



SANTA CLARA VALLEY WATER DISTRICT

NON-AGENDA

July 9, 2021

Board Policy EL-7 Communication and Support to the Board
The BAOs shall inform and support the Board in its work.

Page	<u>CEO BULLETIN & NEWSLETTERS</u>
3	CEO Bulletin: Weeks of June 18 – July 02 2021
11	July 2021 Water Tracker
	<u>BOARD MEMBER REQUESTS & INFORMATIONAL ITEMS</u>
	BMR/IBMR Weekly Reports: None
14	Memo from Aaron Baker, COO, Water Utility, to the Board of Directors, dated 7/01/21, regarding Los Vaqueros Expansion Update.
	<u>INCOMING BOARD CORRESPONDENCE</u>
77	Board Correspondence Weekly Report: 07/08/21
79	Email from John Kolski, to the Board of Directors, dated 6/30/21, regarding California Warning Against Eating Certain Fish from Stevens Creek Reservoir Due to Mercury Levels (C-21-0088).
82	Email from Ron Zraick, to Director Keegan, dated 7/01/21, regarding Homeless Activity along the Creeks (C-21-0089).
110	Email from Aylene S. Kuhn, to the Board of Directors, dated 7/01/21, regarding Fence at Calcaterra and Scarsdale (C-21-0091).
111	Email from Avi Gingold, to Director Varela, dated 7/02/21, regarding Gray Water Plumbing for Irrigation (C-21-0092).
114	Letter from Mary Genone, to the Board of Directors, dated 7/1/21, regarding Reliable Water Supply for Morgan Hill, San Martin and Gilroy (C-21-0093).
	<u>OUTGOING BOARD CORRESPONDENCE</u>
116	Various Santa Clara County Mayor/ City Council Letters from Vice Chair Kremen, dated 07/01/21, regarding Drought Update.
122	Email from Vice Chair Kremen, to Marilee Ankaitis, dated 7/02/22, regarding Water Rationing Mandate (C-21-0080).
124	Email from Director Varela, to Avi Gingold, dated 7/02/21, regarding Graywater use in Morgan Hill (C-21-0083)
126	Email from Director Varela, to Ashis Roy, dated 7/02/21, regarding Water Conservation (C-21-0084)

Board correspondence has been removed from the online posting of the Non-Agenda to protect personal contact information. Lengthy reports/attachments may also be removed due to file size limitations. Copies of board correspondence and/or reports/attachments are available by submitting a public records request to publicrecords@valleywater.org.

CEO BULLETIN

CEO BULLETIN



To: Board of Directors
From: Rick L. Callender, CEO

Weeks of June 18 – July 02 2021

Board Executive Limitation Policy EL-7:

The Board Appointed Officers shall inform and support the Board in its work. Further, a BAO shall 1) inform the Board of relevant trends, anticipated adverse media coverage, or material external and internal changes, particularly changes in the assumptions upon which any Board policy has previously been established and 2) report in a timely manner an actual or anticipated noncompliance with any policy of the Board.

Item	IN THIS ISSUE
<u>1</u>	Clean, Safe Creeks Grant Closeout: City of Gilroy’s Ronan Channel Interim Trail Project — Phase I.
<u>2</u>	Department of Homeland Security Vulnerability Assessments at Valley Water.
<u>3</u>	FY21 Pollution Prevention Hotline Summary.
<u>4</u>	Regulatory Assessment of Water Quality Lab.
<u>5</u>	Safe, Clean Water Grant Closeout: Midpeninsula Regional Open Space District’s Webb Creek Bridge Project.
<u>6</u>	Safe, Clean Water Mini-Grant Closeout: Living Classroom’s El Carmelo School Native Ecology Garden-Based Lessons project.
<u>7</u>	San Francisco Bay Restoration Authority grants \$3.37M to the Calabazas/San Tomas Aquino Creek-Marsh Connection Project, as part of the Salt Ponds A5-11 Restoration (Project Number 20444001).
<u>8</u>	Valley Water has completed the Draft Environmental Impact Report (EIR) for the Fish and Aquatic Habitat Collaborative Effort program and the public draft is released for a 45-day public review from June 30, 2021 to August 16, 2021.
<u>9</u>	Valley Water Hosts Virtual Public Meeting on the Start of Construction of the Lower Calera Creek Improvements Project.
<u>10</u>	Valley Water Launches Innovative Leak Detection and Repair Certification Pilot Program.
<u>11</u>	Water Management Agreements Executed in June 2021.

1. Clean, Safe Creeks Grant Closeout: City of Gilroy's Ronan Channel Interim Trail Project — Phase I.

In FY 2013, Valley Water awarded the City of Gilroy a \$190,000 Clean, Safe Creeks and Natural Flood Protection Grant for the Ronan Channel Interim Trail Project – Phase I (Project). The City of Gilroy (City) completed the Project on September 14, 2020, and grantee staff submitted the final invoice items on April 21, 2021, to close out the Project. The Ronan Channel Interim Trail Project – Phase I was part of a larger project, the West Branch Llagas Creek Trail Project; therefore, the City could not invoice and close out the grant until the larger project was completed.

The grant funded a 12-foot-wide asphalt trail over the existing maintenance road from 6th Street to Leavesley Road, installing two park benches and a pedestrian bridge. The newly paved trail permits safe pedestrian and bicycle travel and connects an existing park, school, and a commercial district.

Key Outcomes:

- Paved a 12-foot-wide asphalt trail along the west bank of the Llagas Creek.
- Constructed a pedestrian bridge to allow pedestrian and bicycle travel across Llagas Creek.
- Reconstructed two pedestrian curb ramps.
- Replaced two 6-foot-tall chain-link fences
- Installed two benches, trash receptacles, and interpretive signage.

For further information, please contact Marta Lugo at (408) 630-2237.

2. Department of Homeland Security Vulnerability Assessments at Valley Water.

On the week of June 21 to 25 2021, The Department of Homeland Security (DHS) conducted vulnerability assessments for the Vasona Pumping Plant, Leniham Dam & Lexington Reservoir, and the Headquarters Building. The vulnerability assessments are conducted because DHS identifies water conveyance as critical infrastructure. Valley Water's Security Office formed a working relationship with DHS that allows for information sharing, active shooter training, and past vulnerability assessments on six other critical assets. During this round of assessments, the three-person DHS team was assisted by members of Valley Water IT, SCADA Administrators, Raw Water Operations, Dam Safety Unit, and Facilities. The information gathered from interviews and site tours is processed into written vulnerability assessments highlighting security and business continuity strengths and weaknesses. The value of DHS vulnerability assessments is gaining situational awareness through uninterested third-party eyes. Valley Water is the customer, having unlimited access to the finished assessment, while the assessments and working papers are protected on the federal level as Protected Critical Infrastructure Information (PCII). The ongoing working relationship between Valley Water and DHS is a means to better protect workers, visitors, and assets as a best business practice.

For further information, please contact Alexander Gordon at (408) 630-2637.

3. FY21 Pollution Prevention Hotline Summary.

For numerous years Valley Water has maintained the Pollution Prevention Hotline as a means for people to report on spills and/or illegal dumping that has the potential to adversely impact waterways throughout the county. The Pollution Prevention Hotline is partially supported through Valley Water's Safe, Clean Water Program (Project B5).

A total of 110 calls were received to the Pollution Prevention Hotline in FY21 and a breakdown of the calls received to the Pollution Prevention Hotline are as follows:

60% of calls came from the public; 25% from Valley Water staff, and 15% from other local agencies.

70% of the calls received fell within Valley Water's jurisdiction (fee title or easement). For cases not within Valley Water's jurisdiction, the on-call responder forwarded the incident information to the appropriate local agency.

87% of the calls occurred within the San Francisco Bay Regional Water Quality Board boundary; 13% occurred within the Central Coast Regional Water Quality Board Boundary.

A breakdown of calls by watershed were as follows: Lower Peninsula-13%, West Valley-30%, Guadalupe-16%, Coyote-32%, and Uvas/Llags-10%.

