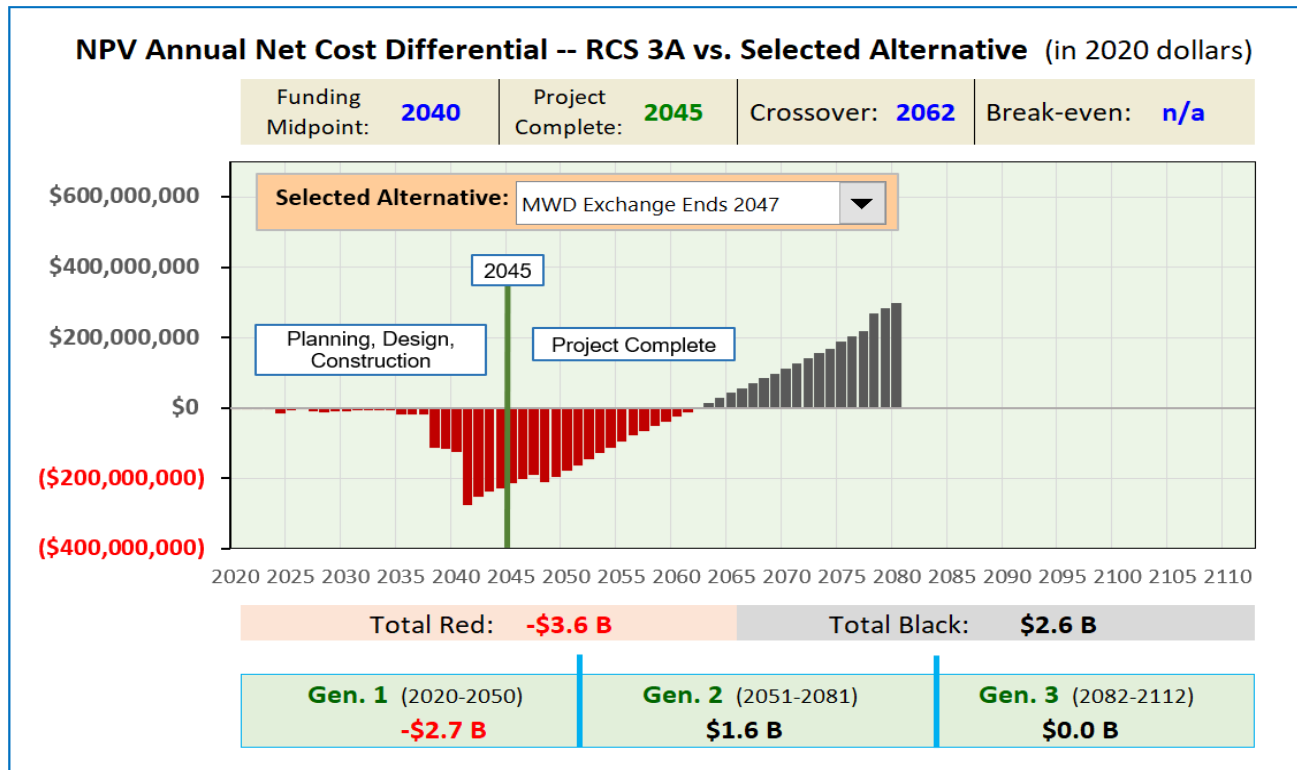


- extended period of analysis deserves consideration, but warrants explanation

## Economic Analysis Review:

# 2) An extended period of analysis entails generational transfers of costs and benefits.

- (All SDCWA defaults, except period of analysis ends 2080)

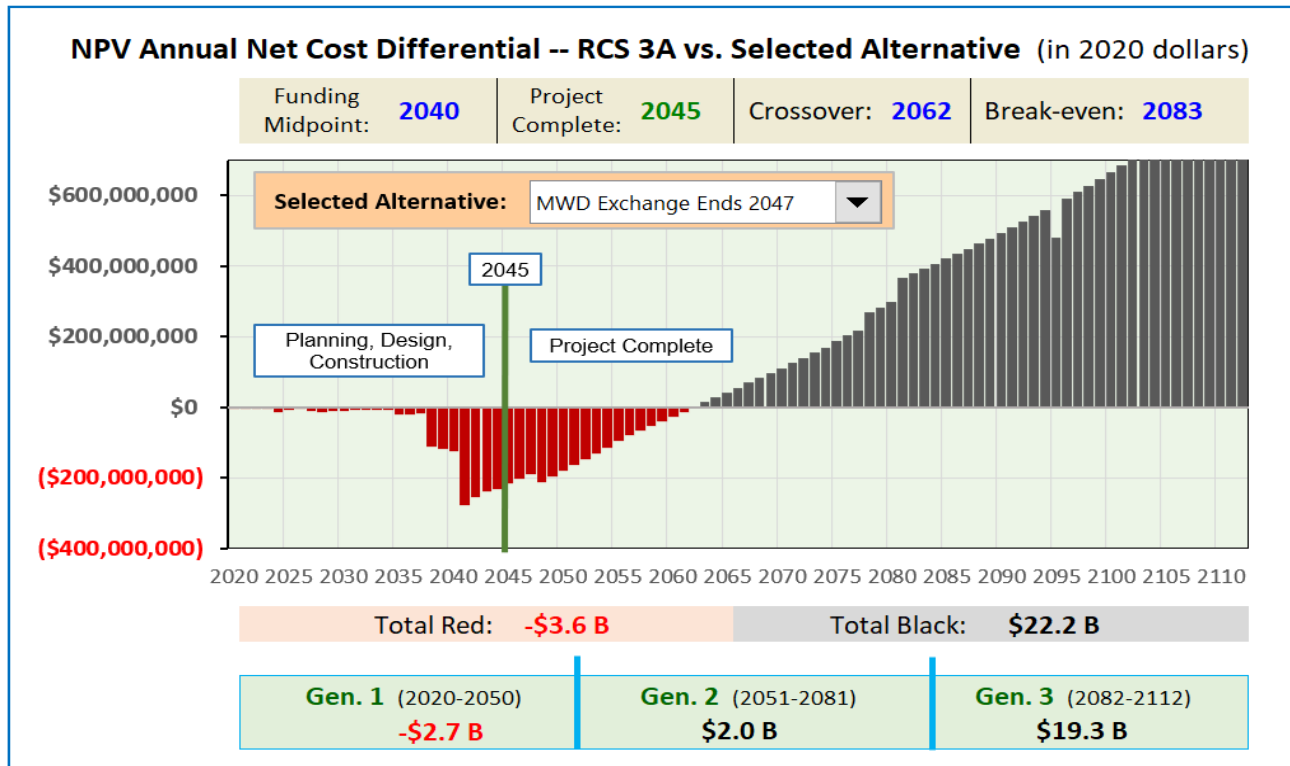




## Economic Analysis Review:

### 2) An extended period of analysis entails generational transfers of costs and benefits.

- (All SDCWA defaults; period of analysis ends 2112)



- This is a policy matter, informed by objective analysis.

Economic Analysis Review:

**3) SDCWA's assumptions of MWD price escalation are highly implausible. (5.1%/yr ongoing, 3.0% discount rate)**

**The New York Times**

*Lake Mead Could Be Within a Few Years of Going Dry, Study Finds*

By Felicity Barringer

Feb. 13, 2008



Lake Mead, the vast reservoir for the Colorado River water that sustains the fast-growing cities of Phoenix and Las Vegas, could lose water faster than previously thought and run dry within 13 years, according to a new study by scientists at the Scripps Institution of Oceanography.

The lake, located in Nevada and Arizona, has a 50 percent chance of becoming unusable by 2021, the scientists say, if the demand for water remains unchanged and if human-induced climate change

Economic Analysis Review:

3) SDCWA's assumptions of MWD price escalation are highly implausible. (5.1%/yr ongoing, 3.0% discount rate)

