



AGENDA
REGULAR MEETING OF THE BOARD OF DIRECTORS
WEDNESDAY, APRIL 1, 2020 - 9:00 AM
1391 Engineer Street, Vista, CA 92081
Phone: (760) 597-3100

COVID-19 RESPONSE PROCEDURES FOR MEETING
NOTICE FOR PARTICIPATION

In light of Governor Newsom's Executive Orders N-29-20 and N-33-20, and guidance from the County of San Diego, State of California, and Centers for Disease Control, please be advised that members of the public will not be able to attend this meeting in person. Executive Order N-33-20 requires persons "stay home or in their place of residence except as needed to maintain continuity of operations..." of critical infrastructure. As welcome as public attendance is at Vista Irrigation District Board of Directors meetings, it does not appear to fit this exception, and Vista Irrigation District encourages compliance with the Governor's Executive Order.

Members of the public may participate through Vista Irrigation District's teleconferencing line. The phone number and applicable pass code for such participation is as follows: Phone (877) 873-8018; Pass Code 474698#.

Vista Irrigation District's teleconferencing line capacity is limited and not all parties who wish to participate through this method may be able to do so. Phone participants are asked to place calls to this line at or before the scheduled start time of the meeting, so the District staff can organize order of speakers and assure the ability of all who wish to participate. Please also note phone or data charges from your carrier may apply to your use of this option.

To maintain orderliness in proceedings, phone participants will be asked to identify themselves, their address, and the item on the agenda they wish to address. Telephone participants are asked to limit background noise during telephonic participation (with muting features, if available) and to maintain proper decorum suitable to the conduct of public meetings at all times. Telephone participants may not speak until the appropriate time on the agenda and only when recognized by the Board President.

Members of the public may also address the Board of Directors by email; however, such email communication must be received at or before the time of the commencement of the meeting. The email address to use for such communications is as follows: BoardSecretary@vidwater.org.

Please also be advised that one or more members of the Vista Irrigation District Board of Directors or staff may participate in this meeting by teleconference or other digital means consistent with Executive Order N-29-20.

Vista Irrigation District appreciates your understanding as we all work through the unprecedented challenges posed by COVID-19. In compliance with the Americans with Disabilities Act, if special assistance is needed to participate in the Board meeting telephonically, please contact the Board Secretary during regular business hours at (760) 597-3128. Notification received 48 hours before the meeting will assist Vista Irrigation District in making reasonable accommodations.



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WEDNESDAY, APRIL 1, 2020 - 9:00 AM
1391 Engineer Street, Vista, CA 92081
Phone: (760) 597-3100

- 1. CALL TO ORDER**
- 2. ROLL CALL – DETERMINATION OF QUORUM**
- 3. PLEDGE OF ALLEGIANCE**
- 4. CONSIDER APPROVAL OF AGENDA**

In the case of an emergency, items may be added to the Agenda by a majority vote of the Board of Directors. An emergency is defined as a work stoppage, a crippling disaster, or other activity that severely imperils public health, safety, or both. Also, items that arise after the posting of the Agenda may be added by a 2/3 vote of the Board. Items on the agenda may be taken out of sequential order as their priority is determined by the Board of Directors. The Board may take action on any item appearing on the agenda.

5. ORAL COMMUNICATIONS

Members of the public may address the Board on items not appearing on the posted agenda, which are within the subject matter jurisdiction of the Board. Speakers are asked to limit their comments to five (5) minutes; the total time allowable for all public comment on items not appearing on the agenda at any one meeting may be limited. Comments on items listed on the agenda will be taken before or during discussion of the agenda item. Members of the public desiring to address the Board are asked to complete a speaker's slip available on the table near the entrance of the Boardroom and present it to the Board Secretary prior to the meeting.

6. CONSENT CALENDAR

Any member of the Board, staff or public may request that items from the Consent Calendar be removed for discussion. Items so removed shall be acted upon separately immediately following approval of items remaining on the Consent Calendar.

A. Acknowledgement of easement, Encroachment Permit, Joint Use Agreement and Grant of Right of Way

Recommendation: Acknowledge existing easement via Tract Map, approve Encroachment Permit (131) and Joint Use Agreement and accept Grant of Right of Way (L54) for a 380 dwelling unit residential subdivision consisting of approximately 109.3 gross acres owned by Lennar Homes of California, located in the northwest portion of the City of Escondido along Country Club Lane (LN 2018-010; APNs 224-210-53, 224-211-05, -12, -15, 224-230-36, -43, 224-430-04, 224-431-01, -02 -03, 224-490-05, -06 and 224-491-01).

B. Minutes of the Board of Directors special meeting on March 11, 2020

Recommendation: Approval of draft minutes.

C. Minutes of the Board of Directors meeting on March 18, 2020

Recommendation: Approval of draft minutes.

D. Ratification of check disbursements

Recommendation: Adopt a resolution ratifying checks numbered 64009 through 64131 in the amount of \$2,941,312.72 pursuant to the cash disbursement report detailing expenditures.

7. DIVISION REPORTS

Informational reports by Operations and Field Services, Water Resources, Administration, and Engineering Divisions concerning District operations and activities.

8. VISTA FLUME REPLACEMENT

Recommendation: Select replacement of the Vista Flume as the preferred alternative project and authorize staff to initiate planning efforts to replace the Vista Flume.

9. MATTERS PERTAINING TO THE ACTIVITIES OF THE SAN DIEGO COUNTY WATER AUTHORITY

Informational report by staff and directors concerning the San Diego County Water Authority.

10. MEETINGS AND EVENTS

- A. Reports on meetings and events attended by Directors*
- B. Schedule of upcoming meetings and events*

11. ITEMS FOR FUTURE AGENDAS AND/OR PRESS RELEASES

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.

12. COMMENTS BY DIRECTORS

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.

13. COMMENTS BY GENERAL COUNSEL

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

14. COMMENTS BY GENERAL MANAGER

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

15. ADJOURNMENT

- The agenda package and materials related to an agenda item submitted after the packet's distribution to the Board, are available for public review outside the lobby of the District office during normal business hours.*
- Agendas and minutes are available at www.vidwater.org.*
- VID Board meetings are generally held on the first and third Wednesday of each month.*

AFFIDAVIT OF POSTING

I, Ranae Ogilvie, Assistant Board Secretary of the Vista Irrigation District, hereby certify that I posted a copy of the foregoing agenda in the lobby window of the District office at 1391 Engineer Street, Vista, California at least 72 hours prior to the meeting, in accordance with Govt. Code Sec. 54954.2(a).

Date: March 26, 2020


Ranae Ogilvie, Assistant Board Secretary



Agenda Item: 6

STAFF REPORT

Board Meeting Date: April 1, 2020
Prepared By: Ranae Ogilvie

SUBJECT: CONSENT CALENDAR

- A. Acknowledgement of easement, Encroachment Permit, Joint Use Agreement and Grant of Right of Way
- B. Minutes of the Board of Directors special meeting on March 11, 2020
- C. Minutes of the Board of Directors meeting on March 18, 2020
- D. Ratification of check disbursements



STAFF REPORT

Agenda Item: 6.A

Board Meeting Date: April 1, 2020
Prepared By: Matt Atteberry
Reviewed By: Randy Whitmann
Approved By: Brett Hodgkiss

SUBJECT: ACKNOWLEDGMENT OF EASEMENT, ENCROACHMENT PERMIT, JOINT USE AGREEMENT AND GRANT OF RIGHT OF WAY

RECOMMENDATION: Acknowledge existing easement via Tract Map, approve Encroachment Permit (131) and Joint Use Agreement and accept Grant of Right of Way (L54) for a 380 dwelling unit residential subdivision consisting of approximately 109.3 gross acres owned by Lennar Homes of California, located in the northwest portion of the City of Escondido along Country Club Lane (LN 2018-010; APNs 224-210-53, 224-211-05, -12, -15, 224-230-36, -43, 224-430-04, 224-431-01, -02 -03, 224-490-05, -06 and 224-491-01).

PRIOR BOARD ACTION: None.

FISCAL IMPACT: None.

SUMMARY: The District currently has an easement encumbering the project that is identified on the Tract Map; acknowledgment of the easement will allow the owner to record the map with the County Recorder. Approval of Encroachment Permit (131) and Joint Use Agreement will allow the owner to work within the Vista Flume (Flume) easement and install storm drain facilities for the City of Escondido (Escondido). Acceptance of Grant of Right of Way (L54) via an easement document will allow the District to secure a dedicated 30-foot specific easement over a relocated transmission main through the project.

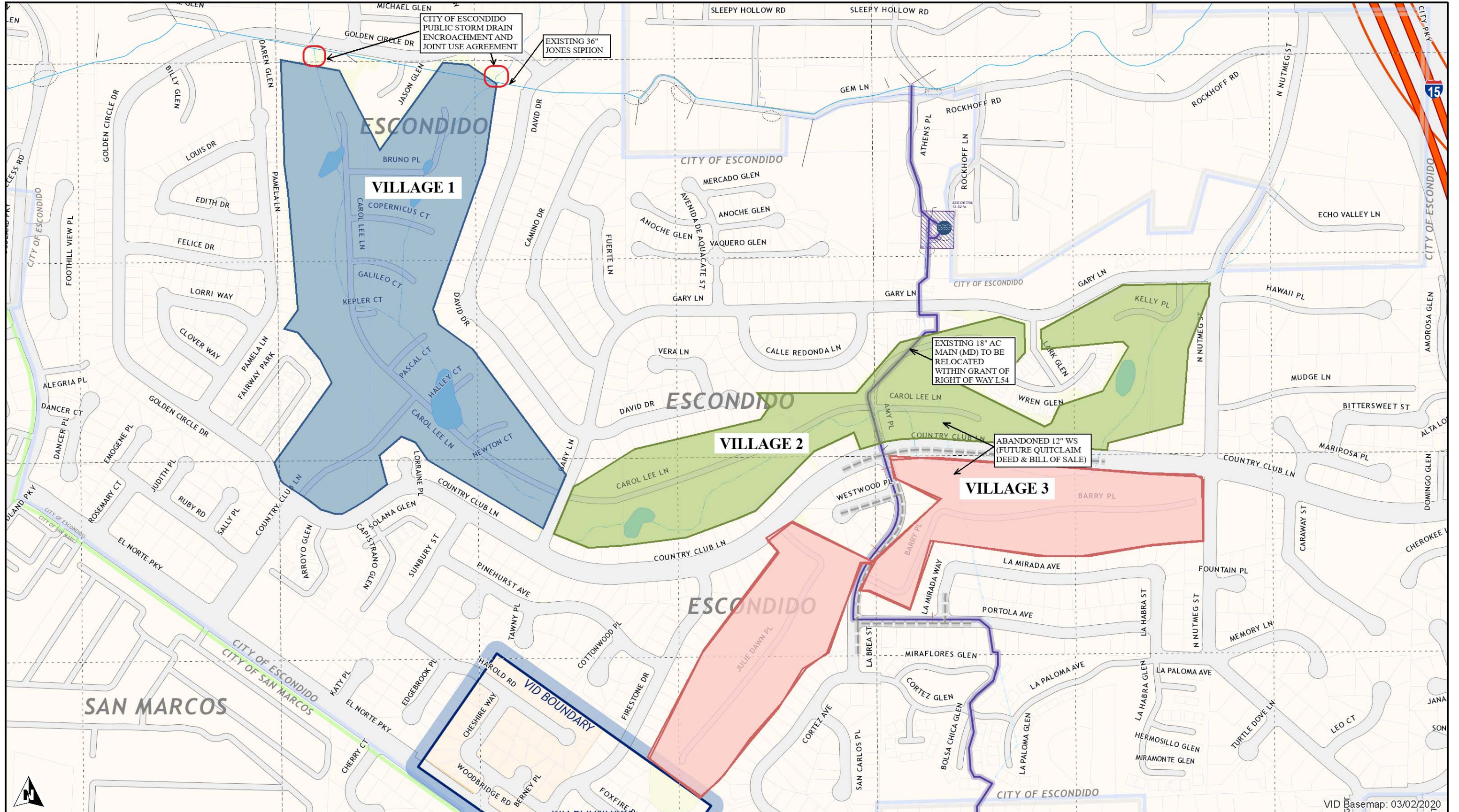
DETAILED REPORT: The proposed Villages project is located on approximately 109.3 acres of land that was previously the old Escondido Golf Course along Country Club Lane between Nutmeg Street and Pamela Lane in Escondido. The owner, Lennar Homes of California, is in the process of developing a 380 dwelling unit residential subdivision that will be served water by Escondido. Development is planned to occur in three phases, Villages 1, 2 and 3, with each having the following District involvement.

- Village 1 – the underground Jones Siphon portion of the Flume is located across the northern tip of the subdivision and storm drain improvements for Escondido are required within the District’s easement. This work requires District acknowledgment of the District’s existing easement on the Tract Map, an encroachment permit with the developer to install the storm drain facilities, and a joint use agreement with Escondido.
- Village 2 – proposes to relocate an existing 18-inch transmission main that feeds the Bennett service area and transfer ownership of an abandoned water main to the owner. This work requires District approval of the improvement plans, a new grant of right of way, acknowledgment of the new easement on the Tract Map, and a quitclaim and bill of sale for the abandoned water main.
- Village 3 – proposes to transfer ownership of an abandoned water main to the owner, which requires a quitclaim and bill of sale.

Acknowledgment, approval and acceptance of these items will allow the owners to proceed with the development of Village 1, and the District to secure an easement within Village 2. Additional approvals for Villages 2 and 3 will be brought to the Board for consideration at a subsequent Board meeting.

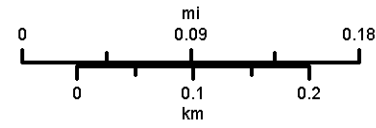
ATTACHMENTS: Project Map
Village 1 Storm Drain Encroachment Map

VID INTRANET MAP



Date Printed: 3/20/2020 at 11:58:52 AM

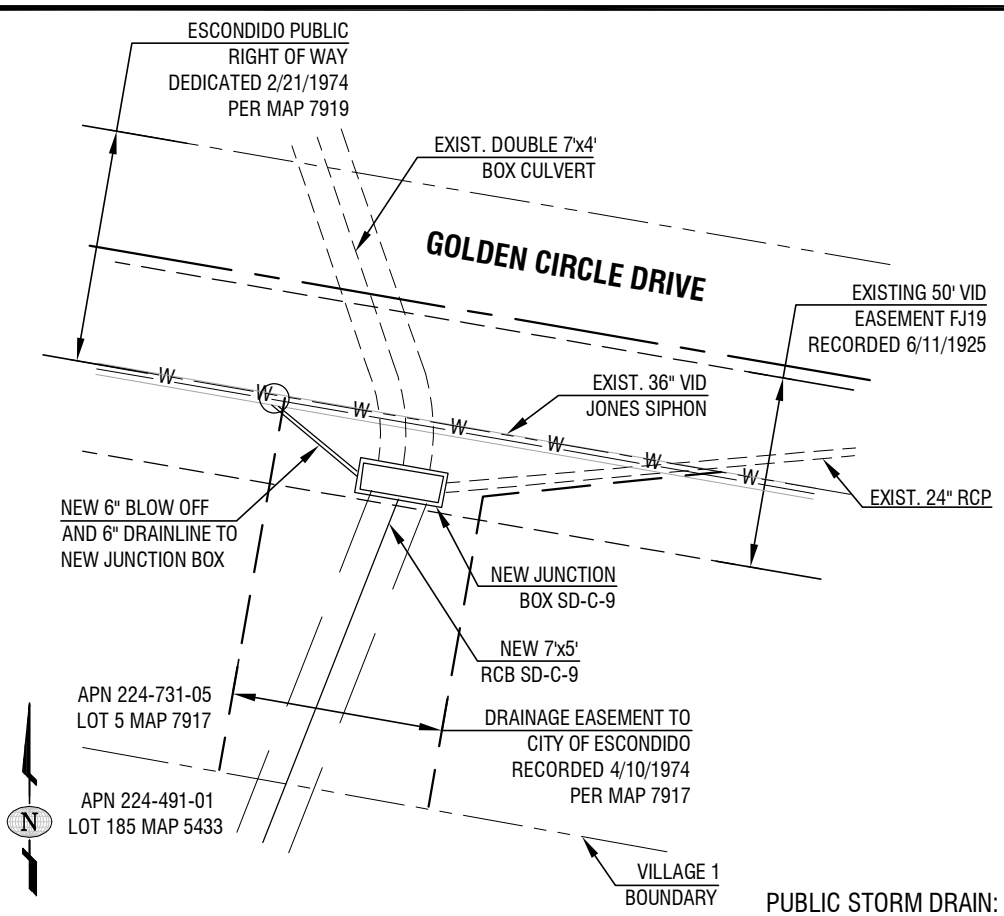
1:6,500



VID Basemap: 03/02/2020

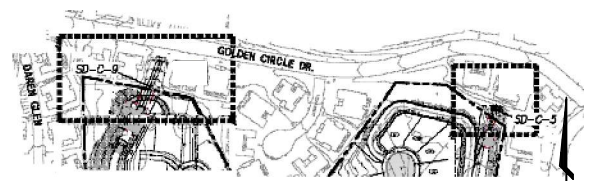
DISCLAIMER: The Vista Irrigation District makes no representation or warranties regarding the accuracy of this map nor the data from which the map was derived. The Vista Irrigation District shall not be liable under any circumstances for any direct, indirect, special, incidental or consequential damages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





WEST VID JONES SIPHON CROSSING

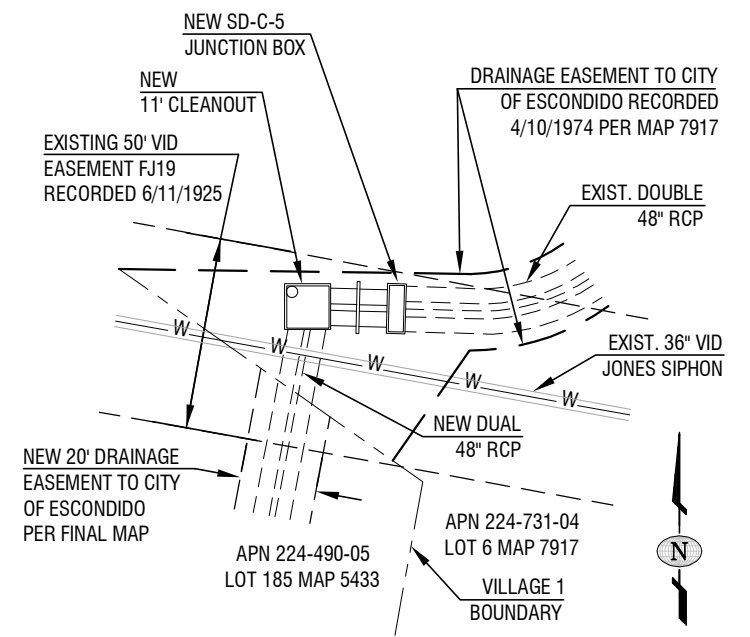
PUBLIC STORM DRAIN "SD-C-9" ENCROACHMENT
 (PER SHEET 7 OF PUBLIC STORM DRAIN PLANS DWG D18-0001)



PUBLIC STORM DRAIN:
 CITY OF ESCONDIDO
 ENGINEERING SERVICES
 201 NORTH BROADWAY
 ESCONDIDO, CA 92025

DEVELOPER:
 LENNAR HOMES OF CALIFORNIA, INC
 16465 VIA ESPRILLO, SUITE 150
 SAN DIEGO, CA 92127
 ARNIE WHITE 858-618-4936

ENGINEER:
 PROJECT DESIGN CONSULTANTS
 701 B STREET, STE 800
 SAN DIEGO, CA 92101
 619-881-2556



EAST VID JONES SIPHON CROSSING

PUBLIC STORM DRAIN "SD-C-5" ENCROACHMENT
 (PER SHEET 12 OF PUBLIC STORM DRAIN PLANS DWG D18-0001)

VISTA IRRIGATION DISTRICT
THE VILLAGES JOINT USE AGREEMENT /
ENCROACHMENT PERMIT NO. 131

APN 224-731-05; 224-731-04; 224-490-05		T.B.
SCALE 1" = 50'		L.N. 2018-010
APPD. BY	DATE	W.O.
DRAWN BY JB	DATE 1/22/20	
SHEET 1 OF 1	MAP R20; R21	

REVISED: 3/23/20 Jeanette Bradshaw

Z:\Engineering\JOBS\LN-Jobs\LN2018\LN 2018-010 The Villages EscondidoGC\JUA - Encroachment - Highline -GROW\2018-010.dwg

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

March 11, 2020

A Special Meeting of the Board of Directors of Vista Irrigation District was held on Wednesday, March 11, 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; Greg Keppler, Engineering Project Manager; Mark Saltz, Water Resources Specialist; Marlene Kelleher, Director of Administration; and Ramae Ogilvie, Administrative Assistant. General Counsel David Cosgrove was also present.

Other attendees: Doug Gillingham, Gillingham Water; Don MacFarlane, DLM Engineering; Ken Weinberg, Weinberg Water Resources; J.P. Semper and Paige Russell, Brown and Caldwell; Angela Morrow and Chris McKinney, City of Escondido.

3. PLEDGE OF ALLEGIANCE

President Vásquez led the pledge of allegiance.

4. APPROVAL OF AGENDA

20-03-24	<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 agenda as presented.</i>
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5. ORAL COMMUNICATIONS

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

6. WATER SUPPLY PLANNING STUDY

See staff report attached hereto.

Director of Engineering Randy Whitmann welcomed everyone to the third and final Water Supply Planning Study (Study) Workshop. He introduced Mr. Doug Gillingham of Gillingham Water Planning and

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Engineering, Inc. Using a PowerPoint presentation (attached hereto as Exhibit A), Mr. Gillingham provided a brief review of the previous two workshops, recalling that the first workshop was conducted in April 2019. This workshop focused on a long list of alternatives of whether “to Flume or not to Flume” (i.e. to rehabilitate or replace the Flume versus to retire the Flume altogether), project goals and objectives, and evaluation criteria to be used going forward. At the second workshop in August 2019, the project team (Team) presented its evaluation of the alternatives at the “course screening” level. Mr. Gillingham stated that the purpose of this workshop is for the Board to receive the Team’s findings from the “fine screening” analysis, provide input and select a preferred alternative going forward.

Mr. Gillingham stated that the fine screening analysis revealed that the balance scale favors the “To Flume” option. He introduced Mr. Don MacFarlane of DLM Engineering to present the fine screening findings for investigation Box 3, “Local Water System and Treatment”. Mr. MacFarlane stated that the analysis performed for the Box 3 portion of the Study concerns itself with the long-term costs to operate, maintain, repair and replace the District’s local water system. He stated that the Team consulted with a national expert in asset management to refine and confirm the budgeting approach and with a national expert in dams to refine the long-term costs of maintaining the Henshaw Dam. The Team also consulted with City of Escondido (Escondido) staff regarding the Escondido Canal and confirmed that continuous repair of the Escondido Canal is the intended and preferred course of action for the canal over replacement.

Mr. MacFarlane said that the Team developed an asset management approach for budgeting for the future, and for each facility or group of facilities, developed replacement costs and/or ongoing maintenance costs. The Team assumed a range of useful lives from 50-70 years for each facility and developed low, middle, and high range costs. It was noted that Warner Ranch license/lease revenues were not included in these calculations. Mr. MacFarlane stated that based on the middle range costs an increased investment will be needed for the long-term sustainability of the District’s local water system.

Mr. Ken Weinberg of Weinberg Water Resources reviewed the findings for investigation Box 4, “Local Water Transfer Options” which he characterized as part of the “Not to Flume” equation. He stated that the goal of this portion of the analysis was to determine the feasibility of a local water transfer arrangement between the District and a partner agency, and the level of revenue such a deal could generate for the District. After identifying all of the potential transfer partners geographically, the field was narrowed to the most realistic opportunities. Mr. Weinberg stated that a significant constraint on the District’s selection of an exchange partner was the San Luis Rey Indian Water Rights Settlement Agreement (Settlement Agreement) which limits the use of local water solely to the Settlement Agreement parties, leaving Escondido as the only viable option. Mr. Weinberg noted that Escondido would be limited on how much local water it could take due to its need to blend local water with imported water to meet water quality standards as well as its overall long-term reduction in treated water demand.

Mr. Weinberg stated that the financial benefits of an exchange agreement with Escondido would be determined by how much local water Escondido would be able to take and at what price. The amount of water Escondido would be able to receive year to year would vary. Based on an estimated mid-range, long-term average transfer of 2,000-acre feet per year, combined with an assumed purchase price at mid-point between local water system costs and the Water Authority rate, the Team’s analysis shows that the net exchange benefit to the District would not be large.

Mr. J.P. Semper of Brown and Caldwell presented Box 2, “System Improvements (without the Flume)”, stating that this portion of the Study is primarily focused on water supply reliability during a planned 10-day aqueduct shut-down by the San Diego County Water Authority (Water Authority). He stated that as discussed in the last workshop, the best alternative would be the installation of isolation valves

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on the Water Authority's aqueduct system. The Team met with Water Authority staff and confirmed that the Aqueduct Isolation Valve Project (AIV Project) is scheduled for Fiscal Year 2022-23. The AIV Project would allow treated water shutdowns to be limited to just one of the two treated water pipelines at a time (Pipeline 3 and Pipeline 4). Mr. Semper said that once these valves are in place, scheduled aqueduct shutdowns would no longer cut off treated water deliveries to the District.