Twenty-five calls received on the Pollution Prevention Hotline were related to encampment issues. In such cases, an Access Valley Water case was created to address the issue.

For further information, please contact Tina Yoke at (408) 630-2385.

4. Regulatory Assessment of Water Quality Lab.

The Water Quality Lab was recently audited as a part of its accreditation requirements from the California Environmental Laboratory Accreditation Program (ELAP). Recently, ELAP made significant changes to laboratory requirements, which now consists of two parts: update of the CA Title 22 Regulations, which went into effect on January 1, 2021, and adoption of a rigorous quality management system established by National Environmental Laboratory Accreditation Conference (NELAC), The NELAC Institute (TNI) Standard, which goes into effect in 2024. Together these changes translate to much more rigorous book keeping and training requirements on laboratory operations.

This audit was based on the implementation of the first part of new regulations that went into effect January 1, 2021. Valley Water has been preparing to address these changes when the draft first became known in 2019. Allocation of an additional full time person in Fiscal Year 2020, helped the team get a head start for anticipated changes. Significant amount of work was required to update processes to new regulatory requirements for traceability, preparation of standard operating procedures in a specific format, document control, and recordkeeping.

During the audit, Valley Water demonstrated an excellent understanding of the regulations, and received recognition from the auditor for implementing a robust quality management system, maintaining over 350 controlled documents, a functional corrective action system, and management review process to optimize laboratory operations. Between detailed interviews with Valley Water, and out of hundreds of records reviewed over a three day period, the auditor noted nine minor findings that the Valley Water plans to correct by July 24, 2021.

Valley Water is continuing to evaluate resource needs to comply with all requirements of The TNI Standard by 2024. One such effort is the gap assessment planned in September 2021, to help identify areas that need to be updated, so that the lab can maintain its accreditation in good standing and continue to provide ongoing service to all Valley Water projects to ensure safe, clean water.

For further information, please contact Bhavani Yerrapotu at (408) 630-2735.

5. Safe, Clean Water Grant Closeout: Midpeninsula Regional Open Space District's Webb Creek Bridge Project

In FY 2018, Valley Water awarded Midpeninsula Regional Open Space District (Grantee) a \$149,500 Safe, Clean Water Program D3 Access to Trails and Open Space Grant for their Webb Creek Bridge Project (Project). The Grantee completed the Project on January 31, 2020, and submitted the final invoice items in August 2020 allowing for grant closeout.

The grant funded the environmentally safe removal and replacement of the existing Webb Creek Bridge, located in Bear Creek Redwoods Open Space Preserve. The newly constructed bridge permits safe public and emergency vehicular access over Webb Creek.

Key Outcomes:

- Constructed a new bridge over Webb Creek that allows public access to four miles of trails and ensures emergency service access throughout the preserve.
- Removed the bridge in one piece to ensure environmental safety.
- Installed custom redwood guardrails.
- Widened the road to match the width of the abutment wing walls.
- Graded and restored the site, which included planting redwood trees and placing redwood mulch around the construction site.

For further information, please contact Marta Lugo at (408) 630-2237.

6. Safe, Clean Water Mini-Grant Closeout: Living Classroom's El Carmelo School Native Ecology Garden-Based Lessons project.

In FY 2018, Valley Water awarded Living Classroom a \$5,000 Safe, Clean Water Program D3 Mini-Grant for their El Carmelo School Native Ecology Garden-Based Lessons Project (Project). Living Classroom completed the Project in May 2019 and submitted the final invoice items on January 19, 2021 allowing for grant closeout.

Living Classroom provides garden-based education programs with an emphasis on native ecology lessons for TK to 5th grade students. Each school they serve has a native habitat garden, which they also maintain. Funds for this mini-grant allowed Living Classroom to provide 22 garden-based lessons for all TK through fifth grade students at El Carmelo Elementary School in Palo Alto, CA. The school garden was used to deliver a watershed stewardship curriculum to approximately 400 students, which included the following lesson plans: Garden of Senses, Animal Homes, What's my Habitat, Flower Power, Grade Habitat Perspectives, Ethnobotany, Leaf Adaptations, and Sustainable Soil and Water. The students learned about the plants and wildlife that are part of the local native ecosystems, and the importance of a healthy and functioning watershed. In addition, funds from this mini-grant went towards maintenance of the school garden.

Key Outcomes:

- Provided 22 native ecology garden-based lessons on habitats, ecology, pollution and California's biodiversity to approximately 400 TK through fifth grade students at El Carmelo Elementary School.
- Students met the lesson objectives with 89% accuracy as indicated by learning outcome questions. Sample questions included: *What can happen to the plants in an ecosystem if the climate changes? Which pollinators are found in this watershed? How do you know?*

For further information, please contact Marta Lugo at (408) 630-2237.

7. San Francisco Bay Restoration Authority grants \$3.37M to the Calabazas/San Tomas Aquino Creek-Marsh Connection Project, as part of the Salt Ponds A5-11 Restoration (Project Number 20444001).

At their June 18th Board meeting, the San Francisco Bay Restoration Authority unanimously approved a disbursement of up to \$3.37M to Valley Water to conduct planning, perform data collection and analysis, develop design plans, and prepare California Environmental Quality Act and National Environmental Policy Act documentation for the Calabazas/San Tomas Aquino Creek-Marsh Connection Project near the community of Alviso. In addition, we were notified on June 16th that the project was also awarded an additional \$500,000 in planning funds from California Department of Fish and Wildlife's Proposition 1 grant program

The feasibility study for the Calabazas and San Tomas Aquino Creek Realignment Project identified a partnership opportunity to integrate the creek realignment with planned tidal marsh restoration of the A8 Ponds within the Don Edwards S.F. Bay National Wildlife Refuge. The integrated project, a partnership between Valley Water, the South Bay Salt Pond Restoration Project, and U.S. Fish and Wildlife Service, would realign the two creek channels into the A8 Ponds and breach the ponds to initiate marsh restoration while minimizing any adverse impacts due to implementing the realignment project ahead of the SBSRP A8 Ponds tidal restoration.

Valley Water has already completed the Feasibility Report for this project and is ready to proceed with further project planning. During this planning phase, we will further develop the problem definition, data collection, and stakeholder outreach, as well as an analysis of a range of project alternatives that accomplish the project's goals. The planning phase typically includes preparation of 30% design plans to support alternatives analysis and CEQA/NEPA document preparation. The project would provide a natural sediment source for the restoration while reducing channel maintenance dredging and aims to create more than 1,400 acres of natural, resilient shoreline habitat. The integrated project is estimated to cost up to \$25 million for planning, design, and construction.

For further information, please contact Judy Nam at (408) 728-0451.

8. Valley Water has completed the Draft Environmental Impact Report (EIR) for the Fish and Aquatic Habitat Collaborative Effort Program and the public draft is released for a 45-day public review from June 30, 2021 to August 16, 2021.

A virtual public meeting is scheduled at 4:30 pm on July 21, 2021.

Zoom meeting link: <https://valleywater.zoom.us/j/82676998470>

+1 669 900 9128 US (San Jose) - Meeting ID: 826 7699 8470

The proposed project implements a Fish Habitat Restoration Plan and includes restoration measures specified in a 2003 FAHCE Settlement Agreement intended to resolve a water rights complaint filed with the State Water Resources Control Board. It includes both flow measures (reservoir re-operations rule curves) and non-flow measures such as fish barrier remediation, and measures to increase spawning and rearing habitat in Guadalupe River and Stevens Creek Watersheds.

The objectives of the FAHCE program include:

1. Restore and maintain a healthy steelhead population in the Stevens Creek watershed through measures specified the Settlement Agreement.
2. Restore and maintain healthy steelhead and Chinook salmon populations in the Guadalupe River watershed through measures specified the Settlement Agreement.
3. Maintain flexible and reliable groundwater recharge to support current and future water supply and water deliveries for municipalities, industries, agriculture, and the environment in a practical, cost-effective, and environmentally sensitive manner so that sufficient water is available for any present or future beneficial use.