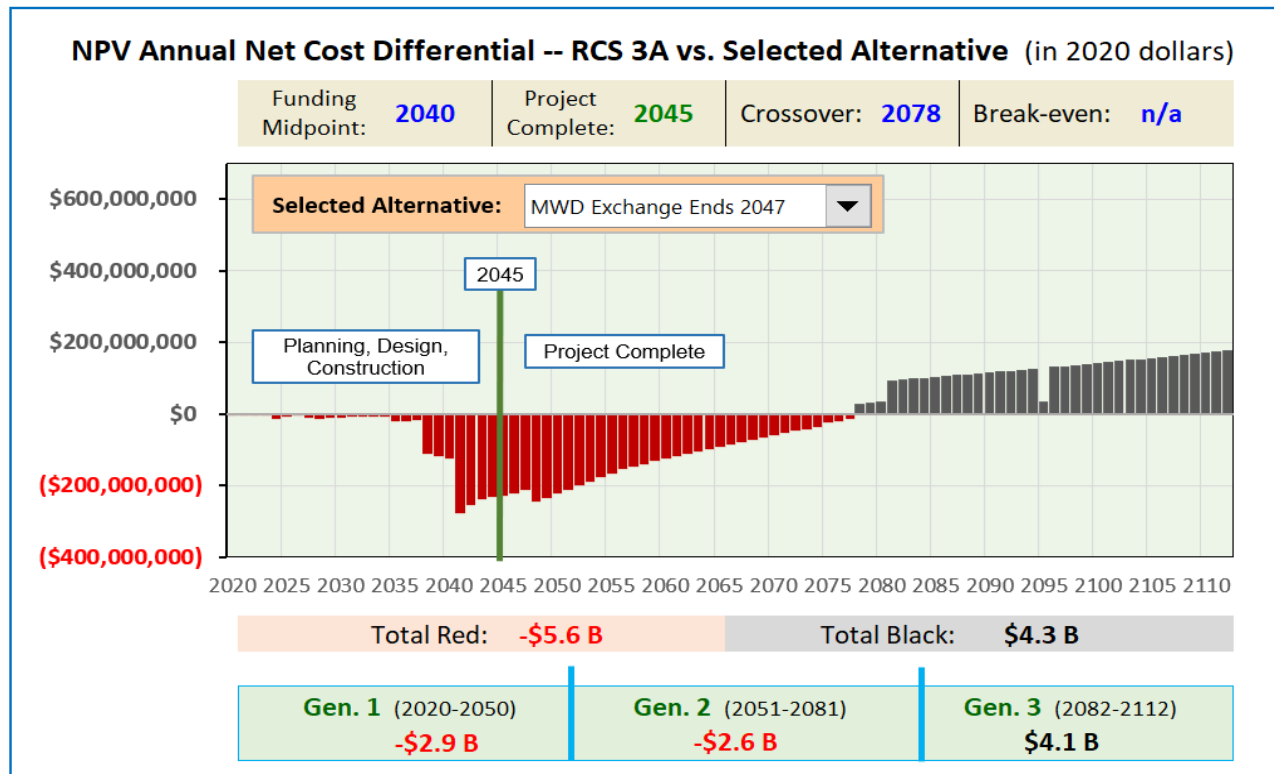
NPV in 2020 dollars	2020	2045	2085	2112
Pure Water (example)	\$2,300/AF	\$2,400/AF	\$2,700/AF	\$2,900/AF
MWD Tier 1 Raw All-In	\$840/AF	\$1,400/AF	\$3,100/AF	\$5,400/AF

- Escalation rates have limits; systems adapt and adjust to unsustainable forecasts.

## Economic Analysis Review:

### 3) SDCWA's assumptions of MWD price escalation are highly implausible. (5.1%/yr ongoing, 3.0% discount rate)

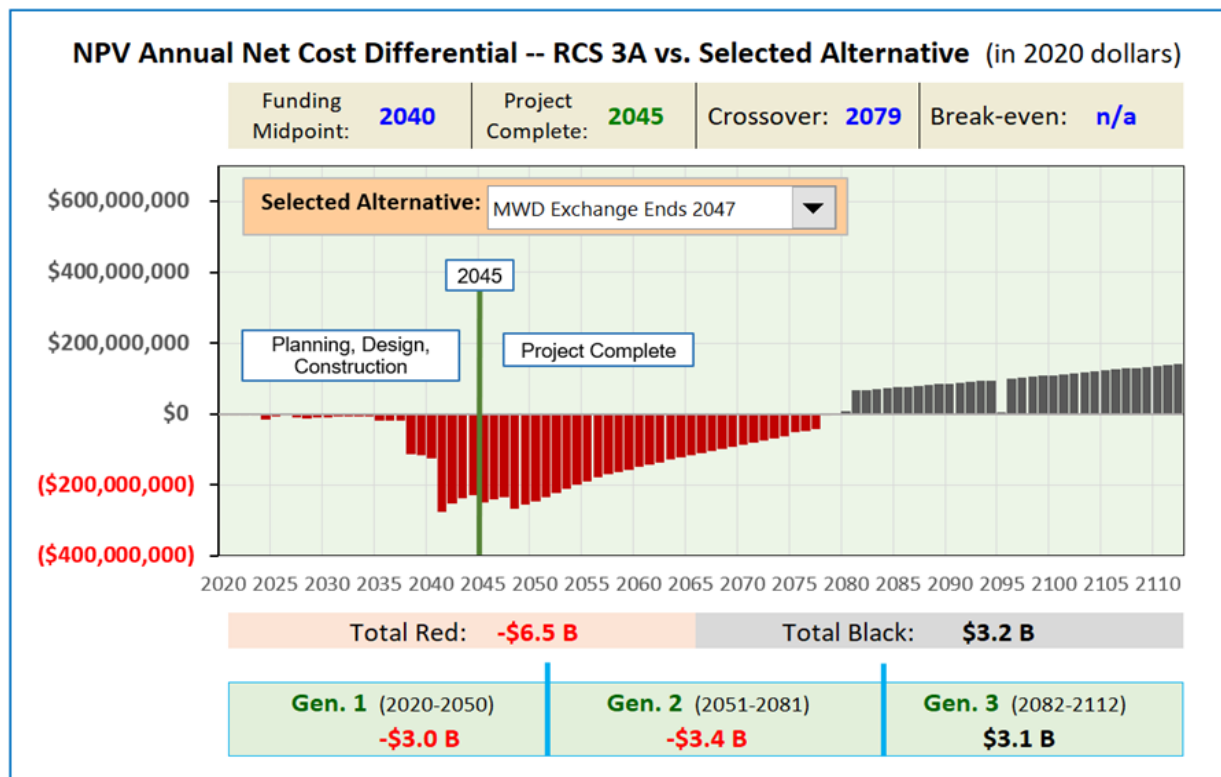
- Lesser escalation rates quickly move RCS from black to red. (Escalation declines after 20 yrs to 3.7%)



## Economic Analysis Review:

### 3) SDCWA's assumptions of MWD price escalation are highly implausible. (5.1%/yr ongoing, 3.0% discount rate)

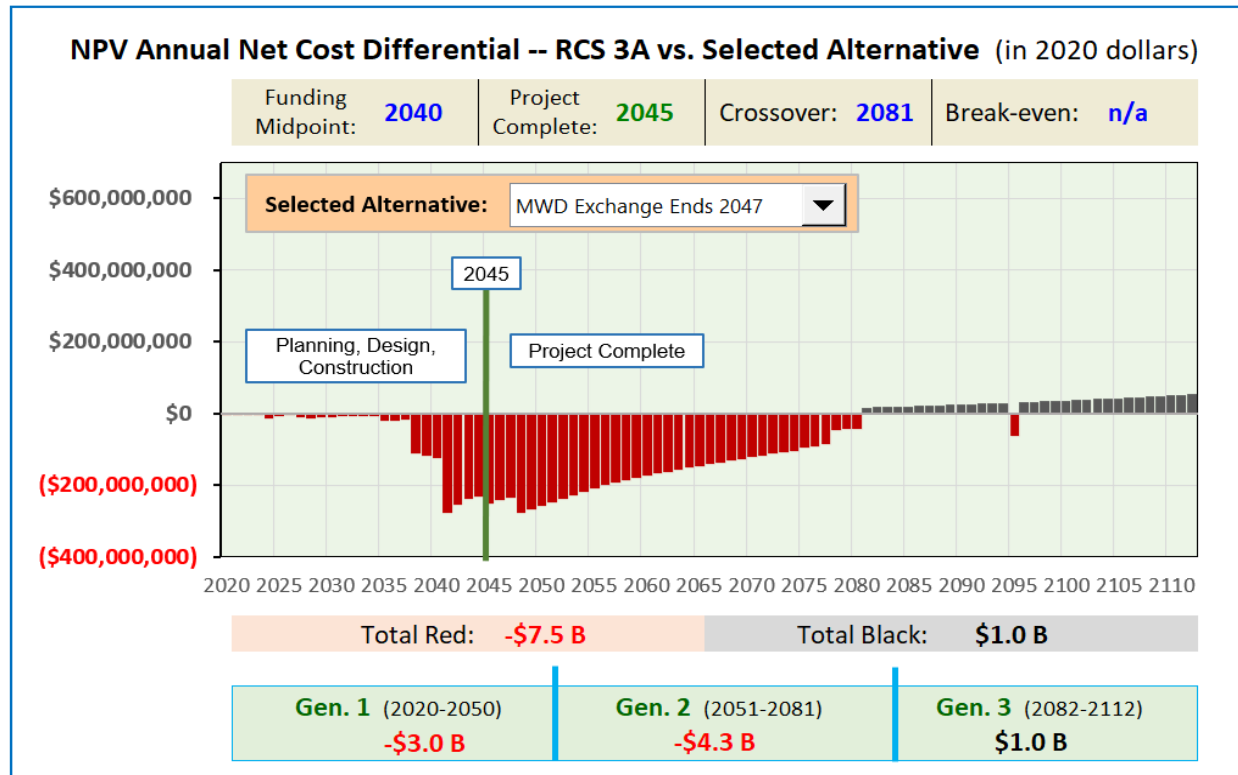
- Lesser escalation rates quickly move RCS from black to red. (Escalation declines after 20 yrs to 3.7%, **AND** initial Exchange Rate escalation set at 20-yr avg. of 4.5%/yr)



