

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

February 18, 2020

An Adjourned Meeting of the Board of Directors of Vista Irrigation District was held on Wednesday, February 18, 2020, at the offices of the District, 1391 Engineer Street, Vista, California.

**1. CALL TO ORDER**

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

**2. ROLL CALL**

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

Directors absent: None.

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; Mark Saltz, Water Resources Specialist; Marlene Kelleher, Director of Administration; and Ramae Ogilvie, Administrative Assistant. General Counsel David Cosgrove was also present.

Other attendees: Angela Morrow, City of Escondido Deputy Director of Utilities—Construction and Engineering; and David Spencer Asset Management Program Development Lead at HDR.

**3. PLEDGE OF ALLEGIANCE**

Director Sanchez led the pledge of allegiance.

**4. APPROVAL OF AGENDA**

20-02-18	<i>Upon motion by Director Dorey, seconded by Director MacKenzie and unanimously carried (5 ayes: Miller, Dorey, Sanchez, MacKenzie, and Vásquez), the Board of Directors approved the agenda as presented.</i>
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**5. ORAL COMMUNICATIONS**

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

**6. CONSENT CALENDAR**

20-02-19	<i>Upon motion by Director MacKenzie, seconded by Director Miller and unanimously carried (5 ayes: Miller, Dorey, Sanchez, MacKenzie, and Vásquez), the Board of Directors approved the Consent Calendar, including Resolution No. 20-06 approving disbursements.</i>
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A. Waterline project approval

See staff report attached hereto. Staff recommended and the Board approved the waterline project and directed staff to file the Notice of Exemption for a proposed 56-unit detached condominium development, known as Arroyo Vista, consisting of approximately 8.39 gross acres owned by Meritage Homes of California, Inc., located at Sycamore Avenue and Watson Way, Vista (P17-0361; LN 2018-006; APNs 217-021-01, -02, -20, -29 and -30; DIV 5).

B. Acknowledgement of Easements

See staff report attached hereto. Staff recommended and the Board acknowledged existing easements via Parcel Maps PC18-0411 North and PC18-0411 South over a commercial project consisting of approximately 0.82 acres owned by the City of Vista along South Santa Fe Avenue, Guajome Street and Mercantile Street, Vista (P18-0321; LN 2019-015; APNs 179-022-01, 179-022-02, 179-022-05, 179-022-06, 179-022-07, 179-022-23, 179-022-24, 179-022-25; DIV NO 4).

C. Minutes of the Warner Ranch Committee meeting on January 29, 2020

The Board noted and filed the minutes of the Warner Ranch Committee meeting on January 29, 2020, which were provided for information only.

D. Minutes of the Board of Directors meeting on February 4, 2020

The minutes of February 4, 2020 were approved as presented.

E. Resolution ratifying check disbursements

**RESOLUTION NO. 20-06**

**BE IT RESOLVED, that the Board of Directors of Vista Irrigation District does hereby approve checks numbered 63686 through 63792 drawn on Union Bank totaling \$8,734,667.02.**

**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 18<sup>th</sup> day of February 2020.**

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**7. SAN PASQUAL UNDERGROUNDING PROJECT**

See staff report attached hereto.

Director of Water Resources Don Smith presented an overview of the status of the San Pasqual Undergrounding Project (SPUP), a project to remove, relocate and replace about 2.5 miles of the Escondido Canal that crosses the San Pasqual Indian Reservation. He noted that pursuant to the San Luis Rey Indian Water Rights Settlement Implementing Agreement, the project must be completed by May 17, 2023. While both the City of Escondido (Escondido) and the District are jointly responsible for completing the project, Escondido is responsible for managing the design and construction of the SPUP. He noted that the 60 percent design drawings for the new facilities have been reviewed by Escondido and District staff, and the temporary encroachment issues as well as concepts for canal abandonment and rehabilitation have been defined for discussion with the San Pasqual Band.

Mr. Smith reviewed the concepts for the permanent decommissioning of about two miles of existing canal, 6,000 feet of which are located on the San Pasqual Indian Reservation with the remaining located within private easements. He provided clarification regarding the design of the desilting basin and the buried box culvert at the northern end of the SPUP. Mr. Smith said that in order to provide all-weather access to the desilting basin a new access road will need to be excavated to the site in a trench with depths approaching 25 feet. He stated that where the depth exceeds approximately 14 feet, a concrete box tunnel will be constructed to avoid encroachment outside of the existing 30-foot wide easement on the San Pasqual Indian Reservation.

Mr. Smith introduced Ms. Angela Morrow of the City of Escondido who was present in the audience to provide clarification as needed. Ms. Morrow responded to a question regarding the environmental mitigation for the SPUP stating that Escondido purchased Daily Ranch credits for the mitigation of two species, open Engelmann Oak woodland and southern mixed chaparral.

Director MacKenzie asked if Escondido or District staff are aware of any grant funding which could be pursued for the SPUP. Mr. Morrow stated that she and her staff are not aware of any grants that would be applicable for the SPUP, and Escondido is considering applying for an infrastructure bank loan to fund its portion of the project cost. Mr. Hodgkiss stated that District staff has also researched whether there are grants available for this type of project and found none to be available at this time. He added that the original cost estimate (\$28 million split equally between the District and Escondido) for the SPUP was thought to be manageable for the District on a PAYGO basis. However, with the new cost estimate being \$40 million, staff will be evaluating other funding mechanisms to help pay for its portion of the project, including grants and loans.

In reviewing the timeline and next steps for the SPUP, the Board expressed concern about the May 2023 deadline and directed staff to continue to be diligent in pushing the project forward to stay on schedule. The Board thanked Ms. Morrow for her attendance and Mr. Smith for his report.

## **8. MAIN REPLACEMENT PROGRAM**

See staff report attached hereto.

Director of Engineering Randy Whitmann updated the Board regarding the District's ongoing program to replace aging water mains throughout its distribution system. He stated that the goal of this program is to replace pipelines before they reach the end of their useful life, becoming a maintenance liability, and to replace pipelines due to street realignments and/or improvements. Mr. Whitmann stated that since the Main Replacement Program was initiated in 1995, the District has replaced approximately two miles of pipe each year totaling more than 35 miles of pipe ranging in size from 2 inches to 20 inches.

Mr. Whitmann said that of the District's 430 miles of water mains, approximately 130 miles (comprised of approximately 43 miles of steel pipe and 87 miles of asbestos cement (AC) pipe) were installed prior to 1970. He noted that in the 1980s the District began using polyvinyl chloride (PVC) pipe.

Mr. Whitmann stated that in 2002 the District began replacing AC pipe (Nipponite) that was installed in the 1960s due to its propensity to catastrophically fail. Since 2002, the District has replaced over nine miles of Nipponite pipe with less than seven miles remaining in service. Each segment of the remaining Nipponite pipe has been assigned a risk category based on its location and pressure; based on this assessment, approximately one-half of the remaining Nipponite pipe is considered to have medium to high risk.

Mr. Whitmann introduced Mr. David Spencer of HDR who was in the audience to provide clarification as needed. He stated that Mr. Spencer lead the risk assessment of the District's water distribution pipelines for the District's Water Master Plan (Master Plan) update in 2018. Mr. Whitmann stated that the results of this assessment are useful for prioritizing future main replacement projects.

Ms. Morrow left the meeting at this time.

## **9. OPPORTUNITY-BASED PIPELINE CONDITION ASSESSMENT PROGRAM**

See staff report attached hereto.

Mr. Whitmann provided an overview of the District's development of an opportunity-based pipeline condition assessment program. This program allows the District to collect and test pipeline field samples when there is an opportunity to do so due to other activities (e.g., during valve replacements, leak and break response, service installations, new pipeline tie-ins, etc.). The information obtained from these pipeline condition assessments can help to prioritize future pipeline replacements with increased confidence that the right pipes are being replaced at the right time.

Mr. Spencer of HDR responded to a question regarding assessing the life expectancy of PVC pipe stating that there is no way to assess the condition of PVC pipe at this time. Mr. Whitmann reviewed the methods for testing the condition of AC pipe in order to predict the future life of the pipe. He stated that staff proposes entering into a professional services agreement with HDR Engineering, Inc. for as-needed pipeline condition assessment services. The first task order will include initial program development covering assessment workflow and operating procedures; sample collection, logging, and storage procedures; laboratory selection, testing, and frequency; and budget estimating support.

The Board expressed appreciation for the proactive and scientific approach to assessing the District's pipes in order to prioritize their replacement. Director MacKenzie asked if the Fiscal Policy Committee could evaluate the fiscal impact of increasing the number of miles of pipe to be replaced each year from two miles (at approximately \$2.5 million) to three or four miles as part of their budget review process. Mr. Hodgkiss responded staff would be reviewing the main replacement program as part of the Fiscal Year 2021 budget development process.

## **10. MATTERS PERTAINING TO THE ACTIVITIES OF THE SAN DIEGO COUNTY WATER AUTHORITY**

See staff report attached hereto.

Director Miller reported that there had not been a meeting of the San Diego County Water Authority (Water Authority) since his last report. He reported on a meeting he attended for the Water Authority Energy Committee in which there was a presentation by San Diego Gas and Electric (SDG&E) regarding fire protection for the power grid.

Director Miller reported that Ron Watkins resigned from the Yuima Municipal Water District Board of Directors.

## **11. MEETINGS AND EVENTS**

See staff report attached hereto.



Director MacKenzie reported on her attendance at a meeting of the California Special Districts Association (CSDA) Member Services Committee. It was noted at this meeting that the membership renewal rate is currently at 92 percent. Also discussed was CSDA's 90-day trial membership, which will run from April 1 through June 30, 2020.

Director Dorey reported on his attendance at the Association of California Water Agencies (ACWA) Groundwater Committee meeting where the California Department of Water Resources presented an update on the Sustainable Groundwater Management Act.

Director Sanchez reported on his attendance at a meeting of the CSDA Professional Development Committee; it was noted that CSDA generated over \$1.1 million from its workshops, webinars, conferences, and on-demand purchases in 2019. Director Sanchez said that over 1,200 organizations used CSDA's services and educational programs.

Director Sanchez reported that he participated (via webinar) in a meeting of ACWA Business Development Committee where it was noted that ACWA is developing a program similar to Special Districts Leadership Foundation's District of Distinction accreditation, called the Agency Certificate of Excellence.

President Vásquez reported on his attendance at a meeting of the ACWA Water Quality Committee where there was a presentation by a representative from the California Office of Environmental Health Hazard Assessment outlining the polyfluoroalkyl substances (commonly referred to as PFAS). Director Vásquez stated that there was also a discussion regarding the possible reorganization of the Water Quality Committee's four subcommittees.

President Vásquez requested authorization to attend the Council of Water Utilities (COWU) meeting on March 17, 2020 in Kearny Mesa. Director MacKenzie requested authorization to attend the CSDA Annual Conference August 24-27, 2020 in Palm Desert. She noted that as a CSDA Board member her registration would be complimentary. Director Sanchez also requested authorization to attend the CSDA Annual Conference. Director Dorey requested authorization to attend the Third Annual Western Groundwater Congress September 14-16, 2020 in Burbank.

20-02-20	<i>Upon motion by Director Dorey, seconded by Director MacKenzie and unanimously carried (5 ayes: Miller, Dorey, Sanchez, MacKenzie, and Vásquez), the Board of Directors authorized the following attendances: President Vásquez to attend COWU on March 17, 2020 in Kearny Mesa; Directors MacKenzie and Sanchez to attend the CSDA Annual Conference August 24-27, 2020 in Palm Desert. Director Dorey to attend the Third Annual Western Groundwater Congress September 14-16, 2020 in Burbank.</i>
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## **12. ITEMS FOR FUTURE AGENDAS AND/OR PRESS RELEASES**

See staff report attached hereto.

Mr. Hodgkiss stated that at the March 18, 2020 Board meeting staff will present a draft agenda for the April 16, 2020 Board inspection tour of Lake Henshaw and the Warner Ranch for the Board's consideration.

## **13. COMMENTS BY DIRECTORS**

Director MacKenzie stated that the CSDA General Manager's Leadership Summit will be held in Squaw Creek in June 2020, and it is open to General Managers as well as other management staff.

**14. COMMENTS BY GENERAL COUNSEL**

Mr. Cosgrove reported briefly on a court decision out of Sacramento relevant to the permitting and state mandated fees related to stormwater discharges.

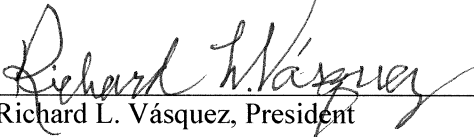
**15. COMMENTS BY GENERAL MANAGER**

Mr. Hodgkiss responded to a question asked earlier in the meeting regarding two disbursements noted on page 3 of Consent Calendar Item 6.E. These payments were made for towing services for Truck 30. The truck was towed to the District garage when it experienced transmission problems. Upon further inspection it was determine that repairs needed to be made by a third party, and the truck was towed to a shop to perform the necessary repairs.