The Draft EIR identified significant environmental impacts related to terrestrial biological resources, cultural resources, tribal cultural resources, paleontological resources, and noise. Significant impacts of non-flow measures on special-status species, and on riparian and other sensitive natural communities, and paleontological resources would be reduced to less than significant levels with the implementation of mitigation measures. The proposed project non-flow measure impacts on cultural resources, tribal cultural resources, and noise would remain significant and unavoidable.

Written comments on the Draft EIR should be received by close of business day on August 16, 2021 and sent to: Ryan Heacock at fahce@valleywater.org. For additional information or a CD copy of the Draft EIR, please contact Mr. Heacock at (408) 265-2600.

Please visit <https://www.valleywater.org/project-updates/public-review-documents>

and click on Fish and Aquatic Habitat Collaborative Effort Program Environmental Impact Report for additional details.

For further information, please contact John Bourgeois at (408) 630-2990

9. Valley Water Hosts Virtual Public Meeting on the Start of Construction of the Lower Calera Creek Improvements Project

On June 15, 2021, Valley Water hosted a virtual public meeting to provide an update on the upcoming construction on Lower Calera Creek, which is part of the Lower Berryessa Creek Flood Protection Project Phase 2 work, scheduled to start on June 28, 2021.

Director Santos provided opening and closing remarks during the virtual presentation, which included eight participants joining via Zoom and eight participants through Facebook Live. During the Questions and Answers portion of the meeting, Valley Water staff responded to inquiries related to flood wall heights and locations, and answered questions about the project's benefits, schedule and timeline. Community members were encouraged to contact the project's neighborhood liaison with additional questions or concerns. As the project progresses, information on construction impacts will be continually shared with residents and businesses, and staff from the City of Milpitas.

A recording of the June 15, 2021, virtual meeting and presentation is now available on the project's webpage:

<https://www.valleywater.org/project-updates/lower-berryessa-creek-flood-protection-project>.

For further information, please contact Rachael Gibson at (408) 781-4739.

10. Valley Water Launches Innovative Leak Detection and Repair Certification Pilot Program

At the June 9, 2021 Board meeting, prioritizing leak repair assistance within the water conservation program was discussed. The Water Supply Master Plan had previously identified the need to add leak repair incentives to the water conservation program. While technologies such as Advanced Metering Infrastructure and home water use monitoring devices are helpful in identifying the presence of a leak, customers throughout the Bay Area have shared challenges in locating and repairing suspected leaks. Plumbers, landscape professionals and other tradespeople may not have the expertise to assist customers with leak detection and repair, resulting in customer frustration, unnecessary costs, delays in leak repair and ultimately water waste.

After conducting extensive research and engagement with external stakeholders including Sonoma Water, City of Sacramento, Regional Water Authority, and the California Water Efficiency Partnership (CalWEP), Valley Water and Bay Area Water Supply & Conservation Agency (BAWSCA) determined the need for a certification program for tradespeople to learn leak detection and repair. Addressing this need can provide two primary benefits:

- 1) it would expand a skilled workforce focused on improving water-use efficiency; and
- 2) it would yield an objective list of certified leak detection and repair professionals to help customers repair leaks that often go unmitigated, and which is outside the scope of water agency customer support.

Valley Water and BASWCA are collaborating with CalWEP to help conceptualize a pilot leak detection certification training--an innovative program idea that is unique to the Western United States. This includes development of a certification training framework detailing training scope, curriculum requirements, and preliminary program structure, and other key components of certification. As a first step, CalWEP will develop a better understanding and prioritize customer leak detection needs, research standard business practices and licensing restrictions and liability limitations of the target audience, as well as motivations for and additional barriers to undertaking leak detection certification trainings. Findings from this first research phase will inform the second phase to develop a framework for independent indoor and outdoor leak detection and repair certification trainings.

A purchase order was created for CalWEP on June 24th for Valley Water and BAWSCA to begin working with CalWEP on this new program. A formal memorandum of agreement among Valley Water, BAWSCA, and CalWEP is under development. The results of this pilot between Valley Water, BAWSCA, and CalWEP can be leveraged to develop additional leak repair incentive programs as resources allow. The Water Conservation and Demand Management Committee will receive regular updates as this pilot progresses.

For further information, please contact Kirsten Struve at (408) 630-4739.

11. Water Management Agreements Executed in June 2021.

Pursuant to EL-5.1.6 and EL-5.3.3, the CEO is required to inform the Board on a timely basis when imported water management agreements are executed. The Imported Water Management agreements executed in June 2021 are listed below.

- June 8, 2021 - Water Transfer Agreement (#A4470W) between Valley Water and Contra Costa Water District: Provides for transfer of 5,000 acre-feet (AF) of Contra Costa's Central Valley Project (CVP) supplies to Valley Water in 2021 and the potential return of 5,000 AF of Valley Water's CVP supplies to Contra Costa by 2023.
- June 8, 2021 - Purchase Agreement (#A4471W) for Water Transfer between Valley Water and Thermalito Water & Sewer District: Provides for the transfer of 3,500 AF of water from Thermalito to Valley Water in 2021 and provides for a right of first refusal to negotiate a separate agreement for a proposed water transfer in 2022. Final amount of transfer water is dependent upon the Department of Water Resources and the State Water Resources Control Board approval.
- June 10, 2021 - Purchase Agreement (#A4473W) for Water Transfer between Valley Water and South Feather Water & Power Agency: Provides for the transfer of up to 8,000 AF of water from South Feather to Valley Water in 2021 and provides the right of first refusal to negotiate a separate agreement for a proposed water transfer in 2022. The final amount of transfer water is dependent upon the Department of Water Resources and the State Water Resources Control Board approval.
- June 18, 2021 - Water Transfer Agreement (#A4481W) between Carmichael Water District, City of Sacramento and Valley Water: Provides for the purchase of emergency water supplies from Carmichael Water District and City of Sacramento to Valley Water in 2021. Valley Water anticipates delivery of 7,850 AF of water.

For further information, please contact Vincent Gin at (408) 630-2633.

Outlook as of July 1, 2021

Santa Clara County is in an extreme drought per the U.S. Drought Monitor. Due to very low local rainfall, statewide snowpack and imported water allocations, end of 2021 groundwater storage is projected to be in Stage 2 (Alert) of the Water Shortage Contingency Plan without additional imported water supplies or water use reduction. Efforts are underway to secure emergency water supplies and ramp up water conservation programs and outreach. Valley Water will rely more on imported water and water conservation in the next 10 years while Anderson Reservoir storage is unavailable due to the Federal Energy Regulatory Commission (FERC) order to drain the reservoir. On June 9, 2021, the Board of Directors adopted Resolution 21-86, declaring a water shortage emergency condition and calling for water use restrictions of 15% relative to 2019. The County of Santa Clara also proclaimed a local emergency. Making conservation a California way of life is especially critical during this extreme drought.