## Economic Analysis Review:

### 4) IID price escalation assumptions also warrant review. (2.5%/yr ongoing, 3.0% discount rate)

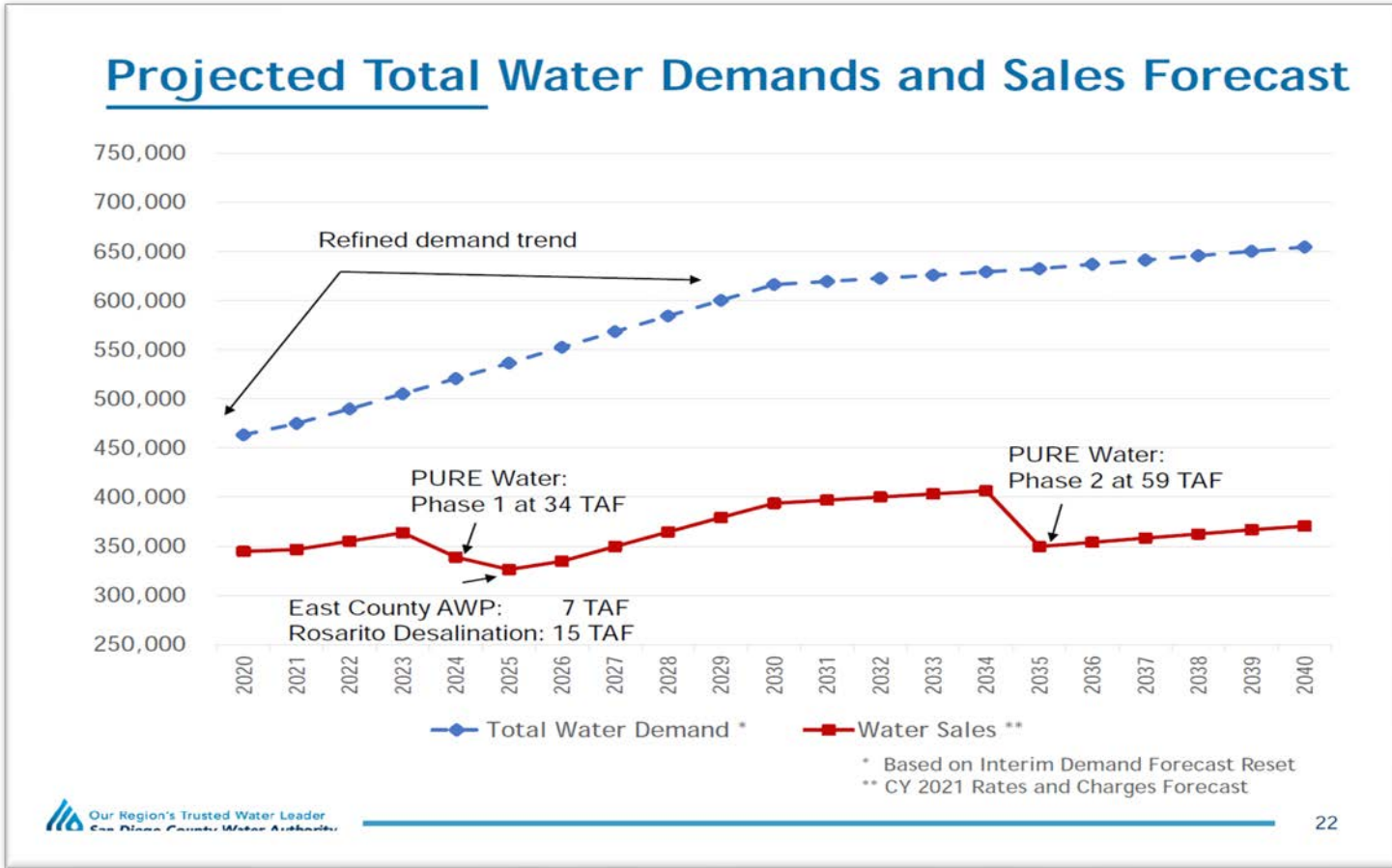
- Adjust IID escalation rate to 1.9% through 2034, thereafter 3.5%/yr
- Initial MWD escalation at 5.1% Tier 1, 4.5% Exchange, both declining to 3.7% after 20 years
- All other inputs at SDCWA default values



The IC rates this set of assumptions the most reasonable for project planning.

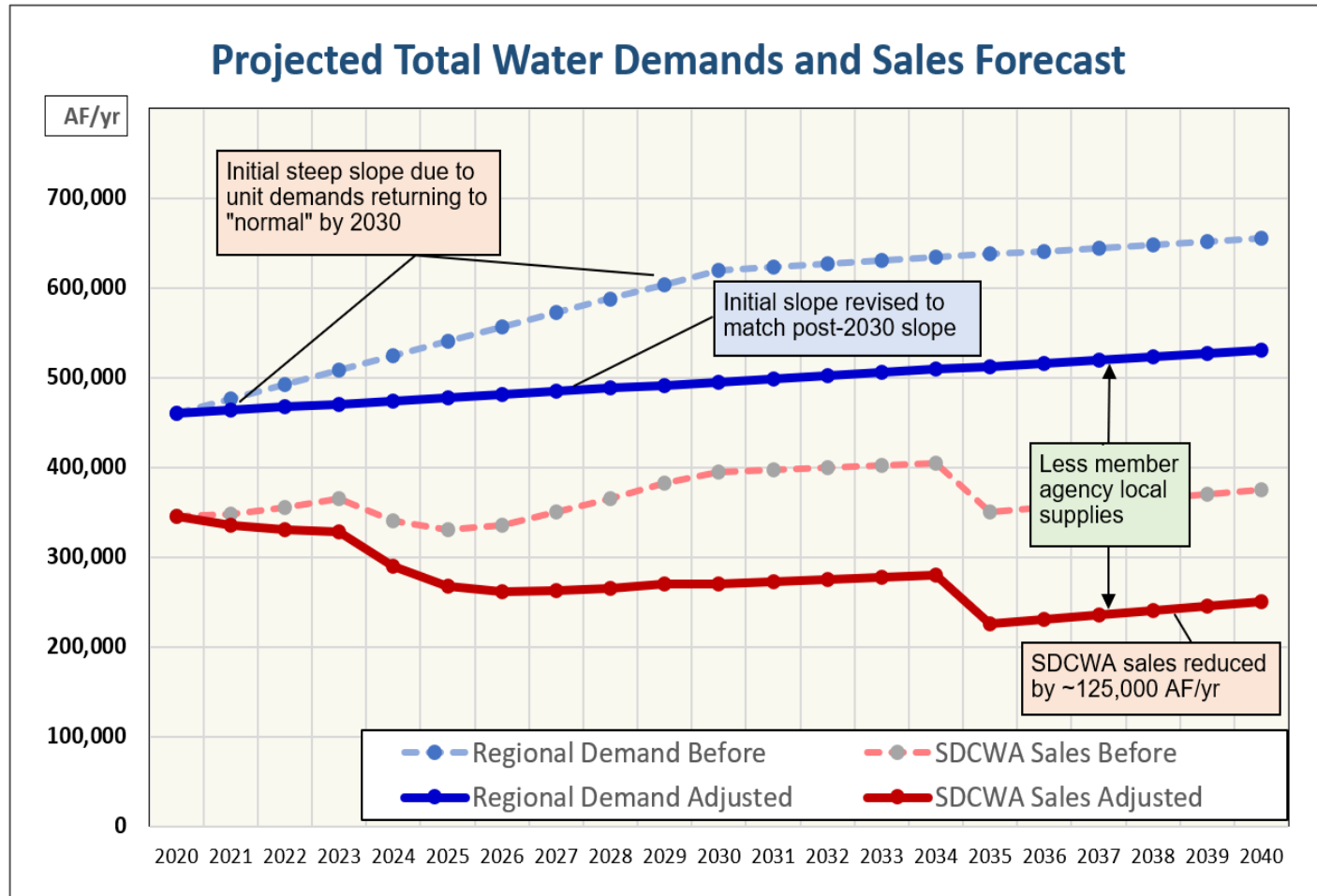
Economic Analysis Review:

# 5) Demand Risk appears significant.



# Economic Analysis Review:

## 4) Demand Risk appears significant.





# 3) Negotiated Exchange



1913=100	INDEX VALUE	MONTH	YEAR
<b>CONSTRUCTION COST</b>	11439.11	0.0%	<b>+1.3%</b>
<b>COMMON LABOR</b>	23965.12	0.0%	<b>+0.6%</b>
<b>WAGE \$/HR.</b>	46.04	0.0%	<b>+0.6%</b>