In addition to the AIV Project, Mr. Semper reviewed two additional elements recommended for supply reliability in the "Not to Flume" option. The existing interconnects with the City of Oceanside and Vallecitos Water District (Vallecitos) would still be required, and the District would need to evaluate if modifications are necessary to existing agreements. Additionally, the future Pechstein II Reservoir would need to be enlarged from what is already planned. Both of these elements would make the District's system more robust; however, the most substantial reliability measure that would need to be undertaken is the Water Authority's AIV Project.

Mr. Semper briefly discussed the remaining Box 2 components. A range of costs to transfer the Boot and Bennett areas has been developed and remains unchanged from the previous workshop. A new component to the "Not to Flume" option is the cost savings associated with not needing to pump to the highest pressure zone when water is delivered from the Water Authority.

Ms. Paige Russell of Brown and Caldwell presented investigation Box 1, "Flume Rehabilitation / Replacement". She reviewed all of the existing bench, siphon, and tunnel sections of the Flume, noting the age and condition of each. She stated that, overall, the system is old, and none of the bench sections would be suitable for reuse. She said the easements might be able to be reused; however, many have limited access and difficult construction conditions. She said that many of the siphons would likely require full structural rehabilitation or replacement, but an internal condition assessment would be needed to determine their actual condition.

Ms. Russell stated that the Team has studied two alignments for replacing the Flume; one is referred to as the "Hybrid" alignment, which would make use of the existing sections of the Flume. She noted that only a few reaches would be usable in the Hybrid alignment, and the finished alignment would only allow for minimal pressurization. The Team also evaluated a conceptual "All-New" alignment which would be a buried pipeline, using a more direct route (approximately two miles shorter), that would cost less than the Hybrid alignment. The All-New alignment would consist of a completely new, fully pressurized pipeline located mostly in the public right-of-way. She emphasized that the All-New alignment is conceptual, and the actual alignment would need to be determined by an Alignment Study. Ms. Russell reviewed the preliminary cost estimates for the two alignments, stating that the estimated cost of the Hybrid alignment would be \$130 million, and the estimated cost for the All-New alignment would be \$120 million.

Mr. Gillingham clarified that, at this point in the Study, no particular alignment is being recommended; two conceptual alignments have been identified and it appears that the All-New alignment would be cost-preferred and have pressurization advantages. If the Board decides to move forward with the "To Flume" option, the next step would include preparation of a detailed preliminary design for all of the alignments alternatives, including environmental issues, and would ultimately identify a preferred route.

Ms. Russell reviewed the phasing opportunities that may be possible with the Hybrid alignment versus the All-New alignment. The Hybrid alignment may be able to be broken into six phases with the possibility of being split further into additional phases; this would allow the District to prioritize the most critical sections to replace, spread out capital costs of a number of years, explore funding opportunities, and potentially fund the project on a "pay as you go" basis. Because the All-New alignment lies mostly in the

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public right-of-way and crosses the existing Flume alignment less, it only has the potential to be split into two phases, which would not allow for as much attenuation of the District's capital costs.

Director MacKenzie asked about the status and condition of the Escondido Canal (Canal) which is vital for transporting water to the Escondido-Vista Treatment Plant. Mr. Gillingham stated that based on conversations with Escondido staff about the Canal, Escondido's constant service and repair will continue to sustain the Canal indefinitely. He noted that historically there have been periods in which the canal was out of service for an entire year for various reasons, and this assumption was built into the Team's analysis. Escondido staff member Angela Morrow stated that the longevity of the Canal is good, and Escondido has no plans to eliminate or replace it. She added that Escondido has a full time crew that does nothing but repair and maintain the Canal. Escondido staff member Chris McKinney further assured the Board that Escondido will cooperate with the District concerning any Flume replacement right-of-way issues and any other issues that may come up associated with the Project.

Mr. Gillingham continued with the conclusions of the Study first highlighting some of the key assumptions. He stated that after a detailed analysis of the local water deliveries to the District during the period between 1960 and 2018, the mid-range average was 5,000-acre feet per year, which was used as the assumed long-term yield of the local water supply. Mr. Gillingham stated that another assumption used was that the Water Authority rates will likely increase at a rate faster than inflation. The mid-range projection is that Water Authority rates will increase each year at a rate that is about 1.5 percent greater than inflation for the next ten years, and at a rate equal to inflation for years 11 through 30.

Mr. Gillingham stated that the Team has met with a financial consultant, who is an expert in grant and loan funding opportunities for public agencies, and confirmed that there are favorable prospects for obtaining low-interest loans from the State Revolving Fund as well as from the America's Water Infrastructure Act. The assumption used in the analysis is that approximately 50 percent of the Project's capital cost would be funded by a State Revolving Fund loan, and the remaining 50 percent would be financed by the District at a higher interest rate. The melded mid-range cost of capital using these assumptions is 2.5 percent per year. Mr. Gillingham stated that the Team worked with District staff to determine a reasonable inflation rate for water system costs and arrived at a rate of three percent per year with the assumed internal discount rate for the District also being three percent per year. Mr. Gillingham stated that this is the financial basis for the calculations in the cost comparisons that were done comparing the "Not to Flume" versus "To Flume" options. The results show that the "To Flume" option is the least costly water supply alternative, having an estimated first-year unit cost of \$2,000 per acre-foot and total 30-year present-worth cost of \$240 million. In comparison, the "Not to Flume" option has an estimated first-year unit cost of \$2,200 per acre-foot and total 30-year present-worth cost of \$350 million.

Mr. Gillingham reviewed the comparison of major non-cost components of the two alternatives. Maximizing service reliability and operational effectiveness, implementing other opportunities and regional cooperation were all preferable in the "To Flume" option while capital outlay expenditures was preferable in the "Not to Flume" option. The category of minimizing environmental impacts and concerns was neutral for both options. Mr. Gillingham stated that all of these categories and values are subjective; however, in the Team's opinion, the "To Flume" option looks at least as good, if not better, than the "Not to Flume" option.

Mr. Gillingham reviewed a series of sensitivity analyses that were performed on the mid-range assumptions used in the Study and the impacts to the estimated 30-year costs. In this analysis, the variables of interest rates, Water Authority rate escalation, local water exchange revenue, Boot and Bennett exchange costs, Flume replacement costs, and average local water supply yield were all individually adjusted to be

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less favorable for the “To Flume” option; none of these adjustments tipped the cost balance scale to favor the “Not to Flume” option. Mr. Gillingham then showed another analysis in which all variables except average local water supply yield were adjusted to favor the “Not to Flume” option, and the scale became more balanced, but still slightly favored the “To Flume” option by \$10 million. The only way for the scale to tip in favor of “Not to Flume” was to adjust all six variables, which would be a very unlikely scenario.

Mr. Gillingham reviewed the next steps for project implementation now that the final fine screening phase of the Study is complete. If the Board wishes to pursue the “Not to Flume” alternative, planning efforts would be required to retire the Flume, transition the Boot and Bennett areas to Vallecitos, build Pechstein II, coordinate timing of the AIV project with the Water Authority, and formalize terms for a water purchase agreement with Escondido. The estimated schedule for these tasks is between 12 and 24 months. For the “To Flume” option, the next steps in planning would include completing an alignment study, processing all necessary environmental documentation, financial planning, and other miscellaneous tasks that are all estimated to take between 18 and 36 months to complete. Following all of this preliminary work in the “To Flume” alternative, Mr. Gillingham estimated it could take an additional three years to complete the construction of the new pipeline. Mr. Gillingham stated that the decision to be made at this point in time is which path to pursue, “To Flume” or “Not to Flume”. Mr. Gillingham concluded that the Team recommends the “To Flume” option.

The Board agreed that the time has come to make a decision regarding the future of the Flume and to move forward to the next step. The Board thanked M. Gillingham and his Team for the clear, concise, and thorough Study. Mr. Whitmann echoed the comments made regarding the Team. Mr. Hodgkiss joined in complimenting the Team, as well as District staff who spent a tremendous amount of time working with the Team on the Study. Mr. Hodgkiss also acknowledged Escondido staff and their cooperation and efforts in providing data needed to complete the Study. Mr. Hodgkiss thanked the Board as well, acknowledging that it is a big decision it has been tasked with, and the Board has demonstrated great leadership and courage in the process.

Mr. Whitmann reviewed next steps, stating that staff will add a line item to the Budget to proceed with Flume investigations and will begin developing a Scope of Work for an alignment study. He estimated that the alignment study could kick off around the beginning of the next fiscal year.

7. COMMENTS BY DIRECTORS

Director MacKenzie suggested that the Water Supply Planning Study be placed on an upcoming Board meeting agenda for further discussion and decision (by the Board) on whether to retire or rehabilitate/replace the Flume; President Vásquez and the Board agreed. In the meantime, Director Dorey suggested that the briefing documents from all three workshops be posted online, all in a prominent, easy to find location.

The Board discussed the need for public outreach regarding the Project, including issuing a press release to the local news publications, and the appropriate timing for such outreach. The Board discussed the importance of making sure the public is well informed about the Project and has a chance to comment about it prior to any firm decisions being made. President Vásquez suggested that when the item is agendized for Board action to include in the description that the matter to be considered by the Board has to do with the potential replacement of the Vista Flume at a cost in excess of \$100 million.

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8. COMMENTS BY GENERAL MANAGER

Mr. Hodgkiss informed the Board that the General Manager of the Metropolitan Water District, Jeff Kightlinger has announced that his is going to step down (retire) from his position at the end of 2020. Mr. Hodgkiss also announced that just over two inches of rain fell at Lake Henshaw, adding approximately 70-acre feet of water to the lake.

9. ADJOURNMENT

There being no further business to come before the Board, at 11:10 a.m. President Vásquez adjourned the meeting.

Richard L. Vásquez, President

ATTEST:

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

DRAFT MINUTES

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

March 18, 2020

An Adjourned Meeting of the Board of Directors of Vista Irrigation District was held on Wednesday, March 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, and MacKenzie; Director Sanchez was also present by teleconference.

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

Other attendees: None.

3. PLEDGE OF ALLEGIANCE

Director Dorey led the pledge of allegiance.

4. APPROVAL OF AGENDA

General Counsel David Cosgrove advised the Board of a need to add an agenda item in response to the orders received after the posting of the agenda from the County of San Diego Health and Human Services Agency regarding the novel coronavirus (COVID-19) pandemic. He suggested adding item "8.A" to follow agenda Item 8 "Pandemic Response Plan". He stated that the nature of the item would be for the Board to consider authorizing the General Manager to declare a local emergency, if needed, and to direct General Counsel to draft an amendment to the District's Rules and Regulations to reflect said authority.

20-03-25	<i>Upon motion by Director Dorey, seconded by Director Miller and unanimously carried (5 ayes: Miller, Dorey, Sanchez, MacKenzie, and Vásquez), the Board of Directors added agenda Item 8.A to consider authorizing the General Manager to declare a local emergency, if needed, and General Counsel to draft an amendment to the District's Rules and Regulations to reflect said authority.</i>
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DRAFT MINUTES

Not part of the District's permanent record until approved by the Board of Directors.

20-03-26 *Upon motion by Director MacKenzie, seconded by Director Dorey and unanimously carried (5 ayes: Miller, Dorey, Sanchez, MacKenzie, and Vásquez), the Board of Directors approved the agenda as amended.*

5. ORAL COMMUNICATIONS

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

6. CONSENT CALENDAR

20-03-27 *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 Consent Calendar, including Resolution Nos. 20-08 and 20-09 proclaiming the week of May 17-23, 2020 as Special Districts Week and approving disbursements, respectively.*

A. Grant of Right of Way

See staff report attached hereto. Staff recommended and the Board accepted Grant of Right of Way (M131) via City of Vista Tract Map P17-0361 for a specific easement over a 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; I-3087; APNs 217-021-01, -02, -20, -29 and -30; DIV 5).

B. 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 mixed-use affordable housing development of 60 apartment units and commercial retail space, known as Paseo Artist Village, consisting of approximately 0.82 gross 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. Special Districts Week

See staff report attached hereto.

The Board adopted Resolution No. 20-08 proclaiming the week of May 17-23, 2020 as Special Districts Week, by the following roll call vote:

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

Resolution No. 20-08 is on file in the official Resolution book of the District.

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D. Identity Theft Prevention Program

See staff report attached hereto. The Board received an update on the District's Identity Theft Prevention Program.

E. Materials for mainline replacement

See staff report attached hereto. Staff recommended and the Board approved the purchase of pipeline materials from Ferguson Waterworks for mainline replacement on York Drive in the amount of \$218,571.05.

F. District vehicle purchase

See staff report attached hereto. Staff recommended and the Board authorized the purchase of a 2021 F-650 Ford truck from Downtown Ford Sales in the amount of \$60,599.96.

G. Minutes of Board of Directors meeting on March 4, 2020

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

H. Resolution ratifying check disbursements

RESOLUTION NO. 20-09

BE IT RESOLVED, that the Board of Directors of Vista Irrigation District does hereby approve checks numbered 63901 through 64008 drawn on Union Bank totaling \$179,181.62.

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 18th day of March 2020.

7. WARNER RANCH SIPHON 1B LINING PROJECT

See staff report attached hereto.

Director of Water Resources Don Smith stated that the Warner Ranch Siphon 1B Lining Project (Project) is complete, and staff is recommending that the Project be accepted. He noted that a review of the post installation video showed varying degrees of wrinkling throughout the newly installed liner; after discussing the issue with the District's consultant, IEC, it was determined that the wrinkling would not appreciably interfere with the operation of the siphon and attempts to repair the wrinkles could degrade the overall liner integrity. Mr. Smith said that Nu-line Technologies has agreed to extend the 1-year warranty to a 5-year warranty (guaranteed by a bond) and to clean and perform a video inspection of the liner just prior to the end of the warranty period.

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20-03-28 *Upon motion by Director Dorey, seconded by Director Miller and unanimously carried (5 ayes: Miller, Dorey, Sanchez, MacKenzie, and Vásquez), the Board of Directors accepted the Warner Ranch Siphon 1B Lining Project, directed staff to file a Notice of Acceptance with the County Recorder's Office, and authorized staff to release final retention payment in the amount of \$3,881.75 to Nu-Line Technologies, after the thirty-five day filing period.*

8. PANDEMIC RESPONSE PLAN

See staff report attached hereto.

Director of Water Resources Frank Wolinski presented an overview of the District's Pandemic Plan (Plan) and what the District has done so far in response to the COVID-19 pandemic. He stated that this Plan was incorporated into the District's Emergency Response Plan in 2009; it was updated in 2015. Mr. Wolinski stated that the District's Plan follows the World Health Organization's six-phase Pandemic Influenza Preparedness and Response Plan. The first three phases of the District's Plan have to do with planning and preparedness, and phases four through six have to do with response and mitigation. He said that the District is already at phase five of the Plan based recent events including on the President of the United States' declaration of a National Emergency, widespread school closures and limits on gatherings.

Mr. Wolinski stated that phase six of the District's Plan would be activated if the District begins to experience increased absenteeism due to the virus. In phase six, the District would shift to focusing strictly on its essential functions; the Plan outlines what essential functions are to be performed, and which positions are needed to perform those functions. He noted that, based on the Plan, the District is able to continue to function with as much as 40 percent of staff absent. Mr. Wolinski said that presently, the District is fully staffed; the main concern will be childcare should all of the schools remain closed for an extended period. It was noted that about 50 percent of the employees have school-aged children.

Mr. Wolinski reviewed what has been done in the earlier phases of the Plan, such as disinfecting the District headquarters, which is continuing to be done every day. Supplies have been assessed (and ordered, if available), such as disinfectant, hand sanitizer, sanitizing wipes, and laboratory supplies. The supply chains for sanitizing supplies, such as hand sanitizer and disinfecting wipes have been impacted by increased demand, and the District's on-hand supplies are therefore limited. Hand sanitizer has been provided in central locations for employees' use, and staff plans to make hand sanitizer from an already on-hand supply of alcohol and aloe gel to supplement available supplies. When hand sanitizer is readily available again, the District plans to order gallon containers to be maintained as an emergency supply (being mindful of the products shelf life).

Mr. Wolinski stated that staff has been updated on the District's Pandemic Plan, and recent executive orders issued by Governor Newsom removing the waiting period for unemployment and disability insurance for Californians who lose work as a result of the COVID-19 outbreak. District employees have been practicing social distancing, and measures have been taken for employees who work in the field, such as meter readers and system operators, to minimize face-to-face interaction with customers. In-person meetings between District staff and consultants or sales people have been temporarily suspended; communications with consultants and sales people are being conducted via telephone or other electronic means (e.g., email, teleconference, etc.).

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Mr. Wolinski stated that the lobby has been closed for in-person transactions in Customer Service and Engineering. A list of alternative payment options has been posted on the District's website and in the window of the lobby. He said that information regarding COVID-19 has also been posted on the District's website with messaging letting customers know that the water supply is safe.

Ms. Kelleher reviewed examples of staffing contingency plans for Administration, Customer Service, and Finance sections, and Mr. Wolinski reviewed examples of staffing contingency plans for Operations and Field Services. Ms. Kelleher provided a specific example for the District's Information Technology section; she stated that the section's staff can access and work on much of the District's computing systems remotely via the Cloud allowing them to perform work offsite if necessary. Director MacKenzie suggested that Cloud computing be added to the District's capabilities identified in the Plan during the next update.

Director Sanchez commented that as a result of the COVID-19 pandemic there could be an influx of delinquent customer payments. Mr. Hodgkiss stated that the District is prepared to work with customers through this pandemic event. He added that the District has no plans to shut-off customers for non-payment, partly in response to Governor Newsom's recent executive order regarding utilities regulated by the California Public Utilities Commission not locking services for non-payment during this emergency. The District is taking this action in recognition of the obvious health and safety issues posed when shutting off a customer's water and the unprecedented hardships many of its customers may be going through as a result of the COVID-19 pandemic. Mr. Hodgkiss stated that he anticipates there will be a fiscal impact associated with the pandemic, but it is unknown at this time.

Director MacKenzie suggested compiling information to provide to customers who are experiencing financial hardships and directing them to charitable organizations and services that can help. She said she is familiar with 211, but she heard that the San Diego Foundation might be offering some assistance during his time. She asked staff to look into this so the information can be shared with customers.

8.A GENERAL MANAGER AUTHORIZATION TO DECLARE A LOCAL EMERGENCY

Mr. Cosgrove said that local emergency declarations are allowed under Government Code Section 8630, and they are generally issued by cities or counties. Once in place, this mechanism can expand the powers of the agency, provide access to broader emergency powers, and improve the District's eligibility for emergency funding. He said that in reviewing the District's Rules and Regulations, Section 6.9 "Emergency Preparedness Policy", there is no mechanism for the General Manager to issue an emergency declaration. Mr. Cosgrove stated that he (and staff) recommend that the Board authorize the General Manager to declare a local emergency, if needed, and direct General Counsel to draft an amendment to the District's Rules and Regulations to reflect said authority. He also recommended that said authority be reflected in the District's Emergency Response and Pandemic Response Plans when updated.

The Board discussed the matter and received clarification as to the need for this action. Mr. Cosgrove clarified that this action is not legally required, but it would be helpful in clarifying procedures related to the District's Emergency and Pandemic Response Plans.

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20-03-29 *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 General Manager to declare a local emergency, if needed, directed General Counsel to draft an amendment to the District's Rules and Regulations, Section 6.9 reflecting said authority, and directed that this authority also be reflected in future updates of the District's Emergency Response Plan and Pandemic Response Plan.*

9. LAKE HENSHAW / WARNER RANCH INSPECTION TOUR

See staff report attached hereto.

Mr. Hodgkiss stated that this item was to approve the itinerary for the April 16, 2020 Board inspection tour of Lake Henshaw and Warner Ranch; however, in light of the COVID-19 pandemic and the guidelines for social distancing, the Board may prefer to cancel or postpone the tour. The Board asked that this item it be brought back for rescheduling for Fall 2020.

20-03-30 *Upon motion by Director Dorey, seconded by Director Miller and unanimously carried (5 ayes: Miller, Dorey, Sanchez, MacKenzie, and Vásquez), the Board of Directors directed that the scheduling of a Board inspection tour of Lake Henshaw and the Warner Ranch to take place in the Fall 2020, be agendized for consideration later in the year.*

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

See staff report attached hereto.

Director Miller reported that due to the COVID-19 pandemic, all of the San Diego County Water Authority (Water Authority) committee activities have been suspended, and all board meetings will be held strictly by teleconference until further notice.

Mr. Hodgkiss reported on an upcoming teleconference regarding the Water Authority's proposed Regional Conveyance Project on April 9, noting that the financial analysis is complete (pending a third party review), and the proposed project cost appears be comparable to the expected costs from the Metropolitan Water District for moving water from the Imperial Valley to San Diego County. Director Miller stated that he attended a special board meeting regarding the proposed Regional Conveyance Project, and the proposed project is expected to cost approximately \$4.2 billion. He noted that there could be opportunities for regional partners to share some of the cost.

Mr. Hodgkiss reported that he participated in the Member Agencies Managers Meeting via teleconference the previous day, which focused mainly on the COVID-19 pandemic and what each member agency is doing in response. He stated that particular attention was given to agencies that have treatment plants and to making sure the they are able to continue to operate if staffing levels are impacted by COVID-19. Mr. Hodgkiss stated that mutual aid was discussed, and there was willingness among the agencies to assist each other if needed in order to keep all agencies running smoothly. Mr. Hodgkiss said that like the District, the majority of the agencies have closed their lobby doors; and two districts, Olivenhain Municipal Water District and Rainbow Municipal Water District, have declared emergencies (as of the date of the teleconference).

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Mr. Smith updated the Board on what is being done at the Escondido-Vista Water Treatment Plant with regard to its COVID-19 response. He stated that precautions have been taken to keep the employees safe and to make sure they have everything they need, including "Meals Ready to Eat" (MREs), just in case there is a need for the employees to shelter in place.

11. MEETINGS AND EVENTS

See staff report attached hereto.

It was noted that most upcoming meetings in near future have been cancelled, postponed, or changed to teleconferences due to the COVID-19 pandemic.

Director Dorey reported on his recent attendance at the meeting of the Vista Historical Society Hall of Fame Nominating Committee, noting that Director Miller has been nominated and will likely be inducted into the Hall of Fame in May 2020. The Board congratulated Director Miller.

Director MacKenzie reported that she has participated in conducting about five hours of interviews to select an appointee to fill the vacancy on the California Special Districts Association Board of Directors left vacant by Kathy Tieg, former member of the Cucamonga Valley Water District Board of Directors.

12. ITEMS FOR FUTURE AGENDAS AND/OR PRESS RELEASES

See staff report attached hereto.

Mr. Hodgkiss stated that staff is tentatively planning to agendaize the Vista Flume Replacement Project for April 1, 2020. He noted that Association of California Water Agencies Joint Powers Insurance Authority (ACWA JPIA) was planning on attending the Board meeting on April 1 to present a refund check to the District, but due to the COVID-19 pandemic, the presentation will either be cancelled or postponed.

13. COMMENTS BY DIRECTORS

Director MacKenzie referred to a section on the District's website regarding the safety of the District's water, which she stated could use some editing to make it more informative. She stated that the verbiage mentions the water is disinfected, but provides no other explanation about what disinfection means, or how the water is purified. Mr. Hodgkiss stated that one of the first things staff did in response to the COVID-19 pandemic was issue a statement on the Districts' website about the safety of the drinking water. He responded that staff would review this information and see if it can be improved and/or clarified based on Director MacKenzie's comments.

Director MacKenzie added to her earlier suggestion for staff to compile information for customers experiencing financial hardships and that said information be made available to employees.

14. COMMENTS BY GENERAL COUNSEL

Mr. Cosgrove informed the Board about a case from the 9th circuit court regarding regulatory takings (Pakdel vs. San Francisco). In this case, the panel of judges affirmed the district court's dismissal of an action brought against the City and County of San Francisco asserting a challenge to the Expedited Conversion Program (ECP). The ECP allows property owners to convert their tenancy-in-common

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properties into condominium properties on the condition that the owners agree to offer any existing tenants lifetime leases in units within the converted property.

15. COMMENTS BY GENERAL MANAGER

Mr. Hodgkiss thanked District staff for its good work and dedication during this difficult time. He stated that in particular, staff present in the Board room have been instrumental in meeting with him and discussing employees' concerns leading to some of the important actions that have been taken thus far during the COVID-19 pandemic event. He thanked in particular Frank Wolinski, Randy Whitmann, Don Smith and Marlene Kelleher.

Mr. Hodgkiss congratulated Marlene Kelleher on her appointment to serve on the Special Districts Policy Interpretation Committee for the California State Controller's Office. This Committee will be tasked with updating the Special District's Uniform Accounting and Reporting Procedures Manual. The Board joined Mr. Hodgkiss in congratulating Ms. Kelleher.

Mr. Hodgkiss reported that the water level at Lake Henshaw increased by about 600 acre-feet in the last nine days or so after receiving over four inches of rain in the area; the lake contains nearly 5,700 acre-feet of water.