Weather

- Rainfall in San José:
 - » Month of June, City of San José = 0.00 inches
 - » Rainfall year total = 5.79 inches or 41% of average to date (rainfall year is July 1 to June 30)
- Month of June, San José average daily high temperature = 78 degrees Fahrenheit

Local Reservoirs

- Total July 1 storage = 23,688 acre-feet
 - » 25% of 20-year average for that date
 - » 14% of total unrestricted capacity
 - » 38% of restricted capacity (166,140 acre-feet total storage capacity limited by seismic restrictions to 62,362 acre-feet)
- Approximately 250 acre-feet of imported water delivered into Calero Reservoir during June 2021
- Approximately 310 acre-feet of water released from Anderson Reservoir during June 2021. Since the FERC order to drawdown Anderson Reservoir was issued on February 20, 2020, cumulative release from Anderson is approximately 30,360 acre-feet. Majority of released water was for water supply
- Total estimated releases to streams (local and imported water) during June was 2,480 acre-feet (based on preliminary hydrologic data)

Groundwater

- Groundwater levels and storage continue to decline due to the extreme drought conditions. Total storage at the end of 2021 is projected to be in Stage 2 (Alert) of Valley Water's Water Shortage Contingency Plan

	Santa Clara Subbasin		Llagas Subbasin
	Santa Clara Plain	Coyote Valley	
June managed recharge estimate (AF)	600	500	800
January to June managed recharge estimate (AF)	17,600	5,900	7,000
January to June managed recharge, % of 5-year average	63%	70%	80%
May pumping estimate (AF)	10,700	1,000	4,200
January to May pumping estimate (AF)	33,900	3,900	13,300
January to May pumping, % of 5-year average	153%	100%	123%
Current index groundwater levels compared to June of last year	14 Feet Lower	4 Feet Lower	22 Feet Lower

AF = acre-feet

Imported Water

- 2021 State Water Project (SWP) and Central Valley Project (CVP) allocations:
 - » 2021 SWP allocation of 5%, which provides 5,000 acre-feet to Valley Water
 - » 2021 South-of-Delta CVP allocations are 0% for Agriculture and 25% for M&I, plus credits for deliveries prior to June 1 (when the initial M&I allocation was 55%). Combined this provides 42,929 acre-feet to Valley Water. Valley Water may receive additional supplies in accordance with the CVP M&I Shortage Policy
- Statewide reservoir storage information, as of July 1, 2021:
 - » Shasta Reservoir at 38% of capacity (48% of average for this date)
 - » Oroville Reservoir at 32% of capacity (39% of average for this date)
 - » San Luis Reservoir at 32% of capacity (51% of average for this date)
- Valley Water's Semitropic groundwater bank reserves are at 93% of capacity, or 323,896 acre-feet, as of May 31, 2021
- Estimated SFPUC deliveries to Santa Clara County:
 - » Month of May = 4,182 acre-feet
 - » 2021 Total to Date: 18,083 acre-feet
 - » Five-year annual average = 48,700 acre-feet
- Board Governance Policy No. EL-5.3.3 includes keeping the Board informed of imported water management activities on an ongoing basis. Four imported water agreements were executed under EL-5.3.3 since the last Water Tracker update

Treated Water

- Below average demands of 10,491 acre-feet delivered in June
- This total is 94% of the five-year average for the month of June
- Year-to-date deliveries are 45,368 acre-feet or 105% of the five-year average

Conserved Water

- Saved 74,198 acre-feet in FY20 from long-term program (baseline year is 1992)
- Long-term program goal is to save nearly 100,000 acre-feet by 2030 and 110,000 acre-feet by 2040
- The Board has called for a 25% reduction and a limit of three days per week for irrigation of ornamental landscape with potable water
- Through June, achieved a 15% reduction in water use in calendar year 2021, compared to 2013

Recycled Water

- Estimated June 2021 production = 1,690 acre-feet
- Estimated year-to-date through June = 7,136 acre-feet or 98% of the five-year average
- Silicon Valley Advanced Water Purification Center produced an estimated 1.6 billion gallons (4,864 acre-feet) of purified water in 2020. Since the beginning of 2021, about 2,475 acre-feet of purified water has been produced. The purified water is blended with existing tertiary recycled water for South Bay Water Recycling Program customers

Alternative Sources

- As of December 10, 2019, Valley Water's wastewater contract right from Palo Alto/Mountain View remains at 10,000 acre-feet/year



CONTACT US

For more information, contact **Customer Relations** at **(408) 630-2880**, or visit our website at valleywater.org and use our **Access Valley Water** customer request and information system. With three easy steps, you can use this service to find out the latest information on district projects or to submit questions, complaints or compliments directly to a district staff person.





To get eNews, drop an email to: info@valleywater.org

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12

BOARD MEMBER REQUESTS and Informational Items

TO: Board of Directors**FROM:** Aaron Baker**SUBJECT:** Los Vaqueros Expansion Update**DATE:** July 1, 2021

At its June 30, 2021 Water Storage Exploratory Committee (WSEC) meeting, the WSEC requested staff provide a non-agenda memo to the Board with an update on a cost estimate prepared by Contra Costa Water District (CCWD) for the Los Vaqueros Expansion Project (LVE Project). In discussions with CCWD, there is no comprehensive cost estimate recently completed. The financial model used by CCWD in estimating project benefits with project partners updated the overall development of the LVE Project costs, resulting in a reduction from \$857 million to \$827 million in 2018 dollars. The reduction in cost is largely driven by the removal of a project element that would have provided a new pipeline from CCWD's Middle River intake to their transfer facility.

To provide the Board with an update of LVE Project activities attached is a Power Point prepared by CCWD in February 2021 (Attachment 1) with preliminary Local Agency Partner (LAP) costs that show the estimated costs for various levels of participation including dedicated storage, pooled storage, and conveyance only (Transfer Bethany Pipeline).

Attachment 2 is a monthly report and update distributed by CCWD.

Attachment 3 is the final Letter of Intent (LOI) that memorializes the cost calculation methodology and CCWD's usage fees determination with related discussions. The focus of project planning moved away from development of the usage fees until the Joint Powers Authority (JPA) is established. The JPA will continue negotiations on user fees with CCWD and East Bay Municipal Utilities District (EBMUD). A draft was previously provided in a non-agenda memorandum in January 2021.

CCWD would like to have the JPA agreement and third amendment to the existing multi-party cost share agreement completed by later summer. The cost-share agreement needs to be amended to provide funding and extend the agreement through 2022. The California Water Commission feasibility hearing on the LVE Project is tentatively scheduled in October 2021, at which time CCWD must provide an update to the Commission on the status of the JPA agreement and the LAP's funding commitments through 2022.



Aaron Baker, P.E.
Chief Operating Officer
Water Utility Enterprise

Attachment 1: LVE Project Presentation, February 4, 2021

Attachment 2: Partner Newsletter June 29, 2021

Attachment 3: Letter of Intent Concerning Development of Usage Fees for CCWD Facilities

The logo for the Los Vaqueros Reservoir Expansion Project. It features the words "LOS VAQUEROS" in large, bold, blue capital letters. Below "VAQUEROS" are the words "RESERVOIR EXPANSION PROJECT" in green capital letters. To the right of the text is a vertical graphic consisting of four stacked, trapezoidal shapes that resemble a dam or a reservoir cross-section, colored in shades of blue and green.

LOS VAQUEROS RESERVOIR EXPANSION PROJECT

The background of the slide is a scenic landscape. In the foreground, there are rolling green hills with a dirt road and some trees. In the middle ground, a large blue reservoir is visible, surrounded by a concrete dam structure. In the background, more rolling hills are dotted with several white wind turbines under a clear sky.