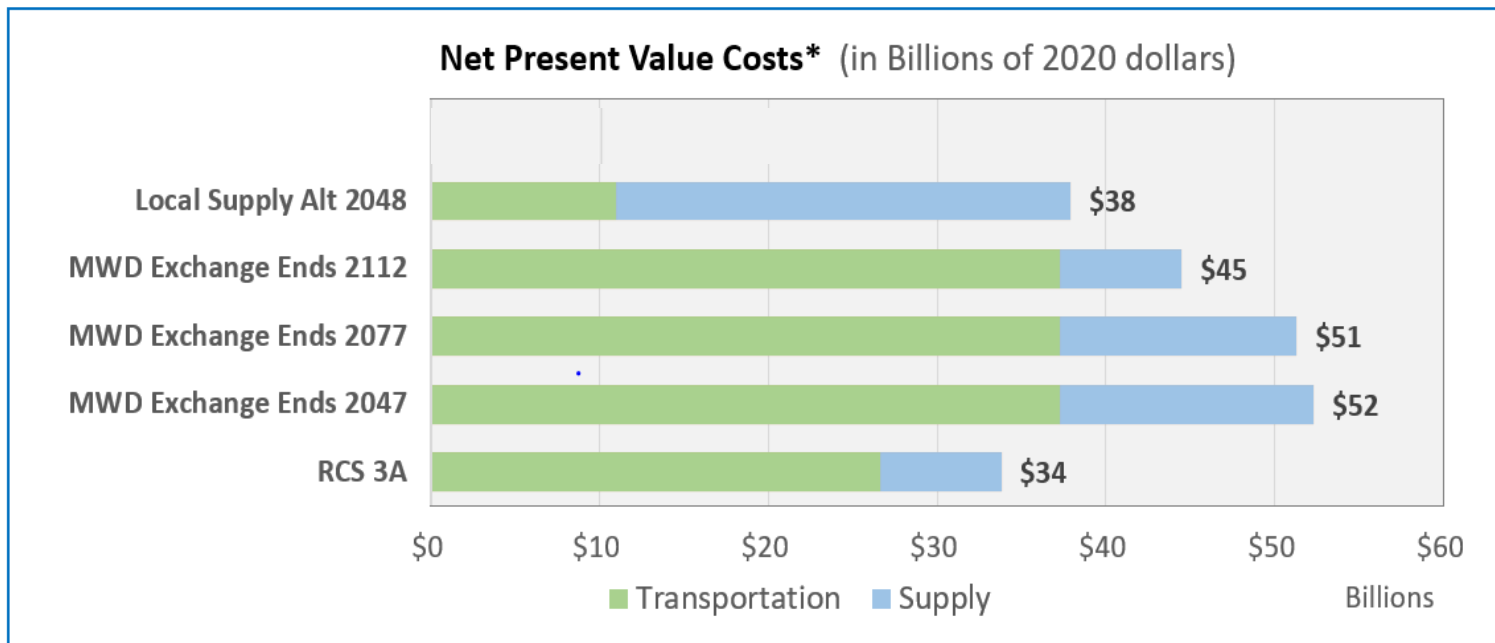
**Construction Cost Index**  
ANNUAL INFLATION RATE  
**+1.3%**  
JULY 2020

20-yr avg.  
= 3.2%/yr

## Negotiated Exchange:

# A Negotiated Exchange option appears to offer economic advantage.

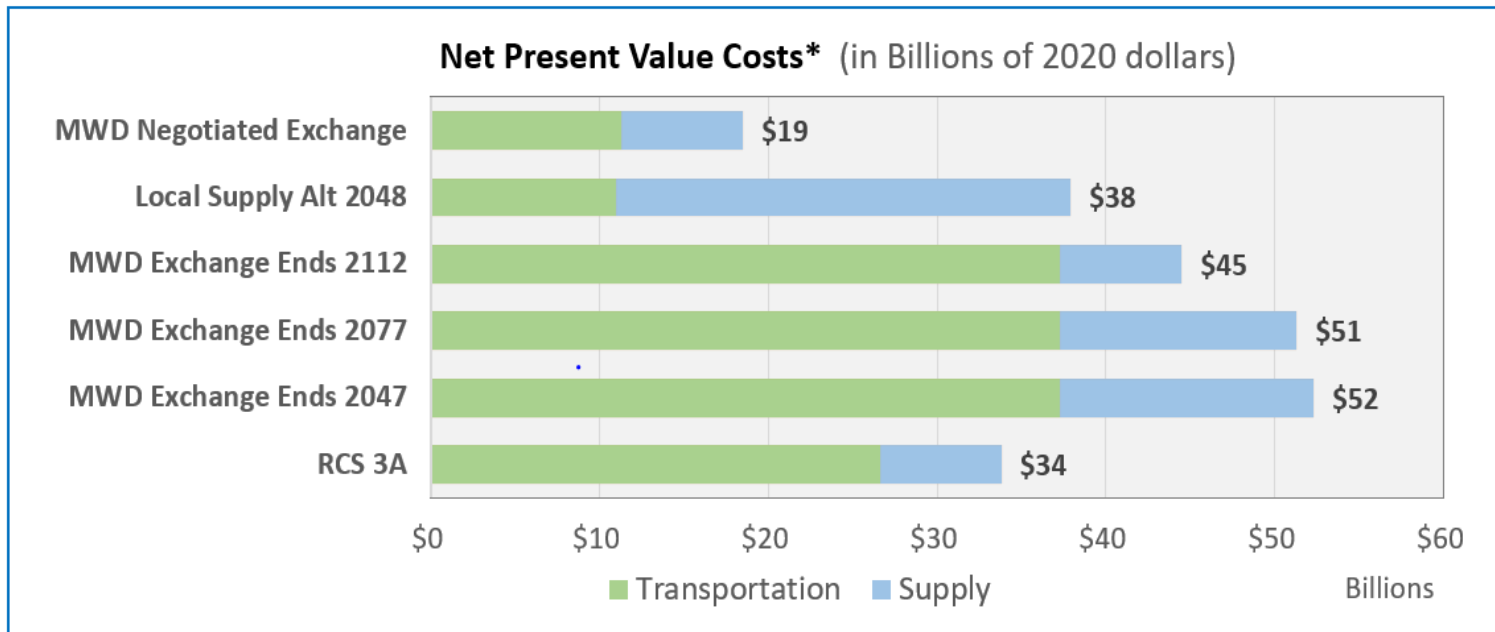
- Negotiated Exchange MWD escalation set at ENR 20-yr average of 3.2%
- All other inputs set at SDCWA default values



## Negotiated Exchange:

# A Negotiated Exchange option appears to offer economic advantage.

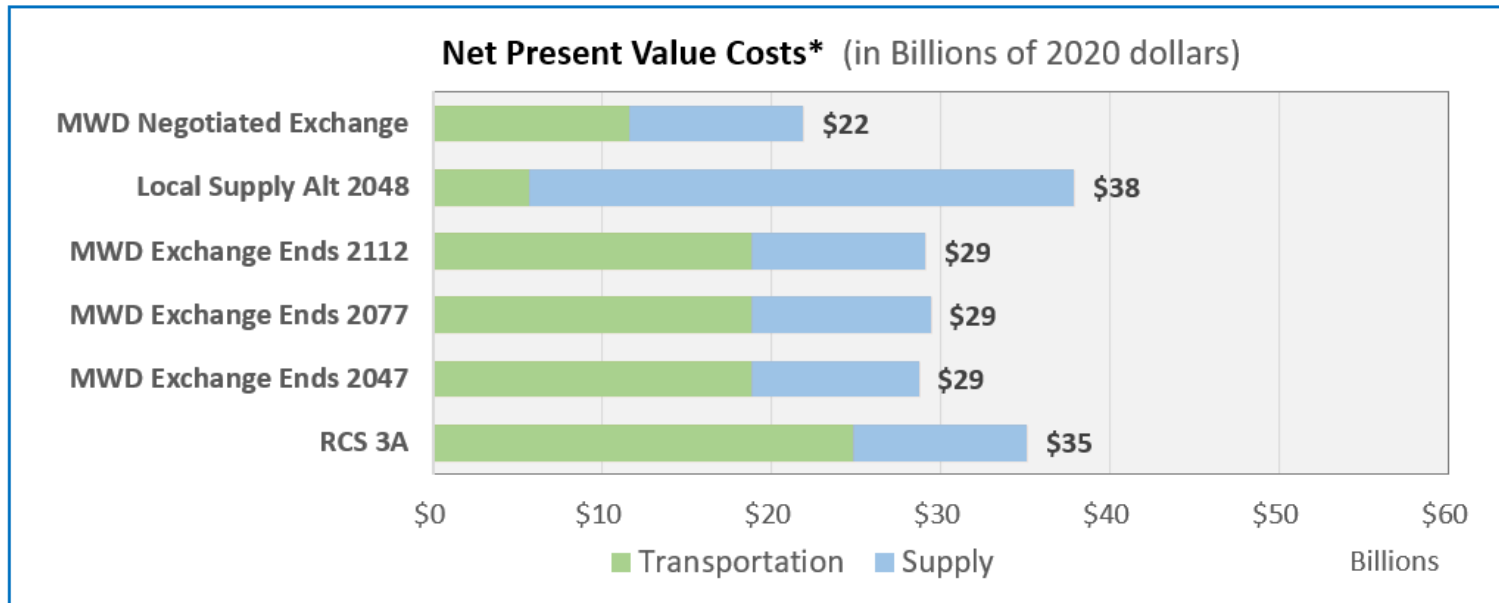
- Negotiated Exchange MWD escalation set at ENR 20-yr average of 3.2%
- All other inputs set at SDCWA default values



## Negotiated Exchange:

# A Negotiated Exchange option appears to offer economic advantage.

- Negotiated Exchange MWD escalation set at ENR 20-yr average of 3.2%
- Initial MWD escalation at 5.1% Tier 1, 4.5% Exchange, both declining to 3.7% after 20 years; IID initial escalation at 1.9% through 2034, then 3.5%
- All other inputs set at SDCWA default values



## 4) Conclusions and Recommendations



# Conclusions

- 1) The Draft Study's finding of RCS technical feasibility appears reasonable, as does its estimate of project costs.
- 2) The Draft Study's finding that the project is economically competitive with other supply and transportation options is not reasonable. We find the project to be substantially more costly than other options. Specifically:
  - The project is not cost-effective when evaluated using reasonable assumptions of MWD price escalation.
  - There is significant risk of long-term Water Authority sales being insufficient to utilize the project's planned capacity.
- 3) A Negotiated Exchange option appears to offer economic advantage.