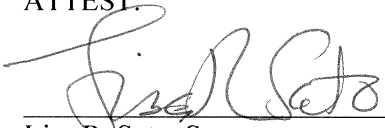
Mr. Hodgkiss reported that the water level at Lake Henshaw was at about 5,000 acre-feet.

**16. ADJOURNMENT**

There being no further business to come before the Board, at 10:39 a.m., President Vásquez adjourned the meeting.

  
Richard L. Vásquez, President

ATTEST:

  
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Lisa R. Soto, Secretary  
Board of Directors  
VISTA IRRIGATION DISTRICT



## STAFF REPORT

Agenda Item: 6.A

Board Meeting Date:	February 18, 2020
Prepared By:	Matt Atteberry
Reviewed By:	Randy Whitmann
Approved By:	Brett Hodgkiss

SUBJECT: WATERLINE PROJECT APPROVAL

RECOMMENDATION: Approve this waterline project and direct staff to file the Notice of Exemption for a proposed 56-unit detached condominium development, known as Arroyo Vista, consisting of approximately 8.39 gross acres owned by Meritage Homes of California, Inc., located at Sycamore Avenue and Watson Way, Vista (P17-0361; LN 2018-006; APNs 217-021-01, -02, -20, -29 and -30; DIV 5).

PRIOR BOARD ACTION: None.

FISCAL IMPACT: None.

SUMMARY: On February 4, 2020, the District signed the improvement plans for this waterline project. Approval of this project will allow the General Manager to sign the construction contract when the owner returns it.

DETAILED REPORT: Under District inspection, the owner's contractor will install approximately 1,771 feet of 8-inch waterline, 385 feet of 4-inch waterline, six 1-inch air-vents, two 2-inch air-vents, eight 2-inch blow-offs, nine 8-inch gate valves, one 4-inch gate valve, four 6-inch fire hydrants, 58 1-inch water services, one 2-inch irrigation service and make connections as approved on the plans. The owner will also submit applications and pay the necessary fees to the District for water meters.

Approval of this waterline project will allow the owner to proceed with the development of their project. Acceptance of Grant of Right of Way (M131) via Tract Map will be brought to the Board for consideration at a subsequent Board meeting.

ATTACHMENT: Map

**CONNECTION NO. 1**

**WATSON WAY**

CLOSED VALVE

**SITE**

SHADOWRIDGE DR  
WATSON  
SYCAMORE  
GREEN OAK  
HWY 78

**VICINITY MAP**

NTS

**LEGEND**

EXISTING

- WATER MAIN
- BLOW OFF
- AIR VENT
- VALVE
- WATER METER
- FIRE HYDRANT

PROPOSED

- 8" PVC (DR14) WATER
- BLOW OFF
- AIR VENT
- VALVE
- REDUCER
- 6" FIRE HYDRANT
- 6" SUBDIVISION CONSTR. METER

**CONNECTION NO. 2**

**VISTA IRRIGATION DISTRICT**

**ARROYO VISTA**

**SYCAMORE & WATSON (P17-0361)**

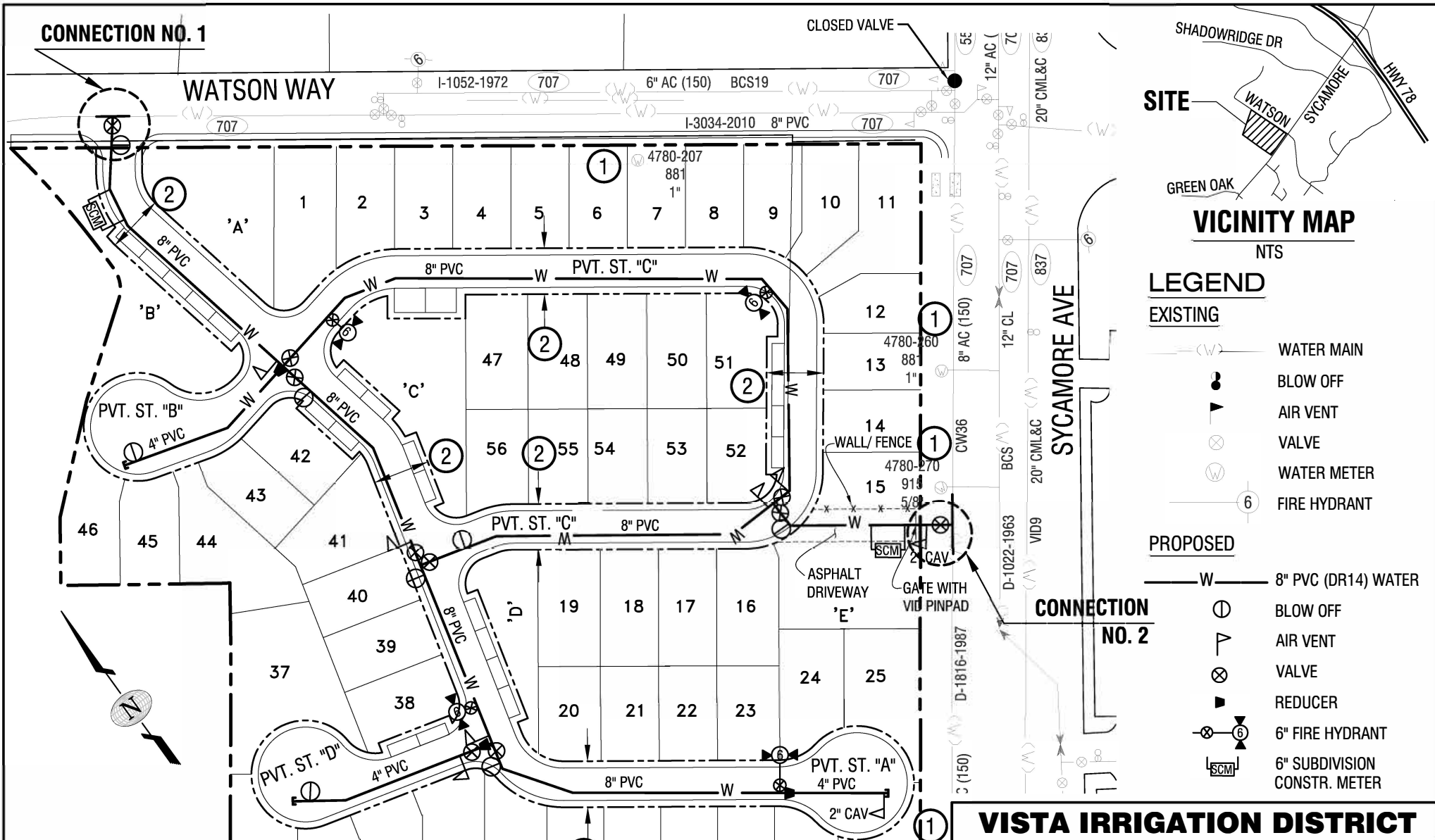
APN 217-021-01, -02, -20, -29 and -30		T.B. 1108 B5
SCALE: NO SCALE		L.N. 2018-006
APPD. BY MA	DATE 2/10/2020	W.O.
DRAWN BY JB	DATE 2/10/2020	
SHEET 1 of 1	MAP H21	
REVISED 2/10/20	Jeanette Bradshaw	
Z:\ENGINEERING\JOBS\LN-JOBS\LN2018\LN 2018-006 SYC & WATSON\LN2018-006		

**DEVELOPER:**  
MERITAGE HOMES OF CAL. INC.  
5 PETERS CANYON ROAD, STE. 310  
IRVINE, CA 92606  
CONTACT: PATRIC LYNAM  
949-299-3834

**ENGINEER:**  
PASCO LARET SUITER & ASSOCIATES  
535 N. HIGHWAY 101, SUITE A  
SOLANA BEACH, CA 92075  
CONTACT: RYAN WAUFLE  
858-259-8212

**ADDITIONAL NOTES**

- ① EXIST. METERS TO BE RELOCATED OR TERMINATED AND USED FOR CAPACITY CREDITS PER SERVICE CHANGE.
- ② OWNER TO GRANT WATER EASEMENT TO VID PER MAP. ALL VID APPURTENANCES INCLUDING METERS AND FIRE HYDRANTS TO BE WITHIN VID EASEMENT.





## STAFF REPORT

**Agenda Item: 6.B**

<b>Board Meeting Date:</b>	<b>February 18, 2020</b>
<b>Prepared By:</b>	<b>Matt Atteberry</b>
<b>Reviewed By:</b>	<b>Randy Whitmann</b>
<b>Approved By:</b>	<b>Brett Hodgkiss</b>

**SUBJECT:** ACKNOWLEDGEMENT OF EASEMENTS

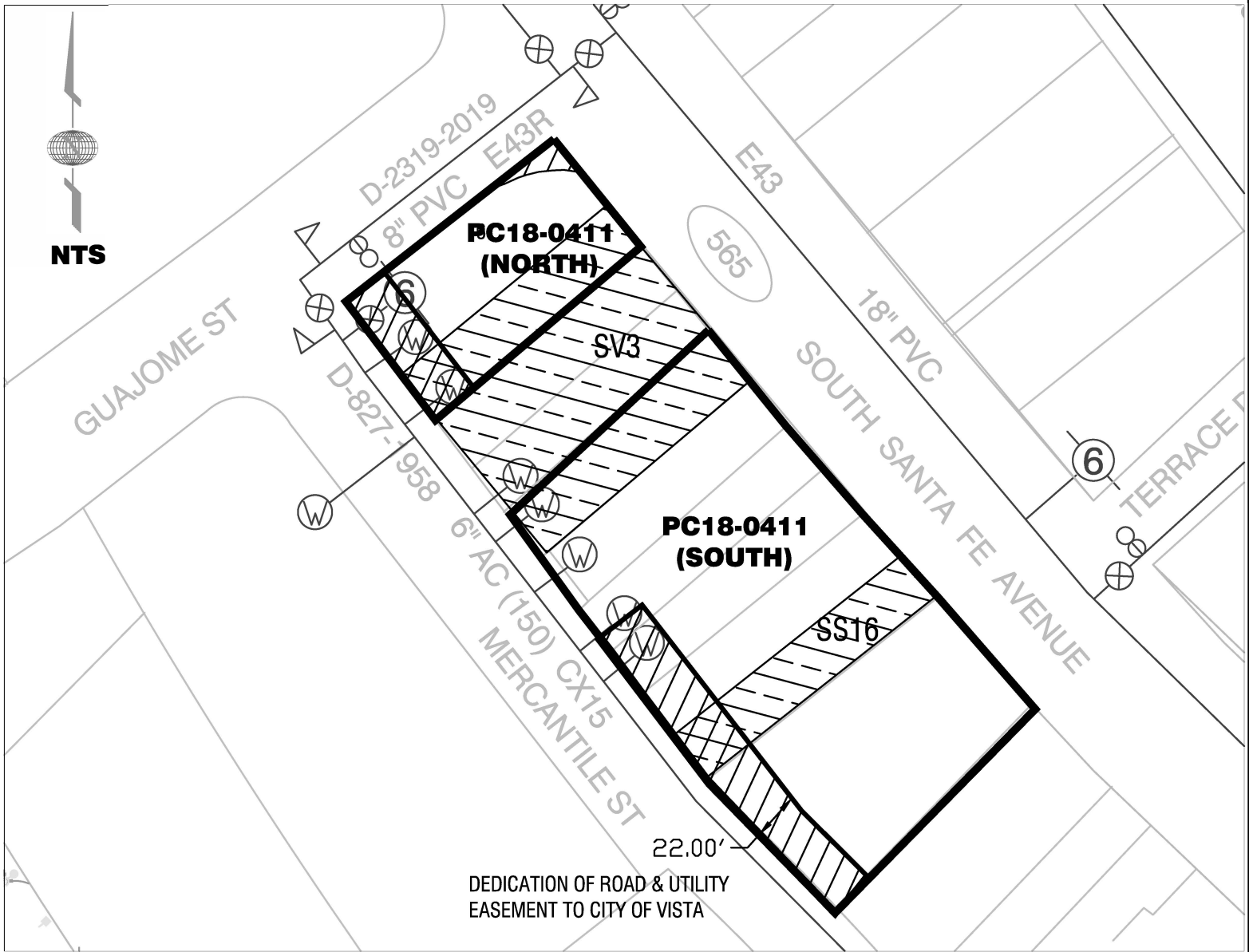
**RECOMMENDATION:** Acknowledge existing easements via Parcel Maps PC18-0411 North and PC18-0411 South over a commercial project consisting of approximately 0.82 acres owned by the City of Vista along South Santa Fe Avenue, Guajome Street and Mercantile Street, Vista (P18-0321; LN 2019-015; APNs 179-022-01, 179-022-02, 179-022-05, 179-022-06, 179-022-07, 179-022-23, 179-022-24, 179-022-25; DIV NO 4).