**San Luis & Delta-Mendota Water Authority Board Meeting
Los Vaqueros Reservoir Expansion Project
CCWD Presentation**

February 4, 2021



Existing Los Vaqueros Reservoir

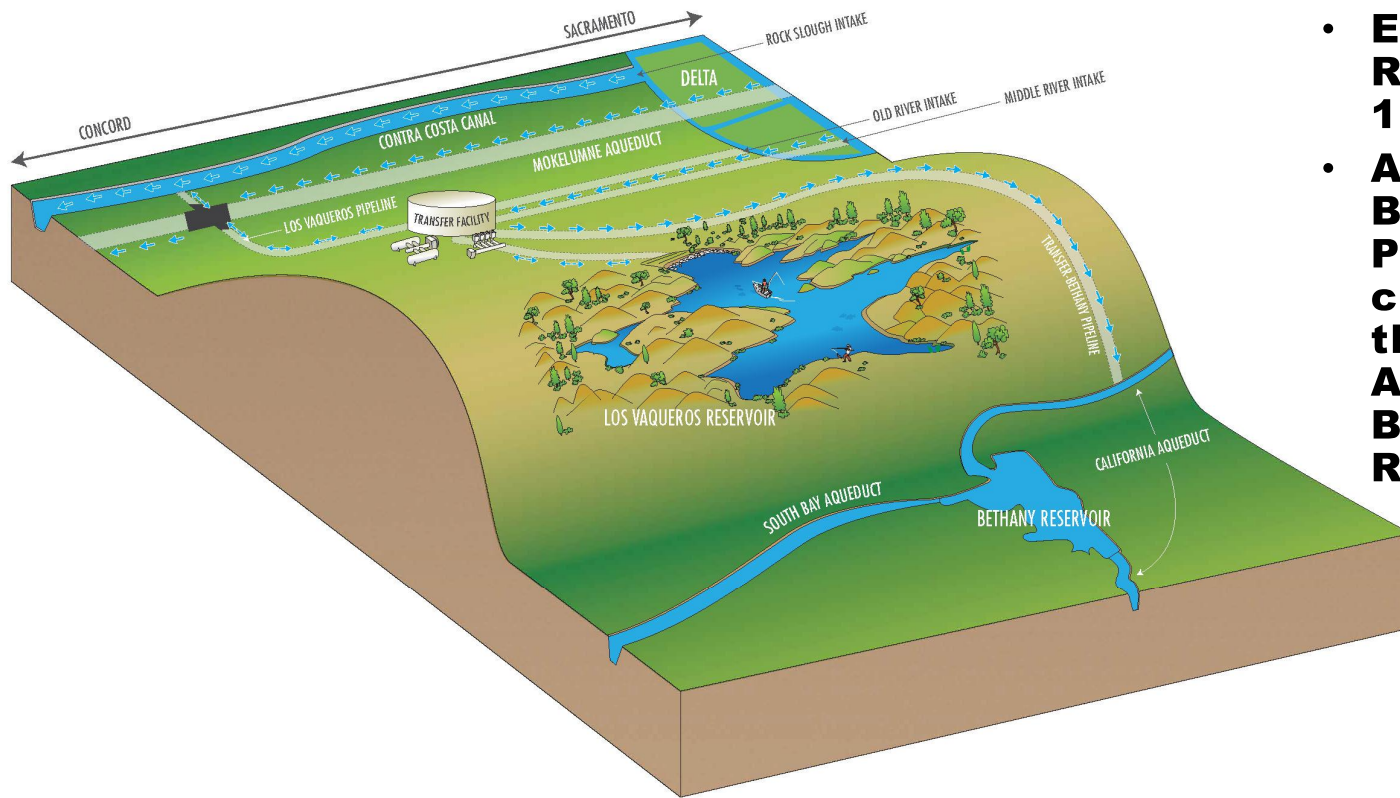


- **Los Vaqueros Reservoir is an off-stream reservoir in Contra Costa County with a capacity of 160,000 acre-feet (AF)**
- **Contra Costa Water District (CCWD) operates Los Vaqueros Reservoir in conjunction with four Delta intakes**
- **Benefits:**
 - **Water quality improvements**
 - **Drought supply reliability**
 - **Emergency supply**





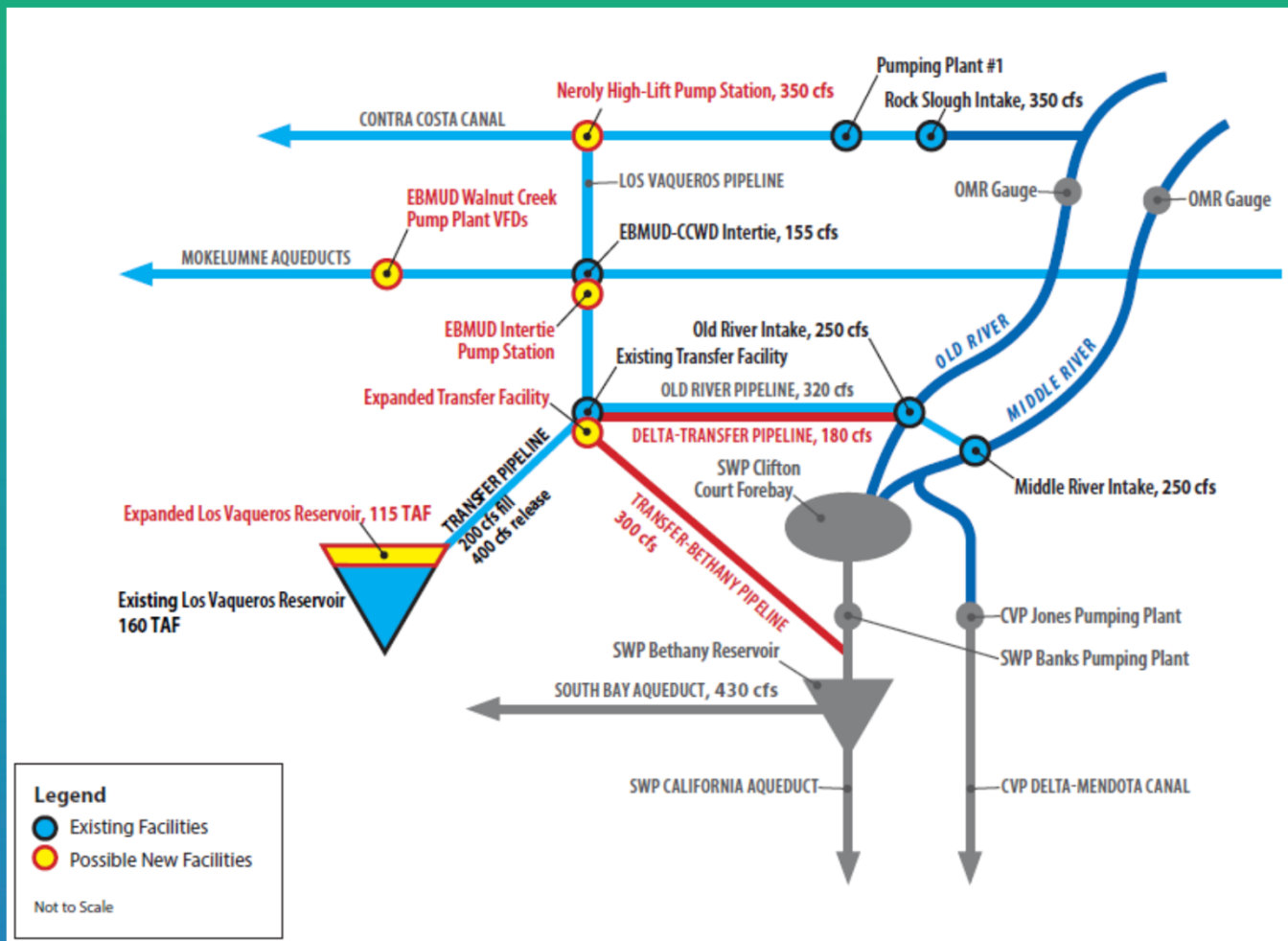
Proposed Project



New Facilities

- **Expand Reservoir from 160 to 275 TAF**
- **Add Transfer-Bethany Pipeline, connecting to the California Aqueduct at Bethany Reservoir**

Proposed Facilities



Primary Project Benefits

- **Increased Municipal & Industrial Supply**
- **Agricultural Supply**
- **Wildlife Refuge Supply**
- **Central Valley Project (CVP) Operational Flexibility**
- **Drinking Water Quality Improvements**