# Recommendation

## 1) Refocus long-term QSA supply planning.

- The technical and economic feasibility of the RCS have now been advanced to reasonable levels of planning certainty.
- It appears the larger QSA planning uncertainties facing the Water Authority now revolve around the extension of the IID Supply and MWD Exchange agreements, the opportunity for a Negotiated Exchange agreement, and the consequences of long-term Water Authority sales declines.
- Accordingly, it appears budgets and staffing schedules set aside for RCS investigations could be applied more productively to refining those more consequential planning uncertainties.

# Q&A







**San Diego County  
Water Authority**

Our Region's Trusted  
Water Leader

# Regional Conveyance System Study Update

Vista Irrigation District Board  
August 19, 2020

Dan Denham  
Deputy General Manager

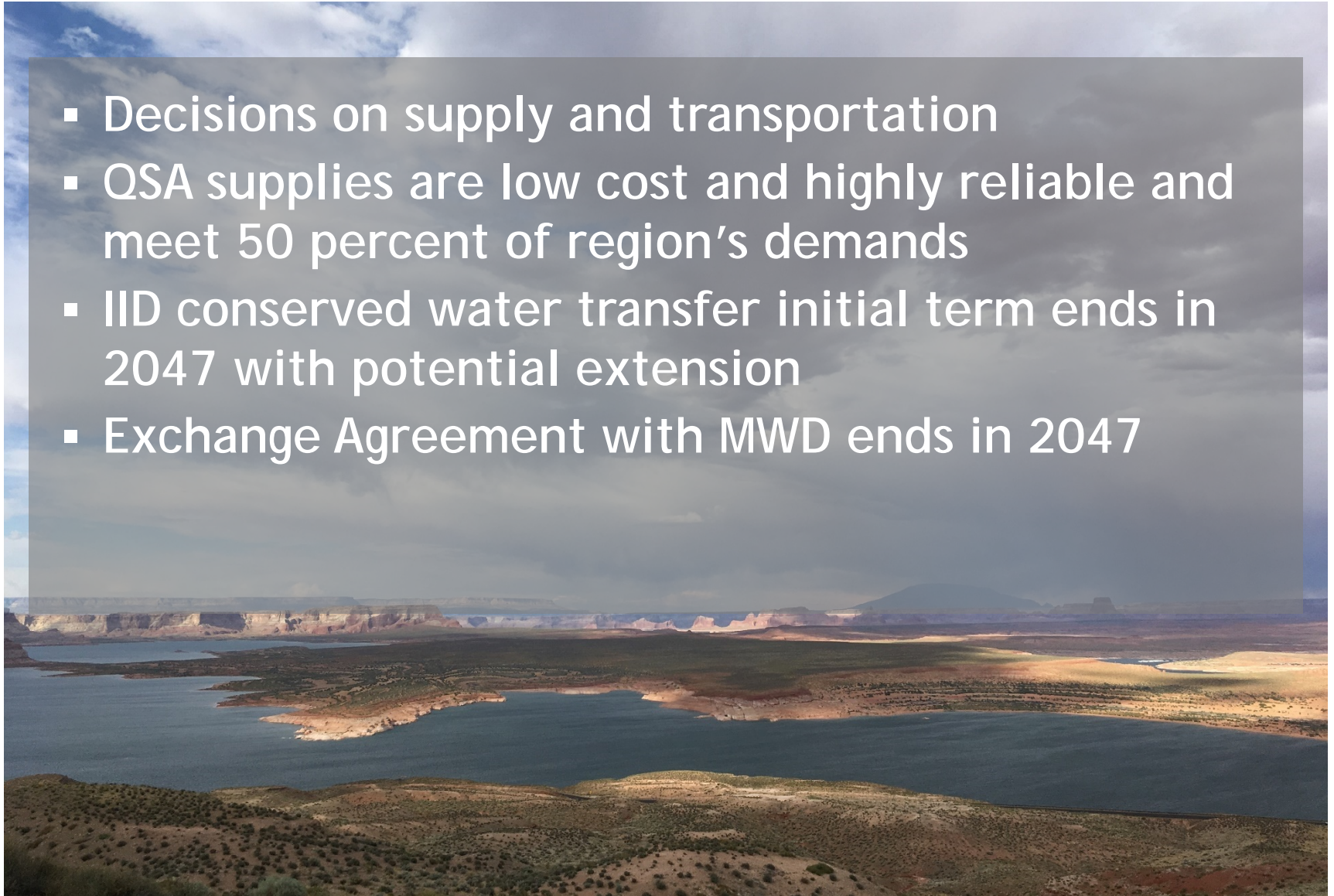
# Overview

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- Provide refresher on key drivers for study
- Provide update on Phase A key results
- Describe Phase B scope of work
- Answer questions and discuss next steps

# Why Study Regional Conveyance?

- Decisions on supply and transportation
- QSA supplies are low cost and highly reliable and meet 50 percent of region's demands
- IID conserved water transfer initial term ends in 2047 with potential extension
- Exchange Agreement with MWD ends in 2047



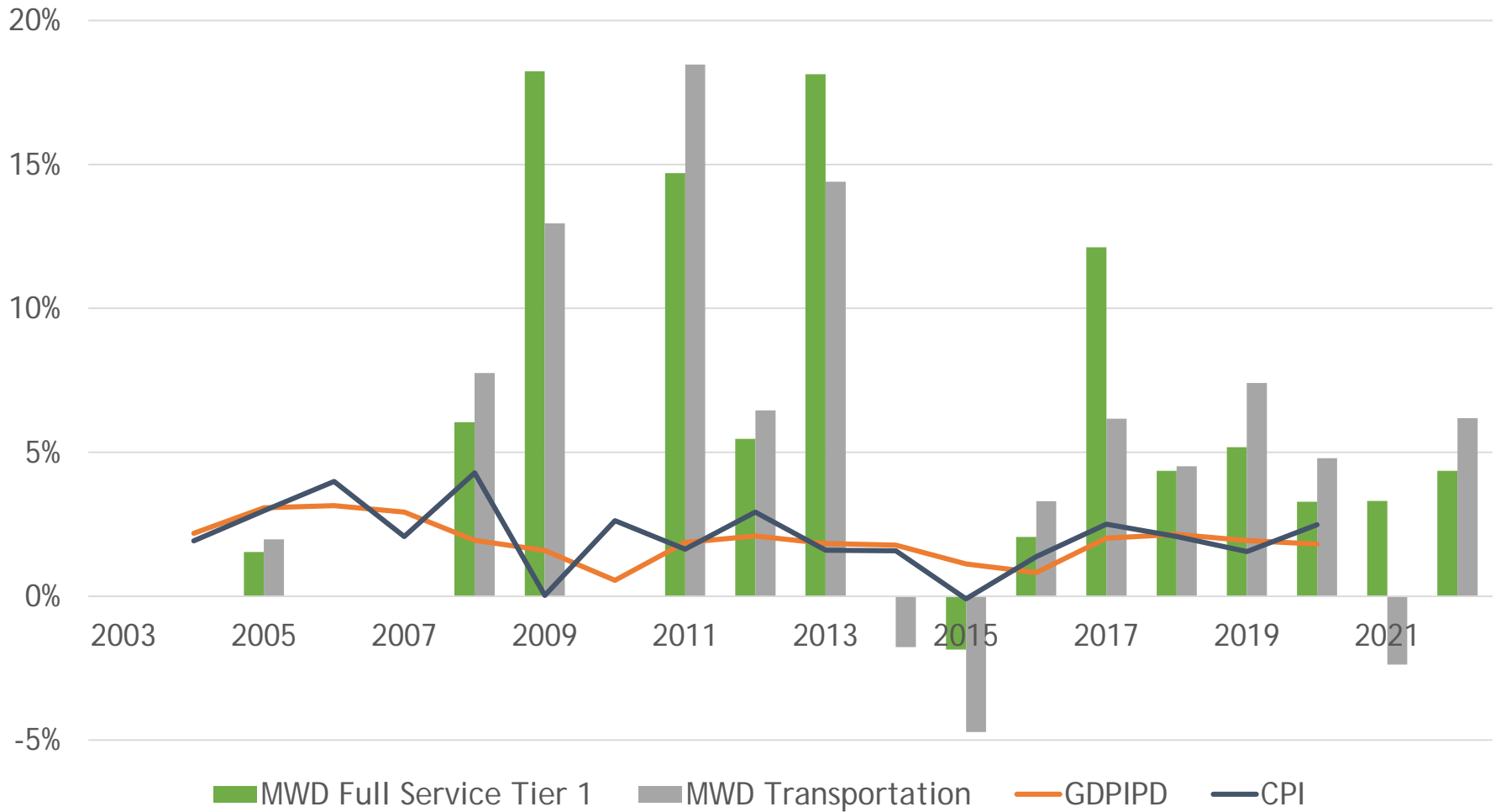
# Why study it now?