**PRIOR BOARD ACTION:** None.

**FISCAL IMPACT:** None.

**SUMMARY:** The City of Vista (City) is in the process of developing a mixed-use affordable housing community with 60 apartment units and commercial retail space on a 0.82-acre site located along South Santa Fe Avenue, Guajome Street and Mercantile Street. In order to develop the property, eight parcels are being combined into two separate parcels and new right-of-way is being dedicated to the City. The District currently has easements encumbering the project that are identified on the Parcel Maps; acknowledgment of the easements will allow the City to record the maps with the County Recorder. Waterline project approval will be brought to the Board for consideration at a subsequent Board meeting.

**ATTACHMENT:** Map



NTS

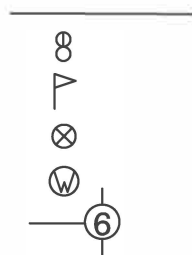


EXISTING VID EASEMENT



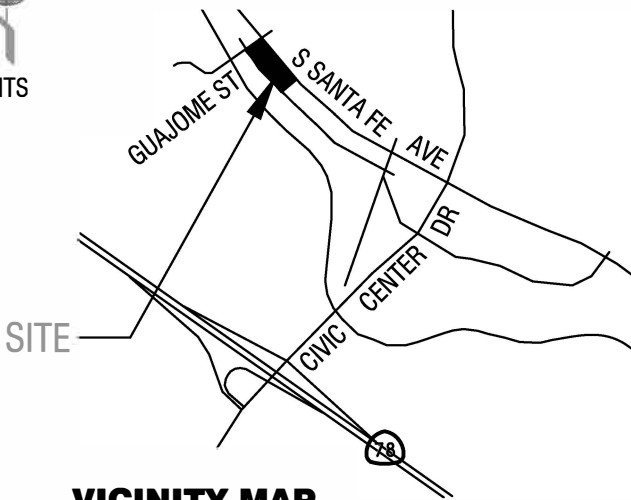
22.00' DEDICATION OF ROAD & UTILITY EASEMENT TO CITY OF VISTA

**LEGEND**



WATER MAIN  
 BLOW OFF  
 AIR VENT  
 VALVE  
 WATER METER  
 6" FIRE HYDRANT

NTS



**VICINITY MAP**

**VISTA IRRIGATION DISTRICT**

TITLE: PASEO ARTIST VILLAGE

APN: 179-022-01, 02, 06, 07, 23, 24	T.B. 1087 H7	
SCALE: NTS	L.N. 2019-015	
APPD. BY MA	DATE 02/07/20	W.O.
DRAWN BY PD	DATE 01/28/20	
SHEET 1 OF 1	MAP F14	

REVISED:  
 PATH: Z:\Engineering\JOBS\LN-Jobs\LN2019\LN 2019-015 Paseo Artist Village\8.5x11 Scher



## Cash Disbursement Report

Payment Dates 01/23/2020 - 02/05/2020

Payment Number	Payment Date	Vendor	Description	Amount
63686	01/29/2020	Refund Check 63686	Customer Refund	80.95
63687	01/29/2020	Airgas USA LLC	Mig Welder Wire	93.15
63688	01/29/2020	Amazon Capital Services	Tarp Kit - T12	183.57
	01/29/2020		Limit Switch Wheels (2)	27.00
	01/29/2020		6 Volt Lantern Battery (3)	18.28
	01/29/2020		Liquid Nail, PVC Ball Valves	153.73
63689	01/29/2020	AT&T	3680/CALNET3 12/13/19 - 01/12/20 - Phones	385.47
	01/29/2020		0230/CALNET3 12/13/19 - 01/12/20 - Teleconference	2.15
63690	01/29/2020	Basic pacific	Annual FSA Plan Renewal Fee 2020	325.00
	01/29/2020		Flexible Spending Service/Cobra 01/2020	308.00
63691	01/29/2020	Canon Solutions America, Inc	Canon Supplies & Services	22.27
63692	01/29/2020	760Print	Door Hangers (3000)	660.33
63693	01/29/2020	Citi Cards	Vista State of the Community Luncheon - R Whitmann	75.00
	01/29/2020		Costco Membership Renewal	180.00
	01/29/2020		Kitchen & Building Supplies	765.44
	01/29/2020		GFI Faxmaker Online Service	12.75
	01/29/2020		Unemployment Insurance Pamphlets 2020 (2)	50.79
	01/29/2020		Employment Advertising	200.00
	01/29/2020		Employment Advertising	100.00
	01/29/2020		Vista State of the Community Luncheon - P Dorey	75.00
	01/29/2020		Urban Water Conference - R Vasquez	388.22
	01/29/2020		ACWA Water Quality Committee Mtg - R Vasquez	162.96
	01/29/2020		Vista State of the Community Luncheon - R Vasquez	75.00
	01/29/2020		Vista State of the Community Luncheon - M Miller	75.00
	01/29/2020		Sustainable Groundwater Mgmt Workshop - P Dorey	136.27
	01/29/2020		Vista State of the Community Luncheon - P Sanchez	75.00
	01/29/2020		Urban Water Institute Conference - R Vasquez	525.00
	01/29/2020		Southern California Water Coalition Mtg - P Dorey	75.00
	01/29/2020		Vista State of the Community Luncheon - B Hodgkiss	75.00
63694	01/29/2020	City Of Escondido	Escondido Water Treatment Plant 11/2019 - 12/2019	258,411.00
	01/29/2020		Escondido Canal Operating Cost 10/2019 - 12/2019	86,316.19
	01/29/2020		EVWTP OSG Expenses 10/2019 - 12/2019	3,011.20
63695	01/29/2020	Core & Main	12" FL x FL Gate Valve (2)	9,504.35

Payment Number	Payment Date	Vendor	Description	Amount
	01/29/2020		1" Meter Gaskets 1/8" Thick (200)	108.25
63696	01/29/2020	DIRECTV	Direct TV Service	97.99
63697	01/29/2020	Fastenal Company	Anchors & Screws	23.37
63698	01/29/2020	Ferguson Waterworks	Claval Regulator Parts	2,469.85
	01/29/2020		Small DFW Water Meter Boxes (23)	1,219.98
63699	01/29/2020	Glennie's Office Products Inc	Office Supplies	66.53
63700	01/29/2020	Hawthorne Machinery Co	Battery Core - B20	(5.39)
	01/29/2020		Battery Core - B16	(5.39)
	01/29/2020		Alternator Core - B16	(219.69)
	01/29/2020		Loader Bucket Cutting Edge & Hardware - L6	711.84
	01/29/2020		Battery - B20	136.30
	01/29/2020		Mounting Hardware	69.39
	01/29/2020		Credit for DMV Filing	(159.00)
63701	01/29/2020	Interstate Battery of San Diego Inc	Solar Batteries (2)	456.71
63702	01/29/2020	Jackson & Blanc	Diagnose & Repair AC Unit	1,378.98
63703	01/29/2020	Jeanette Bradshaw	Reimburse- InfoWater Training 01/14/20 - 01/15/20	249.16
63704	01/29/2020	Jo MacKenzie	Reimburse - ACWA State Legislative Committee Mtg	394.26
63705	01/29/2020	Joe's Paving	Patch Paving	9,472.40
	01/29/2020		Patch Paving	5,919.60
63706	01/29/2020	Lightning Messenger Express	Messenger Service 01/03/2020	52.50
63707	01/29/2020	LinguaLinx Language Solutions, Inc	Translation Service	679.88
63708	01/29/2020	Matt Atteberry	Reimburse - InfoWater Training 01/14/20-01/15/20	263.85
63709	01/29/2020	Mutual of Omaha	LTD, STD, Life Insurance	6,572.39
63710	01/29/2020	NAPA Auto Parts	Black Touch up Paint - T12	18.93
	01/29/2020		Switch - Truck 56	15.14
	01/29/2020		Light Cord Adapter - T12	21.64
63711	01/29/2020	North County Auto Parts	Filters, Shop Chemicals, Oil	218.07
	01/29/2020		Switch - Truck 56	12.10
	01/29/2020		Turn Rotors (4)	90.00
	01/29/2020		Light Cord Adapter - T13	23.09
	01/29/2020		Fuel Cap - Truck 45	14.09
63712	01/29/2020	North County Industrial Park	Association Fees 02/2020 - Engineer St	879.30
63713	01/29/2020	O'Reilly Auto Parts	Battery Cores (3) - Truck 52	(66.00)
	01/29/2020		Breakaway Battery Core (1) - VM1	(15.00)
	01/29/2020		Battery - VM1	252.20
	01/29/2020		Trailer Cord Connector & Cord Adapter	36.78
	01/29/2020		PTO Shaft U-Joints (2) - Truck 30	40.90
	01/29/2020		Neutral Safety Switch - Truck 30	50.61



Payment Number	Payment Date	Vendor	Description	Amount
	01/29/2020		Spark Plugs (6) - C5	21.37
	01/29/2020		Battery Cores (2)	(40.00)
	01/29/2020		PTO Shaft U-Joints (2) - Truck 11	40.90
63714	01/29/2020	Pacific Pipeline Supply	Inserts for Service Lateral Repair (10)	44.60
63715	01/29/2020	Pauley Equipment Rental Inc	Excavator Rental - Borden Bench	581.25
63716	01/29/2020	S & R Towing	Towing Service 1/17/20 - Truck 30	250.00
	01/29/2020		Towing Service 1/23/20 - Truck 30	250.00
63717	01/29/2020	San Diego Gas & Electric	Electric 01/2020 - Henshaw Buildings & Ground	792.11
	01/29/2020		Electric 01/2020 - Henshaw Wellfield	11,448.36
	01/29/2020		Electric 01/2020 - Dam House	65.94
	01/29/2020		Electric 01/2020 - Warner Ranch House	150.91
63718	01/29/2020	San Luis Rey Indian Water Authority	2019 Surplus Supplemental Water	8,115,645.82
63719	01/29/2020	Sealright Paving Inc.	Grind & Cap - Warmlands Ave Phase II	27,200.00
63720	01/29/2020	Sherry Thorpe	Reimburse - New Hire Lunches	152.96
63721	01/29/2020	Southern Counties Lubricants, LLC	Fuel 01/01/20 - 01/15/20	4,314.74
63722	01/29/2020	Statewide Traffic Safety and Signs, Inc	No Trespassing Signs (100)	2,273.25
63723	01/29/2020	TS Industrial Supply	Channel Lock 10" (2)	36.81
	01/29/2020		Channel Lock 12" (2)	47.63
	01/29/2020		Channel Lock 16" (2)	89.63
	01/29/2020		Gloves Thickster Nitrile XL 100 per box (10)	154.26
	01/29/2020		Wire Brush Small (10)	26.63
	01/29/2020		Max Ear Plug (Uncorded) #Max - 1 (1)	31.93
	01/29/2020		Nemesis Clear Lens Black Frame Glasses (12)	64.82
	01/29/2020		Pyramex Safety Glasses Blk Frame / Amber Lens (12)	175.37
	01/29/2020		Sea 2" Pipe Wrap Tape (25)	175.91
	01/29/2020		Teflon Tape 1" (20)	23.60
	01/29/2020		Counter Brush 8" #8 (2)	16.89
63724	01/29/2020	Johnson Controls Security Solutions LLC	Security & Fire Alarm Maintenance/ Monitoring 2/2020	2,660.23
63725	01/29/2020	UniFirst Corporation	Uniform Service	312.33
63726	01/29/2020	Verizon Wireless	Air Cards 12/13/19 - 01/12/20	76.02
	01/29/2020		Cell Phones 12/16/19 - 01/15/20	1,321.09
63727	01/29/2020	VG Donuts & Bakery Inc	Board Meeting 01/22/20	33.70
63728	01/29/2020	Vista Brake & Smog	Front end Alignment - Truck 39	116.00
63729	01/29/2020	WorkPartners OHS	Pre-employment Medical Exam	224.00
63730	02/05/2020	Refund Check 63730	Customer Refund	2,055.46
63731-63735	02/05/2020	Refund Checks 63731-63735	Customer Refunds	3,327.43
63736	02/05/2020	Refund Check 63736	Customer Refund	25.26
63737	02/05/2020	Airgas USA LLC	Welding/Cutting Gear	105.02