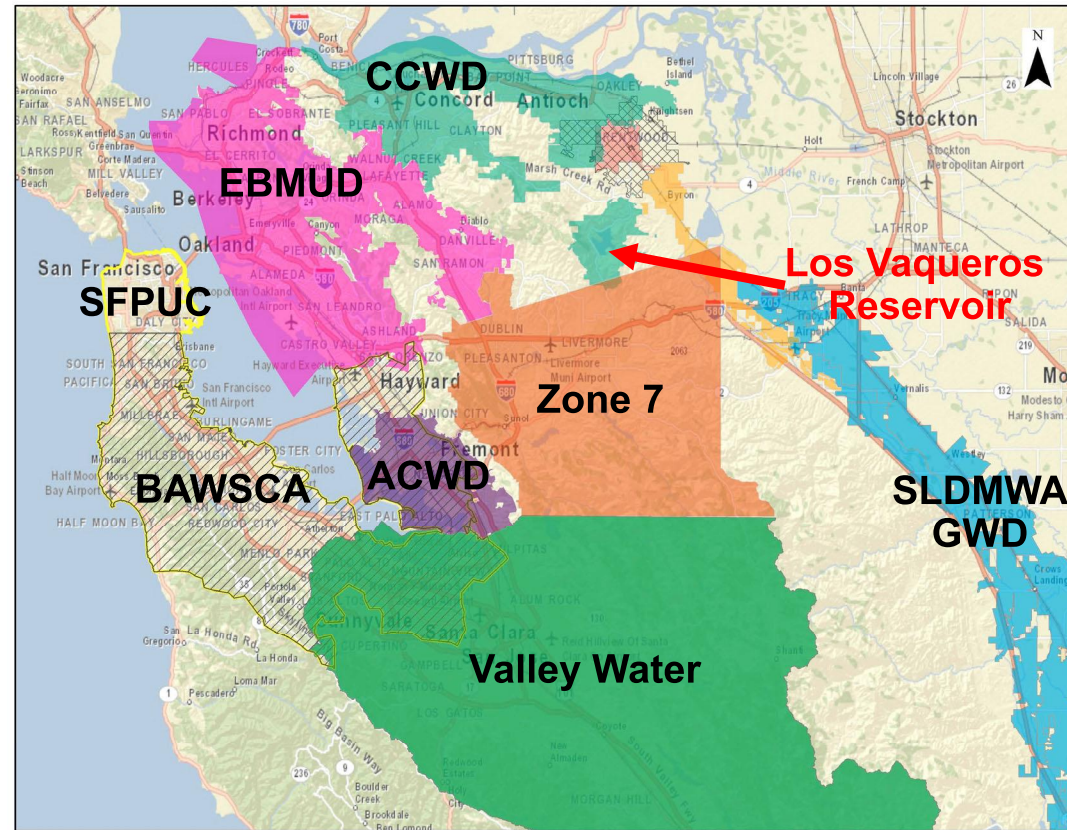




Local Agency Partners (LAPs)



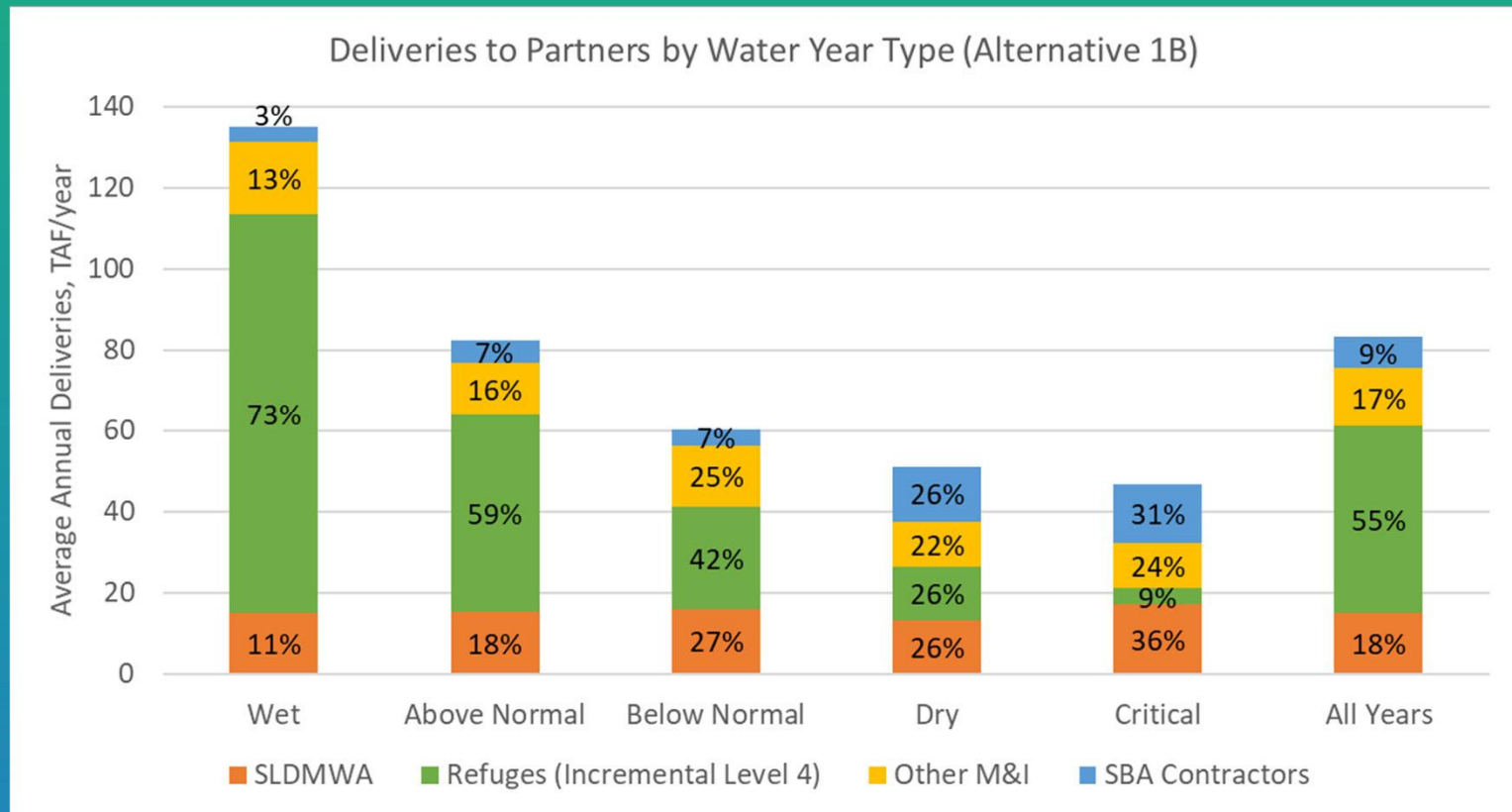
- **Central Valley Project (CVP) Contractors:**
 - Contra Costa Water District
 - City of Brentwood
 - East Bay Municipal Utility District
 - San Luis & Delta-Mendota Water Authority
 - Byron-Bethany Irrigation District
 - Del Puerto Water District
 - Panoche Water District
 - Westlands Water District
 - Valley Water
- **State Water Project Contractors:**
 - Alameda County Water District
 - Valley Water
 - Zone 7 Water Agency
- **State, Federal, Local Wildlife Refuges:**
 - Grassland Water District
- **Regional Partners:**
 - East Bay Municipal Utility District
 - San Francisco Public Utilities Commission
 - Bay Area Water Supply and Conservation Agency



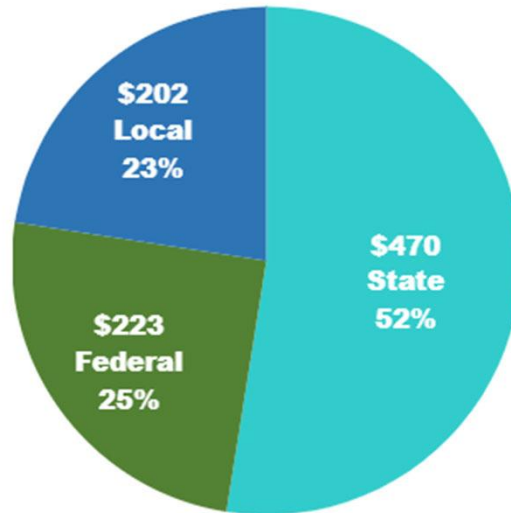
LAP Options for Participation

- **Dedicated Storage**
 - Reserved for individual agency use
- **Pooled Storage**
 - Unreserved for use by any LAP
- **Conveyance Only**
 - Utilize existing and future conveyance facilities
- **LAPs are currently evaluating various scenarios of participation that best meet their needs and retain future flexibility**
- **Methodology and pricing under development**