16. CLOSED SESSION: CONFERENCE WITH LEGAL COUNSEL—EXISTING LITIGATION

President Vásquez adjourned the meeting to closed session at 10:28 a.m. for a conference with legal counsel to discuss the following existing litigation per Government Code Sections 54956.9(a) and (d)(1):

- A. Name of Case: Kessner et al. v. City of Santa Clara, et al.;
Santa Clara Superior Court Case No. pending

The meeting reconvened in open session at 10:36 a.m. President Vásquez declared that no reportable action had been taken.

17. ADJOURNMENT

There being no further business to come before the Board, at 10:36 a.m., President Vásquez adjourned the meeting.

Richard L. Vásquez, President

ATTEST:

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



Cash Disbursement Report

Payment Dates 03/05/2020 - 03/19/2020

Payment Number	Payment Date	Vendor	Description	Amount
64009-64010	03/11/2020	Refund Checks 64009-64010	Customer Refunds	130.34
64011	03/11/2020	ACWA/JPIA	Medical & Dental Insurance 04/2020 - Cobra	33.72
	03/11/2020		Medical & Dental Insurance 04/2020 - Cobra	860.63
	03/11/2020		Medical & Dental Insurance 04/2020 - Cobra	33.72
	03/11/2020		Medical & Dental Insurance 04/2020 - Cobra	69.09
	03/11/2020		Medical & Dental Insurance 04/2020 - Cobra	69.09
	03/11/2020		Medical & Dental Insurance 04/2020 - Cobra	69.09
	03/11/2020		Medical & Dental Insurance 04/2020 - Cobra	1,650.70
	03/11/2020		Medical & Dental Insurance 04/2020 - Cobra	3,301.40
	03/11/2020		Medical & Dental Insurance 04/2020 - Employees	171,895.13
	03/11/2020		Medical & Dental Insurance 04/2020 - Retirees	42,264.61
	03/11/2020		Medical & Dental Insurance 04/2020 - P Dorey	1,719.79
	03/11/2020		Medical & Dental Insurance 04/2020 - M Miller	1,790.34
	03/11/2020		Medical & Dental Insurance 04/2020 - P Sanchez	1,790.34
	03/11/2020		Medical & Dental Insurance 04/2020 - J MacKenzie	1,790.34
	03/11/2020		Medical & Dental Insurance 04/2020 - R Vasquez	1,719.79
64012	03/11/2020	Airgas USA LLC	Bottle Exchange	740.69
	03/11/2020		Welding Wire	144.39
	03/11/2020		Welder	3,045.46
64013	03/11/2020	Amazon Capital Services	Hands Free Headset	53.04
64014	03/11/2020	American Water Works Association	AWWA Standards on CD Annual Dues	1,600.00
64015	03/11/2020	AT&T	Data Services	698.93
64016	03/11/2020	CDW Government Inc	iPad Pro 7th Gen with LTE	603.07
64017	03/11/2020	Cecilia's Safety Service Inc	Traffic Control - York Dr/Montgomery Dr	8,787.50
	03/11/2020		Traffic Control - Monte Vista Dr	3,040.00
	03/11/2020		Traffic Control - Hannalei Dr	522.50
64018	03/11/2020	760Print	Door Hanger Policy Printing (10.000)	3,031.00
64019	03/11/2020	Core & Main	Lid 8" Slotted Valve (230)	5,539.70
64020	03/11/2020	Cozad & Fox	Structural Engineering Services 02/2020 - Pechstein	3,968.30
64021	03/11/2020	Direct Energy	Electric 02/2020 - VID	945.14
	03/11/2020		Electric 02/2020 - Henshaw Buildings & Grounds	393.67
	03/11/2020		Electric 02/2020 - Henshaw Well Field	169.83
	03/11/2020		Electric 02/2020 - T & D / Cathodic Protection	34.49
	03/11/2020		Electric 02/2020 - Reservoirs	11.51

Payment Number	Payment Date	Vendor	Description	Amount
	03/11/2020		Electric 02/2020 - Pump Stations	2,629.43
	03/11/2020		Electric 02/2020 - Treatment Plants	28.11
64022	03/11/2020	EDCO Waste & Recycling Services Inc	Trash & Recycling 02/2020	233.87
	03/11/2020		40yd Dumpster	428.62
64023	03/11/2020	Eurofins Eaton Analytical Inc	Mid-Lake Samples 12/2019	340.00
	03/11/2020		UCMR 4 Lab Testing RD-10b	600.00
	03/11/2020		UCMR 4 Lab Testing RD-10a	600.00
64024	03/11/2020	Ferguson Waterworks	3/4" Gasket 1/8" Thick (100)	29.23
	03/11/2020		1" Gasket 1/8" Thick (100)	35.72
	03/11/2020		Calder Coupling 4" Clay x 4" PVC (3)	29.16
	03/11/2020		0.5" PVC Pipe Sch 40 (20)	4.76
	03/11/2020		Check Valve 1.5" PVC Sch 40 S x S (1)	10.21
64025	03/11/2020	Glennie's Office Products Inc	Office Supplies	113.77
64026	03/11/2020	Grainger	Filter - Hydration Station	105.34
64027	03/11/2020	Hawthorne Machinery Co	Filters - L6	57.04
64028	03/11/2020	Home Depot Credit Services	Plywood	39.92
	03/11/2020		Lumber	20.12
	03/11/2020		Lumber, Buckets & Lids	67.80
	03/11/2020		Parts & Tools	44.61
	03/11/2020		Ice Machine Parts	40.52
	03/11/2020		Ice Machine Parts	10.54
	03/11/2020		Quick Links	33.98
	03/11/2020		Asphalt Patch	162.05
	03/11/2020		Plants	58.39
	03/11/2020		Appliances for Dam House	3,006.80
	03/11/2020		Door, Stain, Weather Stripping for Dam House	117.30
	03/11/2020		Supplies for Dam House	418.09
	03/11/2020		Ceiling Fan for Dam House	410.44
	03/11/2020		Door Knobs & Hinges for Dam House	312.20
	03/11/2020		Door & Flooring for Dam House	304.43
	03/11/2020		Supplies for Dam House	189.83
	03/11/2020		Door For Dam House	72.72
	03/11/2020		Door Handles for Dam House	32.26
	03/11/2020		Trim for Dam House	7.76
	03/11/2020		Doors For Dam House (2)	548.86
	03/11/2020		Repair Supplies for Regulator	56.27
	03/11/2020		Heater	98.59
	03/11/2020		Concrete 60lb bag (112)	441.79
64029	03/11/2020	Joe's Paving	Patch Paving - Montgomery Dr @ York Dr	40,057.70

Payment Number	Payment Date	Vendor	Description	Amount
64030	03/11/2020	Labor's Alliance	COWU Meeting 03/17/2020 - R Vasquez	40.00
	03/11/2020		COWU Meeting 03/17/2020 - B Hodgkiss	40.00
64031	03/11/2020	Lightning Messenger Express	Messenger Service 02/28/20	52.50
64032	03/11/2020	Magnum Plumbing Company Inc	Meter Tie-backs - Montgomery Dr	14,902.80
64033	03/11/2020	Moodys	Dump Fees (2)	400.00
	03/11/2020		Dump Fee (1)	200.00
	03/11/2020		Dump Fees (4)	800.00
64034	03/11/2020	NAPA Auto Parts	Hour Meter - A10	76.85
64035	03/11/2020	North County Auto Parts	Vacuum Cap	4.04
	03/11/2020		Fuel Filter - Truck 1	3.56
	03/11/2020		Filters, Oil, Protectant	60.72
64036	03/11/2020	One Source Distributors	Gas Detector Battery Packs (2)	217.56
64037	03/11/2020	O'Reilly Auto Parts	Vacuum Caps	7.74
	03/11/2020		Gear Lube - E1	20.56
64038	03/11/2020	Pacific Pipeline Supply	Angle Stops (2)	306.85
	03/11/2020		Pipe Support Saddles (20)	127.32
64039	03/11/2020	Patrick Sanchez	Reimburse - CSDA Mtg, ACWA Mtg/Webinar	140.60
64040	03/11/2020	Benetrac	Employee Benefits Tracking 03/2020	400.00
64041	03/11/2020	Paychex of New York LLC	Onboarding/Recruiting Service 03/2020	412.50
64042	03/11/2020	Pollardwater	Debris Caps (8)	517.78
64043	03/11/2020	RDO Equipment Co	Maintenance Manual - C5	144.53
64044	03/11/2020	Red Wing Shoe Store	Footwear Program	203.85
64045	03/11/2020	Richard Brady & Associates, Inc	HB Reservoir Rehabilitation 01/2020	575,616.00
64046	03/11/2020	Richard Vasquez	Reimburse - ACWA Mtg, Urban Water Institute Conference	388.26
64047	03/11/2020	Right-of-Way Engineering Services, Inc	Easement Survey - Pala Vista Main Replacement	1,200.00
64048	03/11/2020	Rincon del Diablo MWD	MD Reservoir Water Service 02/2020	38.30
64049	03/11/2020	Rutan & Tucker LLP	Legal 01/2020	1,028.00
	03/11/2020		Legal 01/2020	435.00
64050	03/11/2020	San Diego Gas & Electric	Gas Use 02/2020	1,128.73
	03/11/2020		Electric 02/2020 - T&D	93.50
	03/11/2020		Electric 02/2020 - T&D	48.98
64051	03/11/2020	Sherry Thorpe	Reimburse - Training Refreshments	164.48
64052	03/11/2020	SiteOne Landscape Supply, LLC	PVC 90 Degree Elbow 2' Socket (2)	9.29
	03/11/2020		PVC Fittings (6)	30.15
64053	03/11/2020	Southern Counties Lubricants, LLC	Fuel 02/16/20-02/29/20	4,958.25
64054	03/11/2020	Spok, Inc	Pagers	43.90
64055	03/11/2020	Tegriscap Inc	Landscape Maintenance 02/2020	1,787.50
64056	03/11/2020	The UPS Store 0971	Shipping 02/2020	483.97
64057	03/11/2020	Trench Plate Rental Co	Trench Plate Rental	271.66

Payment Number	Payment Date	Vendor	Description	Amount
	03/11/2020		Trench Plate Rental	439.43
64058	03/11/2020	TS Industrial Supply	Pump Utility 36" with hose (10)	481.71
	03/11/2020		Marking Paint Roller (3)	68.68
	03/11/2020		Cutter 30" Jet Model 700 Bolt (1)	73.61
	03/11/2020		Pruner 26" (2)	112.58
	03/11/2020		Cutter 1/8" to 1 5/8" Ridgid #RC-1625 PVC (3)	203.78
	03/11/2020		Duct Tape #398 (5)	57.37
	03/11/2020		Marking Paint Blue #203 (24)	97.17
	03/11/2020		Goliath Safety Glasses Blk Frm / Smk Lens (24)	214.34
	03/11/2020		Striping Paint White #710 (24)	124.18
	03/11/2020		Wire Brush Small (10)	26.63
	03/11/2020		Sea 2" Pipe Wrap Tape (50)	351.81
	03/11/2020		Striping Paint Black #770 (24)	124.18
	03/11/2020		Goliath Safety Glasses Blk Frm / Clr Lens (24)	168.87
	03/11/2020		Striping Paint Blue #750 (24)	124.18
64059	03/11/2020	UniFirst Corporation	Uniform Service	329.53
64060	03/11/2020	Verizon Wireless	SCADA Remote Access	368.89
64061	03/11/2020	VG Donuts & Bakery Inc	Board Meeting 03/04/20	33.28
64062	03/11/2020	Vinje & Middleton Engineering Inc	Trench Line Compaction - Montgomery	830.00
64063	03/11/2020	Vista Paint Corporation	Paint	58.37
64064-64065	03/19/2020	Refund Checks 64064-64065	Customer Refunds	274.79
64066	03/19/2020	Airgas USA LLC	TIG Welder Supplies	33.73
	03/19/2020		Drive Roll for Welder	78.04
	03/19/2020		First Aid Kit Restock Supplies	85.32
	03/19/2020		Welding Wire	144.39
	03/19/2020		Angle Grinder	86.19
64067	03/19/2020	Metal Amore	Expanded Metal	50.69
64068	03/19/2020	Amazon Capital Services	Flap Discs (12)	129.24
	03/19/2020		Ball Hitch - Truck 66	43.79
	03/19/2020		Office Supplies	99.60
	03/19/2020		Meter Service Lateral Crimper	315.08
	03/19/2020		Flash Memory Card SD Cards (2)	105.38
64069	03/19/2020	Answering Service Care, LLC	Answering Service	395.00
64070	03/19/2020	Auto Specialist Warehouse	Front Brake Pads - Truck 45	75.06
64071	03/19/2020	Boot Barn Inc	Footwear Program	138.75
64072	03/19/2020	Cecilia's Safety Service Inc	Traffic Control - York Dr/Montgomery Dr	6,697.50
	03/19/2020		Traffic Control - Tower Dr	1,520.00
	03/19/2020		Traffic Control - York Dr/Montgomery Dr	5,605.00
	03/19/2020		Traffic Control - Oak Dr/Monique Ct	1,615.00

Payment Number	Payment Date	Vendor	Description	Amount
64073	03/19/2020	760Print	Business Cards	528.26
64074	03/19/2020	City Of Escondido	Water Treatment Plant FY 2018/19	1,036,719.97
	03/19/2020		San Pasqual Undergrounding Project FY 19	380,141.03
	03/19/2020		Escondido Water Treatment Plant 01/2020-02/2020	144,788.00
64075	03/19/2020	City of Oceanside	Weese Treatment 02/2020	26,282.14
64076	03/19/2020	CleanCapital HCA Borrower LLC	Solar Use 02/2020	4,988.13
64077	03/19/2020	Coast Equipment Rentals	Excavator Rental	795.11
64078	03/19/2020	Core & Main	Lid 8" Slotted Valve (169)	4,070.47
	03/19/2020		End Caps (4)	330.90
	03/19/2020		Pipe .75" PVC Schedule 40 (40)	10.83
	03/19/2020		Pipe 2" PVC Schedule 40 (20)	18.40
	03/19/2020		Pipe Lube 5 gal (2)	140.73
	03/19/2020		Flange 6" SOW 6-hole (7)	250.06
	03/19/2020		Ball Meter Valve .75" Lockwing FIPxSwivel Mtr Nut (20)	1,320.65
	03/19/2020		Coupling 1"x1" Female Flare Super Grip (10)	252.66
	03/19/2020		Ball Valve 1" FIP x FIP with handle PSI 150 (5)	402.95
64079	03/19/2020	CoreLogic Solutions Inc	Real Quest Online Services 02/2020	300.00
64080	03/19/2020	CW Wulff Associates	Distribution Review Classes (2)	3,600.00
64081	03/19/2020	Digital Deployment, Inc	Website Hosting, Maintenance & Support 02/2020	300.00
64082	03/19/2020	Dion International Trucks, LLC - San Marcos	Turbo Boost Monitor Tube - Truck 44	79.87
	03/19/2020		Engine & Emission System Repair - Truck 44	2,760.29
64083	03/19/2020	Drug Testing Network Inc	Random DOT Tests	195.90
64084	03/19/2020	Electrical Sales Inc	Photo Cell Controls (2)	33.65
	03/19/2020		Ballasts	410.94
	03/19/2020		Conduit Covers for Lighting	5.76
	03/19/2020		LED Bulbs (60)	578.69
64085	03/19/2020	Ergostop Inc	Sit/Stand Desk	1,746.56
64086	03/19/2020	Eurofins Eaton Analytical Inc	UCMR4 Lab Testing RD-10c	800.00
	03/19/2020		UCMR 4 Lab Testing RD-10d	600.00
	03/19/2020		PFAS RD-1 Testing	900.00
64087	03/19/2020	Ferguson Waterworks	Lid 8" Slotted Valve (VID) (1)	23.92
	03/19/2020		Weld Coupling 1" Black (Thick Walled) (10)	24.90
	03/19/2020		Meter Bushing Ford 3/4" x 1" (#A34R-NL) (20)	216.07
	03/19/2020		Air Vents (2) - E1 Reservoir	649.50
	03/19/2020		DFW Meter Box Lid Large PW6C (VID Stamp) (5)	432.46
	03/19/2020		DFW Meter Box Lid 3.5 DFW36C (VID Stamp) (35)	1,439.73
	03/19/2020		DFW Meter Box Lid Small D1324 (VID Stamp) (120)	6,884.70
	03/19/2020		DFW Meter Box Lid 4.5 486SA (VID Stamp) (5)	213.79
	03/19/2020		DFW Meter Box Small DFW1324CH4-12 (108)	9,346.95

Payment Number	Payment Date	Vendor	Description	Amount
	03/19/2020		DFW Meter Box Lid Medium 1220E (VID Stamp) (5)	259.80
	03/19/2020		DFW Meter Box Small DFW1324CH4-12 (7)	605.82
64088	03/19/2020	Fleet Pride	Self Adhesive Metal Patches	27.99
64089	03/19/2020	Fredricks Electric Inc	Repaired Lighting	2,000.00
64090	03/19/2020	D.H. Maintenance Services	Janitorial Service 03/2020	2,366.00
64091	03/19/2020	Glennie's Office Products Inc	Office Supplies	93.32
	03/19/2020		Office Supplies	107.86
	03/19/2020		Office Supplies	88.59
64092	03/19/2020	Grainger	Xenon Bulb (1)	12.22
	03/19/2020		Utility Blades (200)	16.74
	03/19/2020		Thread File (1)	19.60
	03/19/2020		Barricade Marking Tape Roll (10)	118.86
	03/19/2020		Water Filters for Ice Machines (2)	34.32
	03/19/2020		Belt for Automatic Gate (1)	6.28
64093	03/19/2020	Hach Company	StablCal Calibration Set w. RFID	499.79
	03/19/2020		Shipping	223.46
	03/19/2020		PC sc (kit), pH Combination Convertible Sensor	553.27
	03/19/2020		SC200 Controller, AC-DC, 2 DIG	2,281.96
	03/19/2020		Process Head Holder, TU5xxx sc	78.67
	03/19/2020		TU5300sc, Sys Chk RFID Flow ACM w/sc200 2 ch	4,545.42
	03/19/2020		3422 sc Digital Conductivity Sensor	678.76
	03/19/2020		CL17sc Total Chlorine Analyzer with Standpipe	2,534.94
64094	03/19/2020	Hawthorne Machinery Co	Fuel Filter	30.56
	03/19/2020		A/C Repair, Windshield Wiper Motor Replacement- L6	(3,457.67)
	03/19/2020		A/C Repair, Windshield Wiper Motor Replacement- L6	3,457.67
64095	03/19/2020	HF Scientific Inc	Total Chlorine Regents DPD Dispenser	383.83
64096	03/19/2020	Horton Knox Carter & Foote LLP	Legal Services 03/2020	12,000.00
64097	03/19/2020	HUB Construction Specialties	Honda Generator - Truck 10	2,101.22
64098	03/19/2020	IDEXX Distribution Corporation	Bac-T Bottles & Colilert	2,302.32
64099	03/19/2020	Joe's Paving	Patch Paving - Montgomery Dr	52,963.90
	03/19/2020		Patch Paving	4,766.70
64100	03/19/2020	John Ivcevic	Refund As-Built Deposit 03/2020	924.00
64101	03/19/2020	Johnson Controls Fire Protection LP	Quarterly Fire Sprinkler Testing & Inspection	1,124.00
64102	03/19/2020	Ken Grody Ford Carlsbad	Radiator De-gas Tank & Cap - Truck 30	119.20
64103	03/19/2020	Major League Pest	Monthly Pest Control	225.00
64104	03/19/2020	McMaster-Carr Supply Company	Strut Channels, Routing Clamps	175.58
64105	03/19/2020	Medical Eye Services	Vision Insurance 04/2020 - Cobra	8.78
	03/19/2020		Vision Insurance 04/2020 - Employees	1,621.78
	03/19/2020		Vision Insurance 04/2020 - P Dorey	14.24

Payment Number	Payment Date	Vendor	Description	Amount
	03/19/2020		Vision Insurance 04/2020 - J MacKenzie	14.24
	03/19/2020		Vision Insurance 04/2020 - M Miller	14.24
	03/19/2020		Vision Insurance 04/2020 - R Vasquez	14.24
	03/19/2020		Vision Insurance 04/2020 - P Sanchez	14.24
64106	03/19/2020	Moody's	Dump Fees (2)	400.00
	03/19/2020		Dump Fees (2)	400.00
	03/19/2020		Dump Fees (2)	400.00
	03/19/2020		Dump Fee (1)	200.00
	03/19/2020		Dump Fees (2)	400.00
	03/19/2020		Dump Fee (1)	200.00
	03/19/2020		Dump Fees (3)	600.00
	03/19/2020		Dump Fees (2)	400.00
64107	03/19/2020	NAPA Auto Parts	Cabin Air Filter - L6	29.18
	03/19/2020		Toolbox Weatherstrip - Truck 30	12.98
	03/19/2020		Sandpaper Flapper Wheels (2)	8.64
	03/19/2020		Tail Lamp Assembly	8.65
	03/19/2020		Alternator Pigtail Connector - VM1	9.73
64108	03/19/2020	North County Auto Parts	Filters	141.87
	03/19/2020		Filter, Brake Fluid, Oil	59.58
	03/19/2020		Bolts	48.20
	03/19/2020		Filters, Chemicals, Oil	129.41
	03/19/2020		Brake Cleaner, Oil	64.31
	03/19/2020		Toggle Switch (2)	33.45
	03/19/2020		Filter - Truck 38	3.49
	03/19/2020		Trailer Light Cord Adapters	28.77
64109	03/19/2020	North County Lawnmower Inc	Weed Whip Heads	107.71
64110	03/19/2020	North County Pool Center Inc	Chlorine for Disinfection	12.14
64111	03/19/2020	One Source Distributors	Fluke Amp Meters (2)	888.17
64112	03/19/2020	O'Reilly Auto Parts	Battery - T7	252.20
64113	03/19/2020	Pacific Pipeline Supply	Service Saddle 8x1 Brass AC (4)	515.27
	03/19/2020		Fire Hydrant 6x4x2.5 (6)	14,301.99
	03/19/2020		Coupling 4" Macro (5)	1,055.44
	03/19/2020		Grease No-Oxide 1 gal (4)	212.17
	03/19/2020		Nut Bolt Gasket Kit 6"-8" (6" gasket) 3/4 x 3 1/4 (25)	202.96
	03/19/2020		Ball Valve .75" FIP x FIP with handle PSI 150 (4)	43.30
	03/19/2020		Pipe .75" PVC Schedule 40 (60)	32.48
	03/19/2020		Air Vent 4" ARI Combination Valve (2)	3,570.09
	03/19/2020		Pipe 4" PVC DR-14 C900 (20)	64.95
	03/19/2020		Tubing 1.5" Copper Soft 20' (20)	162.38

Payment Number	Payment Date	Vendor	Description	Amount
	03/19/2020		Pipe 8" PVC DR-14 C900 (60)	584.55
	03/19/2020		Reducing Companion Flange (1)	205.77
	03/19/2020		Spool for Fire Hydrant (1)	299.46
	03/19/2020		Hose Reducer Fitting (1)	23.82
64114	03/19/2020	Panera Bread	Lunch 03/10/20 - Distribution Review Class	567.10
64115	03/19/2020	Pauley Equipment Rental Inc	Excavator Rental	1,452.50
64116	03/19/2020	Raymond Handling Solutions Inc	Preventative Maintenance - F3	98.00
64117	03/19/2020	Richard Brady & Associates, Inc	HB Reservoir Rehabilitation 02/2020	226,238.00
64118	03/19/2020	San Diego Gas & Electric	Electrical Transmission 02/2020	1,489.91
64119	03/19/2020	Sloan Electric Company	Well MCP Parts	1,559.24
64120	03/19/2020	Bend Genetics, LLC	HABS Testing - Henshaw	290.00
64121	03/19/2020	Midas Service Experts	Tire & Alignment - Truck 55	568.66
	03/19/2020		Tires (4) - G25	397.84
64122	03/19/2020	TS Industrial Supply	Wood Handle Hand Trowel (10)	86.06
	03/19/2020		Marking Paint White #207 (24)	97.17
	03/19/2020		Marking Paint Asphalt Black #770 (36)	186.28
	03/19/2020		Teflon Tape 1" (24)	29.88
	03/19/2020		Marking Paint Orange (12)	48.58
	03/19/2020		Utility Knife (Stanley 10-499) (10)	86.06
	03/19/2020		Hand Brush (2)	16.89
	03/19/2020		3" Stiff Wall Scraper (3)	16.89
	03/19/2020		1.25" Stiff Wall Scraper (3)	13.80
	03/19/2020		Shut-Off Tool #85 (2)	617.03
	03/19/2020		Gloves Thickster Nitrile XL 100 per box (24)	370.22
	03/19/2020		Hat Hard Full Brim with Ratchet Head Gear (9)	258.18
	03/19/2020		Poly Sprayer 1 gallon (4)	235.99
	03/19/2020		Shovel 4" Trench (5)	104.19
	03/19/2020		Wrench 1 1/8" Combination (2)	97.10
	03/19/2020		Igloo Water Cooler 5 gal (2)	90.82
	03/19/2020		Wire Wheel 5" (5)	84.98
	03/19/2020		Wire Wheel 4" (5)	83.89
	03/19/2020		Igloo Water Cooler 3 gal (2)	80.65
	03/19/2020		Measuring Tape 25' Engineering (5)	105.54
	03/19/2020		Mirror 3.25" Diameter Telescopic (2)	51.42
	03/19/2020		Tape 3" Caution (5)	48.44
	03/19/2020		Sling Lifting 2"x6' Heavy Duty (3)	68.85
64123	03/19/2020	Underground Service Alert of Southern California	Dig Alert New Tickets (240)	406.00
	03/19/2020		Dig Safe Board Fee 02/2020	220.93
64124	03/19/2020	UniFirst Corporation	Uniform Service	329.53

Payment Number	Payment Date	Vendor	Description	Amount
	03/19/2020		Uniform Service	329.53
	03/19/2020		Uniform Service	329.53
	03/19/2020		Uniform Service	329.53
64125	03/19/2020	VG Donuts & Bakery Inc	Board Workshop 03/11/20	33.28
64126	03/19/2020	Vista Brake & Smog	Tires (4) - Truck 33	1,111.47
	03/19/2020		Tires (2) - Truck 37	451.57
	03/19/2020		Tires & Alignment (2) - Trunk 10	1,055.24
64127	03/19/2020	Vortex Industries Inc	Semi-Annual Gate Maintenance	800.00
64128	03/19/2020	Vulcan Materials Company and Affiliates	Cold Mix	1,903.08
64129	03/19/2020	Waterless Company Inc	Supplies for Waterless Urinals	348.78
64130	03/19/2020	WorkPartners OHS	DOT Physicals (2)	250.00
64131	03/19/2020	Xerox Corporation	Xerox Supplies & Services	302.83
Grand Total:				2,941,312.72



STAFF REPORT

Agenda Item: 7

Board Meeting Date: April 1, 2020
Prepared By: Don Smith, Randy Whitmann, Frank Wolinski & Marlene Kelleher
Approved By: Brett Hodgkiss

SUBJECT: DIVISION REPORTS

RECOMMENDATION: Note and file informational report.