Payment Number	Payment Date	Vendor	Description	Amount
63738	02/05/2020	AirX Utility Surveyors, Inc	Potholing - Monte Vista	2,460.00
63739	02/05/2020	Amazon Capital Services	Running Lights (20)	24.87
	02/05/2020		Battery for Emergency Lighting	(7.55)
	02/05/2020		Warehouse Supplies	176.61
63740	02/05/2020	AT&T	SIP Trunks	429.89
	02/05/2020		Data Service	698.93
63741	02/05/2020	Auto Specialist Warehouse	Rear Brake Parts - Truck 14	78.37
	02/05/2020		Brake Caliper - Truck 79	125.81
	02/05/2020		Brake Caliper - Truck 79	(125.81)
63742	02/05/2020	CAPPO	Membership Dues 2020	130.00
63743	02/05/2020	CI Solutions	ID Cards	123.06
63744	02/05/2020	CDW Government Inc	Network Device Back-up	204.28
63745	02/05/2020	Cecilia's Safety Service Inc	Traffic Control - York Dr/Montgomery Dr	1,615.00
	02/05/2020		Traffic Control - York Dr/Montgomery Dr	6,270.00
	02/05/2020		Traffic Control - Bonair Rd	3,230.00
	02/05/2020		Traffic Control - Lado De Loma	1,235.00
	02/05/2020		Traffic Control - Highland Dr	665.00
63746	02/05/2020	City Of Escondido	Bear Valley Reconciliation 07/2019 - 12/2019	4,871.14
63747	02/05/2020	Coast Equipment Rentals	Concrete	221.91
63748	02/05/2020	Coastal Chlorination & Backflow	Chlorination Service	384.00
63749	02/05/2020	Core & Main	1" Brass Clamps for Anodes (50)	138.02
	02/05/2020		Calder Coupling 8" Clay x 8" PVC (DFW-02-E88) (1)	18.40
	02/05/2020		6" PVC Pipe Restraint - (Star or Sigma) (11)	288.76
	02/05/2020		4" PVC Pipe Restraint (star or Sigma) (4)	85.53
	02/05/2020		Bushing 1" x .75" Sch 40 PVC (5)	4.60
	02/05/2020		2.5" PVC Ball Valve Sch 40 S x S (1)	21.81
	02/05/2020		6" Flg Spool (1)	270.88
63750	02/05/2020	Craneworks Southwest Inc	Crane Inspection Logbooks (4)	107.75
63751	02/05/2020	Diamond Environmental Services	Portable Restroom Service	114.70
	02/05/2020		Portable Restroom Service	81.14
	02/05/2020		Portable & Stationary Restroom Service	374.20
63752	02/05/2020	EDCO Waste & Recycling Services Inc	Trash & Recycle Service 01/2020	233.87
63753	02/05/2020	Edgehill Road Gate Association	Edgehill Road/Gate Maintenance Fee 2020	600.00
63754	02/05/2020	Fastenal Company	Anchors (100)	6.45
63755	02/05/2020	Ferguson Waterworks	Fire Hydrant 6" Break Off Spool LB400 (2)	482.25
	02/05/2020		Tee 6" DI POxFL (1)	138.73
	02/05/2020		Clamp 6x12 Repair Full Circle SS Romac (1)	158.08
	02/05/2020		Pipe Lube 5 gal (2)	160.21

Payment Number	Payment Date	Vendor	Description	Amount
	02/05/2020		Pipe 2" PVC Schedule 40 (80)	66.68
	02/05/2020		Adapter 6" DI POxFL (4)	358.52
	02/05/2020		Fire Hydrant Rod 15"x.5" Break Off Stainless Steel (2)	116.91
	02/05/2020		Ell 6" DI FL 22.5 Degree (1)	93.53
	02/05/2020		Coupling 4" Macro (3)	632.91
	02/05/2020		Fire Hydrant Spool 6x18 DI (1)	121.24
	02/05/2020		Plastic Wrap Clear 8 mil 3'x100' (Visqueen) (10)	259.80
	02/05/2020		Ell 6" DI FL 90 Degree (2)	220.57
	02/05/2020		DFW Meter Box Lid Large PW6C (VID Stamp) (5)	432.46
	02/05/2020		DFW Meter Box Lid 3.5 DFW36C (VID Stamp) (40)	1,645.40
	02/05/2020		DFW Meter Box Lid Medium 1220E (VID Stamp) (25)	1,299.00
	02/05/2020		DFW Meter Box Small DFW1324CH4-12 (25)	2,163.65
	02/05/2020		DFW Meter Box Lid Small D1324 (VID Stamp) (25)	1,434.31
	02/05/2020		Angle Ball Meter Valve 2" FLG X FIP DD Lockwing (6)	1,568.67
	02/05/2020		Reducer 6x4 DI FL (1)	75.99
	02/05/2020		Ell 4" DI FL 11.25 Degree (1)	75.99
	02/05/2020		Ell 6" DI PO 45 Degree (1)	89.63
	02/05/2020		Reducer 8x6 DI POxFL (1)	121.59
	02/05/2020		Flange 6" SOW 8-hole (6)	123.41
	02/05/2020		Ell 10" DI PO 22.5 Degree (1)	170.69
	02/05/2020		Nipple 2x4 Brass (7)	71.99
	02/05/2020		Bushing 4x2 Black (2)	39.84
	02/05/2020		Tee 8" DI POxFL (1)	220.96
	02/05/2020		Fire Hydrant Rod 15"x.5" Break Off Stainless Steel (3)	175.37
63756	02/05/2020	Frank & Son Paving, Inc	Final Paving - Alta Vista & Sunrise Drive	54,805.00
63757	02/05/2020	Glennie's Office Products Inc	Office Supplies	99.87
63758	02/05/2020	Grainger	Limit Switch Heads (6)	444.32
	02/05/2020		Vault Intrusion Switches, Voltage Sensor Relay	278.63
	02/05/2020		Safety Lockout Devices	31.10
63759	02/05/2020	Hawthorne Machinery Co	Parts Manual - L6	128.91
	02/05/2020		Arm Rest Cushion - B21	89.87
	02/05/2020		Battery - B16	137.61
	02/05/2020		Alternator, Core	439.38
63760	02/05/2020	InfoSend Inc	Data Processing/Mailing Service 12/2019	5,511.43
	02/05/2020		Support & Storage Fee 12/2019	1,349.44
63761	02/05/2020	Inland Water Works Supply Co	Meter 100W ERT (144)	11,691.00
63762	02/05/2020	Iron Mountain Records Management	Offsite Data Storage 12/2019	316.58
63763	02/05/2020	Jackson & Blanc	HVAC Maintenance 1/1/20 - 3/31/20	2,309.00

Payment Number	Payment Date	Vendor	Description	Amount
63764	02/05/2020	Joe's Paving	Patch Paving	4,025.85
63765	02/05/2020	Kimball Midwest	Metric Bolt, Nut, Washer Assortment	370.38
63766	02/05/2020	Liebert Cassidy Whitmore	Legal Services 12/2019	457.50
	02/05/2020		Legal Services 12/2019	76.00
63767	02/05/2020	Mallory Safety and Supply, LLC	Vest Lime Hi-Viz MED (9)	151.69
	02/05/2020		Vest Lime Hi-Viz XL (4)	67.42
	02/05/2020		Vest Lime Hi-Viz 3XL (4)	67.42
63768	02/05/2020	Moodys	Dump Fees (2)	400.00
63769	02/05/2020	North County Auto Parts	Brake Fluid, Protectant, Degreaser, Glass Cleaner	45.54
63770	02/05/2020	North County Ford	Manual Regen of DPF - Truck 65	160.00
63771	02/05/2020	North County Rebuilders	Alternator - VM1	226.24
63772	02/05/2020	Opto 22	SCADA Output Modules (3)	352.80
63773	02/05/2020	O'Reilly Auto Parts	Trailer Cord Adapters (2)	31.26
	02/05/2020		Grease Guns (2)	67.09
	02/05/2020		Air Fresheners for VID Vehicles	45.40
	02/05/2020		Auxiliary Battery (2)	21.46
	02/05/2020		Battery - Truck 36	181.91
	02/05/2020		Battery Core (1)	(18.00)
63774	02/05/2020	Pacific Pipeline Supply	Angle Stops (3)	577.61
	02/05/2020		Ell 6" DI FL 90 Degree (8)	770.74
63775	02/05/2020	Paul Dorey	Reimburse - SGMA Workshop, SCWC Mtg 01/2020	486.85
63776	02/05/2020	Prestige Analytics	AWIA Compliance Crosswalk Design/Completion 1/2020	10,574.00
63777	02/05/2020	Ramco Petroleum	Fuel 12/2019	1,435.25
63778	02/05/2020	Rancho Environmental Service	Removal of Large Eucalyptus Trees (2)	8,950.00
	02/05/2020		Removal of Large Eucalyptus Tree (1)	3,450.00
63779	02/05/2020	Red Wing Shoe Store	Footwear Program	198.79
63780	02/05/2020	Roto-Rooter	Plumbing Service	438.75
63781	02/05/2020	San Diego Gas & Electric	Gas Use 01/2020	1,345.26
	02/05/2020		Electrical Transmission 01/2020	4,495.06
	02/05/2020		Electric 01/2020 - T&D	109.56
	02/05/2020		Electric 01/2020 - Reservoirs	47.92
63782	02/05/2020	Shred-it USA LLC	Shredding Service	124.75
63783	02/05/2020	SignArt	VID Logo Decals (10)	81.35
63784	02/05/2020	SiteOne Landscape Supply, LLC	Fittings - Sockets, Tees, Reducing Bushings	13.93
63785	02/05/2020	Southland Pipe Corp.	38-1/2" OD x 20-1/2" ID x 1/4" Fabricated Collar (1)	290.93
	02/05/2020		19-25/32" x 1/4" T x 10" Pipe Saddle Cut- 31-7/8" (1)	226.28
	02/05/2020		18" AWWA 300# Class F S/O FLG. Bored to 19-29/32" (5)	1,580.41
	02/05/2020		19-25/32" OD x 1/4" Wall Steel Pipe CML/CMC x Ft. (40)	3,421.71

Payment Number	Payment Date	Vendor	Description	Amount
	02/05/2020		19-25/32" Fabricated CL "F" FLxFL 11.25 Degree Elbow (1)	1,571.00
63786	02/05/2020	TS Industrial Supply	Striping Paint Blue #750 (12)	62.09
	02/05/2020		2 x 4 x 12 in. Wood Wedge (90)	104.24
	02/05/2020		Striping Paint White #710 (12)	62.09
	02/05/2020		Striping Paint Blue #750 (12)	62.09
	02/05/2020		Marking Paint Pink #229 (12)	48.58
	02/05/2020		Nozzle #4W Welding (1)	89.85
63787	02/05/2020	UniFirst Corporation	Uniforms	312.33
63788	02/05/2020	Verizon Wireless	SCADA Remote Access	368.87
63789	02/05/2020	Vista Lock & Safe Co	Keys	148.48
63790	02/05/2020	Vulcan Materials Company and Affiliates	Cold Mix	2,010.24
63791	02/05/2020	Water District Jobs	Employment Advertising (2)	290.00
63792	02/05/2020	WorkPartners OHS	Pre-Employment Medical Exams	494.00
<b>Grand Total:</b>				<b>8,734,667.02</b>



## STAFF REPORT

Agenda Item: 7

**Board Meeting Date:** February 18, 2020  
**Prepared By:** Don Smith  
**Approved By:** Brett Hodgkiss

**SUBJECT:** SAN PASQUAL UNDERGROUNDING PROJECT

**RECOMMENDATION:** Receive update on the status of the San Pasqual Undergrounding Project.

**PRIOR BOARD ACTION:** The Board has received periodic updates on the status of the San Pasqual Undergrounding Project (SPUP), most recently on August 7, 2019.

**FISCAL IMPACT:** The current estimate of the cost for the engineering and construction of the SPUP is about \$40 million (including an allowance for construction management and canal abandonment and rehabilitation) to be split equally by the City of Escondido (City) and the District.

**SUMMARY:** The SPUP is a project to remove, relocate and replace about 2.5 miles of the Escondido Canal that cross the San Pasqual Indian Reservation (see San Pasqual Undergrounding Project Overview Figure, attached). The project is required to be completed by May 17, 2023. While both the City and the District are jointly responsible to complete the project, the City is responsible for managing the design and construction of the SPUP.

The City and District have reviewed 60 percent design drawings for the new facilities (exclusive of canal abandonment plans). Alternatives for access to the new desilting basin have been evaluated and a preferred approach has been identified. Temporary encroachment issues and concepts for canal abandonment and rehabilitation have been defined for discussion with the San Pasqual Band, and the project team has had preliminary conversations with San Pasqual staff about these matters.

**DETAILED REPORT:** The status of the four major components of the SPUP is as follows:

**Desilting Basin** – The desilting basin is designed to remove sand and coarse sediments from the canal flow where it transitions from open channel flow to buried box culvert or pipeline flow at the beginning (northern end) of the SPUP. The construction of this large (110' long x 32' wide) hydraulic structure within the 100-foot canal right-of-way will require the construction of large retaining walls and temporary encroachment outside the 100-foot canal right-of-way. To provide all-weather access to the desilting basin, a new access road will be excavated to the site in a trench with depths approaching 25 feet. When the depth exceeds about 14 feet, a concrete box tunnel will be constructed and subsequently backfilled to existing grade to avoid permanent encroachment outside of the existing 30-foot wide easement on the San Pasqual Indian Reservation.