Project Benefits to LAPs and Wildlife Refuges



Preliminary Cost Allocation



- **Cost allocation shown in million dollars**
- **Cost estimates from Final Feasibility Report (August 2020)**
- **State allocation based on 2015 dollars with initial inflation adjustment**
 - In January 2021 the State award was increased by 2.5%; additional increases are possible
 - Dual classification (Reservoir Reoperation and CALFED Surface Storage) allows State award greater than 50% of total cost



Preliminary LAP Costs

- **Dedicated Storage**
 - **Approximate average of \$1,700 to 2,700/acre-foot**
- **Pooled Storage**
 - **Approximate average of \$700 to 900/acre-foot**
- **Conveyance Only**
 - **Approximate average of \$400/acre-foot**
- **All preliminary costs are currently being updated to reflect:**
 - **Reduced CCWD usage fees**
 - **Reduced construction cost estimates**
 - **Updated LAP requests and operations modeling**

Environmental Document Finalized



— BUREAU OF —
RECLAMATION

Final – Volume 3 of 4

Supplement to the Final Environmental Impact Statement Final Environmental Impact Report

Los Vaqueros Reservoir Expansion Project
California State Clearinghouse No. 2006012037



The Estimated Lead Agency Total Cost
Associated with Developing and Producing this
Final Supplement to the Final EIS/EIR is \$75,000

U.S. Department of the Interior

February 2020

- **Document published in February 2020**
- **CCWD certified document, approved Project and filed Notice of Determination in May 2020**
- **Tolling period concluded without any legal challenges in September 2020**

Final Feasibility Report Published 8/11/20



— BUREAU OF —
RECLAMATION

Final Feasibility Report

Los Vaqueros Reservoir Expansion Investigation



- **Secretary of Interior determined LVE Project is feasible and recommended for implementation**
- **Project authorization provides for federal cost sharing up to 25%**
- **\$11.95 million in federal funding approved in December 2020 for pre-construction and construction activities**

Current Status on Key Activities

- **Permitting, Design, and Agreement Development are Ongoing**
- **Change Petitions for Modifying Existing Water Rights in Development**
- **Other Key Agreements:**
 - **Service Agreement**
 - **Coordinated Operations Agreement**
 - **DWR Agreements**
 - **Funding Agreements**



Los Vaqueros Reservoir JPA Formation

- **CCWD and Local Agency Partners (LAPs) intend to form new Joint Powers Authority (JPA)**
- **Target date for formation is Spring 2021**
- **JPA Purposes and Objectives**
 - **Provide governance of the Project by the LAPs and ensure all parties have a seat at the table**
 - **Ensure sufficient and stable funding for the Project, including administrative and support activities as required, through separate agreements**
 - **Ensure costs are reasonable and cost allocations are equitable and transparent, following beneficiaries pay principle**
 - **Ensure reliable delivery of water to the LAPs consistent with the terms of the future Service Agreements**





Los Vaqueros Reservoir JPA Formation

- **JPA Role**

- **Enter into contracts for administration of public benefits**
- **Enter into state and federal funding agreements**
- **Finance LAP share of construction**
- **Coordinate LAP and wildlife refuge requests for service**
- **Monitoring and reporting**

- **CCWD Role**

- **Manage Early Funding Agreement with California Water Commission (CWC)**
- **Continue to operate intakes, reservoir and LV Watershed**
- **Provide additional services under contract to the JPA as required**





Near Term Schedule

- Spring 2021 JPA formation**
- Fall 2021 Amend Multi-party Agreement or Execute Interim Funding Agreement**
- Spring 2022 California Water Commission Final Award Hearing**
- Mid 2022 Start Construction of Earliest Project Component (Pumping Plant No. 1)**
- Late 2022 JPA issues debt for LAP cost share of construction (last LAP offramp in Service Agreement)**



Thank You!

For more information:

CCWD Project Website

www.ccwater.com/lvstudies

Reclamation Project Website

www.usbr.gov/mp/vaqueros/index.html

Contact Info:

Marguerite Patil

**Assistant General Manager – Policy and External
Affairs**

Contra Costa Water District

P.O. Box H20

Concord, CA 94524

(925) 688-8018

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MONTHLY REPORT

JUNE 29, 2021

UPCOMING ACTIVITIES

July 2 – Local Agency Partner (LAP) Comments due on the Draft Letter of Support

July 16 – LAP Comments due on the Draft Multi-party Agreement (MPA) Amendment No. 3

August 18 – CCWD Authorize MPA Amendment No. 3

UPCOMING LAP BOARD COORDINATION

June 30 – Valley Water Storage Committee

August TBD – LAP Board meetings to consider approval of the JPA Agreement

August – October TBD – LAP Board meetings to consider appointment of Director and Alternate to the JPA Board of Directors

August – November TBD – LAP Board meetings to consider approval of MPA Amendment No. 3

ADDITIONAL PROJECT INFO

<https://www.ccwater.com/lvstudies>

<https://www.usbr.gov/mp/vaqueros/>

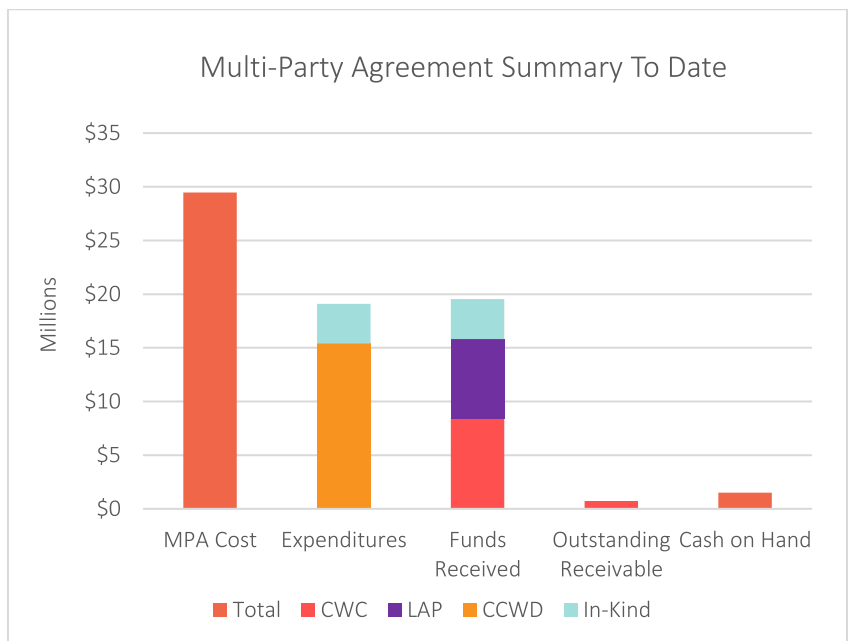
<https://cwc.ca.gov/Water-Storage/WSIP-Project-Review-Portal/All-Projects/Los-Vaqueros-Reservoir-Expansion-Project>

FUNDING

CCWD is working with Reclamation to develop an assistance agreement for a portion of the federal funding that will be administered by CCWD for preconstruction activities. It is anticipated that the agreement will include approximately \$7 million of federal funding for the Project. The current Federal funding request includes the remainder of the full federal share of 25 percent of the total project cost (approximately \$211 million). Subsequent agreements would be needed to fund construction.

CCWD provided the draft of Amendment No. 3 to the Multi-party Cost Share Agreement (MPA) to extend the termination date from December 31, 2021 to December 31, 2022, and allocate cost share for activities in 2022. The MPA is intended to be replaced with an Interim Funding Agreement through the Los Vaqueros Reservoir Joint Powers Authority (JPA) once the JPA has been formed and is ready to assume LVE financial management responsibilities. A workshop with the LAPs was held June 23 to review schedule, assumptions and cost estimates for the proposed amendment. Comments on Amendment No. 3 are requested by July 2.