PRIOR BOARD ACTION: None.

FISCAL IMPACT: None.

SUMMARY: Previous month's and anticipated activities are reported by each division.

ENGINEERING DIVISION

March

- The District has replaced approximately 9.22 miles of Nipponite pipe since 2002. Of the 6.76 miles of Nipponite pipe remaining in the system, replacement of 1.50 miles is currently in design and 0.04 miles is in construction.
- The District has replaced approximately 6,590 feet (1.25 miles) of pipe (steel – 990 feet, PVC – 0 feet, non-Nipponite asbestos cement – 5,600 feet and Nipponite – 0 feet) in Fiscal Year 2020.
- Buena Creek (HB) Reservoir Rehabilitation – Richard Brady and Associates continued to remove roof demolition debris from site, remove roof shoring, clean inside of the reservoir, and perform inspections for slab and wall crack repairs. Cost estimate/bid summary table attached.
- Edgehill (E) Reservoir Replacement and Pump Station – Staff reviewed and provided comments to Dudek on 75% design submittal. As a requirement of the California Environmental Quality Act (CEQA), a draft Mitigated Negative Declaration (MND) was circulated for public comment for 30 days commencing March 25, 2020.
- Projects along Flume
 - The Villages – 380 dwelling unit residential subdivision along Country Club Lane between Nutmeg Street and Pamela Lane in Escondido. Project includes storm drain work along the Jones Siphon in addition to the relocation of an 18-inch transmission main feeding the Bennett service area. District review and approval of tract map, encroachment permit, joint use agreement, grant of right of way, improvement plan, and quitclaim and bill of sale are required.
 - Orchard Hills – 20 single-family home residential subdivision along Richland Road within a small unincorporated area between Escondido and San Marcos. Project requires District review and approval of de-annexation, grading plan, tract map, and irrevocable offer of dedication to the County of San Diego for a future trail along the Borden Bench. De-annexation approved by Board; all plans are currently in plan check.

April

- Mainline Replacement Projects in design (current projects): Alta Vista Dr., Vista Grande Dr.*, Lonsdale Ln.*, Plumosa Ave., Lita Ln., Catalina Ave.*, Friendly Dr.*, Oak Dr.*, San Clemente Way*, Calle Maria, Via Christina, Olive Ave.*, Green Hills Way, Elevado Rd. (Total length = 3.44 miles).
- Mainline Replacement Projects in planning (future projects): N. Citrus Ave.*, E. Vista Way, Mason Rd., Lado De Loma, Eddy Dr., Camino Patricia, Camino Corto, Nordahl Rd.*, HN Line- Gopher Canyon to Fairview Dr., Buena Creek Rd.*, Robinhood Rd., Lower Ln., Easy St., Rancho Vista Rd.,

Bandini Place, McGavran Dr., Oro Avo Dr., Shale Rock, La Mirada, Crescent Dr., Descanso Ave., Mar Vista Dr., Miramar Dr., Camino Culebra*, Camino Loma Verde*, San Clemente Ave.* (Total length = 8.49 miles).

- City of Vista Projects – (Paseo) South Santa Fe Streetscape Improvements: Phase II along South Santa Fe Avenue from Ocean View to Terrace Drive (CIP #8289); Phase III along South Santa Fe Avenue from Terrace Drive to Civic Center Drive (CIP #9291). Project currently in construction and District to continue inspecting water facilities installed by City’s contractor. (Total length = 0.77 miles).
- Buena Creek (HB) Reservoir Rehabilitation – Richard Brady and Associates to form and pour concrete wall cap for aluminum dome roof and begin reservoir footing and inlet and outlet modifications.
- Edgehill (E) Reservoir Replacement and Pump Station – Dudek to incorporate District’s 75% design submittal comments and begin working on 100% design submittal; receive public comments on draft MND.
- Four Reservoirs Seismic and Structural Analysis – MurraySmith to begin reservoir inspections to evaluate Virginia Place (A), Summit Trail (C), Cabrillo Circle (E-1) and Deodar reservoirs.

*Nipponite pipe

WATER RESOURCES DIVISION

VID Water Production February 2020

Description	Current Month Production		Average Production of Last 12 Months		Total, Fiscal Year-to-Date
	(mgd)	(af)	(mgd)	(af)	(af)
<i>VID's EVWTP Water Production</i>					
Local Water	0.99	88.20	3.99	374.42	2,311.10
SDCWA Raw Water	7.65	681.20	7.52	703.30	6,327.90
Subtotal (EVWTP Water Production)	8.65	769.40	11.51	1,077.72	8,639.00
Oceanside Contract Water	1.96	174.10	0.58	53.92	647.00
SDCWA Treated Water	1.31	116.30	2.20	205.79	1,904.10
TOTAL WATER PRODUCTION	11.91	1,059.80	14.29	1,337.43	11,190.10

Lake Henshaw and Warner Ranch Wellfield statistics are summarized as follows:

Lake Henshaw

Storage as of March 24, 2020:	6,581 af (13% of 51,832 af capacity)
Current releases:	0 cfs
Change in storage for month of February:	-26 af (gain)
Total releases for month of February:	0 af
Hydrologic year-to-date rain total:	22.04 inches (March 24, 2020)
Percent of yearly average rain:	90% (30-year average: 24.62 inches)
Percent of year-to-date average rain:	99% (30-year average through March: 22.32 in.)

Warner Ranch Wellfield

Number of wells running in February:	0
Total production for month of February:	23 af (equipment maintenance and cattle water)
Average depth to water table (March):	99 ft (see attached historical water table chart)

March

- Met with Alexandra Stehl, Planning Chief with California State Parks to walk the historic alignment of the California Riding and Hiking Trail (CRHT) across District lands and discuss issues related to its management and disposition. Ms. Stehl supported the District's prohibition of the public use of the trail and unauthorized maintenance activities until a new agreement with the State is executed.
- Received laboratory results from samples taken at Lake Henshaw, which confirmed that the levels of microcystin were below the State's guidelines for the "Caution" public notice for harmful algal blooms. Staff removed "Caution" signage at Lake Henshaw; they have been monitoring remote sensing data for the lake on a periodic basis, which has indicated a gradual reduction in the cyanobacteria concentration.
- Attended the Celebration of Life service for Frank Mendenhall.
- Submitted the District's proposed "Stephens' Kangaroo Rat (SKR) Avoidance and Minimization Measures - Warner Ranch Ditch Repair Project" to U.S. Fish and Wildlife Service (USFWS); the District was notified that USFWS had no further questions. Proceed with preparation of plans and specifications for the repair of 3,900 feet of concrete lined ditch on the Warner Ranch.

April

- Prepare plans and specifications for the Warner Ranch ditch repair project.

ATTACHMENTS:

- Lake Henshaw Resort, Inc., Activity Reports – January 2020
- VID's Warner Wellfield – Water Table Depth vs. Monthly Wellfield Production

ADMINISTRATION DIVISION

March

- The District's total water production for February 2020 was 1,060 acre-feet (AF) compared to 1,028 AF in 2019, representing a 3% increase.
- Continued to present information regarding the poster contest to 4th grade classes located within the District's service area until schools closed because of the COVID-19 pandemic.
- Continued coordinating the development of the District Budget.
- Completed recruitments for Engineering Specialist II, Accountant and Welder Helper positions. Jose Sanchez accepted a job offer for the Engineering Specialist II position; Brian True accepted a job offer for the Accountant position; and Pat Smith accepted a promotion to the Welder Helper position.
- Attended California Special Districts Association Fiscal Committee meeting.
- Hosted training sessions for employees, supervisors and managers on workplace bullying and ethics. These trainings were open to other agencies.
- Coordinated Distribution Refresher classes for field personnel. These classes were open to other agencies.
- Coordinated implementation of Pandemic Response Plan in response to COVID-19 pandemic.

April

- Continue coordinating implementation of Pandemic Response Plan in response to COVID-19 pandemic.
- Continue coordinating the development of the District Budget.

OPERATIONS & FIELD SERVICES

March

- Water Quality Calls/Incidents for March – received one discolored water call. The call was related to a scheduled system shutdown and was resolved with flushing.
- Conducted voluntary sampling for Per- and Poly-fluoroalkyl substances (PFASs). All lab results were non-detect or below the EPA health advisory set at 70 parts per trillion.
- Inspected and tested 15 new backflow devices that were integrated into the District’s cross-connection control program.
- Pechstein Reservoir Beam Reinforcement Project – completed welding of stainless steel reinforcement plates and associated bracketry; awaiting delivery of strut material to complete assembly.
- Mainline replacement work is complete on Montgomery Drive except for four system and five customer tiebacks; project completion is on hold so water is not shut-off while customers are sheltering in place per the Governor’s Executive Order related to the COVID-19 pandemic.

April

- Collect data and submit the Annual Report to the Division of Drinking Water.
- Continue Pechstein Reservoir Beam Reinforcement Project.
- Begin planning and potholing for mainline replacement on York Drive.

Electrical Energy Use at VID Headquarters February 2020

Description	Current Month Production	Average of Last 12 Months	Total, Fiscal Year-to-Date
	(kWh)	(kWh)	(kWh)
Solar Production (\$0.18 per kWh)	29,001	32,840	249,946
Power purchased from Direct Energy (\$0.05 per kWh)	14,297	10,476	106,447
TOTAL ELECTRICAL ENERGY USE	43,298	43,315	356,393

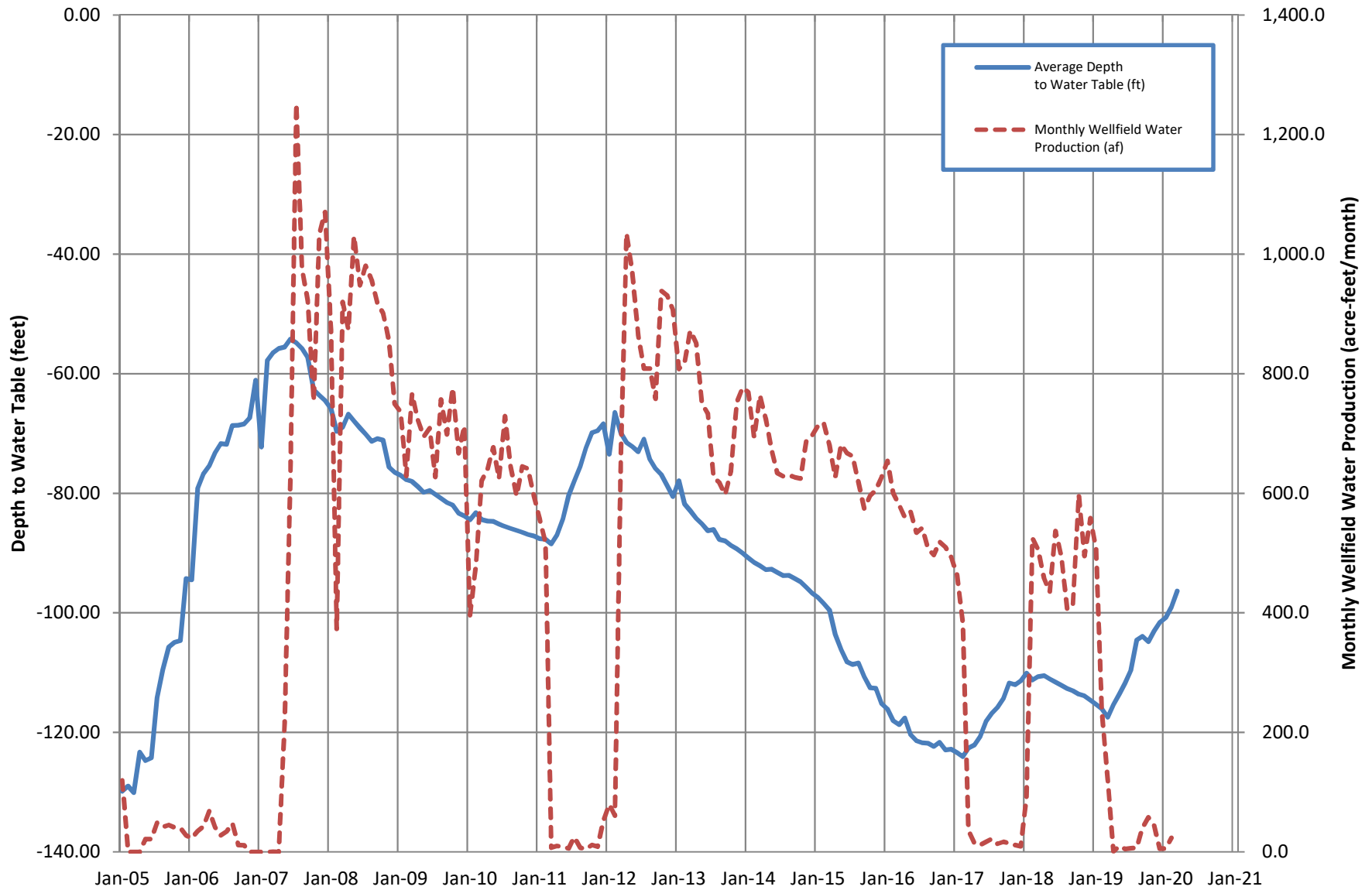


**LAKE HENSHAW RESORT, INC.
ACTIVITY REPORT
AS JANUARY 31, 2020**

	2019 Jan	2019 Feb	2019 Mar	2019 Apr	2019 May	2019 Jun	2019 Jul	2019 Aug	2019 Sep	2019 Oct	2019 Nov	2019 Dec	2020 Jan	12 MO AVG
Fishing Permits	161	74	356	633	384	749	751	687	404	301	244	112	102	405
Boat Launches	0	0	4	43	30	43	50	23	82	7	0		0	26
Motor Boats (full day rental)	0	0	0	0	11	48	47	42	19	7	4	2	7	15
Motor Boats (half day rental)	0	0	0	0	2	7	4	13	15	1	0	0	0	4
Campground/Head Count	35	56	319	590	599	879	979	1,188	488	196	128	39	110	458
Campground/Cars, Trucks, etc.	19	23	61	178	254	286	391	703	211	148	64	15	20	196
Campground/Recreational Vehicles	6	3	3	9	11	23	3	24	12	0	12	0	0	9
Mobile Home/Spaces	78	78	76	75	76	77	77	77	76	75	66	64	51	75
M.H.P. Daily (Visitors/Head Count)	42	41	56	62	41	54	56	100	102	98	67	63	28	65
M.H.P. (Residents/Head Count)	101	100	94	93	94	96	98	95	94	92	102	94	83	96
Storage	3	6	4	4	4	5	3	3	6	4	4	7	4	4
Cabins	105	59	111	184	188	108	158	177	126	144	144	98	88	134
Hunters	53	0	0	0	0	0	0	0	0	0	0	98	80	13

VID's Warner Wellfield

Water Table Depth vs. Monthly Wellfield Production



BUENA CREEK (HB) RESERVOIR REHABILITATION BUDGET UPDATE - APRIL 2020

Description of Work	Budgeted Cost	Actual Bid Cost	Over or Under Budgeted Amount
Initial Site Work - M-Rae			
<i>Demolish Existing Fence, Steel Roof, Gate, Grub Site, Initial Site Work for Crane and Equipment Access</i>	\$59,693	\$39,919	-\$19,774
Exterior Stairs - Suez			
<i>Disassemble, Transport, Protect, Store, and Reinstall Exterior Stairs</i>	\$52,718	\$50,488	-\$2,230
Roof Demolition - DN Tanks			
<i>Roof Demolition, Remediate Existing Asbestos</i>	\$809,400	\$1,064,236	\$254,836
Tank Improvements - DN Tanks (see note 1)			
<i>Footing Modifications, Seismic Cables, Wall Shotcrete, Tank Exterior Crack Repair, Pressure Wash Tank Interior, Interior Floor and Wall Crack Repairs, Seal Existing Floor Joints, Demolish Existing Inlet/Outlet, Modify Drain, Construct New Inlet, Outlet, Washdown, Demolish Exist Inlet/Outlet, Modify Drain, Construct Inlet, Outlet, Washdown, Construct New Concrete Floor, Construct New Concrete Cap Beam, CIM Wall-Slab Joint, Construct New Staff Gage, New Overflow, Post Construction Leak Test, Install Corrosion Protection System</i>	\$1,814,961	\$1,578,240	-\$236,721
Interior Reservoir Stairs - DN Tanks			
<i>Design, Furnish, Install, New Interior Access Stairs</i>	\$170,400	\$166,895	-\$3,505
Interior Coatings - DN Tanks (see note 1)			
<i>Prepare Surface, Apply Coatings to Interior Wall</i>	\$210,870	\$323,630	\$112,760
Aluminum Dome Roof - CST			
<i>Design, Furnish, Install, New Aluminum Roof and Appurtenances</i>	\$785,570	\$664,215	-\$121,355
Yard Piping Improvements - M-Rae			
<i>Demolish Exist Yard Piping, Fittings, Valves, and Appurtenances, Construct New Yard Piping, Construct New Valve Vault, Remove and Replace Drain Valve, Construct Yard Piping Corrosion Protection System</i>	\$651,569	\$615,268	-\$36,301
Electrical Improvements - M-Rae			
<i>Construct New Conduit, Junctions and Pull Boxes</i>	\$37,275	\$88,296	\$51,021
Stormwater Drainage and Final Site Work - M-Rae			
<i>Demolish Existing Asphalt, Rough Grade Site, Install Subsurface Waterproofing, Modify Underdrains, Construct New Storm Drain Inlet and Piping, Connect to Exist Manhole, Finish Grade, Construct Concrete V-gutter, Pave Site with Asphalt Concrete</i>	\$192,812	\$339,307	\$146,495
Additional AC Pavement			
<i>Access Road Asphalt Paving</i>	\$101,500		
Security Fence			
<i>Construct New Chain Link Security Fence</i>	\$72,953		
Exterior Reservoir Coating - DN Tanks			
<i>Pressure Wash, Apply Coatings to Reservoir Exterior</i>	\$58,575	\$59,281	\$706
General Conditions (see note 2)			
<i>Provide <u>Trailer</u>, <u>Fencing</u>, <u>Porta Potty</u>, <u>Reproduction</u>, <u>Temporary Facilities</u>, <u>Insurance</u>, <u>Bonds</u>, <u>Special Inspection</u> and <u>Testing</u>, <u>Potholing</u>, <u>Surveying</u>, <u>Video</u>, <u>Install and Maintain Stormwater Best Management Practices</u></i>	\$343,692	\$173,522	-\$170,170
Construction Total To Date	\$5,361,988	\$5,163,297	-\$198,691

¹ Actual bid cost shown does not include all value engineering / cost saving options that are still being considered.

² Actual bid costs to date are for underlined items only.



STAFF REPORT

Board Meeting Date: April 1, 2020
Prepared By: Randy Whitmann
Approved By: Brett Hodgkiss

SUBJECT: VISTA FLUME REPLACEMENT

RECOMMENDATION: Select replacement of the Vista Flume as the preferred alternative project and authorize staff to initiate planning efforts to replace the Vista Flume.

PRIOR BOARD ACTION: On March 11, 2020, the Board participated in the final workshop for the Water Supply Planning Study.

FISCAL IMPACT: Based on the findings in the Water Supply Planning Study, replacing the Vista Flume (Flume) is estimated to cost between \$120 million and \$130 million including planning, design, and construction. The study also estimates the planning efforts to cost between \$1.7 million and \$3.0 million and includes an alignment study, environmental documentation, and financial planning.

SUMMARY: The District maintains capacity rights from two sources, raw water treated at the Escondido-Vista Water Treatment Plant (EVWTP) located at Lake Dixon and multiple treated water connections along San Diego County Water Authority (Water Authority) aqueducts. To reduce costs, the District typically maximizes the locally treated water supply at EVWTP and relies on the 11-mile Flume for conveyance into the District. During a planned 10-day shutdown along the Water Authority's Second Aqueduct, the District is dependent on the Flume.

With the Flume approaching its useful life, a Water Supply Planning Study was prepared to evaluate whether the Flume should be replaced or retired. Results of the Water Supply Planning Study show that Flume replacement is the least costly option, providing superior supply reliability and affording the opportunity for continued regional cooperation. At the conclusion of the workshop, the Board reached a consensus that replacement of the Flume was the preferred alternative for the District; the Board also requested that an item be placed on a future agenda to consider approval of a Flume replacement project.

DETAILED REPORT: The purpose of the Water Supply Planning Study was to support a decision by the District as to the future of the Flume. Many factors weighed in the comparison of alternatives, including criteria of costs, reliability, water quality, environmental protection, existing water supply obligations and assets, and other non-cost factors. The evaluation of alternatives related to replacing the Flume sought to account for the full current and future cost of the District's local water supply operation as well as the benefits to the District afforded by access to and management of its own local water supply. Likewise, the analysis of alternatives related to retiring the Flume altogether sought to account for the current and future costs of purchasing additional imported water, the possible need for additional treated water storage and/or other delivery reliability improvements, the future of the Boot and Bennett areas, and options to exchange the District's local water.

Results from the Water Supply Planning Study show that Flume replacement is the least costly water supply alternative, having an estimated first-year unit cost of \$2,000 per acre-foot and total 30-year present-worth cost of \$240 million. In comparison, the alternative of retiring the Flume and having complete reliance on the Water Authority has an estimated first-year unit cost of \$2,200 per acre-foot and total 30-year present-worth cost of \$350 million. In addition to the significant cost savings, the Flume replacement alternative also provides the non-cost advantages of increased water supply reliability and the opportunity for continued regional cooperation with the City of Escondido and Rincon del Diablo Municipal Water District.

Next step planning efforts for implementing Flume replacement include an alignment study, initial environmental studies, and financial planning. Once planning efforts are completed, the next phase will include project design, California Environmental Quality Act (CEQA) documentation and construction. Staff proposes budgeting for the multi-year planning phase work to start in Fiscal Year 2021 and to proceed with preparing a request for proposal and scope of work that will be presented to the Board for consideration at a subsequent Board meeting.

ATTACHMENT: March 11, 2020 Workshop Briefing Document



Water Supply Planning Study

Workshop No. 3 Briefing Document
– FINE SCREENING

February 2020



Prepared by:





Water Supply Planning Study

Workshop No. 3 Briefing Document
– FINE SCREENING

February 2020

Prepared by:



In association with:




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Jo Mackenzie – Division 5 (President 2019)

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Thank you also to the following for providing valuable data and information for use in the Study:

City of Escondido (Escondido):

Chris McKinney, Lori Roundtree, Angela Morrow, Reed Harlan, Darren Southworth

Rincon del Diablo Municipal Water District (Rincon del Diablo):

Clint Baze, Karen Falk

Vallecitos Water District (Vallecitos):

James Gumpel

San Diego County Water Authority (Water Authority):

Chris Clemmons, Chris Castaing

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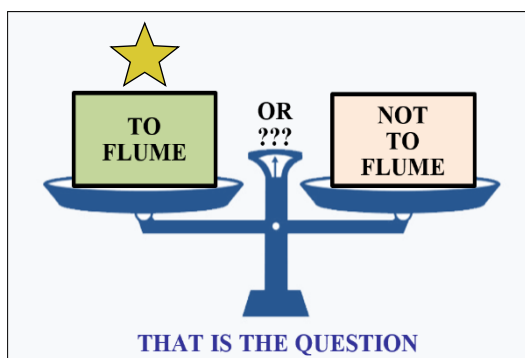
1. Overview / Introduction

Summary:

- **To Flume Ascendant:** At the Fine-Screening level of assessment, the balance scale tips in favor of the To Flume option. This is true even though the option will entail a capital investment on the order of \$120 million.
- **Board Workshop No. 3:** The workshop will review the key findings of Fine Screening, and explore the sensitivity of the findings to assumptions about current and future conditions.
- **Next Steps:** Should the District elect to proceed with the To Flume option, its next steps would be to undertake a detailed alignment investigation, environmental documentation, and financial planning.