**Replace in Place Section** – After the desilting basin, the first half mile of open canal is replaced with a shallowly buried 60-inch wide by 48-inch high precast concrete box culvert. This design accommodates the required hydraulic capacity (55 cfs), minimizes excavation requirements, retains alternate vehicular access along the replace in place section, and keeps this portion of the canal within its existing alignment. One challenge of this portion of the project is to maintain vehicular access across a drainage area for which the present canal employs an elevated flume. The Project team is exploring options to construct a short bridge, to construct an at-grade stream crossing, or to abandon the goal of providing vehicular access for through traffic.

**Pipeline Section** – After traversing the replace in place section, the SPUP transitions to buried, 60-inch diameter pipeline in a new 1.5 mile long alignment across portions of the San Pasqual Indian Reservation, easements across private parcels, and the public right-of-way in North Lake Wohlford Road. After considering alternate pipeline materials, the Project team favors welded steel pipe based on cost, constructability, maintenance considerations, and the likelihood of competitive bids in the southern California market. While the desilting basin is likely to remove the vast majority of settleable sediment, the design will include regular access points to allow cleaning, if necessary. The private easements needed for the pipeline have been secured.

Challenges for the pipeline design and construction include crossing a riparian area that is also encumbered by an open space easement in favor of the County of San Diego (County). The Project team plans to minimize environmental impacts in this section by constructing the pipeline in a 350-foot long tunnel. Mitigation credits to allow the County's vacation of its open space easement in the project area have been procured, and the easement vacation comes before the County Board of Supervisors at two meetings in April.

**Canal Abandonment and Rehabilitation** – When completed, the SPUP will permanently decommission about 2 miles of existing canal, 6,000 feet of which are located on the San Pasqual Indian Reservation, the remaining located within private easements. The San Luis Rey Indian Water Rights Implementing Agreement requires that those portions of canal that are abandoned on Reservation lands be reclaimed and the easements be quitclaimed to the United States. Two challenges for this portion of the project include managing modified drainage patterns and minimizing and mitigating impacts to oak woodlands. The project approach involves removing the upper portion of the concrete canal lining, breaking up the remaining lining and leaving it in place, and backfilling the canal to create a surface water drainage course designed to flow toward existing drainage features. Details of this approach are under discussion with the San Pasqual Band.

Challenging aspects of this project, including tunneling and the structural challenges of the desilting basin and its access road, have increased the estimated project construction costs. The current design effort (\$1.5 million) is proceeding on budget, and the 60 percent construction cost estimate is \$30.6 million (previously estimated at \$25.2 million), not including canal abandonment and rehabilitation. With allowances for canal abandonment and rehabilitation (\$5 million) and construction management (\$3 million), the total design and construction cost is estimated at just over \$40 million to be split equally between the City and District. The project design is projected to be complete in October 2020 with construction taking place between March 2021 and May 2022. The project is required to be complete by May 17, 2023 (Project Schedule, attached).

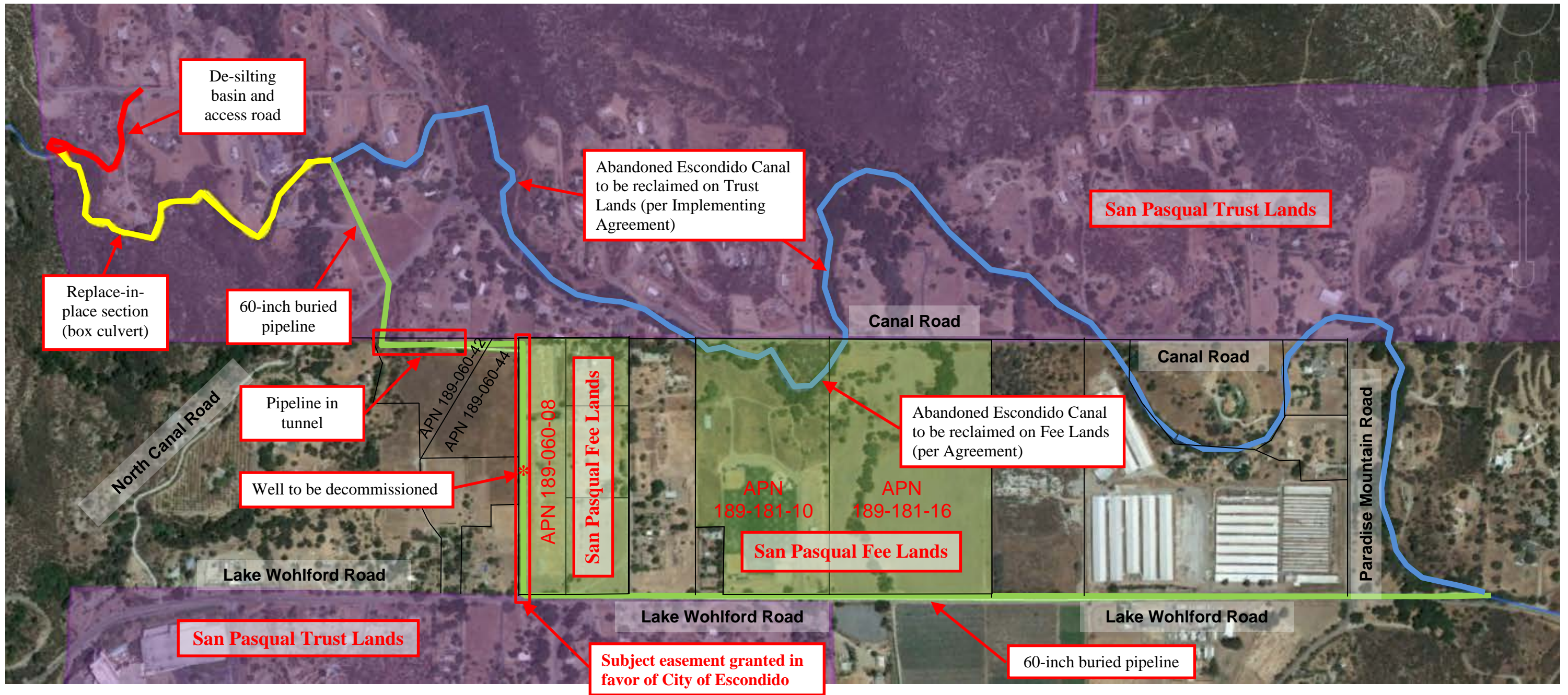
Staff from the City will be present at the Board meeting to answer questions.

**ATTACHMENTS:**

San Pasqual Undergrounding Project Overview Figure

San Pasqual Undergrounding Project Schedule





Scale: 1" ≈ 525 ft

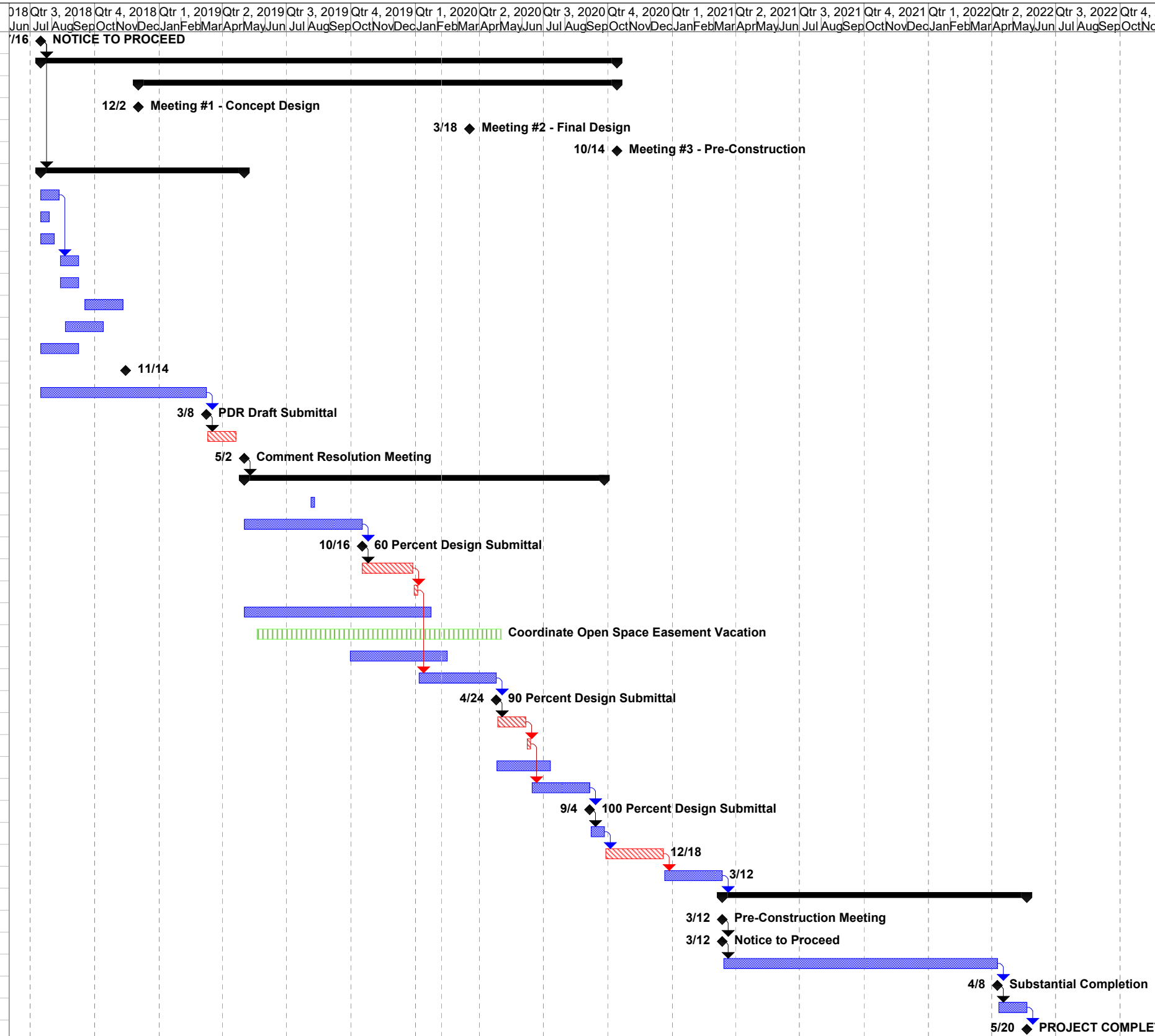
**San Pasqual  
Undergrounding Project  
Overview Figure**