- Decisions made in the mid 2020s will serve as a proxy for the next 50 years
- A delay in the study would forgo significant options for the region
- The Law of the River and the QSA contracts provide perspective as to why incremental and informed decision




# Comparison to Inflation

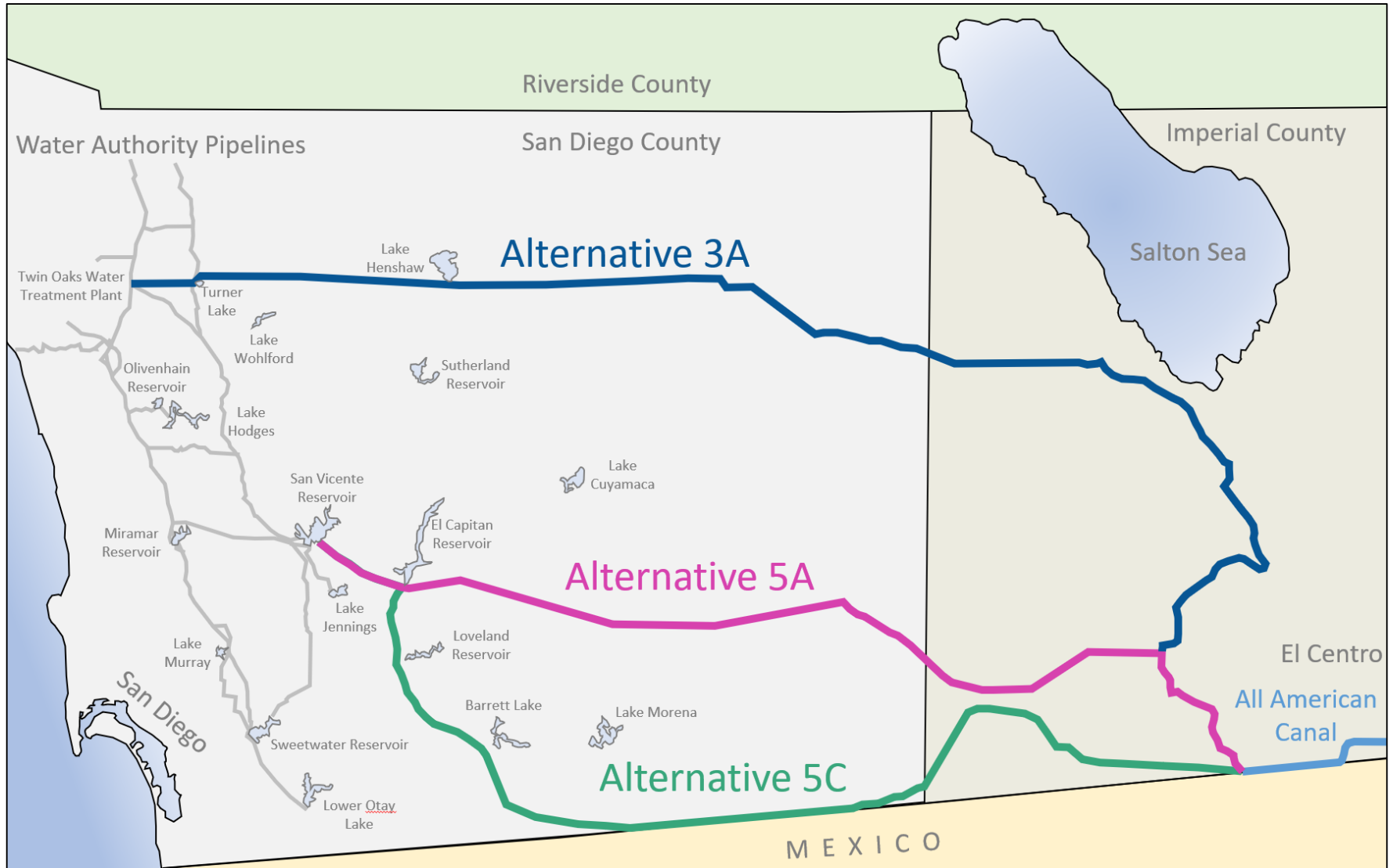
MWD 5.1% | MWD Transportation 4.5% | GDPIPD 1.9% | CPI 2.1%



# Current Two-Phase Study

- 
- Incremental approach directed by Board
  - Includes input from member agencies
  - Offers several offramps
  - Assesses potential fatal flaws
  - Identifies potential partnerships
  - Refines cost projections
  - Conservative financial assessments
  - Phase A focused on engineering and cost

# Three Routes Studied in Phase A



# Phase A Objectives

- Evaluate conceptual routes - in feasibility study stage, nothing designed - great deal of flexibility
- Bring northern Alternative 3A up to the same level as 5A and 5C, the two southern alternatives
- Determine any technical or financial fatal flaws
- Screen three alignments down to two
- Perform high-level assessment of potential partnership opportunities that could bring regional benefits
  - Partnerships not included in baseline assessment



# Key Takeaways from Phase A

- QSA water is necessary for the San Diego region
- All three RCS alternatives are technically viable
- 3A and 5A are economically competitive
- 5C is not economically competitive and is not recommended for further study
- 3A and 5A could be integrated without major changes to current Water Authority operations
- Phase B is recommended to retain the RCS as a viable option

# Purpose - Start High and Refine

- In alignment with Initial Screening, to identify high-level cost effectiveness of each RCS Alternative
- RCS economics can't be reviewed in a vacuum
  - Must also include supply side analysis
- As such, provide Initial Comparison to MWD
  - Exchange and Full Service
  - Later added Additional Local Supplies
- Conservative baseline, Water Authority Only, funding and cost assumptions
  - Set the ceiling then refine in future phases

# Economic Analysis Approach

- Phase A analysis, in alignment with Initial Screening, to identify high-level cost effectiveness
- NPV analysis is a form of intrinsic valuation and is used extensively for determining the value anything that involves cash flow
- NPV Analysis set to match ending of Canal Lining Term and better match RCS useful life
- As originally scoped, NPV analysis and sensitivity will be fully analyzed and refined as part of Phase B

# Cost Comparison of Key Options

2020\$	Alternative 3A	Alternative 5A	Alternative 5C
Capital Cost	\$4.95 Billion	\$4.96 Billion	\$4.86 Billion
Annual Operations, Maintenance & Replacement Costs	\$143 Million	\$149 Million	\$258 Million

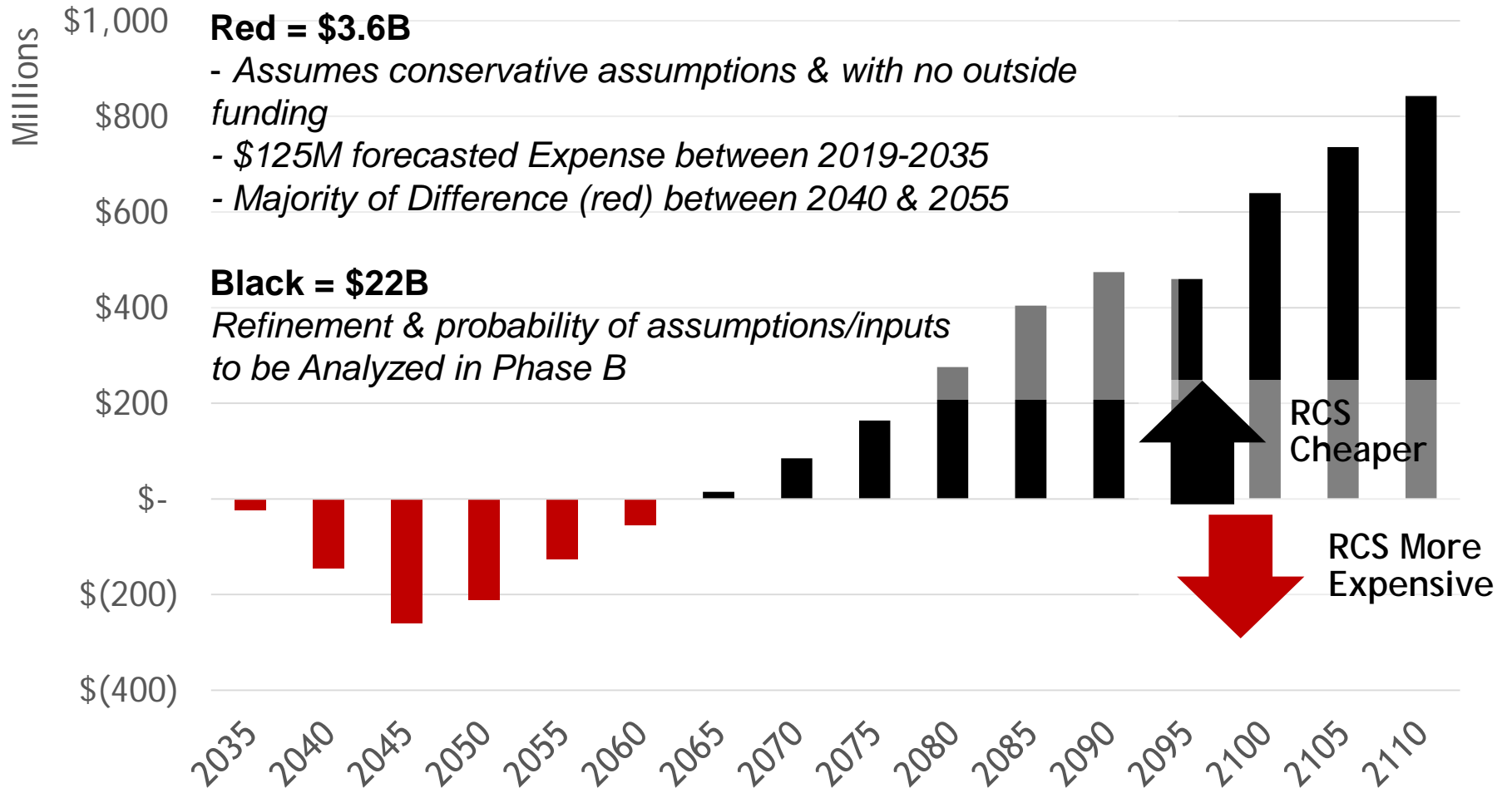
NPV of 277,700 AF (2045 - 2112)