1.1. The balance scale tips in favor of To Flume.

At the conclusion of the fine-screening level of review, the Flume balance scale, which had been relatively even at the end of coarse screening, now tips in favor of the **To Flume option**. Considering present-worth costs over the next 30 years and beyond, the To Flume option achieves cost savings of more than 30 percent in comparison to the Not To Flume option and also scores favorably on non-cost evaluation factors. We'll provide more detail in the body of this document, but here are a few summary points to keep in mind:



- **Significant capital investment required:** The finding in favor of To Flume holds even though the option entails a capital investment on the order of \$120 million. Costs for the Not To Flume option, driven in large part by the need to purchase additional water from the Water Authority at progressively increasing rates, are even higher.
- **The finding is sensitive to assumptions:** The balance scale is sensitive to many project variables for which a change in assumptions could tip the outcome. We'll review the most significant of those sensitivities with you later in the document.
- **Next Steps, Commitments, and Offramps:** The District's next steps will be to undertake advanced planning for either a Flume Replacement Project (To Flume) or retirement of the Flume and a transition to full reliance on Water Authority deliveries (Not To Flume). Should that work identify costs or conditions different than presented here, the District will have the option at that time to revisit and refine the direction as appropriate.

1.2. Here is a summary of what has changed subsequent to the previous round of review.

Fine-Screening Key Changes and Updates

Topic	Change / Update	Significance
Long-Term Financial Analysis	<ul style="list-style-type: none"> • <u>Thirty-Year Cost Analysis</u>: In addition to examining the First-Year costs of each option, the analysis now presents a 30-Year net-present-value cost review. • <u>Differences in Cost Escalation Rates</u>: The 30-year review accounts for differences in cost escalation rates. 30-year financing of a Flume Replacement project would utilize level payments that do not increase over time. In comparison, we project Water Authority rates will escalate at a rate faster than inflation. • <u>Interest Rates</u>: We have researched the availability of State and Federal low-interest loans, and concluded a Flume Replacement Project would be a likely recipient, thereby lowering the District's cost of capital. 	The changes provide a more complete picture of the District's long-term costs for each option. This accounting is to the significant advantage of the To Flume option.
Local Water System (Box 3)	<ul style="list-style-type: none"> • <u>Confirmation of Approach</u>: We have consulted with a national level Asset Management expert relative to budgeting approaches, a national dam expert relative to long-term cost exposure at Henshaw Dam, and with Escondido's Canal Maintenance Superintendent relative to long-term maintenance of the Escondido Canal. 	The additional reviews have provided overall confirmation of our budgeting approach. Costs have increased, but not significantly.
Local Water Exchange Options (Box 4)	<ul style="list-style-type: none"> • <u>Limitations on Available Exchange Partners</u>: The District has determined the Settlement Agreement restricts the list of eligible exchange partners, leaving Escondido as the only practicable partner. • <u>Escondido Exchange Prospects</u>: The District has worked with Escondido to review exchange opportunities and prospects for a Local Water Purchase agreement. An agreement appears achievable, but water treatment and demand constraints would leave Escondido able to utilize only a portion of the District's allocation. 	The changes reduce the cost recovery potential for the Not To Flume option, increasing its overall cost.
System Improvements (Box 2)	<ul style="list-style-type: none"> • <u>Incorporation of Pumping Cost Savings</u>: The analysis now includes the pumping cost savings the District would realize with the Not To Flume option. 	Provides a modest cost credit to the Not To Flume option
Flume Replacement Options (Box 1)	<ul style="list-style-type: none"> • <u>Hybrid Alignment Lengthened / All-New Alignment Appears Preferred</u>: We reconfigured the Hybrid alignment, including bypassing the Borden bench, adding length and cost to the alignment. At this conceptual level of review, an All-New alignment now appears preferred. Actual alignment determination would be made as part of a subsequent Alignment Study and Environmental Documentation process. • <u>Confirmation of Costs and Use of Welded Steel Pipe</u>: We undertook additional review of pipeline costs and pipe materials, and confirmed the use of welded-steel as the most appropriate pipe material as a basis for our planning-level cost estimates of the project. 	Cost estimates for a Flume Replacement project remain relatively unchanged, at approximately \$120 million.

1.3. Refresher: The primary goal of the project is to answer the To Flume or Not To Flume question. The evaluation criteria in play mirror the District’s mission statement (economy, reliability, quality), and the long-list of initial alternatives is comprehensive.

BACKGROUND AND OVERVIEW

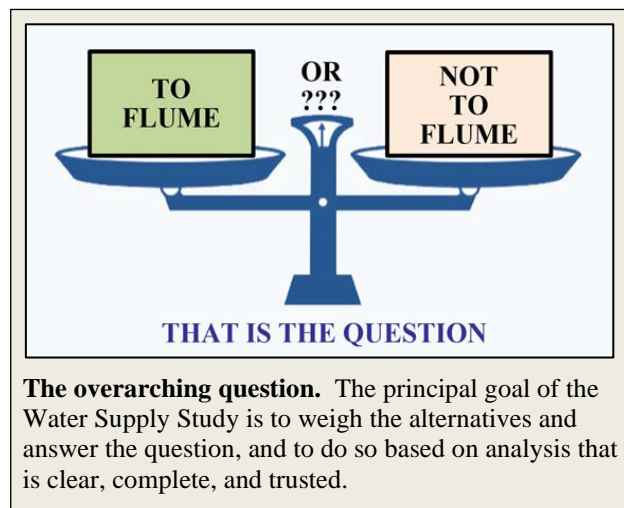
The Vista Flume (Flume) is nearing the end of its functional service life. The Flume is an integral component of the District’s water supply system, providing for delivery of the District’s historical rights to water from the San Luis Rey River to the District service area. Local water is blended with raw imported water and treated at the Escondido-Vista Water Treatment Plant (EVWTP), where it feeds the Flume.

The capital investment needed to replace or rehabilitate the Flume will be significant. Accordingly, prior to making an investment decision, the District wishes to weigh carefully the merits of investing in the Flume against the merits of other water supply alternatives, including that of retiring the Flume altogether and relying on deliveries from the Water Authority in its place. To support its decision, the District is conducting the Water Supply Planning Study to develop an objective and complete evaluation and comparison of alternatives.

PROJECT OBJECTIVES






The goals of the study are as follows:

- 1) **Alternatives Evaluation (To Flume or Not To Flume):** Identify and evaluate alternatives for rehabilitating or replacing the Flume, and weigh these against alternatives for retiring the Flume, including options for exchanging the District’s local water.
- 2) **Decision Support:** Provide analysis and recommendations that are clear, complete, and objective, and conduct planning workshops with District staff and the Board to facilitate project understanding and support the District’s decision process.



EVALUATION CRITERIA

The study will weigh both cost and non-cost factors of the To Flume and Not To Flume alternatives. Costs will be a significant driver of preferences, but non-cost factors of service reliability and operational flexibility, water quality, environmental protection, agency relationships, and other factors will weigh on the balance scale. Evaluation criteria established at the beginning are subject to refinement as the study progresses. Non-cost criteria are summarized in the graphic below.

NON-COST CRITERIA	Draft Scoring Rubric:  Significantly Preferred / Advantageous  Preferred / Advantageous  Constrained / Not Preferred  Significantly Disadvantaged / Potential Fatal Flaw  Neutral / Meets objectives
Maximize Service Reliability and Operational Effectiveness	
Minimize Environmental Impacts / Protect Environmental Resources	
Maximize Implementability	
Intrinsic Values	

Many of the non-cost factors can be at least partially equalized between alternatives with additional costs. For example, the potentially negative service reliability aspects of a Not To Flume alternative, in which the District would no longer be largely immune from the effects of Water Authority treated water aqueduct shutdowns, can be mostly overcome with capital and operational expenditures to provide additional treated water storage or other reliability enhancements. This has the consequence of raising the profile of costs as an evaluation factor.

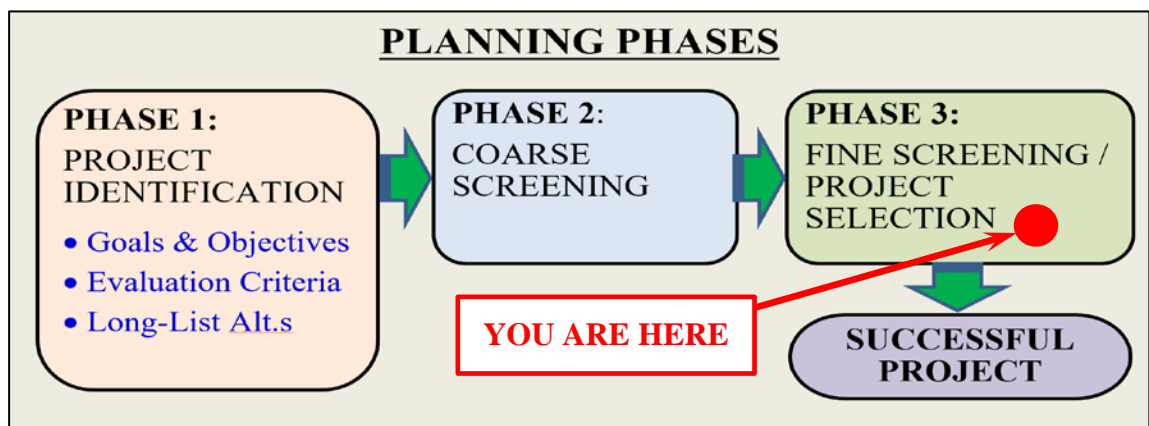
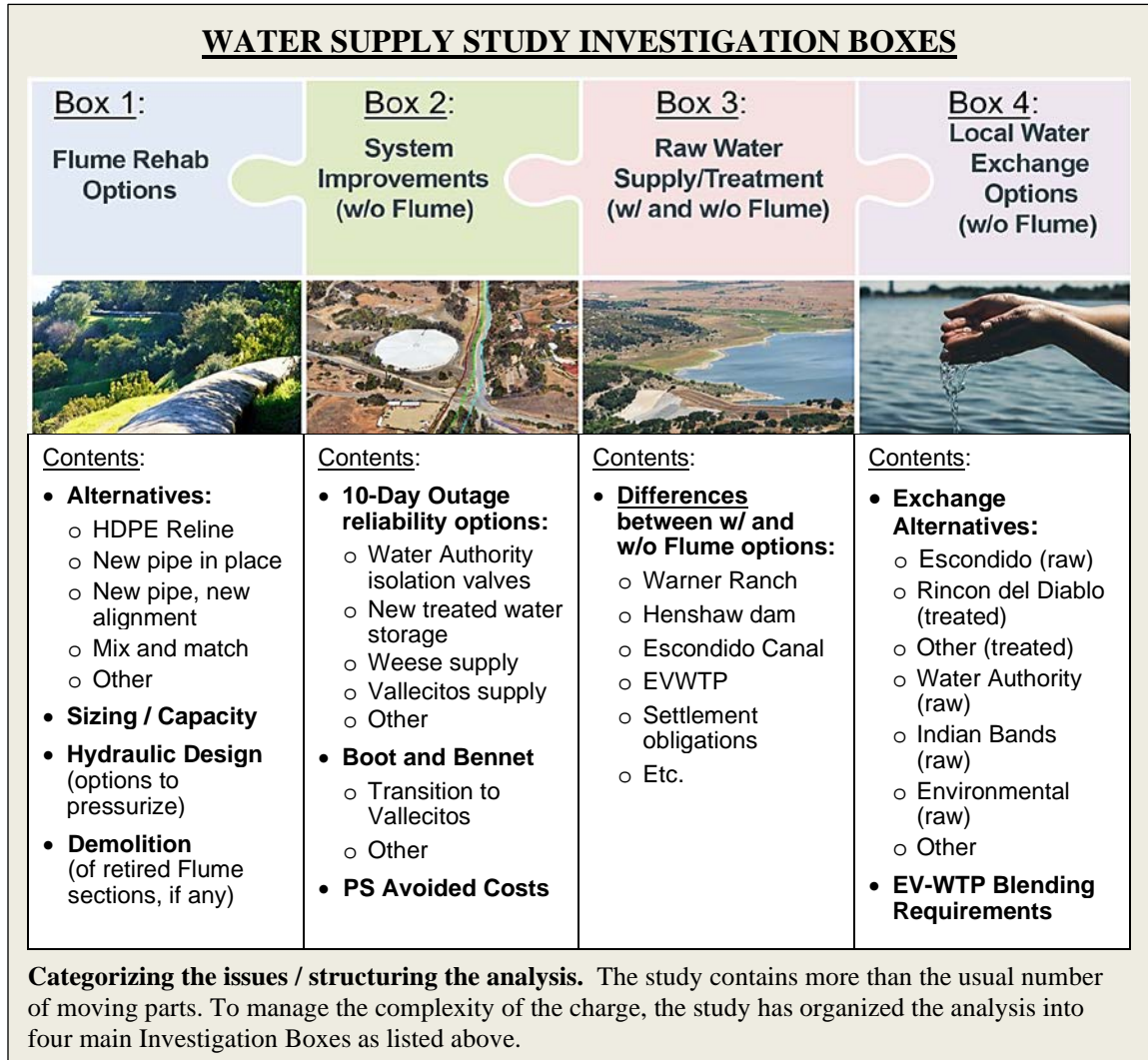
LONG-LIST ALTERNATIVES

The list of alternatives is summarized in the Investigation Box graphic in **Section 1.4**. At Workshop No. 1, the Board asked that the long-list also include consideration of the following:

- Out-of-the-box, comprehensive, holistic consideration of possible project configurations and of possible deals and arrangements with other agencies, e.g. exchange with other member agencies or the Water Authority, exchange via groundwater recharge, etc.
- Adherence to the District’s Mission Statement
- Careful consideration of the domino effect of a Not To Flume (e.g. cost of stranded assets, impact to other agencies, other uses for local supply, etc.)
- Consideration of alternative Flume capacities

These requests have been incorporated into the Coarse and Fine Screening reviews.

1.4. Study Process: The study is organized into four Investigation Boxes, and sequenced into three phases. Workshop No. 3 will review the results and recommendations of the final study phase, fine screening.





1.5. Water Authority water rates play a key role in the Study. Those rates are likely to escalate faster than inflation.

The Water Authority’s average “All-In” treated water rate for calendar year 2020 is \$1,686 per acre-foot (\$/AF), which for planning purposes we will round to an even **\$1,700/AF**. This price point provides a useful reference point for the Water Supply Planning Study as we evaluate the costs of other attributes of the District’s long-term water supply options and the future of the Flume.

The Water Authority only projects future rates for a five-year forecast window; its most recent forecast for 2023 shows a low-band rate of approximately \$1,700/AF (as already reached), and a high-band rate of approximately \$2,200/AF.

Work being undertaken by study team member Ken Weinberg Water Resources Consulting is investigating long-term rate forecast scenarios on behalf of a group of Water Authority member agency managers and others. This work indicates that over the long-term, there is more upward pressure on Water Authority water rates than there is mitigating downward pressure. The largest upward pressure is the need to fund fixed costs, including the Water Authority’s \$1.5 billion outstanding debt and its take-or-pay purchase commitments, on a base of reduced water sales.

Upward and Downward Pressures on Future Water Authority Rates

Upward Rate Pressures (factors favoring higher annual rate increases)	Downward Rate Pressures (factors favoring more moderate annual rate increases)
 <ul style="list-style-type: none"> • Reduced sales due to conservation and local supply development • Greater portion of total supply derived from most expensive sources, Desal and IID • WaterFix and other MWD Capital Costs on Transportation rate component • Increasing power costs • Potential Salton Sea Mitigation cost greater than contractual Environmental Cap • Low utilization of Twin Oaks Water Treatment Plant 	<ul style="list-style-type: none"> • IID Transfer purchase price could increase at rate less than CPI • Costs for WaterFix, if implemented, allocated to RTS Charge and not all to Transportation • MWD Treatment Surcharge appears to have stabilized 

A preliminary finding of this work is that a reasonable mid-range forecast of Water Authority rates through 2045 shows those rates increasing at an average rate faster than base inflation. This would mean that on a current-dollar, inflation adjusted basis, the long-term average unit cost of Water Authority water is higher than the current \$1,700/AF rate.

The Water Authority Board has formed a Fiscal Sustainability Taskforce made up of Board members and member agency managers to better define and address the long range impact that these factors have on Water Authority costs and the rate structure’s current ability to equitably manage these expected rate pressures. Metropolitan Water District of Southern California (MWD) has started a similar process as the same factors the Water Authority faces are being faced by MWD. The Water Authority expects its Fiscal Sustainability process to conclude before the end of the current fiscal year. That process should provide greater clarity to member agencies on where Water Authority water rates are trending in the long term.

For the fine screening review, we will utilize the following range of escalation assumptions:

Water Authority Rate Escalation Assumptions

Scenario	Description
Low (Optimistic)	Rates escalate at 1.0% above water system inflation for next 5 years, thereafter at rate of inflation
Mid-Range	Rates escalate at 1.5% above water system inflation the next 10 years, thereafter at rate of inflation
High (Pessimistic)	Rates escalate at 2.5% above water system inflation for next 10 years, thereafter at rate of inflation

1.6. Market interest rates are already low. Project interest rates could be further lowered through State or Federal low-interest loan programs.

The economic comparison of the To Flume and Not To Flume options entails a comparison of merits of capital outlays with long-term annual costs. Equating these two, in terms of Net Present Values or Equivalent Annual Costs, is done based on an interest rate that reflects the District’s cost of funds. Lower interest rates decrease the annual costs of capital financing and increase the present-worth value of future annual costs; higher interest rates do the opposite.

The prior coarse-screening review utilized the long-term (30 to 40 years) interest rates summarized in the table below:

District Finance Rates and Terms (Unaided)

Scenario	Description	Interest Rate (%/yr)
Low (Optimistic)	Reflects continuation of low interest rates into the future	3.0
Mid-Range	Projected mid-range market conditions	3.5
High (Pessimistic)	Less favorable market conditions	4.0

For the fine-screening review, we have expanded on the previous work by evaluating the project’s potential to qualify for and receive low-interest financing through available State and/or Federal programs. The most likely sources for low-interest financing for the project are the State Water Resources Control Board’s Drinking Water State Revolving Fund (DWSRF), and the Federal Water Infrastructure Financing Innovation Act (WIFIA) Credit Assistance Program, summarized below:

DWSRF and WIFIA Low-Interest Loan Program Summaries

Program	Description	Interest Rate ¹ (%/yr)
DWSRF	Credit assistance for drinking water infrastructure projects. <ul style="list-style-type: none"> • Up to 100% funding available • Up to 30-year loan repayment term • Fixed interest rate set at 50% of the average interest rate paid by the State on general obligation bonds issued the prior year • No interest payments during construction 	1.4
WIFIA	Credit assistance for water and wastewater systems. <ul style="list-style-type: none"> • Up to 49% of total eligible project costs • Up to 35-year loan repayment term • Fixed interest rate tied to treasury securities rate for similar maturity date 	2.3

1. Interest rates are as of January 2020, and are subject to change

Based on our review, we believe it reasonable to assume the project would be eligible for and would be likely to receive funding from one or both programs. We believe a reasonable mid-range assumption is that the project would be awarded a DWSRF loan covering 50 percent of the project’s capital cost, effectively lowering the project’s average cost of financing by a considerable margin¹. Combining Optimistic, Mid-Range, and Pessimistic financial assistance assumptions with the previous market interest rate assumptions results in the following range of project finance rates (Weighted Average Cost of Capital).

Project Finance Rates and Terms Inclusive of Programs

Scenario	Description	Melded Interest Rate (%/yr)
Low (Optimistic)	Reflects continuation of low interest rates into the future, and an optimistic assumption that the project would receive DWSRF funding covering 75% of project capital costs.	1.8
Mid-Range	Reflects projected mid-range market interest rates, and a mid-range assumption that the project would receive DWSRF funding covering 50% of project capital costs.	2.5
High (Pessimistic)	Reflects less favorable market interest rate conditions, and a pessimistic assumption that the project would not be awarded any low-interest loans.	4.0

For the fine-screening analysis, we will use the mid-range adjusted rate of 2.5 percent, and an assumed finance period of 30 years. This results in a capital recovery factor (A/P) of 0.0478, meaning that every \$1 million in capital financed would incur an annual repayment of \$47,800 fixed over the 30-year repayment term.

¹ Actual loan awards are subject to funding availability and to year-to-year variation in the level of competition for available funds, and there is no guarantee the project would be awarded financing.

1.7. We assume most water system costs will inflate at the District’s budgeted rate of 3.0 percent per year.

The rate of inflation of water system related costs will affect the economic comparison of the To Flume and Not To Flume options. For a mid-range assumption, we will use the rate used by the District in its budget projections, 3.0 percent per year. Water system cost inflation rates for use in the Study are summarized in the table below.

Water System Cost Inflation

Scenario	Description	Inflation Rate (%/yr)
Low (Optimistic)	Reflects a rate lower than that used by the District in its budget projections	2.0
Mid-Range	The rate used by the District in its budget projections	3.0
High (Pessimistic)	Reflects a rate higher than that used by the District in its budget projections	4.0

1.8. We estimate the long-term average annual yield of the system as currently operated is 5,000 acre-feet per year. The amount is important, and variable.

The delivery of local yield is the primary benefit of the Flume and the primary reason to consider capital investment in Flume rehabilitation or replacement. The average annual yield of the local water system is therefore a key study variable: higher yield averages would warrant additional capital investment, lower yields less.

The study team has worked with District staff to review historical system yields and adjust these to current conditions of District demands, local water blending requirements at EVWTP, terms of the San Luis Rey Indian Water Rights Settlement Agreement (Settlement Agreement), and other factors. Based on this review, we estimate the long-term average annual yield of the system, as currently operated, is 5,000 acre-feet per year (AF/yr). Probable long-term averages, for periods of 50 years and more, are summarized in the table below.

Local System Future Average Annual Yield

Scenario	Description	Yield (AF/yr)
Low	Reflects dryer than historical average hydrology, and continuation of existing local water blend limits at the EVWTP	4,000
Mid-Range	Reflects current 60-year average hydrology (1960-2019), and continuation of existing local water blend limits at the EVWTP	5,000
High	Reflects one or more of wetter than historical average hydrology, Warner Basin wellfield expansion, and relaxation of local water blend limits	6,500

In addition to the yield range presented in the table, the historical record indicates system yield over shorter periods of even thirty years is subject to even wider ranges than in the table. The next thirty years could be a repeat of the driest 30-year period of record, or of the wettest. We'll review the risks and opportunities inherent in this at the upcoming board workshop.

1.9. Document Outline

The remainder of this briefing document is organized into the following five sections. Yes, the Investigation Boxes are out of order . . . bear with us, there's a method to our madness.

- **SECTION 2:** Local Water System (Box 3) 11
- **SECTION 3:** Local Water Exchange Options (Box 4) 15
- **SECTION 4:** System Improvements Without the Flume (Box 2) 18
- **SECTION 5:** Flume Replacement Options (Box 1) 22
- **SECTION 6:** Conclusions and Next Steps 32

2. Local Water System (Box 3)

Summary:

- 1) Increased investment will be needed for long-term sustainability.
- 2) System costs on a dollars per acre-foot basis are approximately one-half of the all-in Water Authority raw water cost.
- 3) Under a Not To Flume alternative, most of the District's system costs would continue unless another party assumed ownership.

2.1. Long-term sustainable maintenance and operations of the local water system will require additional investment beyond current budgeted levels of repair and replacement.

Over the long-term, sustaining the functionality of the local water system requires ongoing maintenance, repair, and sometimes replacement of system components. The District's current budget covers portions of what is needed in the long term, but has deferred some costs while the District was still engaged in negotiation of the Settlement Agreement, and while the District was uncertain as to the future of the Flume. Additional investment will be needed for long-term sustainability.



The study team has taken an Asset Management approach to budgeting for each component category of the system. Applying known conditions, industry experience, and professional judgement, the team has estimated three budgetary levels of investment: low, middle, and high (or optimistic, mid-range, and pessimistic). Some components, including the Escondido Canal, are budgeted for perpetual repair but not replacement; others for replacement on varying intervals. The resulting budgetary levels, inclusive of current budget items, and with accounting for cost-sharing arrangements with Escondido, are summarized in the table below.

Annual Operation, Maintenance, Repair, and Replacement Costs (District Share)

Scenario	Well + Ditches	Henshaw Dam	Escondido Canal (EC)	S.P. Undergrounding ¹	Bear Valley	Other Budget ²	Total
2019 Budget	\$554,000	\$214,000	\$375,000	\$20,000	Included with EC	\$459,000	\$1.6M
A) Low ³	\$795,000	\$374,000	\$435,000	\$956,000	\$342,000	\$459,000	\$3.4M
B) Middle ³	\$834,000	\$484,000	\$455,000	\$956,000	\$399,000	\$459,000	\$3.6M
C) High ³	\$891,000	\$794,000	\$477,000	\$956,000	\$479,000	\$459,000	\$4.1M

1. The scenario costs assume the District's share of costs at \$20 million, financed over 30 years at $i = 2.5\%/yr$
2. Includes costs not assigned to a facility such as buildings and grounds, legal services, consultants, and insurance
3. Total spending levels, inclusive of existing budget

The above costs are exclusive of Warner Ranch lease revenues. For this review, we have treated the District’s ownership of the Ranch and the revenues it derives as independent of to the Flume or Not To Flume question.