**CITY OF ESCONDIDO  
SAN PASQUAL CANAL UNDERGROUNDING PROJECT**

**PROJECT SCHEDULE**

ID	Task Name	Duration	Start	Finish	Predecessors
1	<b>NOTICE TO PROCEED</b>	0 days	Mon 7/16/18	Mon 7/16/18	
2	<b>DESIGN PHASE</b>	<b>587 days</b>	<b>Mon 7/16/18</b>	<b>Wed 10/14/20</b>	<b>1</b>
3	<b>COMMUNITY MEETINGS</b>	<b>487 days</b>	<b>Sun 12/2/18</b>	<b>Wed 10/14/20</b>	
4	Meeting #1 - Concept Design	0 days	Sun 12/2/18	Sun 12/2/18	
5	Meeting #2 - Final Design	0 days	Wed 3/18/20	Wed 3/18/20	
6	Meeting #3 - Pre-Construction	0 days	Wed 10/14/20	Wed 10/14/20	
7	<b>PRELIMINARY DESIGN PHASE</b>	<b>208 days</b>	<b>Mon 7/16/18</b>	<b>Thu 5/2/19</b>	<b>1</b>
8	Aerial Survey	20 days	Mon 7/16/18	Fri 8/10/18	
9	Right-of-Way Mapping	10 days	Mon 7/16/18	Fri 7/27/18	
10	Utility Research	15 days	Mon 7/16/18	Fri 8/3/18	
11	Complete Base Mapping	20 days	Mon 8/13/18	Fri 9/7/18	8
12	Field Investigation	20 days	Mon 8/13/18	Fri 9/7/18	
13	System Hydraulics Analysis	40 days	Mon 9/17/18	Fri 11/9/18	
14	Hydrology Study	40 days	Mon 8/20/18	Fri 10/12/18	
15	Geotechnical Study	40 days	Mon 7/16/18	Fri 9/7/18	
16	Concept Design Workshop	0 days	Wed 11/14/18	Wed 11/14/18	
17	Preliminary Design Report Development	170 days	Mon 7/16/18	Fri 3/8/19	
18	PDR Draft Submittal	0 days	Fri 3/8/19	Fri 3/8/19	17
19	PDR Draft Review by City and VID	30 days	Mon 3/11/19	Fri 4/19/19	18
20	Comment Resolution Meeting	0 days	Thu 5/2/19	Thu 5/2/19	
21	<b>FINAL DESIGN</b>	<b>367 days</b>	<b>Thu 5/2/19</b>	<b>Fri 9/25/20</b>	<b>20</b>
22	Workshop with Tribe	5 days	Mon 8/5/19	Fri 8/9/19	
23	60 Percent Design Development	120 days	Thu 5/2/19	Wed 10/16/19	
24	60 Percent Design Submittal	0 days	Wed 10/16/19	Wed 10/16/19	23
25	60 Percent Review by City and VID	52 days	Thu 10/17/19	Fri 12/27/19	24
26	Comment Resolution Meeting	5 days	Mon 12/30/19	Fri 1/3/20	25
27	Coordinate with Environmental	190 days	Thu 5/2/19	Wed 1/22/20	
28	Coordinate Open Space Easement Vacation	250 days	Mon 5/20/19	Fri 5/1/20	
29	Coordinate with Property Owners	100 days	Mon 9/30/19	Fri 2/14/20	
30	90 Percent Design Development	80 days	Mon 1/6/20	Fri 4/24/20	26
31	90 Percent Design Submittal	0 days	Fri 4/24/20	Fri 4/24/20	30
32	90 Percent Review by City and VID	30 days	Mon 4/27/20	Fri 6/5/20	31
33	Comment Resolution Meeting	5 days	Mon 6/8/20	Fri 6/12/20	32
34	County Permitting	55 days	Sun 4/26/20	Fri 7/10/20	
35	100 Percent Design Development	60 days	Mon 6/15/20	Fri 9/4/20	33
36	100 Percent Design Submittal	0 days	Fri 9/4/20	Fri 9/4/20	35
37	Finalize Bid Documents	15 days	Mon 9/7/20	Fri 9/25/20	36
38	<b>CONTRACT PROCESSING FOR BID</b>	60 days	Mon 9/28/20	Fri 12/18/20	37
39	<b>PHASE B - BID &amp; AWARD PHASE</b>	60 days	Mon 12/21/20	Fri 3/12/21	38
40	<b>PHASE C - CONSTRUCTION PHASE</b>	<b>310 days</b>	<b>Fri 3/12/21</b>	<b>Fri 5/20/22</b>	<b>39</b>
41	Pre-Construction Meeting	0 days	Fri 3/12/21	Fri 3/12/21	
42	Notice to Proceed	0 days	Fri 3/12/21	Fri 3/12/21	41
43	Construction Phase	280 days	Mon 3/15/21	Fri 4/8/22	42
44	Substantial Completion	0 days	Fri 4/8/22	Fri 4/8/22	43
45	Punch List Items	30 days	Mon 4/11/22	Fri 5/20/22	44
46	<b>PROJECT COMPLETE</b>	0 days	Fri 5/20/22	Fri 5/20/22	45



Project: Progress Schedule  
Date: Fri 2/7/20

MBI Task   City Task   Milestone ◆ Summary



**STAFF REPORT**

**Board Meeting Date:** February 18, 2020  
**Prepared By:** Randy Whitmann  
**Approved By:** Brett Hodgkiss

SUBJECT: MAIN REPLACEMENT PROGRAM

RECOMMENDATION: Receive informational report on the District’s Main Replacement Program.

PRIOR BOARD ACTION: In 1995, the Board established funding for an ongoing program to replace aging water mains throughout the distribution system; the Board received updates on the program in 2002, 2014 and 2016.

FISCAL IMPACT: \$2.5 million is included in the fiscal year 2020 budget for the Main Replacement Program.

SUMMARY: The goal of the Main Replacement Program is to replace pipelines before they reach the end of their useful life and become a maintenance liability and to replace pipelines due to street realignments and/or improvements. Since its inception, more than 35 miles of pipe have been replaced, ranging in size from 2 inches to 20 inches.

DETAILED REPORT: Of the District’s 430 miles of water mains, approximately 130 miles were installed prior to 1970. These 130 miles of pipeline are comprised of approximately 43 miles of various types of steel pipe and 87 miles of asbestos cement (AC) pipe. Attached are a map showing the location and age breakdown of these mains throughout the District and a chart showing the type of pipe remaining in the distribution system by decade of installation.

Starting in 2002, the District has focused on replacing a specific brand of AC pipe installed in the 1960s, known as Nipponite. Breaks on this type of pipe have been more frequent and catastrophic than on other pipe material. District crews have replaced over nine miles of Nipponite pipe, and there are less than seven miles remaining. Each segment of Nipponite pipe has been assigned a risk category based on location and pressure as summarized below (and shown on the attached map); based on this assessment, approximately one-half of the remaining Nipponite pipe is considered to have a medium to high risk.

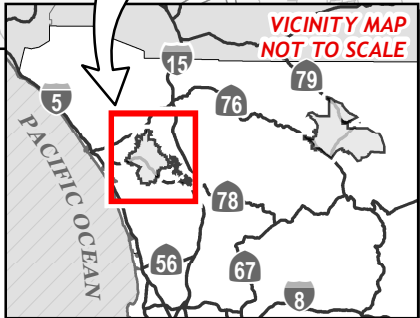
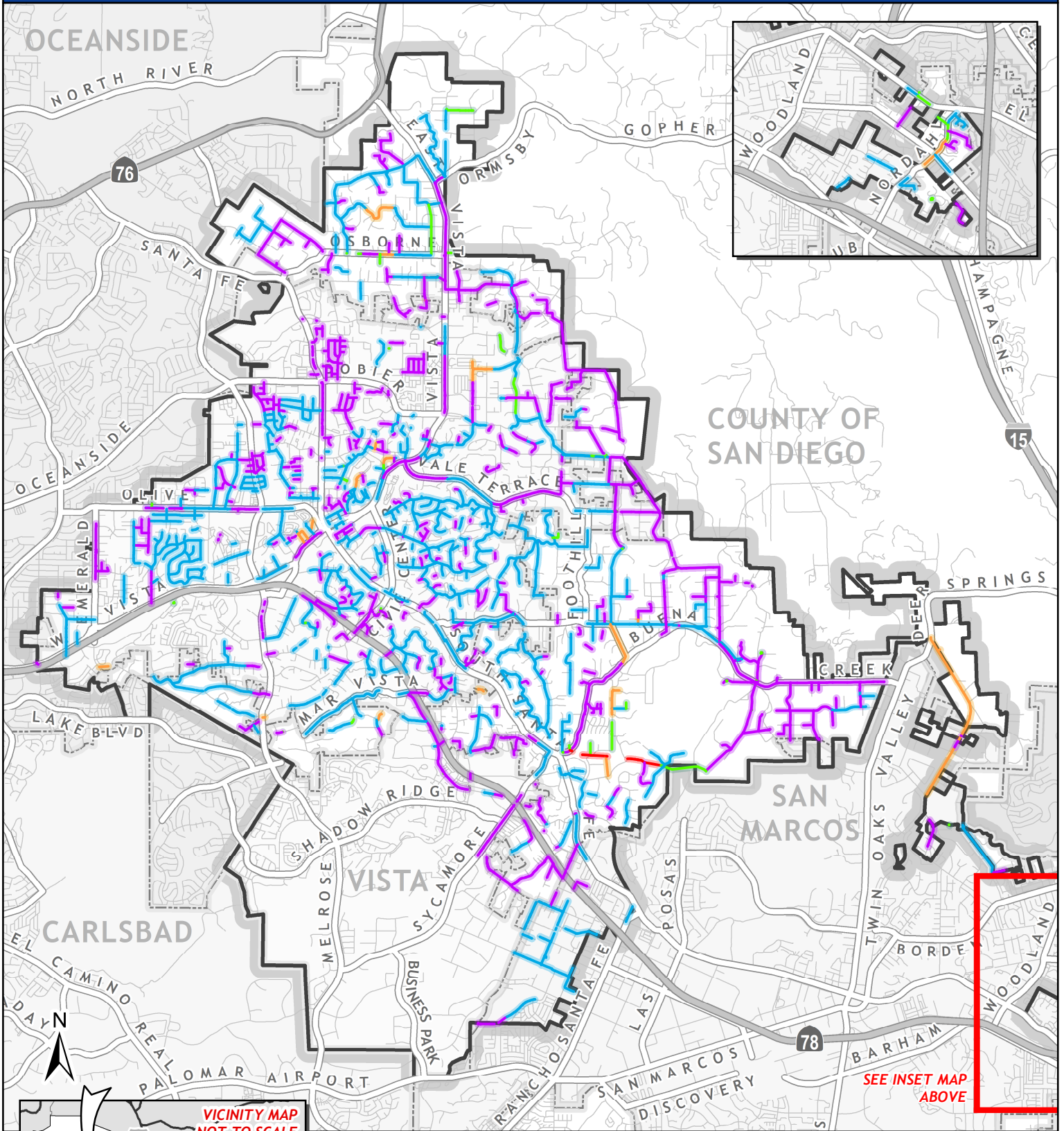
Diameter	Miles of Nipponite Pipe Remaining			
	Risk			Total
	High	Medium	Low	
4-inch	0.04	0.33	0.10	0.47
6-inch	0.00	0.10	0.69	0.79
8-inch	0.99	1.30	1.20	3.49
10-inch	0.45	0.14	0.53	1.12
12-inch	0.00	0.00	0.90	0.90
<b>Total</b>	<b>1.48</b>	<b>1.87</b>	<b>3.42</b>	<b>6.77</b>

The District’s Water Master Plan (Master Plan) was updated in 2018 and included a detailed pipeline condition assessment that provided risk estimates for the District’s water distribution pipelines based on leak history in conjunction with data from the District’s geographical information system, including material, age, soil type, diameter, roadway type, tap count, flow, and system pressure. Attached is the resulting risk assessment map from the Master Plan, which provides the District another tool for pipeline replacement prioritization. The Master Plan also recommended improving future condition assessment updates by collecting and testing pipeline field samples when there is an opportunity from other activities (e.g., during valve replacements, leak

and break response, service installations, new pipeline tie-ins, etc.). District staff is pursuing this next phase of data collection to enhance the program, and future pipeline condition assessments will provide increased confidence that the District is replacing the right pipeline at the right time.

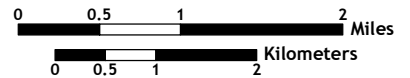
ATTACHMENTS: Pipeline Installation by Decade Map  
Type of Pipe in the Current System by Decade Installed  
Nipponite Risk Assessment Map  
Water Master Plan Risk Assessment Map

# PIPELINE INSTALLATION BY DECADE



## Pipeline Installation Periods

- ↗ Unknown
- ↗ 1930-1939
- ↗ 1940-1949
- ↗ 1950-1959
- ↗ 1960-1969
- VID Boundary  
Valid as of 1/28/2020



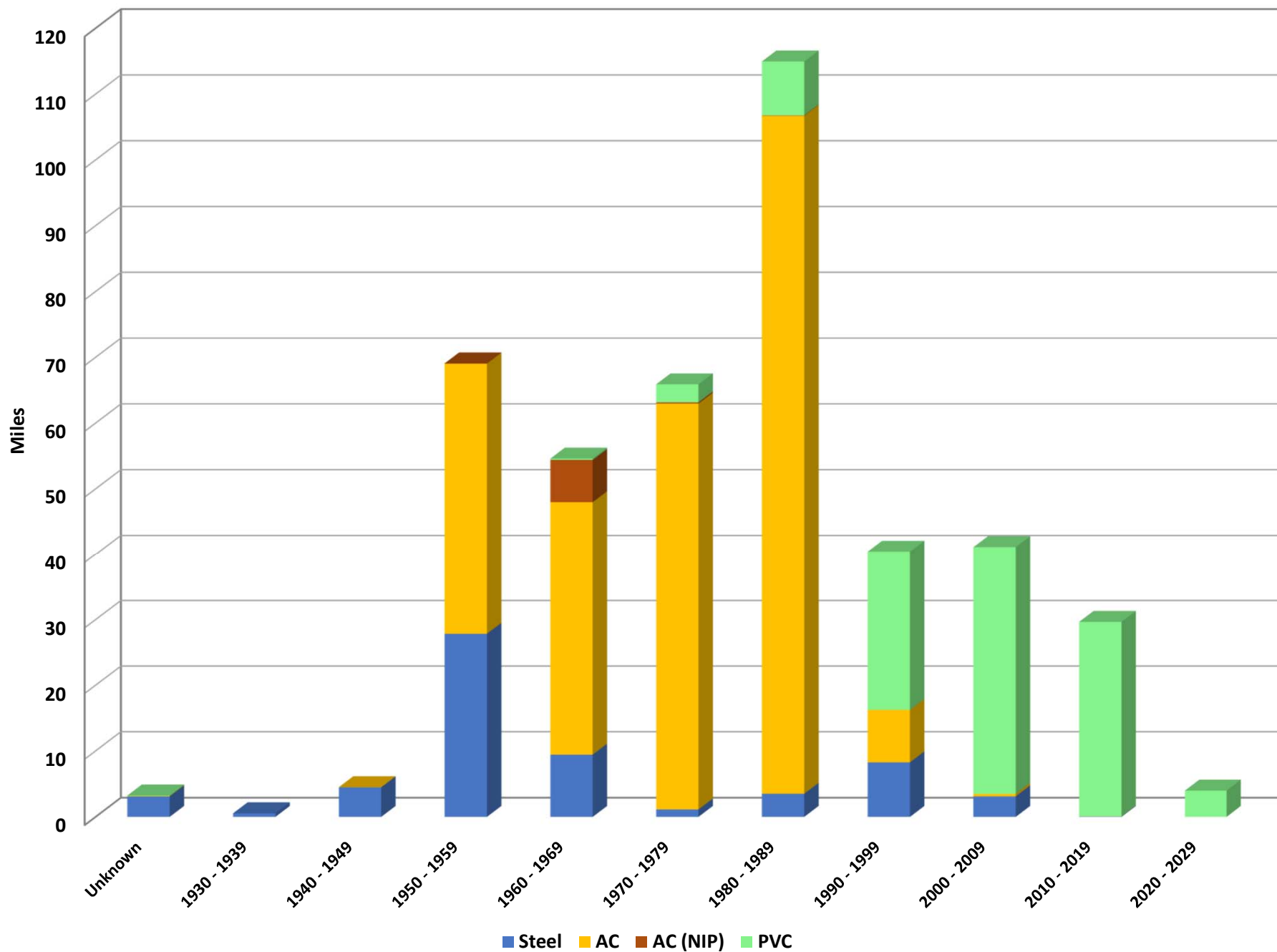
Scale 1:75,000

DISCLAIMER: The Vista Irrigation District makes no representation or warranties regarding the accuracy of this map nor the data from which the map was derived. The Vista Irrigation District shall not be liable under any circumstances for any direct, indirect, special, incidental or consequential damages with respect to any claim by any user or any third party on account of or arising from the use of this map.