■ Transportation ■ Supply




# RCS Baseline Analysis Illustrates Significant Opportunity

RCS Baseline vs MWD Reliance (2047)



# Phase B - Focus on Partnerships, Economics

- 
- Recommendation to Water Authority Board on Phase B - August 27
  - Stakeholder outreach
  - Economic sensitivity and probability assessments
  - Partnership analysis and development

# Questions

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## STAFF REPORT

Agenda Item: 8

**Board Meeting Date:** August 19, 2020  
**Prepared By:** Lisa Soto  
**Approved By:** Brett Hodgkiss

**SUBJECT:** CALIFORNIA SPECIAL DISTRICTS ASSOCIATION COMMITTEE AND EXPERT FEEDBACK TEAM NOMINATIONS FOR 2021

**RECOMMENDATION:** Consider nominations to the California Special Districts Association's (CSDA) committees and expert feedback teams for 2021.

**PRIOR BOARD ACTION:**

8/21/19 Nominated Director MacKenzie to the Legislative and the Member Services Committees; Director Sanchez to the Professional Development Committee; Marlene Kelleher to the Fiscal Committee and the Revenue Expert Feedback Team; Phil Zamora to the Human Resource and Personnel Expert Feedback Teams; and David Cosgrove to the Expert Feedback Teams for Legal, Environment, and Public Works and Facilities.

**FISCAL IMPACT:** Undetermined amount for expenses, should Vista Irrigation District directors or staff be appointed to CSDA Committees.

**SUMMARY:** CSDA is soliciting nominations for Committee and Expert Feedback Team participation for 2021. CSDA has indicated that it needs active participants who are able to expend the time to provide their expertise in directing the organization's activities and policies. Committee and Expert Feedback Team participation is open to both Board and staff members. Director MacKenzie currently serves on the CSDA Board of Directors as Past President and on the Legislative and the Membership Services Committees. Director of Administration Marlene Kelleher serves on the Fiscal Committee and on the Revenue Expert Feedback Team. Human Resources Manager Phil Zamora serves on the Human Resource and Personnel Expert Feedback Team. General Counsel David Cosgrove serves on the Legal, Environment, and Public Works and Facilities Expert Feedback Teams.

**DETAILED REPORT:** See the attached CSDA memorandum, "Get Involved" participation overview and Committee descriptions for more detailed information. Nominations for Committee and Expert Feedback Team appointments must be submitted on-line no later than Friday, October 9, 2020. Selected participants will be notified by the end of November 2020; Committee participation will begin in January 2021.

Nominations will be considered for the following Committees:

- Audit
- Professional Development
- Elections and Bylaws
- Fiscal
- Member Services
- Legislative (space is limited)
  - *Alternative Option: Legislative Distribution List (no meetings required)*



The “Expert Feedback Team” members will be asked for input when input is needed on a particular policy matter. Team members will only be called upon to reply by e-mail with their thoughts, opinions and experiences. There will be no requirement to travel.

Expert Feedback Teams include:

- Environment
- Formation and Reorganization
- Governance
- Human Resources and Personnel
- Legal
- Public Works and Facilities
- Revenue

ATTACHMENTS:

- 2021 CSDA Committee & Expert Feedback Team Participation
- “Get Involved” participation overview
- CSDA Committees descriptions

## 2021 CSDA Committee & Expert Feedback Team Participation

**2021 committee interest forms can be submitted [ONLINE](#) at [CSDA.net](#)!**

CSDA's strength and effectiveness as an organization is directly related to our ability to involve members in the work of the association. Special districts board members and staff, as well as business affiliates bring tremendous talents and energy to CSDA and to the issues that concern special districts in California.

With this in mind, we are asking for volunteers to participate and contribute on one or more of our committees and/or expert feedback teams to assist in shaping CSDA. **If you or any others from your district or company would like to get involved with CSDA, please go to our [Get Involved page](#) at [CSDA.net](#) to view a complete list of committees and expectations for committee member service.**

**Committees** need dedicated participants who can expend the time to provide their expertise in directing the activities and policies of CSDA. *CSDA does not reimburse for committee related travel expenses.*

**Expert Feedback Teams** provide input to CSDA advocacy staff on specific areas of public policy facing special districts. Team members need only reply to periodic emails with their thoughts, opinions, and experiences. Expert feedback team members will not be required to travel; they should expect to receive a handful of e-mails each month and, on rare occasions, they may be contacted by phone.

### **How to Submit Your 2021 CSDA Committee Selections:**

Please login to the CSDA website to view a complete list of committees, expectations for serving and to [submit your committee interest form](#) online.

Committee interest forms must be filled out by **5:00 PM on October 9, 2020**. The selection and ratification of CSDA's 2021 committees will take place in November 2020 and selected participants will be notified by the end of November. Committee participation begins in January 2021.

**Thank you for your continued support of CSDA!**



**California Special  
Districts Association**  
*Districts Stronger Together*

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[LOGIN](#)

## Get Involved



Get more out of membership by becoming more involved. Below are some ways you can support the strength and effectiveness of CSDA while growing relationships within the association. We encourage the participation from member agencies as well as Business Affiliates.

**CSDA Committees** play a key role in establishing the direction and priorities of the association. Committee involvement is crucial to the success of activities and the development of CSDA. Each committee requires certain time commitments and attendance.

- **Legislative Committee:** Develops CSDA's legislative agenda.
- **Professional Development Committee:** Provides direction for professional development and events.
- **Member Services Committee:** Supports member recruitment and retention efforts.
- **Audit Committee:** Maintains and updates internal controls.

## CSDA Award Nominations

2020 CSDA Annual Awards nominations are open and the nomination deadline has been extended to June 5, 2020. There are several different categories to enter your district, chapter, and/or an individual.

[LEARN MORE](#)

[Chat-How Can We Help?](#)



- **Elections & Bylaws Committee:** Conducts annual elections and occasional bylaws reviews.
- **Fiscal Committee:** Oversees the financial direction of the organization.

**Expert Feedback Teams** allow CSDA to quickly and effectively gauge the impact new laws may have on special districts. If you have firsthand experience in one or more of the areas below, please join a CSDA's Expert Feedback Team. Teams include: Environment, Revenue, Formation and Reorganization, Governance, Human Resources and Personnel, Public Works and Facilities, and Legal.

**Legislative Distribution List** are email correspondence sent to individuals where participants have the opportunity to provide feedback on issues before the Legislative Committee meets. This is a great way to stay informed of CSDA's legislative efforts without the time and travel commitment of serving as a member of the committee.

**Magazine & eNews article ideas** are always welcome from our members. Please send to CSDA Communications Specialist [Vanessa Gonzales](#).

**Workshop & webinar proposals** are collected year-round.

**CSDA Chapters** provide opportunities to get involved locally in [affiliated chapters](#).

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## Get Involved

There are many ways to participate in CSDA. Please take a moment to fill out this form to let us know how you'd like to get involved. You must be a CSDA member to participate in any of these opportunities.

Name \*

NAME

First

Last

Title \*

District \*

Phone Number \*

 -  - 

###

###

####

Email \*

I would like to learn more about participation in the following committee(s):

Please select three and rank according to preference.

	1st	2nd	3rd
<b>Audit</b>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
<b>Elections &amp; Bylaws</b>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
<b>Fiscal</b>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
<b>Legislative</b>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
<b>Member Services</b>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3
<b>Professional Development</b>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3

Because I am interested in participating on the legislative committee, I understand that I will be assigned to a working group.