2.2. The costs of the local water system, on a dollars per acre-foot basis, are modest in comparison to imported water costs, and appear affordable over the long term.

Assuming an average annual local yield of to the District of 5,000 AF/yr (see **Section 1.8**), the District’s existing budget for the local system equates to approximately \$325/AF exclusive of treatment costs. The three asset management ranges increase this cost to a new total of between \$670 and \$810/AF, exclusive of treatment. Treatment costs at the EVWTP add approximately \$200/AF, \$250/AF for asset management scenario C. Equivalent unit costs are summarized in the table below.

Summary of Annual Cost Per Acre-Foot of Water Produced

Scenario	Total Annual Cost	Average Yield (AF/yr)	Unit Cost Before Treatment	Average Treatment Cost	Unit Cost With Treatment
2019 Budget	\$1,622,000	5,000	\$325	\$200/AF	\$535/AF
A) Low	\$3,361,000	5,000	\$670	\$200/AF	\$870/AF
B) Middle	\$3,587,000	5,000	\$720	\$200/AF	\$920/AF
C) High	\$4,056,000	5,000	\$810	\$250/AF	\$1,060/AF

The Middle Range estimate with treatment of **\$920/AF** represents a 70 percent increase to existing budgeted spending levels. Nevertheless, viewed in comparison to current “All-In” Water Authority treated water rate of approximately **\$1,700/AF**, the local system costs are modest.

2.3. Opportunities to reduce the District’s share of local system costs as part of a Not To Flume alternative are limited.

Under a Not To Flume option, the EVWTP volumetric treatment cost component might² drop from the tally, but most of the rest of the District’s cost obligations for the local water system facilities would continue unless another party assumed ownership of the facilities. This arises in part from the terms of the Settlement Agreement, which requires the parties to operate the local water system as it has been historically, and to deliver water to the Indian Bands when requested. Also, because most of the ongoing costs are fixed, being independent of the volume of water produced and delivered, the mere reduction of the District’s use of local water would not alter the costs.

² The District’s continuing treatment cost obligations if it terminated the Water Filtration Plant Joint Powers Agreement are not clearly defined. Section 8 of the Agreement requires the District to pay 20 percent of the costs of future capital improvements, revisions, and replacements not undertaken to increase Plant capacity. Termination of the Agreement is by mutual consent, so it appears the obligations would be negotiated. We have assumed these negotiations would absolve the District from responsibility for future costs.

2.4. Methodology Notes: Different facilities require different budgeting approaches

The Study team evaluated the District’s existing budget levels along with three asset management scenarios for replacing the well field, conveyance ditches, the Hellhole Siphon, and the Bear Valley conveyance facilities upstream of the EVWTP. Costs for the Henshaw Dam were estimated by an HDR national dam expert (HDR, 2019). Costs for the Escondido Canal were estimated by combining current repair budgets with estimated extraordinary expenses, and after thorough review with Escondido staff including the Canal team field superintendent. The San Pasqual Undergrounding project converts a portion of the Escondido Canal to a pipeline, as required by the Settlement Agreement.

As shown in the previous table, the District’s existing annual investment is approximately \$1.6 million, while the three scenarios resulted in costs of between \$3.4 and \$4.1 million per year. The “Other Budget” column includes buildings and grounds, legal, consultant, and insurance costs in the District’s 2019 Budget that were not assigned to a specific facility. This indicates the District should make additional investments in the system. The costs presented in **Section 2.1** are preliminary suggested budgets.

The table below lists the assumptions for the facilities and scenarios.

Table 2: Summary of Assumed Replacement Frequencies and Added Costs

Scenario	Well + Ditches	Henshaw Dam	Escondido Canal	San Pasqual Undergrounding	Bear Valley Conveyance
A) Low	70 Years	Budget	\$150,000	\$20M, 30 yrs, 2.5%	70 Years
B) Middle	60 Years	30% Replace	\$300,000	\$20M, 30 yrs, 2.5%	60 Years
C) High	50 Years	100% Replace	\$450,000	\$20M, 30 yrs, 2.5%	50 Years

In general, Scenario A assumed all facilities are replaced in 70 years, Scenario B 60 years, and Scenario C, 50 years. The Henshaw Dam and appurtenances maintenance, repair, and replacement costs were estimated by HDR based on two reports by Findlay Engineering (2012, 2018) and costs for similar projects. The range of costs was developed based on the damage caused by low, moderate, or extreme earthquakes, floods, or other events. Given the Escondido Canal is generally excavated through rock on the side of a mountain, and through discussions with Escondido, the Canal will likely be maintained and repaired in its existing alignment and not replaced. However, additional budget is warranted to account for occasional extraordinary costs such as failures of sections or replacement of the Hellhole Siphon.

The Bear Valley conveyance facilities include the penstock, power plant, and conveyance facilities to the P1/P2 Pump Station at the headworks to the EVWTP. The cost of the Penstock was taken from the 2004 replacement project escalated to current costs. Cost of the Power Plant was taken from damages paid to Escondido in 1983 as a result of flooding.

Costs for the wellfield and ditches are shared by Escondido, which reimburses the District for 35.2 percent of these costs.

The following table summarizes the facility maintenance and replacement assumptions of asset management scenarios A, B, and C.

Raw Water Facility Operation, Maintenance, Repair & Replacement Costs

System Component	ASSET MANAGEMENT ASSUMPTION SETS ⁽¹⁾ (Additional Costs Beyond Current Budget Levels)		
	A) Low (Optimistic) Current + 70-Year Replacement + Historical Extraordinary	B) Middle Ground Current + 60-Year Replacement + Historical Extraordinary	C) High (Pessimistic) Current + 50-Year Replacement + Historical Extraordinary
a) Well Field	Replace within 70 Years or 1 New Well per 4.4 Years	Replace within 60 Years or 1 New Well per 3.8 Years	Replace within 50 years or 1 New Well per 3.1 Years
b) Ditches	Replace within 70 Years or 1,300 Feet per Year Average	Replace within 60 Years or 1,520 Feet per Year Average	Replace within 50 Years or 1,820 Feet per Year Average
c) Henshaw Dam	Current Expenses	Current + 30% of Replacement Cost	Current + 100% of Replacement Cost
d) Diversion Dam	\$50,000 Extraordinary Expense Every 5 Years	\$100,000 Extraordinary Expense Every 5 Years	\$150,000 Extraordinary Expense Every 5 Years
e) Escondido Canal	\$150,000 Extraordinary Expense Every 20 Years	\$300,000 Extraordinary Expense Every 20 Years	\$450,000 Extraordinary Expense Every 20 Years
f) Rincon Penstock	No District Responsibility	No District Responsibility	No District Responsibility
g) Bear Valley Penstock	Replace within 70 Years	Replace within 60 Years	Replace within 50 Years
h) Bear Valley Power Plant	Replace within 70 Years	Replace within 60 Years	Replace within 50 Years
i) Conveyance to EVWTP	Replace within 70 Years	Replace within 60 Years	Replace within 50 Years

(1) The age and condition of existing facilities vary. A typical life of 50 to 70 years for water facilities was assumed to develop a range of annual costs. Replacement costs for pipelines and wells are based on current cost to construct. Replacement costs for 1) Henshaw Dam based on the 1981 Buttress Cost, 2) Bear Valley Penstock based on the 2004 replacement cost, and 3) Bear Valley Power Plant based on the 1983 costs of damages from flooding. We have assumed the Escondido Canal would not be replaced but would be rehabilitated and repaired as needed.

3. Local Water Exchange Options (Box 4)

Summary:

- The Settlement Agreement limits the list of possible exchange partners to the Agreement parties.
- It appears likely the District could strike a mutually beneficial exchange deal with Escondido, but Escondido would be able to utilize only a portion of the District's allocation.
- The net economic benefit to the District would cover only a portion of the District's local system costs, and would not generate any additional revenue to offset Flume replacement costs.

3.1. The Settlement Agreement effectively leaves Escondido as the District's only practicable exchange partner.

A key component of the Study's investigation of the Not To Flume option has been the evaluation of possible local water exchange agreements, under which the District would lease or exchange its allocation of local water to a partner agency. The Study's original scope of work presumed a long list of agencies with whom the District might be able to negotiate such an exchange agreement. We reported such during the Coarse Screening review, noting however that:



- the opportunities were constrained by the need for expensive conveyance facilities;
- none of the target agencies had been beating down our door to sign on; and
- Escondido appeared to be the most promising candidate.

Subsequent to the Coarse Screening review, the District has confirmed its position that the Settlement Agreement limits the use of local water to the sole and exclusive use of the Agreement parties. This constrains the list of potential exchange partners to Escondido and the Indian Bands. Because the Coarse Screening review had already determined that an exchange agreement with the Indian Bands was unlikely to generate revenue³ for the District, this leaves Escondido as the only practicable exchange partner.

³ The Settlement Agreement defines the Indian Bands' water entitlements and effectively removes any incentive for them to pay for such a transfer. The transfer is certainly possible, but not in a manner that would generate revenue for the District.

3.2. Opportunities exist for a win-win exchange agreement with Escondido.

Under a possible exchange agreement with Escondido, Escondido would purchase some or all of the District’s allocation of local water at a price less than what it would pay for raw water from the Water Authority. The District in turn would benefit by selling its water at a price higher than its unit cost of the local water system. If the parties were to split the benefits, the District’s sales price to Escondido would be as presented in the table below.

Local Water Purchase Agreement Sales Price Example

	Description	Unit Cost
District Local System Costs	District mid-range costs for long-term operations, maintenance, and replacement of the local water system, per Section 2.2	\$720/AF
Water Authority Raw Water Purchases	Water Authority’s All-In price for raw water, CY 2020. Escondido would avoid this cost for every acre-foot it purchased from the District.	\$1,400/AF
Possible Sales Price	The sales price could be set at the mid-point of the District’s unit costs of the local system, and Escondido’s avoided cost of Water Authority raw water purchases. This is just an example; actual price TBD.	\$1,060/AF

In early December of last year, the District sent a white paper to Escondido outlining the terms and benefits of a possible Local Water Purchase Agreement that could be implemented if the District were to proceed with the Not To Flume option. Subsequently, District staff met with Escondido staff to provide background on the Flume study, answer questions about the white paper, and explore Escondido’s interest in advancing the development of a purchase agreement. The results of those discussions are summarized below:

- **Need for Careful Review:** Escondido staff advised that any agreement would be subject to considerable Escondido review, including legal review and careful evaluation of the costs and conceptual terms presented by the District.
- **Schedule for Review:** Escondido staff suggested the depth of review needed would require more time than available in advance of the Study’s Workshop No. 3 Board meeting. Staff suggested the District proceed with its schedule using its best assumptions, and that should the District Board elect to pursue a Flume retirement option, the parties could then undertake further review and negotiations.
- **Prospect for Review:** Escondido staff advised that they were unable to offer an official Escondido position on the likelihood of an agreement, but noted that if in fact there were opportunities for Escondido to save money in the long-term, and without incurring exposure to new liabilities, then this seemed reasonable cause for Escondido to engage in good-faith review and negotiations with the District in pursuit of a deal.

In addition, Escondido noted that owing to the need to limit the blend of local water at the EVWTP to no more than 40 to 50 percent of total plant inflow, and owing to projected declines in its potable water demands, it was unlikely to be able to utilize the District’s full allocation of local water. This reduces the net economic benefit available to the District, as described below.

3.3. The District’s net economic benefits of an exchange agreement are limited by Escondido’s inability to utilize all of the District’s local water allocation.

As noted, the combination of local water blending requirements at the EVWTP, and Escondido’s projected declining potable water demands, limits Escondido’s ability to utilize the full amount of the District’s local water allocation. Absent significant improvements in water quality at Lake Wohlford, or treatment capabilities at the EVWTP, or both, these limitations will result in Escondido being able to utilize at most approximately one-half of the District’s allocation.

The table below summarizes our assessment of unit revenues available from an Escondido water purchase agreement. Our mid-range expectation is that an agreement would cover approximately 60 percent of the District’s local water system costs. As described in **Section 2.2**, the District’s mid-range unit cost for the local water system, exclusive of treatment costs, is approximately \$720/AF.

Water Purchase Agreement Revenue Projections

Scenario	Description	Unit Revenue ¹
Low (Pessimistic)	<ul style="list-style-type: none"> • <u>Escondido average annual utilization</u>: 1,500 AF/yr. • <u>Unit Purchase Price</u>: mid-point between local water system costs and Water Authority rate, per Section 3.2. 	\$320/AF
Mid-Range	<ul style="list-style-type: none"> • <u>Escondido average annual utilization</u>: 2,000 AF/yr. • <u>Unit Purchase Price</u>: mid-point between local water system costs and Water Authority rate, per Section 3.2. 	\$420/AF
High (Optimistic)	<ul style="list-style-type: none"> • <u>Escondido average annual utilization</u>: 2,500 AF/yr. • <u>Unit Purchase Price</u>: mid-point between local water system costs and Water Authority rate, per Section 3.2. 	\$530/AF

1. Unit revenues are expressed on the basis of the District’s full 5,000 AF/yr of average annual yield.

4. System Improvements Without Flume (Box 2)

Summary:

For a Not To Flume option, the following findings apply:

- Delivery reliability concerns will be largely mitigated by a planned Water Authority isolation valve project, such that large volumes of new treated water storage will not be required.
- The Boot and Bennett areas would transfer to Vallecitos, with the District incurring significant annexation and capacity fees.

4.1. The delivery reliability consequences of a Not To Flume option will be largely (but not entirely) mitigated by a planned Water Authority isolation valve project.

During Water Authority aqueduct shutdowns, the District has always relied on the Flume to maintain full delivery reliability to the District service area. Retirement of the Flume would require compensating measures to maintain appropriate levels of delivery reliability.

The District's 2017 Master Plan identified possible compensating measures to maintain reliability with the Flume retired. Among the measures was the prospect of needing to construct up to 70 million gallons of new treated water storage, at a concept-level cost of up to \$100 million. Upon further review, the study team has determined that other alternatives identified in the Master Plan will be able to compensate for the loss of the Flume at much more modest costs.

The primary mitigation for the loss of the Flume will be the Water Authority's planned Aqueduct Isolation Valve Project. With the proposed valves in place, the Water Authority will be able to limit future scheduled treated water aqueduct shutdowns to one or the other of the two treated water aqueduct pipelines south of Twin Oaks, maintaining full service to the District.

Although the isolation valve project will provide mitigation for scheduled aqueduct shutdowns, it still leaves the District at a disadvantage during rare *unscheduled* outages resulting from aqueduct facility failures and other catastrophic events. In these situations, the District could be reliant on its treated water storage, its access to water from the Oceanside Weese Water Treatment Plant, and its interconnections with Vallecitos for periods of up to 10 days. To supplement these capabilities, the study team recommends the District upsize its planned Pechstein II reservoir by approximately 10 million gallons beyond the capacity it would otherwise build, at an additional cost of approximately \$15 million.



Delivery reliability compensation measures are summarized in the table below. The Water Authority isolation valve project is the linchpin of the package of mitigation measures. The other measures marked as “Included in Option” in the rightmost column are supplemental to the isolation valve project, to address unscheduled aqueduct outage scenarios not fully addressed by the isolation valve project. We recommend all measures so indicated be included as components of the Not To Flume option.

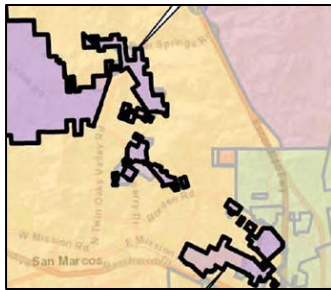
Delivery Reliability Compensation Measures (for Not To Flume Option)

Option	Description	Included in Option?
Water Authority Aqueduct Isolation Valves¹	Will allow Water Authority to operate the Twin Oaks Water Treatment Plant during a treated water shutdowns, with supply south continuing via one or the other of P3 and P4. This would immunize the District from the effects of scheduled treated water shutdowns.	Yes. Project had originally been planned for Water Authority 2020-21 budget cycle, but was deferred during budget review. The District should continue to monitor status and encourage timely project implementation.
District Treated Water Storage¹	Build treated water storage to compensate for loss of Flume deliveries. Assuming Water Authority isolation valve project proceeds, need for additional treated water storage is modest. Assume 10 MG addition to District’s planned Pechstein II reservoir.	Yes. Include 10 MG at cost to District of \$15M.
Oceanside Weese Water Treatment Plant¹	The District can access up to 5 mgd by agreement, and likely more in an emergency.	Yes. If District selects Not To Flume option, it should consider updates and/or revisions to existing agreement.
Interagency Connections²	The District has emergency interties in place, the most significant being with Vallecitos. Availability to the District during a shortage or emergency would likely be limited by agencies prioritizing service to their own customers.	Yes. Additional arrangements unnecessary with above measures.
New Water Treatment Plant at Pechstein	The District would build a new water treatment plant adjacent to Pechstein, served by a new raw water connection to the Second Aqueduct. Reliability benefits beyond above measures would be minimal, as the same catastrophic events causing outages of the treated pipelines would also likely affect the raw water pipeline.	No. Project costs appear unwarranted assuming above measures in place.

1. The District’s existing agreement with the City of Oceanside (Oceanside) provides the District access to up to 5 mgd of capacity from the Weese plant, but only on a surplus, “as-available” basis. Oceanside’s projected usage of the plant indicates a high likelihood of surplus capacity remaining available for use by the District, but there remains the possibility Oceanside demands could increase or that the city could commit its surplus capacity to others (including the Rainbow Municipal Water District) through agreements. Additional capacity beyond the 5 mgd limit of the current agreement may be available during an emergency situation, but this is not guaranteed.
2. Vallecitos maintains considerable treated water storage reserves, and also has direct access to supply from the Water Authority’s Carlsbad Seawater Desalination Facility. Vallecitos would naturally prioritize use of these assets for service to its own customers, but there could be emergency situations where a share of these assets could be made available to the District.

The full package of compensation measures would provide adequate delivery reliability safeguards for the District, although possibly not quite to the level of delivery redundancy provided by the Flume in combination with the District’s treated water connections. This diminishment of delivery reliability is scored as a Non-Cost Evaluation Criteria factor later in **Section 6.**

4.2. The Boot and Bennett areas would transfer to Vallecitos, with the District incurring significant annexation, capacity, and infrastructure transfer fees.



The Boot and Bennett areas of the District service area are dependent on deliveries from the Flume, with backup service available from Vallecitos. Although in the District service area, these parcels are within the Local Area Formation Commission (LAFCO) designated sphere of influence of Vallecitos, meaning that LAFCO favors their eventual transfer to Vallecitos. In recent years, some parcels in the Boot area have annexed to Vallecitos at the behest of the parcel owners in order to obtain sewer service for planned development, and with all transfer costs paid by the property owner. The District anticipates this trend will continue, with most of the Boot area eventually transferring to Vallecitos service at no cost to the District.

If the Flume were retired, the presumption is that the Boot and Bennett area reorganization process with LAFCO and Vallecitos would be accelerated, and that the District might incur significant costs for annexation, capacity, and infrastructure transfer fees.

District staff has conducted a high-level assessment of the situation, and conferred with the study team on their findings. Based on that preliminary review, the study will utilize the following cost range for the transfer:

Boot and Bennett De-annexation Costs to District

Scenario	Description	Cost		
		Boot	Bennett	Total
Low (Optimistic)	Vallecitos waives capacity and annexation fees, but District and Vallecitos split infrastructure transfer fees.	\$2M	\$4M	\$6M
Mid-Range	Vallecitos and District split annexation, capacity, and infrastructure fees.	\$5M	\$12M	\$17M
High (Pessimistic)	District pays full annexation, capacity, and infrastructure fees	\$9M	\$24M	\$33M

The District has also considered the following two options for maintaining service to the Boot and Bennett areas:

- Extend District facilities:** The District has determined that extension of District facilities to serve the areas independent of the Flume would be impractical due to cost and other factors. LAFCO has placed the areas within the Sphere of Influence of Vallecitos.
- Interagency Service Agreement with Vallecitos:** The District has determined that permanent service to these areas by Vallecitos, while keeping the areas within the District, is unlikely due to Vallecitos disfavoring such an arrangement. Notwithstanding Vallecitos’s stated position, this option has successful precedent elsewhere in the County of San Diego and staff still believes the option is worth keeping alive.

4.3. The Not To Flume option would reduce the District’s pumping costs.

The existing Flume feeds the District’s central storage reservoir, Pechstein, at a high water elevation of 837 feet (above sea level). During normal operations with the Flume in service, the District pumps water out of Pechstein to its 976 / 984 zone, which in turn feeds the 900 zone. This constitutes the bulk of the District’s pumping, both by volume and by cost.

If the Flume were retired from service, as under the Not To Flume option, the District would replace deliveries from the Flume with increased purchases at its VID3 connection to Water Authority pipelines 3 and 4 in the Second Aqueduct. Water delivered at the VID3 connection can feed the District’s 976 / 984 zone by gravity, substantially reducing the District’s pumping costs. Pumping cost savings are summarized in the table below.

Summary of Avoided Pumping Costs (Not To Flume Option)

Component	Description	Unit Cost Savings
Power	Based on recent historical operations, the District estimates it would reduce its pumping power consumption by approximately 765,000 kWh per year, which at an average total cost of \$0.17/kWh amounts to approximately \$130,000/yr of cost savings.	\$25/AF ¹
O&M	In addition to power costs, the District estimates it would realize other O&M cost savings of approximately \$80,000/yr.	\$15/AF ¹
Capital	The District estimates it would avoid approximately \$5M in future capital costs for pump station rehabilitation and replacement.	\$50/AF ²
Total		\$90/AF

1. Unit revenues are expressed on the basis of the District’s 5,000 AF/yr of average annual yield
2. Capital costs are amortized at 2.5 percent over 30 years (A/P = .0478), and converted to unit cost using the District’s 5,000 AF/yr average annual yield of the local water system.

5. Flume Replacement Options (Box 1)

Summary:

- Achieving a long-term Flume replacement will be an even larger and more expensive endeavor than previously thought. This is because:
 - Most of the bench sections cannot be economically rehabilitated or replaced in their existing easements.
 - The age of many of the siphon sections is such that they must be presumed to require structural rehabilitation or replacement over the 50-year planning horizon.
- An All-New option, entailing an entirely new pipeline in a new alignment, appears preferred both economically and operationally.
- Final decisions on the alignment of a Flume Replacement Project would be undertaken during a subsequent Alignment Study.

5.1. Rehabilitating/Replacing the Flume will require a substantial capital investment.

We wish we could report otherwise, but achieving a long-term Flume rehabilitation or replacement will be an expensive proposition for the District, perhaps representing its largest capital investment ever.

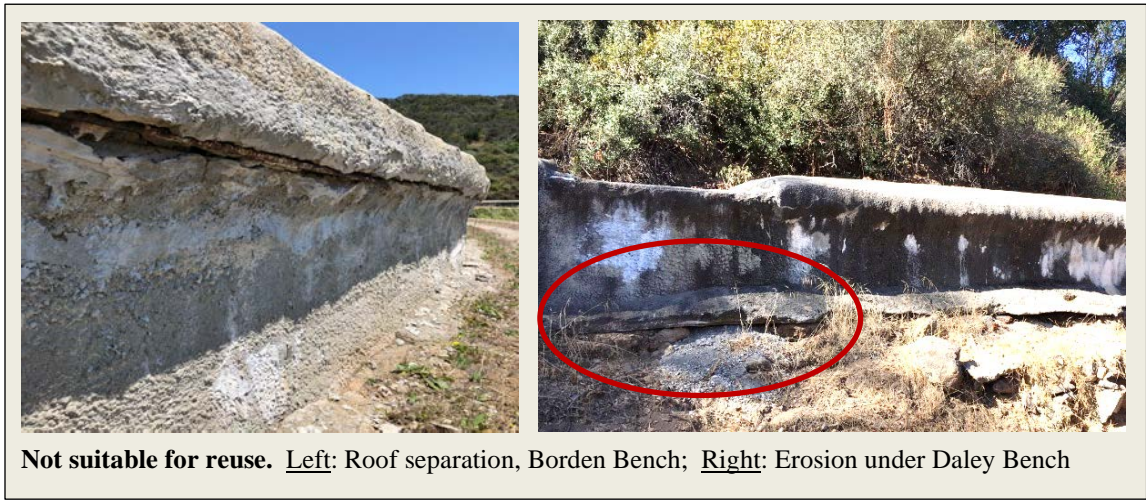
Previous cost estimates extrapolated from the MW Bench high-density polyethylene (HDPE) slip-lining project, the Baumgartner Bench replacement, and other data points to generate a construction cost range of 35 million to 75 million dollars. That analysis was predicated on two key assumptions: 1) that HDPE slip-lining would be found feasible for most of the bench sections, and 2) that the siphon sections would require new mortar lining but little additional work. Upon further review, and with consideration to the project objective of achieving a long-term Flume replacement, **we find that both assumptions need to be abandoned.** Further details are provided in the subsections that follow.