NOTE: GIS data derived, modified, reduced, and/or processed from SanGIS/SANDAG downloadable data - www.sanGIS.org

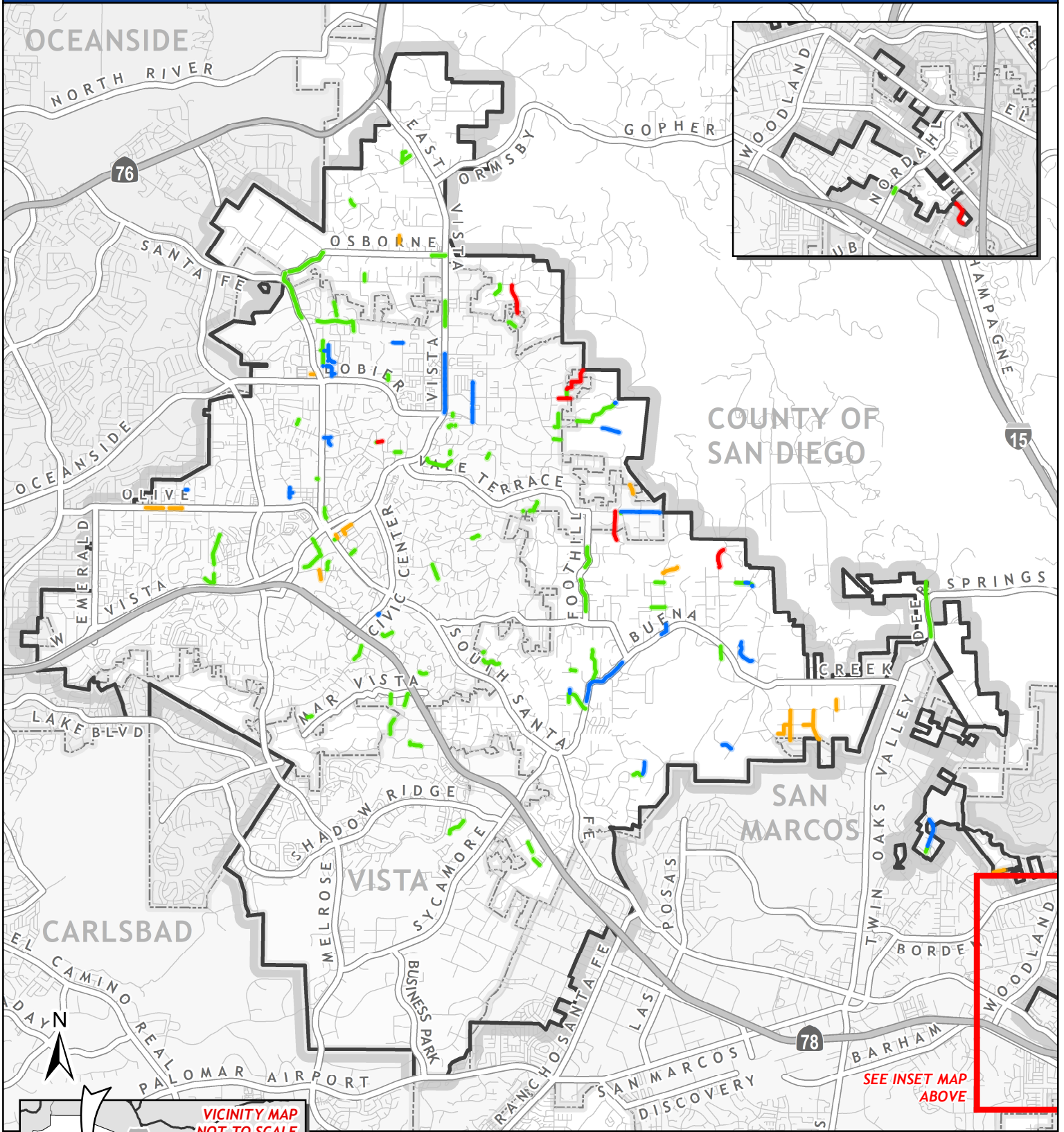
Document: PIPELINE\_INSTALLATION\_BY\_DECADE\_FINAL Printed on: 2/6/2020

TYPE OF PIPE IN THE CURRENT SYSTEM BY DECADE INSTALLED



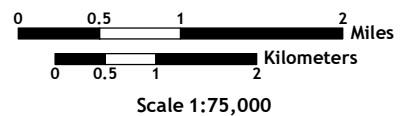


# NIPPONITE RISK ASSESSMENT



**Active Nipponite Pipelines  
January 2020**

Risk	Miles	Risk	Miles
High	1.48	Low	3.42
Medium	1.87	Abandoned	
<b>VID Boundary</b> Valid as of 1/28/2020			

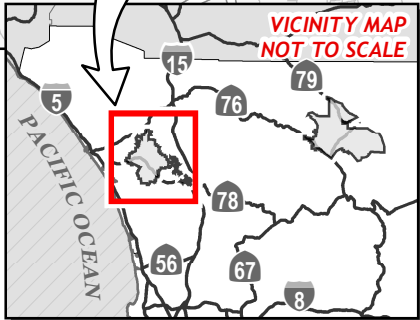
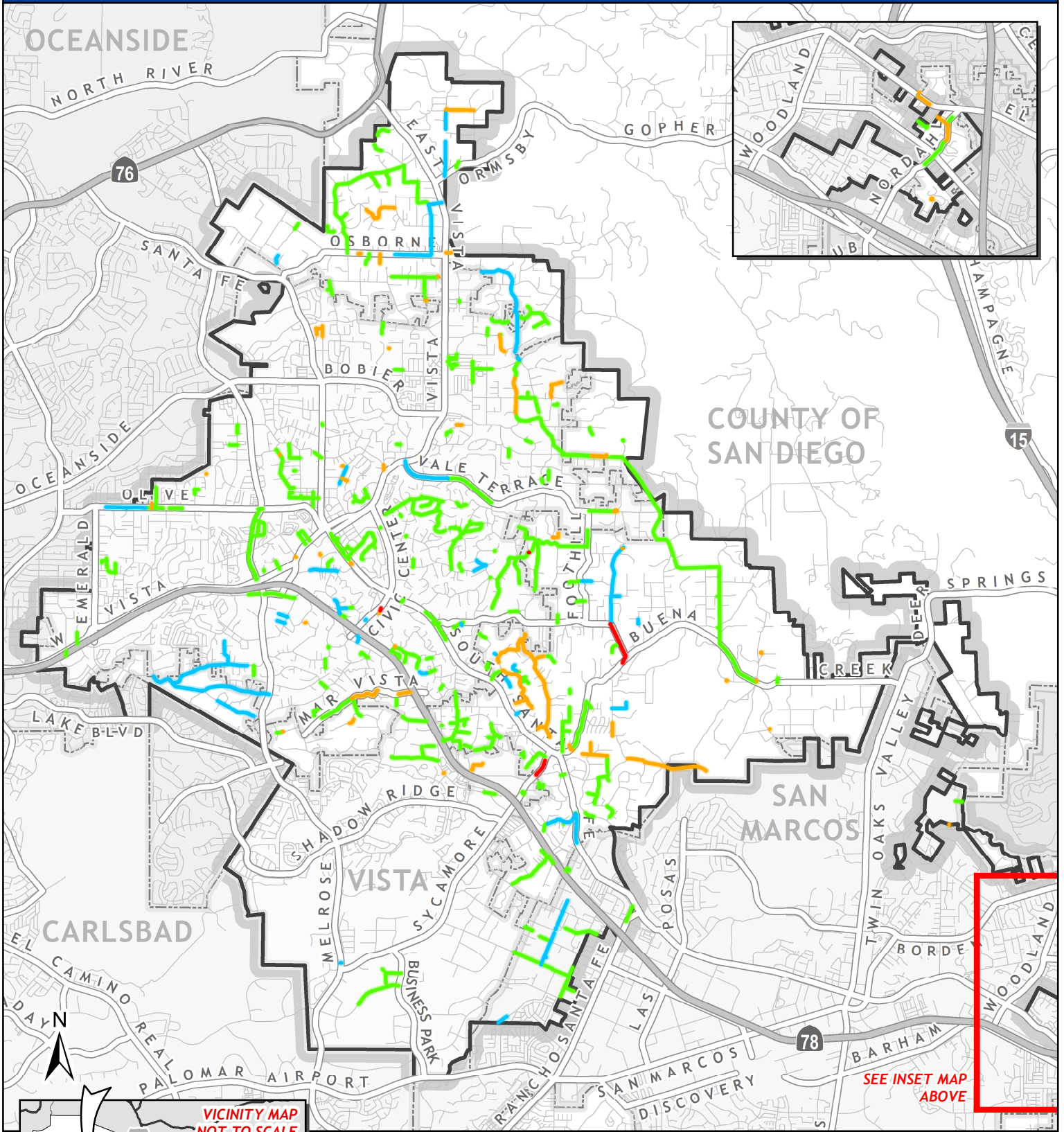


DISCLAIMER: The Vista Irrigation District makes no representation or warranties regarding the accuracy of this map nor the data from which the map was derived. The Vista Irrigation District shall not be liable under any circumstances for any direct, indirect, special, incidental or consequential damages with respect to any claim by any user or any third party on account of or arising from the use of this map.

NOTE: GIS data derived, modified, reduced, and/or processed from SanGIS/SANDAG downloadable data - www.sanGIS.org

Document: NIPPONITE RISK ASSESSMENT FINAL Printed on: 2/6/2020

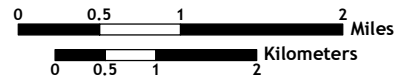
# WATER MASTER PLAN RISK ASSESSMENT



**Pipeline Risk Score**

Risk	Miles	Risk	Miles
20 - 30	33.4	40 - 50	6.7
30 - 40	9.3	> 50	0.6

Note that 379.1 miles of pipeline with a risk score less than 20 are not displayed



Scale 1:75,000

DISCLAIMER: The Vista Irrigation District makes no representation or warranties regarding the accuracy of this map nor the data from which the map was derived. The Vista Irrigation District shall not be liable under any circumstances for any direct, indirect, special, incidental or consequential damages with respect to any claim by any user or any third party on account of or arising from the use of this map.

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Document: WATER MASTER PLAN RISK ASSESSMENT FINAL Printed on: 2/16/2020





## STAFF REPORT

Agenda Item: 9

**Board Meeting Date:** February 18, 2020  
**Prepared By:** Randy Whitmann  
**Approved By:** Brett Hodgkiss

**SUBJECT:** OPPORTUNITY-BASED PIPELINE CONDITION ASSESSMENT PROGRAM

**RECOMMENDATION:** Receive informational report on the development of an opportunity-based pipeline condition assessment program.

**PRIOR BOARD ACTION:** On April 18, 2018, the Board received and filed the Water Master Plan prepared by HDR Engineering, Inc.

**FISCAL IMPACT:** Initial project development is estimated to cost up to \$50,000 and was included in the fiscal year 2020 budget. Future annual costs to implement the program and begin testing pipeline samples will depend on the number of opportunities there are to expose existing pipelines from other activities. Each test is estimated to cost between \$500 and \$1,500 depending on the size of the pipe sample and between 50 and 75 opportunities per year are currently estimated.