Please rank according to preference.

	1st	2nd	3rd	4th	5th	6th
<b>Environment</b>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6
<b>Formation and Reorganization</b>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6

<b>Governance</b>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6
<b>Human Resources and Personnel</b>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6
<b>Public Works and Facilities</b>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6
<b>Revenue</b>	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6

I am interested in joining a committee because: \*

I would like to learn more about the following Expert Feedback Team(s):

- Environment
- Governance
- Legal
- Revenue
- Formation and Reorganization
- Human Resources and Personnel
- Public Works and Facilities

I would like to participate in the Legislative Distribution List!

- Sign me up today

I would like to get involved or form a chapter.

- Please contact me regarding chapters.

I would like to submit an article about:

Authorization/Confirmation \*

- I have been authorized by the General Manager/Board

President or Company CEO/President to participate in a CSDA committee or expert feedback team.

## ⊗ Login Required

Please [login to access](#) this service.

### Not a Member?

Join CSDA Today! By joining CSDA, you help make Districts Stronger Together:

[LEARN MORE](#)



1112 "I"  
Street,  
Suite 200  
Sacramento  
CA, 95814

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- Register for an Event
- Career Center
- Membership Information

#### CALIFORNIA SPECIAL DISTRICTS ALLIANCE





**California Special  
Districts Association**  
*Districts Stronger Together*

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# Committees



## CSDA Committees

CSDA relies on the participation of our members in order to guide the association. Committee involvement is crucial to the success of activities and the development of CSDA policies. The talent and energy of the individuals who serve on CSDA's committees and to the issues that concern special districts in California are the critical components of CSDA's success.

### **Legislative Committee (space is limited):**

Develops CSDA's legislative agenda; reviews, directs, and assists with legislative/public policy issues.

**Commitment:** Meets three times annually in Sacramento and four times annually via webinar. Committee members must additionally attend CSDA's Special Districts Legislative Days in Sacramento, CA and Annual Conference and are also invited to the legislative planning session.

**Working Groups:** Each legislative committee member will be assigned to 1 or 2 working groups. Working groups include: environment, formation and reorganization, governance, human resources and personnel, public works and facilities, and revenue.



[Get Involved.](#)

## Link to Your Committee Here

If you have already been selected to serve on a CSDA Committee, you automatically have access to the group's community.

**Just click the appropriate button below:**

[Chat-How Can We Help?](#)





**Professional Development Committee:** Plans, organizes and directs the professional development and events for CSDA.

Commitment: Meets at least twice annually.

LEGISLATIVE  
COMMITTEE

**Member Services Committee:** Responsible for recruitment of new members, member retention, development of new member benefits and review of current programs.

Commitment: Meets at least twice annually.

PROFESSIONAL  
DEVELOPMENT  
COMMITTEE

**Audit Committee:** Responsible for maintaining and updating internal controls. Provides guidance to auditors regarding possible audit and fraud risks.

Commitment: May meet with auditors prior to the commencement of the audit, when audit is completed and possibly one meeting during the auditing process. Financial experience preferred.

MEMBER  
SERVICES  
COMMITTEE

AUDIT  
COMMITTEE

**Elections & Bylaws Committee:** Conducts annual elections and occasionally reviews bylaws upon request of the CSDA Board, members, or as needed.

Commitment: Minimum of one meeting in Sacramento.

ELECTIONS &  
BYLAWS  
COMMITTEE

**Fiscal Committee:** Oversees the financial direction of the organization including budget review and implementation.

Commitment: Meets at least three times annually. Financial experience preferred.

FISCAL  
COMMITTEE

**No time to be on a committee?** View other ways to get involved with CSDA.



**Agenda Item: 9**

**STAFF REPORT**

**Board Meeting Date: August 19, 2020**  
**Prepared By: Brett Hodgkiss**

**SUBJECT:** MATTERS PERTAINING TO THE ACTIVITIES OF THE SAN DIEGO COUNTY WATER AUTHORITY

**SUMMARY:** Informational report by staff and directors concerning the San Diego County Water Authority. No action will be required.



**STAFF REPORT**

**Agenda Item: 10.A**

**Board Meeting Date: August 19, 2020**  
**Prepared By: Lisa Soto**  
**Approved By: Brett Hodgkiss**

**SUBJECT:** REPORTS ON MEETINGS AND EVENTS ATTENDED BY DIRECTORS

**SUMMARY:** Directors will present brief reports on meetings and events attended since the last Board meeting.



**STAFF REPORT**

**Agenda Item: 10.B**

**Board Meeting Date: August 19, 2020**  
**Prepared By: Lisa Soto**  
**Approved By: Brett Hodgkiss**

**SUBJECT:** SCHEDULE OF UPCOMING MEETINGS AND EVENTS

**SUMMARY:** The following is a listing of upcoming meetings and events. Requests to attend any of the following events should be made during this agenda item.

	<b>SCHEDULE OF UPCOMING MEETINGS AND EVENTS</b>	<b>ATTENDEES</b>
<b>1 *</b>	<b>CSDA Quarterly Dinner Meeting (Virtual)</b> <i>Aug. 20, 2020; 6:00-9:00 p.m.</i> <i>Reservation deadline: TBD</i>	
<b>2</b>	<b>Governance Foundations (CSDA) (Virtual)</b> <b>Special District Leadership Academy, Module 1</b> <i>Aug. 25-26, 2020; 9:00 a.m. – 12:00 p.m. each day</i> <i>Reservation deadline: None (limited to 30 attendees)</i>	
<b>3</b>	<b>Bay-Delta Tour 2020 (Water Education Foundation)</b> <i>Sept. 9-11, 2020; Begins and ends at Sacramento International Airport</i> <i>Reservation deadline: TBD</i>	
<b>4</b>	<b>Third Annual Western Groundwater Congress (Virtual)</b> <i>Sept. 14-16, 2020; 8:30 a.m. – 12:30 p.m.</i> <i>Reservation deadline: 9/7/2020</i>	
<b>5 *</b>	<b>Council of Water Utilities Meeting</b> <i>Sept. 15, 2020; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 9/10/20</i>	
<b>6</b>	<b>2020 Water Summit (Water Education Foundation)</b> <i>Sept. 24, 2020; Sacramento</i> <i>Registration deadline: TBD</i>	
<b>7</b>	<b>Northern California Tour Field Trip (Water Education Foundation)</b> <i>Oct. 14-16, 2020; Begins and ends at Sacramento International Airport</i> <i>Reservation deadline: 9/2/20</i>	
<b>8 *</b>	<b>Council of Water Utilities Meeting</b> <i>Oct. 20, 2020; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 10/15/20</i>	
<b>9</b>	<b>San Joaquin River Restoration Tour Field Trip (Water Education Foundation)</b> <i>Nov. 4-5, 2020; Begins and ends in Fresno</i> <i>Reservation deadline: 9/23/20</i>	
<b>10 *</b>	<b>Council of Water Utilities Meeting</b> <i>Nov. 17, 2020; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 11/12/20</i>	
<b>11 *</b>	<b>CSDA Quarterly Dinner Meeting</b> <i>Nov. 19, 2020, 6:00-9:00 p.m.; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 11/12/20</i>	
<b>12 *</b>	<b>Council of Water Utilities Meeting</b> <i>DARK IN DECEMBER</i>	
<b>13</b>	<b>ACWA Fall Conference</b> <i>Dec. 1-4, 2020; Indian Wells; Registration deadline: TBD</i>	
<b>14</b>	<b>Colorado River Water Users Association Conference (CRWUA)</b> <i>Dec. 14-16, 2020; Las Vegas; Registration deadline: TBD</i>	

\* Non-per diem meeting except when serving as an officer of the organization  
 The following abbreviations indicate arrangements that have been made by staff:  
**R=Registration; H=Hotel; A=Airline; S=Shuttle; C=Car; T=Tentative**



## STAFF REPORT

Agenda Item: 11

Board Meeting Date: August 19, 2020  
Prepared By: Lisa Soto

**SUBJECT:** ITEMS FOR FUTURE AGENDAS AND/OR PRESS RELEASES

**SUMMARY:** This item is placed on the agenda to enable the Board to identify and schedule future items for discussion at upcoming Board meetings and/or identify press release opportunities.

*Staff-generated list of tentative items for future agendas:*

- Fiscal Year 2021 Capital Budget Phase II review
- Monthly billing
- Warner Wellfield Assessment



**STAFF REPORT**

**Agenda Item: 12**

**Board Meeting Date: August 19, 2020**  
**Prepared By: Lisa Soto**

SUBJECT: COMMENTS BY DIRECTORS

SUMMARY: This item is placed on the agenda to enable individual Board members to convey information to the Board and the public not requiring discussion or action.



## **STAFF REPORT**

**Agenda Item: 13**

**Board Meeting Date: August 19, 2020**  
**Prepared By: Brett Hodgkiss**

SUBJECT: COMMENTS BY GENERAL MANAGER

SUMMARY: Informational report by the General Manager on items not requiring discussion or action.