5.2. The existing concrete bench structures are unsuitable for reuse and will need to be demolished.

The concrete canals that make up the bench sections of the Flume were old and decaying the last time the District looked at them in 2012, and they are even older and more decayed now in 2020. Roof sections are structurally weak and separating from the sidewalls, floor sections are being

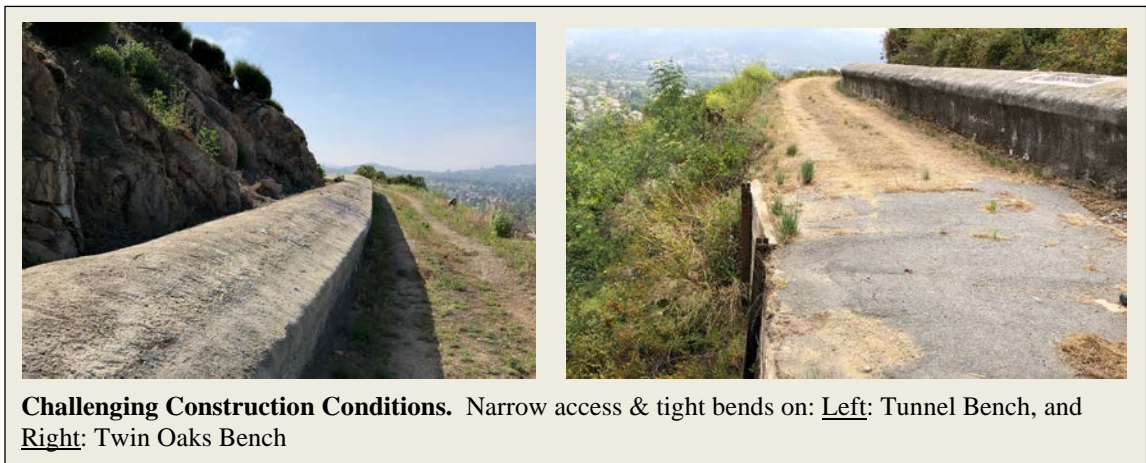
undercut by erosion, and whatever tiny amount of steel that was included in the original construction has corroded.



The study team has consulted with structural engineers, condition assessment experts and District staff. Based on this review, our preliminary conclusion for coarse screening is that the bench structures have no reliable usable strength remaining, and are not suitable for reuse as part of a long-term Flume replacement project. The structures will need to be demolished.

5.3. Most of the bench section easements are so poorly suited for pipeline construction that it will be more economical to bypass them with pipelines in roads.

Even with the existing concrete bench structures unsuitable for reuse, the bench easements themselves provide a path for construction of a new pipeline. However, for many of the bench section easements, pipeline constructability is hampered by limited and difficult access, constrained working space, rock outcroppings, and other difficulties. For these sections, the study team has determined it will be more economical to vacate the existing easement and construct new pipeline in roads, bypassing the bench sections. For other bench sections the opposite holds, with pipeline construction within the existing easement preferred over available bypass routes.



This mixing and matching of bench segments and bypasses gives rise to what we term the Hybrid alignment alternative. More on that in a minute.

Our preliminary constructability assessment of each bench section is summarized in the table below:

Bench Section Constructability Assessment Summary

Bench*	Length (ft.)	Age (yrs.)	Constructability Notes	Use or Bypass?
Jack Creek	490	94	Assume aboveground pipeline due to rock conditions. Reach will be difficult to construct, but is short and achievable. Bypass route would add considerable distance.	Use
Tunnel	3,765	94	Difficult access and slope conditions with tight bends. A bypass spanning both Tunnel and Daley appears preferred.	Bypass
Daley	3,340	94	Difficult access and slope conditions with tight bends. A bypass spanning both Tunnel and Daley appears preferred.	Bypass
Kornhauser	1,325	94	Difficult access, from one side only. Bypass via future development preferred.	Bypass
Finkbinder	3,895	94	Tight bends. There is a preferred bypass route nearby. Use with above-grade piping could be an alternative.	Bypass
MD	3,275	94	Tight bends. There is a preferred bypass route nearby spanning both MD and Pearson benches.	Bypass
Pearson	370	94	Short reach. There is a preferred bypass route nearby spanning both MD and Pearson benches.	Bypass
Beehive	470	94	Easy access and short reach. Replace-in-place with buried pipe assumed.	Use
Borden	6,250	94	Use of the alignment may be possible, but would be constrained by habitat, easement width, and access issues. There is a feasible bypass route.	Bypass
Twin Oaks	4,975	94	Very difficult access and slope conditions with tight bends. Bypass is preferred.	Bypass
MW	2,115	9	No replacement or bypass needed. Bench was recently rehabbed with full structural solution.	Use
TOTALS	30,270			
-- Use	3,075		10 percent of total bench length	
-- Bypass	27,195		90 percent of total bench length	

* See **Figure 1** for bench section locations

5.4. Over the long-term, most of the siphon sections may need to be structurally relined or replaced. Internal inspections may be needed to refine this analysis.

Concerning the siphons, we are faced with considerable unknowns. For the 90 percent of the siphon footage that is steel, we know the mortar lining needs to be replaced, and we know that cathodic protection reports have indicated favorable protection status. However, most of the lines

have never been subject to internal inspection, and we do not know the thickness of steel remaining, nor whether it has suffered corrosion pitting or other deterioration. Absent this level of thorough condition assessment, we are led to a conservative assumption that most of these sections will require replacement or structural relining over the 50-year planning horizon of the study. A thorough condition assessment, consisting of internal inspection using an electro-magnetic measuring tool or similar non-destructive testing device, might produce results that supported a less conservative assessment, and hence a less costly estimate of Flume replacement. Our preliminary assessment of each of the siphon sections is summarized in the table below.

Siphon Section Condition and Replacement Schedule Summary

Siphon	Length (ft.)	Age (yrs.)	Material	Condition Notes	Replace?
Pleasant Valley	2,085	94	Steel	Age indicates probable need for structural relining or replacement. Replacement could be accomplished as part of bypass of Tunnel and Daley benches.	Yes
Baumgartner	3,340	2	HDPE	Section recently replaced in new alignment during development. No further improvements needed.	No
Rincon	4,465	17	Steel	Recently replaced section. Subject to condition assessment review, no further improvements needed.	No
	900	94	Steel	Age indicates probable need for structural relining or replacement.	Yes
Caldwell	555	10	PVC	PVC portion of this siphon recently replaced. No further improvements needed.	No
	840	47	Steel	Subject to condition assessment review, replacement or structural rehabilitation assumed to be needed in future, but not urgent.	TBD
Pearson	600	94	Concrete	Age indicates probable need for structural relining or replacement. Replacement could be accomplished in conjunction with bypass of MD and Pearson benches.	Yes
Jones	2,370	64 and 94	Steel	Age indicates probable need for structural relining or replacement. A 660-ft portion would be replaced as part of bypass of the MD and Pearson benches.	Yes
Beehive	770	30	Concrete	Previous studies indicate replacement would be needed to accommodate pressurization.	Yes
Twin Oaks	5,745	27 and 94	Steel	Age indicates probable need for structural relining or replacement for all but the newer sections. All but 1,720-ft of siphon, including the more recently replaced sections, would be replaced as part of the Twin Oaks bench bypass.	Yes
Meyers	1,285	94	Concrete	Age indicates probable need for structural relining or replacement. Replacement for an 880-ft portion would be accomplished as part of the bypass of the Twin Oaks bench.	Yes
TOTALS	22,955				
-- Replace	13,755			60 percent of total siphon length	
-- Keep	8,360			36 percent of total siphon length	
-- TBD	840			4 percent of total siphon length	

* See Figure 1 for siphon section locations

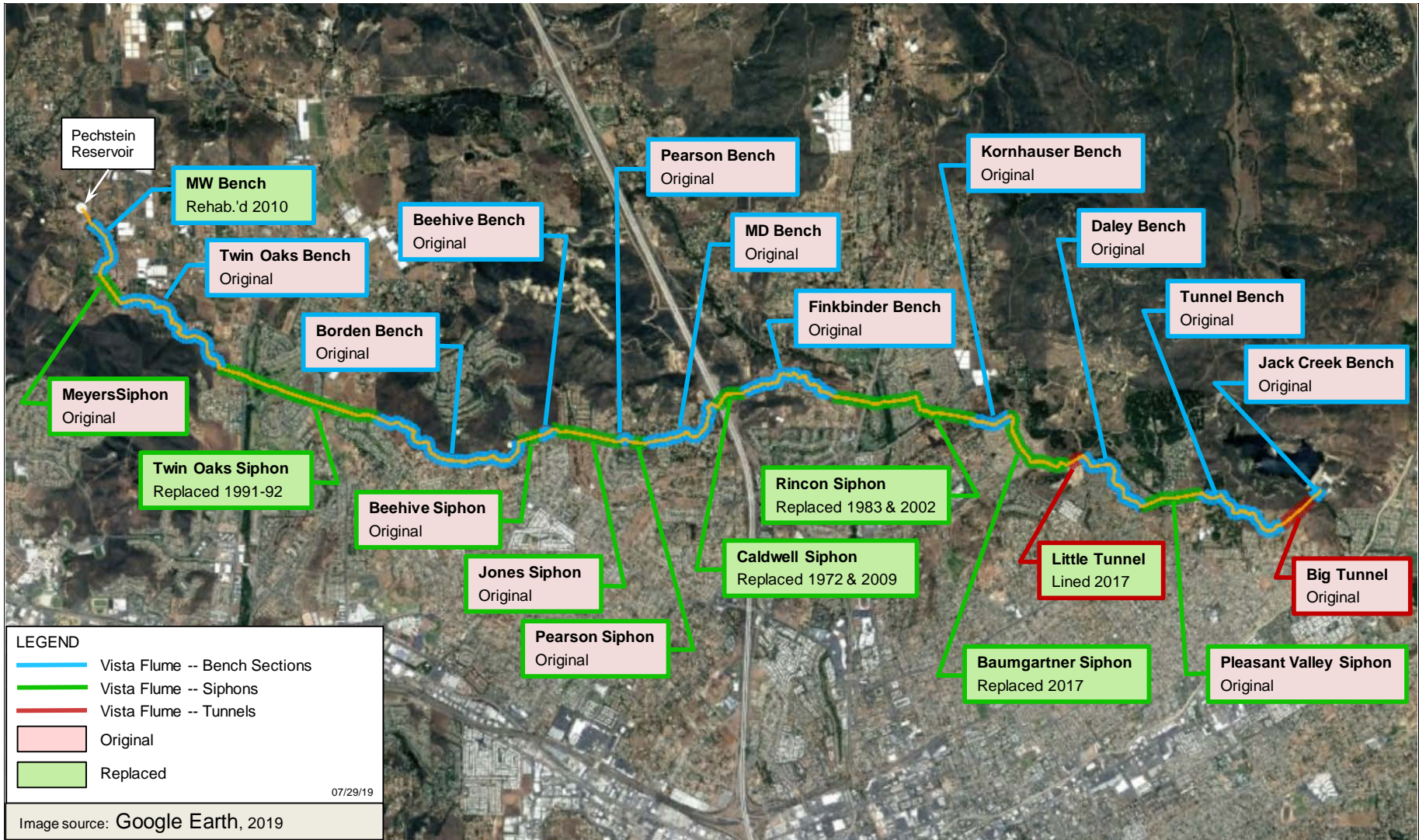


Figure 1

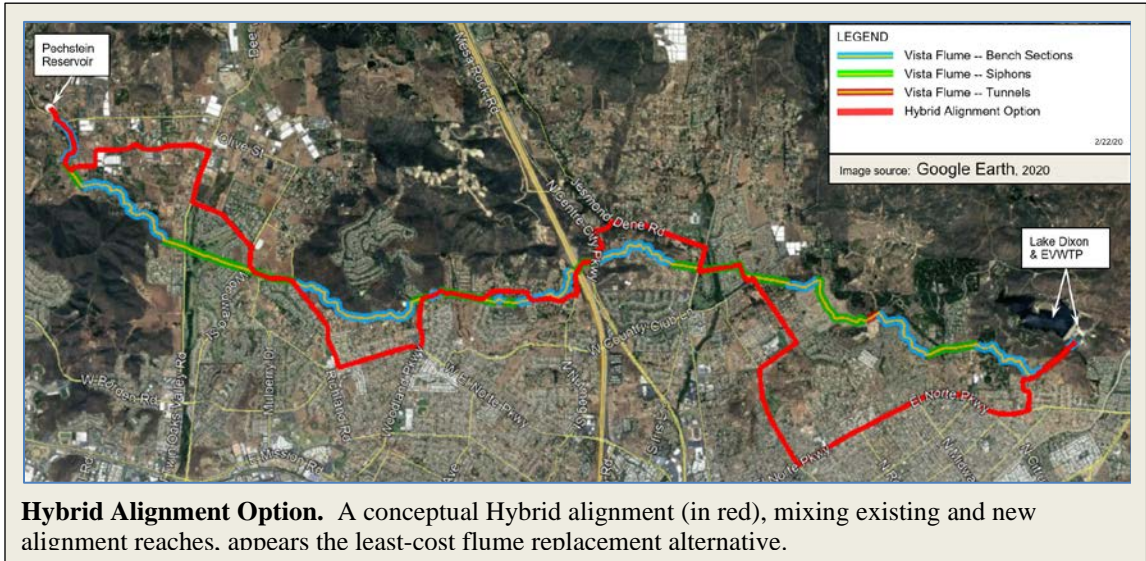
Water Supply Planning Study

VISTA FLUME EXISTING BENCH, SIPHON, AND TUNNEL REACHES



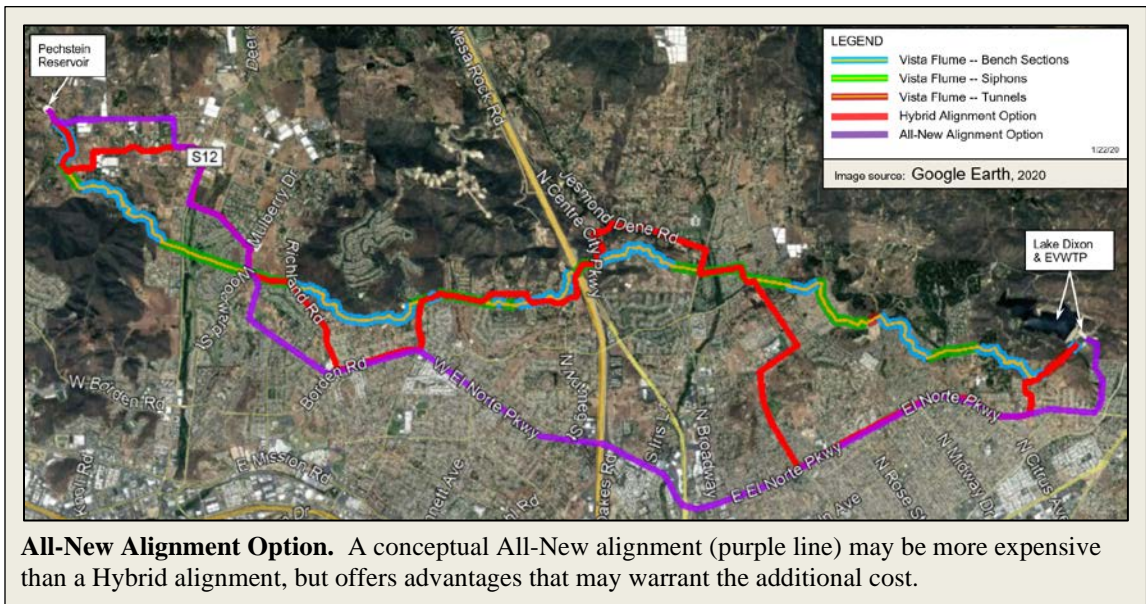
5.5. A Hybrid alignment is possible, but likely not preferred.

As reviewed above, project costs and other factors favor bypassing most reaches of the existing Flume alignment. Consequently, an alignment that sought to utilize as much of the existing Flume right-of-way and facilities as possible, which we dub a Hybrid alignment, would consist mostly of new bypass pipelines. A conceptual Hybrid alignment is illustrated in red in the figure below, and in **Figure 2** on the next page. All that zig-zagging around adds distance, and costs.



5.6. An All-New alignment appears economically preferred.

Although it may have seemed unlikely at the beginning of the Study, we now conclude that the most economical option for replacing the Flume will be an All-New alignment, consisting of pressurized pipeline in, or mostly in, public rights-of-way. A conceptual version of such an alignment is illustrated in purple in the figure below, and in **Figure 2** on the next page.



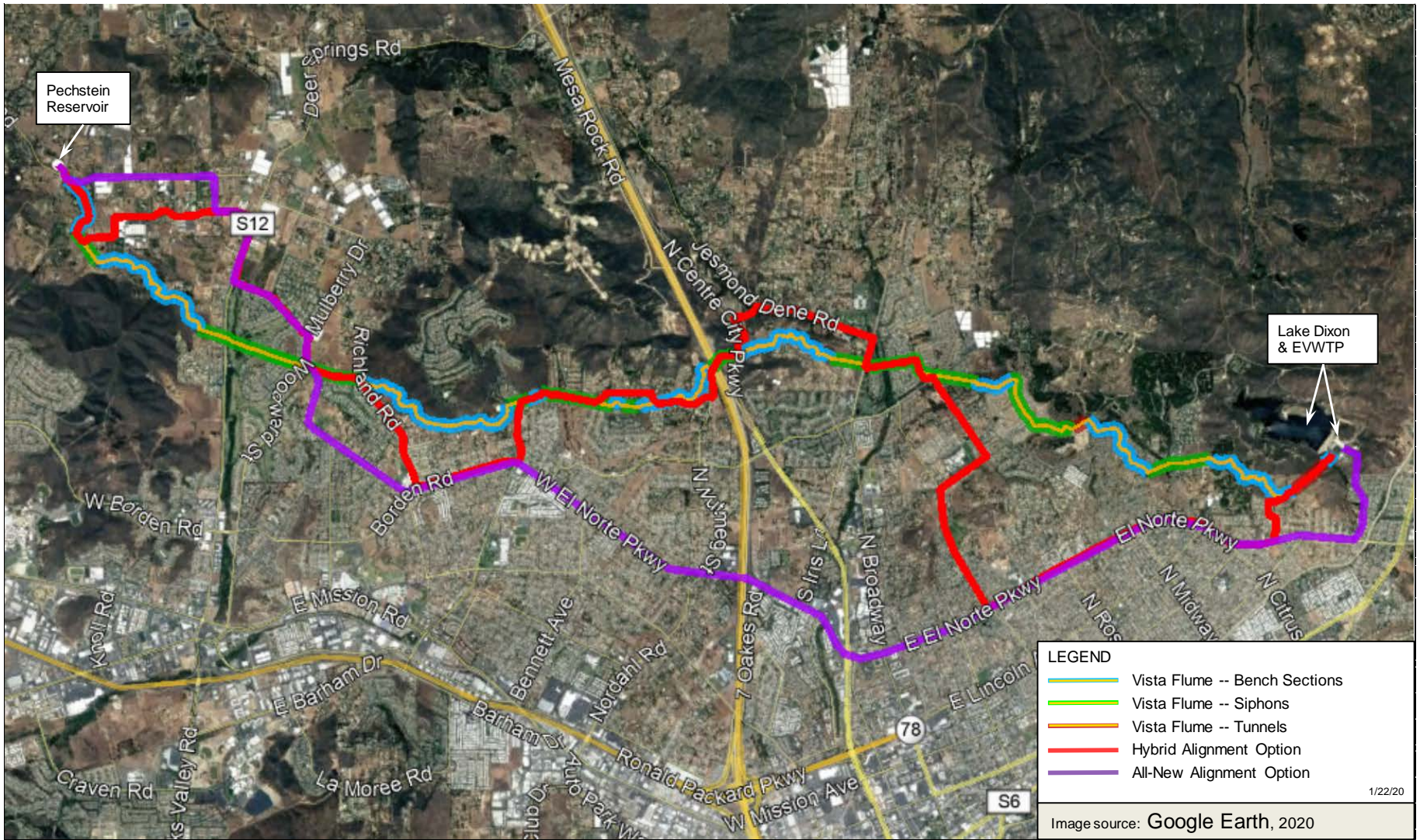


Figure 2

Water Supply Planning Study

VISTA FLUME REPLACEMENT ALIGNMENT ALTERNATIVES



5.7. An All-New alignment also provides water quality and security advantages.

The operation of the existing bench sections of the Flume is unpressurized. Industry practice favors the use of pressurized facilities for conveyance of treated water, so as to minimize the potential for intrusion of contaminants. The study team believes pressurization is a preferred component of a Flume replacement project. This factor favors the All-New alignment with its capability to provide full pressurization. The Hybrid alignment allows for some improvement in pressurization relative to existing operations, but to a lesser degree than the All-New option.

The District mitigates for its current unpressurized operation through the use of on-line monitoring of disinfectant residual. Residual is monitored at the start, mid-point (VID1), and terminus of the Flume. In the event monitoring detected a loss of residual, system operators would halt flow in the Flume and if necessary isolate Pechstein reservoir. The District system was reviewed and approved for permit renewal by the California Division of Drinking Water (DDW) in 2017, with no additional conditions being applied to operation of the Flume.

In the event the District elects to proceed with the To Flume option, the Study team recommends it coordinate with DDW during the Alignment Study phase of work to address these issues and ease the way for ultimate DDW approval of the project.

5.8. Pipeline sizing will maintain existing capacity.

The District estimates the current capacity of the Flume to be 21.5 mgd. A Flume replacement pipeline sized at 36-inches internal diameter would maintain and slightly increase that capacity, providing for delivery of up to 25 mgd as indicated in the table below. A larger pipe would provide additional but seldom needed capacity, at additional costs that exceed the modest value of the additional capacity. A smaller pipe would reduce project costs, but would also constrain the ability of the District to deliver local water during wet years.

Flume capacities at alternative pipeline diameters are summarized in the table below. The All-New alignment is shorter in length than the Hybrid alignment and as a result provides for slightly greater capacity at the same pipe diameter.

Pipeline Sizing and Delivery Capacity

Pipeline Internal Diameter	Capacity ¹		Discussion
	Hybrid (71,100 ft.)	All-New (58,900 ft.)	
Small – 30 in.	14 mgd	15 mgd	Undersized relative to District demands and wet-year yield of local water system, but would reduce capital costs.
Mid-Range – 36-in.	22 mgd	24 mgd	Approximately matches existing Flume capacity of 21.5 mgd. Provides adequate capacity for serving all but peak District demands, and provides sufficient capacity to fully utilize wet-year yields of the local water system.
Large – 42-in.	33 mgd	36 mgd	Oversized capacity provides modest benefits of operational flexibility, but incurs additional capital costs.

1. Calculations based on Hazen-Williams “C” factor (pipeline roughness coefficient) = 130, and available pipeline headloss = 130 ft. (978.5 ft. @ EVWTP filter effluent weir, less 837 ft. Pechstein HWL, less 9.5 ft. minor losses and flow control = 132 ft.) The resulting energy slope = 1.86 ft./1,000 ft. for the Hybrid alignment, and 2.24 ft./1,000 ft. for the All-New alignment.

5.9. Planning-level total project costs are approximately \$120 million. We have assumed the use of welded steel pipe.

The study team has engaged a group of professional cost estimators to generate preliminary opinions of probable construction and total project costs for both the All-New and Hybrid alignment alternatives. Our work has included analysis of recent San Diego area construction bid data for similar pipeline projects built under similar conditions. The bid data reflects real-world conditions and are inclusive of all construction contingencies including miscellaneous appurtenances, utility relocations, traffic control, trenching, and other conditions that would be expected to be encountered on a Flume replacement project.

Our preliminary estimate of project costs for the All-New alignment alternative is summarized in the table below.

Preliminary Concept-Level Capital Cost Estimates – All-New Alignment

Item	Unit	Quantity	Unit Cost	Cost ¹
Pipeline				
Major Arterial	\$/in./ft.	36 in. 17,500 ft.	\$36.00	\$22,680,000
Minor Arterial	\$/in./ft.	36 in. 24,800 ft.	\$25.00	\$22,320,000
Collector	\$/in./ft.	36 in. 13,100 ft.	\$22.00	\$10,380,000
Open Space	\$/in./ft.	36 in. <u>3,500 ft.</u>	<u>\$25.00</u>	<u>\$3,150,000</u>
		58,900 ft.	\$27.60	\$58,530,000
EVWTP Connection	LS	1	\$2,000,000	\$2,000,000
I-15 Crossing Surcharge	\$/ft.	1000	\$1,500	\$1,500,000
Jack and Bore Surcharge	\$/ft.	1000	\$1,000	\$1,000,000
Boot & Bennett Connections	LS	2	\$750,000	\$1,500,000
Isolation Valves	LS	2	\$250,000	\$500,000
Flow Control Facility / Pechstein Connection	LS	1	\$2,000,000	\$2,000,000
Instrumentation	LS	1	\$1,000,000	\$1,000,000
Easements / Land Acquisition	\$/acre	0.0	\$500,000	\$0
<i>Subtotal Pipeline</i>				\$68,000,000
Flume Demolition				
Bench Sections	\$/ft.	30,270	\$150	\$4,540,000
Siphon Sections	\$/ft.	22,995	\$150	\$3,450,000
Tunnel Sections	\$/ft.	2,010	\$150	\$300,000
<i>Subtotal Flume Demolition</i>				\$8,300,000
Mark-ups and Other Costs				
<i>Subtotal</i>				\$76,300,000
Contingency	%		25%	<u>\$19,100,000</u>
<i>Subtotal Construction Cost</i>				\$95,400,000
Design / Administration / Environmental / Permitting	%		23%	\$21,900,000
TOTAL PROJECT COST				\$117,300,000
TOTAL PROJECT COST (rounded)				\$120,000,000

1. Costs in 2020 dollars. (January 2020 ENR LA CCI = 12,144)

In comparison, we estimate the cost of the Hybrid alternative to be approximately \$10 million higher, for a total cost of approximately \$130 million. The higher cost of the Hybrid alternative, at the conceptual level of cost review, arises primarily due to its longer length. The cost includes approximately \$2 million to account for the probability-weighted cost of lost local water deliveries and local treatment benefits during extended Flume shutdowns.