**SUMMARY:** The District's Water Master Plan (Master Plan) included a detailed pipeline condition assessment that provided risk estimates for the District's water distribution pipelines based on leak history and data from the District's geographical information system (GIS). One of the recommendations in the Master Plan to improve future condition assessment updates was to begin collecting and testing pipeline field samples when there is an opportunity from other activities (e.g., during valve replacements, leak and break response, service installations, new pipeline tie-ins, etc.). This form of field condition assessment is much less costly and disruptive than proactive assessment, which exposes pipelines for the sole purpose of sampling and testing.

**DETAILED REPORT:** The pipeline condition assessment performed in the Master Plan calculated risk based on several factors including historical leaks, material, age, soil type, diameter, roadway type, tap count, flow, and system pressure. While this provides the District a great tool to focus the pipeline replacement program, additional efforts in field-testing and data collection can enhance the program. Future pipeline condition assessments can provide increased confidence that the District is replacing the right pipeline at the right time and insight into whether additional investment levels (in the main replacement program) may be warranted in the future.

On average, the District currently replaces approximately two miles of pipeline per year. With over 400 miles of pipeline in the ground, this rate translates to taking over 200 years to replace the entire water system. Approximately 60 percent of the District's system is asbestos cement (AC) pipe, and one of the unknowns is its current condition and potential remaining lifespan. While whitepaper reports indicate that AC pipe can last well into the hundreds of years under ideal conditions, actual field-testing would provide a basis of prediction based on site-specific deterioration rates.

The primary factor for AC pipe corrosion in California is calcium leaching. Calcium leaching follows a two-step process as documented in *Water Research Foundation Project 4480 – Development of an Effective Strategy for Asbestos Cement Pipe*:

- Step 1 – Conversion of free lime ( $\text{Ca}(\text{OH})_2$ ) to calcium carbonate ( $\text{CaCO}_3$ )
- Step 2 – Calcium carbonate dissolution and transported away



Step 1 (i.e. carbonation) is fine for AC pipe, but in Step 2, the calcium within the wall dissolves and results in a loss of strength. A common and inexpensive method to assess Step 1 is through phenolphthalein testing (i.e., stain test), which quickly shows where carbonation has not occurred by turning the material pink. However, stain testing often under-estimates the true strength and life of the pipeline when Step 1 occurs but not Step 2. A more accurate process is to measure corrosion directly (Step 2) using energy dispersive X-ray spectroscopy (EDS) testing, which shows the true condition of AC pipe by determining the remaining calcium levels in carbonated pipe sections. This testing method has been verified through comparisons with other sources, including pipeline crush strength testing. Examples illustrating these testing results are shown on the attached figure.

Staff proposes entering into a professional services agreement with HDR Engineering, Inc. for as-needed pipeline condition assessment services in an amount not-to-exceed \$50,000 for fiscal year 2020. The first task order will include initial program development covering assessment workflow and operating procedures; sample collection, logging, and storage procedures; laboratory selection, testing, and frequency; and budget estimating support. Assistance will also be needed to define which testing data to collect, GIS integration, data interpretation, estimating remaining useful life, and determining when proactive assessment may be required. Actual testing would begin in fiscal year 2021 and last multiple years. Once enough data is collected, it can be leveraged in another system-wide pipeline condition assessment where the extents and timing of future replacement projects will be determined based on test results in concert with the spatial location of other pertinent data (e.g., original construction job number, break records, soil type, constructability constraints, and other EDS test results).

ATTACHMENT: Test Results Figure

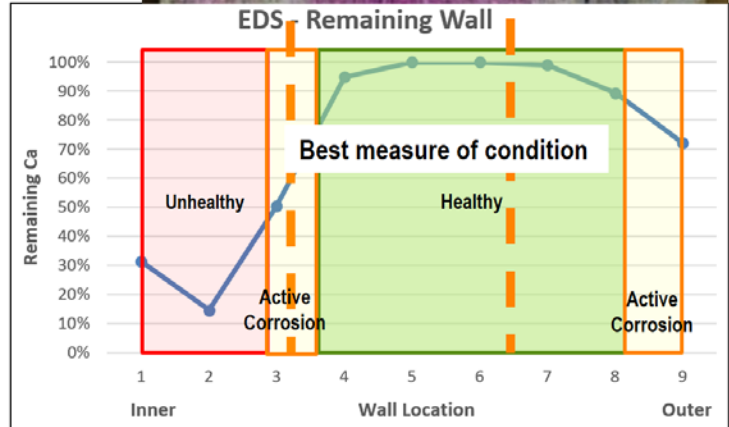
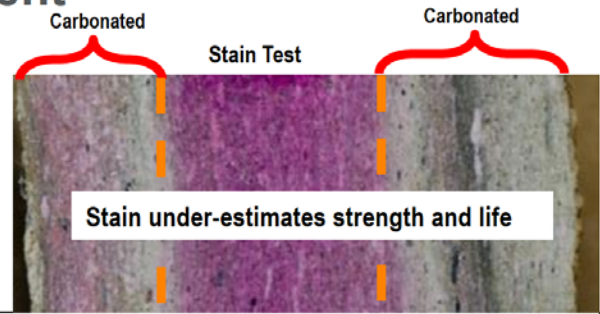
# AC Pipe Corrosion & Measurement

Step 1: Carbonation (**Fine** for AC)

- Precursor to deterioration

Step 2: Dissolve & Carry Away Ca (**Bad**)

- Loss of strength



# AC Pipe Corrosion & Measurement

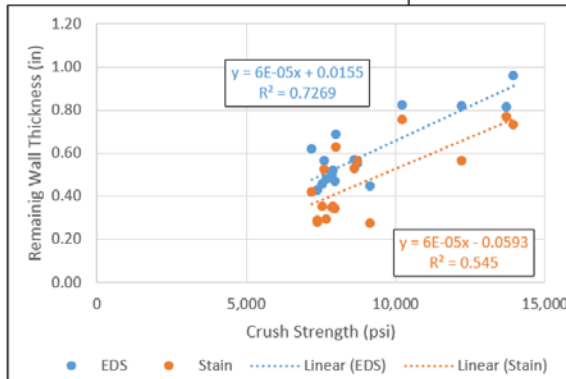
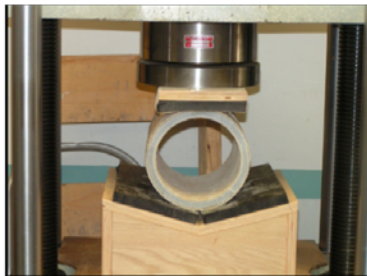
Step 1: Carbonation (**Fine** for AC)

- Precursor to deterioration

Step 2: Dissolve & Carry Away Ca (**Bad**)

- Loss of strength

Verified by several sources:



Tailored Collaboration

Development of an Effective Management Strategy for Asbestos Cement Pipe





**Agenda Item: 10**

**STAFF REPORT**

**Board Meeting Date: February 18, 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: 11.A**

**Board Meeting Date: February 18, 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: 11.B**

**Board Meeting Date:** February 18, 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>Urban Water Institute’s Spring Water Conference</b> <i>Feb. 19-21, 2020; Hilton Palm Springs</i> <i>Registration deadline: Available at door on space available basis</i>	Vásquez (R, H)
<b>2 *</b>	<b>CSDA Quarterly Dinner Meeting</b> <i>Feb. 20, 2020, 6:00-9:00 p.m.; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 2/18/20</i>	
<b>3</b>	<b>Lower Colorado River Tour Field Trip</b> (Water Education Foundation) <i>March 11-13, 2020; Begins in Las Vegas, ends at Ontario International Airport</i> <i>Reservation deadline: 3/4/20</i>	
<b>4</b>	<b>ACWA Legislative Symposium</b> <i>Mar. 12, 2020; Sutter Club, Sacramento</i> <i>Registration deadline: 3/6/20</i>	
<b>5 *</b>	<b>Council of Water Utilities Meeting</b> <i>Mar. 17, 2020; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 3/12/20</i>	
<b>6</b>	<b>Special District Leadership Academy</b> (CSDA) (Advanced track available) <i>Apr. 19-22, 2020; San Diego</i> <i>Registration deadline: 3/19/20</i>	
<b>7 *</b>	<b>Council of Water Utilities Meeting</b> <i>April 21, 2020; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 4/16/20</i>	
<b>8</b>	<b>Central Valley Water Tour Field Trip</b> (Water Education Foundation) <i>April 22-24, 2020; Begins and ends at Sacramento International Airport</i> <i>Reservation deadline: 3/10/20</i>	
<b>9</b>	<b>ACWA Spring Conference</b> <i>May 5-8, 2020; Monterey</i> <i>Registration deadline: 2/24/2020</i>	MacKenzie (R) Vásquez (R) Dorey (R) Sanchez (R)
<b>10 *</b>	<b>Council of Water Utilities Meeting</b> <i>May 19, 2020; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 5/14/20</i>	
<b>11</b>	<b>Special Districts Legislative Days</b> (CSDA) <i>May 19-20, 2020; Sheraton Grand Sacramento</i> <i>Registration deadline: 4/20/20</i>	MacKenzie (R, H)
<b>12 *</b>	<b>CSDA Quarterly Dinner Meeting</b> <i>May 21, 2020, 6:00-9:00 p.m.; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 5/14/20</i>	MacKenzie
<b>13</b>	<b>Bay Delta Tour Field Trip</b> (Water Education Foundation) <i>June 3-5, 2020; Begins and ends at Sacramento International Airport</i> <i>Reservation deadline: 4/21/20</i>	

	<b>SCHEDULE OF UPCOMING MEETINGS AND EVENTS</b>	<b>ATTENDEES</b>
14	<b>Third Annual Groundwater Sustainability Summit (GRA)</b> <i>June 10-11, 2020; Hilton Sacramento Arden West</i> <i>Registration deadline: TBD</i>	
15 *	<b>Council of Water Utilities Meeting</b> <i>June 16, 2020; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 6/11/20</i>	
16 *	<b>Council of Water Utilities Meeting</b> <i>July 21, 2020; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 7/16/20</i>	
17 *	<b>Council of Water Utilities Meeting</b> <i>DARK IN AUGUST</i>	
18	<b>Urban Water Institute Annual Water Conference</b> <i>Aug. 19-21, 2020; Hilton San Diego</i> <i>Registration deadline: TBD</i>	
19 *	<b>CSDA Quarterly Dinner Meeting</b> <i>Aug. 20, 2020, 6:00-9:00 p.m.; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 8/13/20</i>	
20	<b>CSDA Annual Conference</b> <i>Aug. 24-27, 2020; Palm Desert</i> <i>Registration deadline: 7/24/20</i>	
21	<b>Headwaters Tour Field Trip (Water Education Foundation)</b> <i>Sept. 10-11, 2020; Begins and ends in Sacramento area</i> <i>Reservation deadline: 7/29/20</i>	
22	<b>Third Annual Western Groundwater Congress</b> <i>Sept. 14-16, 2020; Burbank, CA</i> <i>Reservation deadline: TBD</i>	
23 *	<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>	
24	<b>2020 Water Summit (Water Education Foundation)</b> <i>Sept. 24, 2020; Sacramento</i> <i>Registration deadline: TBD</i>	
25	<b>Special District Leadership Academy (CSDA)</b> <i>(Advanced track available)</i> <i>Sept. 27-30, 2020; South Lake Tahoe</i> <i>Registration deadline: 8/28/20</i>	
26	<b>San Joaquin River Restoration Tour Field Trip (Water Education Foundation)</b> <i>Sept. 30-Oct. 1, 2020; Begins and ends in Fresno</i> <i>Reservation deadline: 8/18/20</i>	
27	<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: 9/1/20</i>	
28 *	<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>	
29 *	<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>	
30 *	<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>	
31 *	<b>Council of Water Utilities Meeting</b> <i>DARK IN DECEMBER</i>	
32	<b>ACWA Fall Conference</b> <i>Dec. 1-4, 2020; Indian Wells; Registration deadline: TBD</i>	

	<b>SCHEDULE OF UPCOMING MEETINGS AND EVENTS</b>	<b>ATTENDEES</b>
<b>33</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**

**Board Meeting Date: February 18, 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:*

- Water Supply Planning Study
- San Luis Rey Watershed Council participation
- Warner Wellfield Assessment





## **STAFF REPORT**

**Agenda Item: 13**

**Board Meeting Date: February 18, 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.



**Agenda Item: 14**

**STAFF REPORT**

**Board Meeting Date: February 18, 2020**  
**Prepared By: Brett Hodgkiss**

SUBJECT: COMMENTS BY GENERAL COUNSEL

SUMMARY: Informational report by the General Counsel on items not requiring discussion or action.



**Agenda Item: 15**

**STAFF REPORT**

**Board Meeting Date: February 18, 2020**  
**Prepared By: Brett Hodgkiss**

SUBJECT: COMMENTS BY GENERAL MANAGER

SUMMARY: Informational report by the General Manager on items not requiring discussion or action.