Our cost estimates are for welded steel pipe. The Study team has evaluated the possible use of alternative pipe materials, including PVC and Ductile Iron, and determined that at the assumed diameter of 36-inches, and for construction in urban arterial roads, these materials are unlikely to achieve significant cost savings, while lacking the long-term durability and resiliency of welded steel. Alternative pipe materials should be further considered during the preliminary and final design phases of the project, but for the current purposes of project planning we recommend the estimates of project costs assume the use of welded steel.

The estimates reflect the current San Diego area bidding climate, which is high in comparison to historical conditions. Assuming a Flume project were bid a few years in the future, the bidding climate in effect at that time will influence the project costs.

The estimates are preliminary, based not on detailed construction drawings but rather on professional judgement of the construction conditions and methods likely to be applicable to each reach of the alignment as depicted in **Figure 1**. The estimates are Class 5 planning level estimates; we estimate their accuracy range at approximately -35 to +50 percent.

5.10. A final determination of alignment, pipe material, pipeline diameter, and other factors would be made as part of Alignment and Preliminary Design studies.

The Study's review of Flume replacement options, including alignments, pipe materials, pipeline diameters, and other factors has advanced only to a degree sufficient to confirm overall feasibility and to generate a range of probable costs. Our alignment options in particular are conceptual only, and are not intended to imply preference for routing decisions. Those decisions are in the future. Should the District elect to proceed with the To Flume option, it would undertake Alignment Study and Environmental Documentation efforts that would evaluate multiple alternatives and identify, and document, preferred project solutions.

Those future studies would also give further consideration to the following issues relative to differences between Hybrid and All-New alignments:

- **Right-of-Way Issues:** The District's easement holdings for the existing Flume pre-date almost every other utility in the area, meaning any relocation of Flume facilities required by others is paid for by others. This factor advantages the Hybrid alignment over the All-New alternative. At the same time, the existing Flume easements require ongoing maintenance and inspection, adding operating costs. This factor advantages the All-New alignment.
- **Capital Outlay Programming:** The Hybrid alignment option allows for phased construction, spreading out capital outlay spending over a longer time. In particular, future condition assessment work on the siphon sections may support deferring structural relining of those reaches for additional decades. In comparison, the All-New alignment option could at most be broken into two reaches (in **Figure 1**, these are delineated by the point where the purple All-New line crosses the Flume), and these phased a few years apart, with only modest attenuation of capital outlay spending levels.

6. Conclusions and Next Steps

6.1. First-Year Cost Review: Modest favor the To Flume option.

First-year unit costs of the Not To Flume and To Flume options are summarized in the tables below. The comparison does not account for differences in cost escalation over time.

First-Year Costs for Not To Flume Option

Cost Component	Description	Equivalent Unit Cost ¹
Increased Water Authority Purchases	Purchase an additional 5,000 AF/yr, on average, of treated Water Authority water at a first year “all-in” rate of \$1,700, as presented in Section 1.5 .	\$1,700/AF
Local System O&M	Operate and maintain the local water system on a long-term, asset management driven basis as described in Section 2 .	\$720/AF
Exchange Benefit	Sale of local water to Escondido, per Section 3 . The benefit is expressed on the basis of 5,000 AF/yr of local system yield.	(\$420/AF) (benefit)
Delivery Reliability Mitigation	To compensate for reduction in delivery reliability absent the Flume, increase storage of planned Pechstein II reservoir by 10 MG, at a capital cost of \$15M ² , as described in Section 4.1 .	\$140/AF
Boot and Bennett Transfer	Transfer Boot and Bennett areas to Vallecitos, incurring a mid-range capital cost of \$17M ² as presented in Section 4.2 .	\$160/AF
Reduced Pumping Costs	By taking water at its VID3 connection rather than from the Flume, the District achieves annual pumping cost savings of \$210,000 and capital cost savings of \$5M ² , as presented in Section 4.3 .	(\$90/AF) (benefit)
TOTALS	(Rounded)	\$2,200/AF

First-Year Costs for To Flume Option

Cost Component	Description	Equivalent Unit Cost ¹
Local Water System O&M	Operate and maintain the local water system on a long-term, asset management driven basis as described in Section 2 .	\$720/AF
Water Treatment	Treatment of local water at the EVWTP, as described in Section 2 .	\$200/AF
Flume Replacement	Replace the Flume at a total capital cost of \$120M ² as described in Section 5 .	\$1,150/AF
Flume O&M	Operate and maintain the Flume, per Section 5 . (Asset management costs do not begin until after the 30 year finance period.)	\$20/AF
Self-Treatment Benefit	Operation of the Flume allows the District to use approximately 7,500 AF/yr of Water Authority raw water, which it treats at a cost approximately \$75/AF less than the Water Authority treated water rate differential. The equivalent unit benefit is expressed on the basis of 5,000 AF/yr of local system yield.	(\$110/AF) (benefit)
TOTALS	(Rounded)	\$2,000/AF

- 1) Equivalent unit costs in 2020 dollars, for 5,000 AF/yr average annual yield of the local water system.
- 2) Capital costs are amortized at 2.5 percent over 30 years (A/P = .0478), and converted to unit cost using the District’s 5,000 AF/yr average annual yield of the local water system.

6.2. 30-Year Cost Review: Differences in cost escalation rates result in pronounced advantage to the To Flume option.

The first-year costs presented in **Section 6.1** do not account for differences in the rates of cost escalation between the options over time. We expect most of the cost components listed will inflate over time at the assumed mid-range rate of 3.0 percent per year, as described in **Section 1.7**. We expect however that the two largest cost line items, Water Authority treated water rates and Flume Replacement amortized costs, will escalate at rates different than inflation with significant consequences to the overall cost comparison.

Regarding Water Authority treated water rates, the best available forecast as described in **Section 1.5** indicates rates are likely to increase faster than inflation for approximately the next 10 years, and thereafter equal to inflation. In contrast, Flume Replacement amortized costs, assuming the use of conventional level 30-year financing, would remain steady over the period with no escalation. This combination of escalating Water Authority rates and steady Flume Replacement amortization costs weighs to the significant advantage of the To Flume option.

The resulting thirty-year costs are summarized in the tables below.

Thirty-Year Present-Worth Costs¹ for Not To Flume Option

Cost Component	Annual Cost Escalation	30-Year Costs ²
Increased Water Authority Purchases	<u>Years 1-10:</u> Mid-Range Inflation + 1.5% <u>Years 11-30:</u> Mid-Range Inflation	\$287M
Local System O&M	Mid-Range Inflation	\$108M
Exchange Benefit	Mid-Range Inflation	(\$63M)
Delivery Reliability Mitigation	None	15M
Boot and Bennett Transfer	None	17M
Reduced Pumping Costs	<u>O&M Portion:</u> Mid-Range Inflation <u>Capital Portion:</u> Zero (level financing)	(\$11M)
TOTALS	(Rounded)	\$350M

Thirty-Year Present-Worth Costs¹ for To Flume Option

Cost Component	Annual Cost Escalation	30-Year Costs ²
Local Water System O&M	Mid-Range Inflation	\$108M
Water Treatment	Mid-Range Inflation	\$30M
Flume Replacement	None	\$113M ³
Flume O&M	Mid-Range Inflation	\$3M
Self-Treatment Benefit	Mid-Range Inflation	(\$17M)
TOTALS	(Rounded)	\$240M

1. All annual cost items are inflated as noted over 30 years, then brought back to present worth at a discount rate of 3.0%/yr.
2. Costs in 2020 dollars
3. That's not a typo. The assumption that the project will receive low-interest financing results in an effective subsidy in its present-worth cost. The subsidy for \$120M of capital financed at 2.5% interest over a 30-year period, and brought back to present worth at a discount rate of 3.0%, amounts to approximately \$7M.

Beyond the 30-year finance period, all of the costs for the Not To Flume option continue to accrue, while costs for the To Flume option decrease with the retirement of the capital debt. At that time the District would begin accruing a sinking fund for long-term maintenance and repair of the new Flume, but the annual cost for this fund would be considerably less than the bond payment amount. **This suggests the long-term cost advantages of the To Flume option would likely continue beyond the 30-year finance period and into the future.**

6.3. Sensitivity Analysis: The cost comparison can be altered by changes to individual assumptions; however, getting the scale to tip the other way requires changes to multiple assumptions.

The cost comparisons presented in **Sections 6.1** and **6.2** utilize the Mid-Range estimates for all cost components and financing terms. The Mid-Range assumptions reflect the Study team's best estimates and professional judgements; we think those are the best numbers to use for the current planning purposes. Nevertheless, we recognize that our estimates and assumptions about future conditions are imperfect, and that actual costs and actual future conditions could vary. Having demonstrated that the cost balance scale tips in favor of the To Flume option using the Mid-Range estimates, it is prudent to consider the sensitivity of that outcome to changes in the assumptions.

The Sensitivity Analysis table on the next page summarizes the effects on the thirty-year cost comparison of making one-at-a-time changes to key individual assumptions. For example, what is the effect on the cost comparison of changing the project interest rate from the Mid-Range value to a higher rate, or what is the effect of assuming Water Authority rates will escalate at a pace lower than the Mid-Range assumption? For comparison, the first row of the table lists what we have labeled as the Baseline Condition, the costs that result from consistent application of the Mid-Range assumptions as detailed in the previous subsection.

Because the cost balance scale for the Baseline Condition tilts so prominently in favor of the To Flume option, the Sensitivity Analysis table presents only changes made in the direction of advantaging the Not To Flume option at the expense of the To Flume option (e.g., adjusting project interest rates to make financing of a Flume Replacement project more expensive than for the Mid-Range condition). It is important to keep in mind that for every changed assumption presented in the direction of advantaging the Not To Flume option, there is an equal and opposite change that would further advantage the To Flume option (e.g., we could change the interest rate assumption the other direction to make the financing of a Flume Replacement project less expensive than the Mid-Range condition).

Sensitivity Analysis for Changes to Individual Cost Variables

(With all adjustments made in the direction of advantaging the Not To Flume option)

Cost Variable	Assumption	Effect	30-Yr. Costs ¹	
			Not To Flume	To Flume
Baseline Condition	Baseline costs using all Mid-Range assumptions, per Section 6.2.		\$350M	\$240M
1. Interest Rates	Increase project interest rate from the Mid-Range value of 2.5% (melded) to Pessimistic range value of 4.0%	Increases present-worth cost of Flume replacement by ~\$22M	\$350M	↑ \$260M (+\$20M)
2. Rate Escalation	Reduce the pace of rate escalation from Mid-Range (inflation + 1.5% next 10 years, thereafter at inflation), to Optimistic (inflation + 1% for next 5 years, thereafter at inflation)	Reduces cost of Water Authority purchases for local yield replacement water by ~\$20M	↓ \$330M (-\$20M)	\$240M
3. Exchange Opportunities	Increase the exchange revenue from Mid-Range (\$420/AF) to Optimistic (\$530/AF)	Reduces net cost of Not To Flume option by ~\$20M	↓ \$330M (-\$20M)	\$240M
4. System Improvements	Change Boot and Bennet transfer cost from Mid-Range (\$17M) to Optimistic (\$6M)	Reduces cost of Not To Flume option by ~\$10M (rounded)	↓ \$340M (-\$10M)	\$240M
5. Flume Replacement	Assume replacement costs 25% above budget	Increases costs of Flume replacement by ~\$30M	\$350M	↑ \$270M (+\$30M)
6. Average Local Yield	Reduce the average yield of the local water system from Mid-Range (5,000 AF/yr) to Pessimistic (4,000 AF/yr) <i>(Note: Less yield would mean less replacement water would be required.)</i>	Reduces cost of Water Authority purchases for local yield replacement water by ~\$60M Reduces costs for local water treatment by ~\$10M	↓ \$290M (-\$60M)	↓ \$230M (-\$10M)

1. Costs in 2020 dollars

It is apparent from the table that the long-term cost advantages of the To Flume option are robust, in that changes to individual assumptions alone are not sufficient to tip the balance scale the other way. Of the six variables presented, changes to the last, Average Local Yield, result in the largest swing in costs (\$50M net) between the To Flume and Not To Flume options.

To further test sensitivity, the table on the next page presents the results of applying multiple changed assumptions simultaneously, all in the direction of advantaging the Not To Flume option.

Sensitivity Analysis for Changes to Multiple Cost Variables, Case 1
(With all adjustments made in the direction of advantaging the Not To Flume option)

Cost Variable	Assumption	30-Yr. Costs ¹	
		Not To Flume	To Flume
Baseline Condition	Baseline costs using all Mid-Range assumptions, per Section 6.2 .	\$350M	\$240M
First Five of Six (1. Interest Rates, 2. Rate Escalation, 3. Exchange Opportunities, 4. System Improvements, 5. Flume Replacement)	Assumes the first five of the assumptions change, in unison, from their Mid-Range values to those most favorable to the <u>Not To Flume</u> option.	↓ \$300M (-\$50M)	↑ \$290M (+ \$50M)
All Six (The first five above, plus: 6. Average Local Yield)	Assumes all six of the assumptions change in unison from their Mid-Range values to those most favorable to the <u>Not To Flume</u> option.	↓ \$240M (-\$110M)	↑ \$280M (+ \$40M)

The table demonstrates that with enough changes to the Mid-Range assumptions, all made in the direction of favoring the Not To Flume option, it is possible to bring the long-term costs of the two options to parity, and in the extreme to gain modest comparative cost advantage (on the order of \$1.5 million per year over thirty years) for the Not To Flume option. **We consider this scenario unlikely, but do not deny it is possible.**

On the topic of what is possible, remember the above sensitivity analysis tables are intentionally biased in favor of lending advantage to the Not To Flume option. If we instead adjusted the sensitivity variables in the other direction, in favor of the To Flume alternative, the cumulative results would be as presented in the table below.

Sensitivity Analysis for Changes to Multiple Cost Variables, Case 2
(With all adjustments made in the direction of advantaging the To Flume option)

Cost Variable	Assumption	30-Yr. Costs ¹	
		Not To Flume	To Flume
Baseline Condition	Baseline costs using all Mid-Range assumptions, per Section 6.2 .	\$350M	\$240M
First Five of Six (1. Interest Rates, 2. Rate Escalation, 3. Exchange Opportunities, 4. System Improvements, 5. Flume Replacement)	Assumes the first five of the assumptions change in unison from their Mid-Range values to those most favorable to the <u>To Flume</u> option.	↑ \$400M (+ \$50M)	↓ \$205M (-\$35M)
All Six (The first five above, plus: 6. Average Local Yield)	Assumes all six of the assumptions change in unison to those most favorable to the <u>To Flume</u> option.	↑ \$485M (+ \$135M)	↓ \$215M (-\$25M)

The table above and the one prior demonstrate the swing between wildly pessimistic and wildly optimistic assumptions. We think the actual numbers are most likely to be closer to the middle of this range.

6.4. Review of Non-Cost Factors: Both options have comparative advantages and disadvantages. We think To Flume comes out ahead, but the evaluations here are subjective. Your call.

Major non-cost attributes of the Not To Flume option are summarized in the table below. The evaluations presented here are preliminary and subject to Board refinement.

Major Non-Cost Components for Not To Flume Option

Evaluation Factor	Discussion	Rating	
		To Flume	Not To Flume
Maximize Service Reliability and Operational Effectiveness	Without the Flume, the District would incur loss of an increment of delivery reliability provided by the Flume. Delivery reliability in the Not To Flume option is mostly compensated for as described in Section 4.1 , but not entirely.	↑	↔
Minimize Environmental Impacts / Protect Environmental Resources	Potential adverse environmental effects of a Flume replacement project appear mitigable, with costs included in the estimate. Environmental management of the Warner Basin could continue under either option.	↔	↔
Implementability – Capital Outlay Expenditures	Even though equivalent unit costs are level between the options, the To Flume option requires large capital financing, while the Not To Flume option does not.	↓	↑
Implementability – Other Risks and Opportunities	Each option leads to its own set of risks and opportunities. The To Flume option incurs risk of hydrologic uncertainty as to future yield, but that uncertainty is as likely to be favorable and unfavorable. The To Flume option leaves open the potential opportunity of an expanded Warner Basin wellfield, but that opportunity has not yet been evaluated for economic merit.	↑	↔
Regional Cooperation	The existing Flume provides valuable supply redundancy to the Rincon del Diablo, via an intertie utilized by Rincon del Diablo during Water Authority aqueduct shutdowns. Rincon del Diablo is hoping the District chooses To Flume.	↑	↓
Intrinsic Values	For board discussion	?	?

6.5. Course Corrections and Offramps: For either option, the District will have a period of further planning and design prior to going all-in. You will have opportunities for course corrections and offramps along the way.

The Water Supply Planning Study is not the final word on To Flume or Not To Flume. Rather, the results of the Study will inform the District’s decision as to whether to proceed with the next steps for preliminary design and environmental documentation for one option or the other. Either path provides ample time and opportunity for further review and refinement of the findings of the work presented here, and we recommend that periodic overview assessments be built into the scope of work for either path.

If for example you elect to proceed with planning for a Flume Replacement Project, and if in the course of that planning you determined that all six of the cost variables from the prior table had shifted in favor of the Not To Flume option, you could change course at that time. We hope that takes a bit of the pressure off the current To Flume or Not To Flume decision.

6.6. Next Steps: To Flume

If the District chooses To Flume, its next steps will include the major items summarized in the table below.

Next Steps – To Flume Option

Action	Description	Schedule and Budget
1. Alignment Study	Conduct a thorough Alignment Study for a Flume Replacement Project. Evaluate alternative alignments, define key design parameters, refine project costs, and provide engineering support to the Environmental Documentation process	18-24 months \$0.75M - \$1.25M
2. Environmental Documentation	Conduct environmental documentation and preparation for project permitting	18-24 months \$0.75M - \$1.25M
3. Financial Planning	Develop project financing plans; prepare and apply for grants (depending on project eligibility) and low-interest loans	12-18 months \$0.1M - \$0.25M
4. Miscellaneous	<ul style="list-style-type: none"> <u>Average Local Yield:</u> Refine estimates 	12-18 months \$0.1M - \$0.25M
Total		24-36 months \$1.7M - \$3M

6.7. Next Steps: Not To Flume

If the District chooses Not To Flume, its next steps will include the major items summarized in the table below.

Next Steps – Not To Flume Option

Action	Description	Schedule and Budget
1. Flume Retirement Planning	Define timing and process for Flume retirement and demolition, including environmental review	12-24 months \$0.5M - \$0.75M
2. Boot and Bennett Transition	Prepare necessary agreements and studies with Vallecitos and LAFCO for transition of the Boot and Bennett areas to the Vallecitos service area.	12-24 months \$0.25M - \$0.75M
3. Delivery Reliability / Pechstein II	<ul style="list-style-type: none"> • Prepare formal plan for delivery reliability upon retirement of the Flume • Prepare preliminary design and environmental documentation for Pechstein II • Coordinate with the Water Authority to monitor implementation of their Isolation Valves project 	12-24 months \$0.25M - \$0.75M
4. Escondido Water Purchase Agreement	<ul style="list-style-type: none"> • Coordinate with Escondido to formalize terms • Work with Escondido to explore opportunities for water quality and treatability improvements at Lake Wohlford and the EVWTP 	12-24 months \$0.25M - \$0.5M
Total		12-24 months \$1.25M - \$3M

6.8. We'll see you at Workshop No. 3.

These are challenging and exciting issues for the District. We look forward to reviewing them with you at Workshop No. 3.



Agenda Item: 9

STAFF REPORT

Board Meeting Date:

April 1, 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.



Agenda Item: 10.A

STAFF REPORT

Board Meeting Date: April 1, 2020
Prepared By: Ranae Ogilvie
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

Board Meeting Date: April 1, 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.

	SCHEDULE OF UPCOMING MEETINGS AND EVENTS	ATTENDEES
1 *	Council of Water Utilities Meeting <i>April 21, 2020; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 4/16/20</i>	
2 *	Vista Chamber of Commerce Business Mixer <i>May 13, 2020, 5:00 p.m. – 7:00 p.m.; Wildwood Crossing, 116 Civic Center Drive</i> <i>No RSVP required to attend</i>	
3 *	Council of Water Utilities Meeting <i>May 19, 2020; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 5/14/20</i>	
4	Special Districts Legislative Days (CSDA) <i>May 19-20, 2020; Sheraton Grand Sacramento</i> <i>Registration deadline: 4/20/20</i>	MacKenzie (R, H)
5 *	CSDA Quarterly Dinner Meeting <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
6	Bay Delta Tour Field Trip (Water Education Foundation) <i>June 3-5, 2020; Begins and ends at Sacramento International Airport</i> <i>Reservation deadline: 4/21/20</i>	
7	Third Annual Groundwater Sustainability Summit (GRA) <i>June 10-11, 2020; Hilton Sacramento Arden West</i> <i>Registration deadline: 5/13/20</i>	
8 *	Council of Water Utilities Meeting <i>June 16, 2020; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 6/11/20</i>	
9 *	Council of Water Utilities Meeting <i>July 21, 2020; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 7/16/20</i>	
10	ACWA Summer Conference <i>July 28-31, 2020; Monterey</i> <i>Registration deadline: 7/10/2020</i>	MacKenzie (R, H) Vásquez (R, H, A) Dorey (R, H, A) Sanchez (R, H)
11 *	Council of Water Utilities Meeting <i>DARK IN AUGUST</i>	
12	Urban Water Institute Annual Water Conference <i>Aug. 19-21, 2020; Hilton San Diego</i> <i>Registration deadline: TBD</i>	
13 *	CSDA Quarterly Dinner Meeting <i>Aug. 20, 2020, 6:00-9:00 p.m.; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 8/13/20</i>	

	SCHEDULE OF UPCOMING MEETINGS AND EVENTS	ATTENDEES
14	CSDA Annual Conference <i>Aug. 24-27, 2020; Palm Desert</i> <i>Registration deadline: 7/24/20</i>	MacKenzie Sanchez
15	Headwaters Tour Field Trip (Water Education Foundation) <i>Sept. 10-11, 2020; Begins and ends in Sacramento area</i> <i>Reservation deadline: 7/29/20</i>	
16	Third Annual Western Groundwater Congress <i>Sept. 14-16, 2020; Burbank, CA</i> <i>Reservation deadline: TBD</i>	Dorey
17 *	Council of Water Utilities Meeting <i>Sept. 15, 2020; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 9/10/20</i>	
18	2020 Water Summit (Water Education Foundation) <i>Sept. 24, 2020; Sacramento</i> <i>Registration deadline: TBD</i>	
19	Special District Leadership Academy (CSDA) (Advanced track available) <i>Sept. 27-30, 2020; South Lake Tahoe</i> <i>Registration deadline: 8/28/20</i>	
20	San Joaquin River Restoration Tour Field Trip (Water Education Foundation) <i>Sept. 30-Oct. 1, 2020; Begins and ends in Fresno</i> <i>Reservation deadline: 8/18/20</i>	
21	Northern California Tour Field Trip (Water Education Foundation) <i>Oct. 14-16, 2020; Begins and ends at Sacramento International Airport</i> <i>Reservation deadline: 9/1/20</i>	
22 *	Council of Water Utilities Meeting <i>Oct. 20, 2020; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 10/15/20</i>	
23	Special District Leadership Academy (CSDA) (Advanced track available) <i>Nov. 15-18, 2020; San Diego</i> <i>Registration deadline: 10/23/20</i>	
24 *	CSDA Quarterly Dinner Meeting <i>Nov. 19, 2020, 6:00-9:00 p.m.; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 11/12/20</i>	
25 *	Council of Water Utilities Meeting <i>Nov. 17, 2020; The Butcher Shop Steakhouse, Kearny Mesa</i> <i>Reservation deadline: 11/12/20</i>	
26 *	Council of Water Utilities Meeting <i>DARK IN DECEMBER</i>	
27	ACWA Fall Conference <i>Dec. 1-4, 2020; Indian Wells; Registration deadline: TBD</i>	
28	Colorado River Water Users Association Conference (CRWUA) <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



Agenda Item: 11

STAFF REPORT

Board Meeting Date: April 1, 2020
Prepared By: Ranae Ogilvie

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:

- San Luis Rey Watershed Council participation
- Warner Wellfield Assessment



Agenda Item: 12

STAFF REPORT

Board Meeting Date:

April 1, 2020

Prepared By:

Ramae Ogilvie

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: 13

STAFF REPORT

Board Meeting Date:

April 1, 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: 14

STAFF REPORT

Board Meeting Date:

April 1, 2020

Prepared By:

Brett Hodgkiss

SUBJECT: COMMENTS BY GENERAL MANAGER

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