The following chart provides an overview of the MPA expenditures to date. The in-kind services, funds received, outstanding receivable, and cash on hand are shown through June 22, 2021. All LAPs remain in good standing on progress payments. The next invoice will be sent to the LAPs in July 2021. If MPA Amendment No. 3 is approved, the subsequent invoice would be sent in January 2022.



JPA FORMATION

The Legal Work Group met on June 24 to continue revisions the terms of the JPA Agreement. The next legal workgroup call is scheduled for July 12 to review version 14 of the JPA Agreement. The target date for completion of the final form of the JPA Agreement is prior to July 31, 2021. The current schedule assumes the LAP Boards would consider approval of the JPA Agreement in August 2021. LAP Boards have the option of appointing their Director and Alternate to the JPA Board of Directors at the same meeting, or at a future meeting held within 30 days of the effective date of the JPA Agreement.

CWC FEASIBILITY HEARING

All seven storage projects that received a conditional eligibility award from the California Water Commission (CWC) must meet three criteria prior to January 1, 2022 to remain eligible for funding: 1) draft environmental documents must be complete, 2) the CWC must make a finding that the project is feasible, and will advance the long-term objectives of restoring ecological health and improving water management for beneficial uses of the Delta, and 3) the Director of the Department of Water Resources must receive a letter demonstrating support for not less than 75 percent of the non-public benefit cost share of the project (joint support letter). The joint support letter is being reviewed by LAPs and would replace the previous support letters from CCWD and the LAPs that were submitted to the CWC in 2017. The Phase 2 LVE Project is tentatively scheduled for a CWC Feasibility Hearing on October 20. CCWD staff are closely coordinating with CWC staff to ensure the Project meets the statutory requirements and remains eligible for funding.

PERMITTING

Reclamation is continuing review of the aquatic Biological Assessment (BA). The U.S. Fish and Wildlife Service (USFWS) is reviewing the terrestrial BA per Section 7 of the Federal Endangered Species Act. A Bald and Golden Eagle Protection Act 'take' permit application for the USFWS is being developed. The State Historic Preservation Officer is continuing consultation under Section 106 of the National Historic Preservation Act. A Historic Properties Treatment Plan, to support this consultation, is being developed. CCWD staff are preparing a response to the California Department of Fish and Wildlife (CDFW) with additional information required in support of the Incidental Take Permit application. A Compensatory Mitigation Plan to support the USFWS and CDFW permits is being developed. The CDFW Lake and Streambed Alteration Agreement package is being developed. The U.S. Army Corps of Engineers (USACE) and Central Valley Regional Water Quality Control Board (CVRWQCB) continue review of their respective permit packages.

The Draft Wetland Mitigation Plan and Restoration and Revegetation Plan, required by the USACE and CVRWQCB, are continuing to be developed.

DESIGN

On June 24, CCWD conducted a technical briefing with LAPs to respond to questions raised during the dam design and construction cost workshop that was held in April. Dam expansion design work and coordination with the California Division of Safety of Dams (DSOD) continues, and the 90-percent design (plans and specifications) were submitted to DSOD in June for their review. Transfer-Bethany Pipeline alignment evaluations continued with an assessment of land rights through parcels south of Vasco Road, and CCWD staff obtained additional information from other landowners. Preliminary design of the Turn-in to the California Aqueduct at the Bethany Reservoir continues to progress.



BOARD OF DIRECTORS

Lisa M. Borba, AICP
PRESIDENT
Ernesto A. Avila, P.E.
VICE PRESIDENT
John A. Burgh
Connstance Holdaway
Antonio Martinez

GENERAL MANAGER
Stephen J. Welch, P.E., S.E.

March 19, 2021

Local Agency Partners
Phase 2 Los Vaqueros Reservoir Expansion Project

Subject: Letter of Intent Concerning Development of Usage Fees for CCWD Facilities

Dear Local Agency Partners:

This Letter of Intent (LOI) between the Contra Costa Water District (CCWD) and the undersigned Local Agency Partners (LAPs) for the Phase 2 Los Vaqueros Reservoir Expansion Project (Project) describes the intention and agreement of CCWD and the LAPs to negotiate in good faith the usage fees associated with the use of CCWD's existing facilities as part of the Project. It is envisioned that a Facilities Usage Agreement, as provided for in Project planning documents, will be negotiated and executed by CCWD and the Los Vaqueros Reservoir Joint Powers Authority (JPA) which is to be formed as part of the Project by CCWD and the LAPs.

CCWD and the LAPs have engaged in a collaborative process to develop usage fees consistent with industry standard cost allocation principles that are fair and equitable to both CCWD as the owner of the facilities, and the LAPs that will assist in construction of new facilities and benefit from the future use of CCWD's existing facilities. The process, which is ongoing, has thus far resulted in significant changes to the initial proposed methodology and assumptions for the usage fees and included a comprehensive and independent third-party review and multiple rounds of LAP comments and input. CCWD recognizes that further review of the proposed usage fees by the LAPs may be required. The usage fees are intended to follow the beneficiary pays principle and meet the principles established by CCWD's Board of Directors in Resolution 03-24, which includes reimbursement for the value of the existing Los Vaqueros Project assets shared, replaced, rendered unusable, or lost with the Project.

CCWD's proposed framework for the Facilities Usage Agreement is described in the memorandum entitled *Contra Costa Water District Proposed Usage Fees Version February 2021* (attached hereto as Exhibit A), which includes a table containing LAP member comments raised to date on the framework and methodology. The proposed framework in Exhibit A, including remaining concerns from the LAPs, will serve as the basis for continued discussions and good faith negotiations regarding CCWD's usage fees in the final Facilities Usage Agreement.

March 19, 2021

Page 2

This LOI constitutes only an expression of intent regarding the basis of the terms and conditions upon which CCWD and the LAPs intend to negotiate, and shall not be deemed to create a binding obligation until mutually agreeable terms have been approved by the governing bodies of CCWD and the other JPA Members, and an agreement executed. CCWD and the LAPs recognize that final estimated Project costs and associated state and federal funding must be determined prior to creation of a binding Facilities Usage Agreement.

CCWD sincerely appreciates the past and future engagement and collaboration of the LAPs in developing the proposed usage fees methodology and assumptions for the Project. Please sign indicating your concurrence with this LOI and return to CCWD at your earliest convenience.

Sincerely



Stephen J. Welch
General Manager

SW/JQ:kh

Exhibit A: Contra Costa Water District Proposed Usage Fees, Version: Updated February 2021

Letter of Intent Concerning Development of Usage Fees for CCWD Facilities



Robert Shaver, General Manager
Alameda County Water District

Clifford C. Chan, General Manager
East Bay Municipal Utility District

Michael Carlin, Acting General Manager
San Francisco Public Utilities Commission

Rick L. Callender, Esq. Chief Executive Officer
Santa Clara Valley Water District

Federico Barajas, Executive Director
San Luis & Delta-Mendota Water Authority

Valerie Pryor, General Manager
Zone 7 Water Agency

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Letter of Intent Concerning Development of Usage Fees for CCWD Facilities
March 19, 2021
Page 3

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Michael Carlin

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March 19, 2021
Page 3

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San Francisco Public Utilities Commission

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Letter of Intent Concerning Development of Usage Fees for CCWD Facilities

March 19, 2021

Page 3

Letter of Intent Concerning Development of Usage Fees for CCWD Facilities

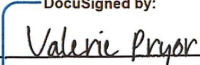
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San Luis & Delta-Mendota Water Authority

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Valerie Pryor, General Manager
Zone 7 Water Agency

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Exhibit A

Contra Costa Water District Proposed Usage Fees
Version: Updated February 2021

**Contra Costa Water District Proposed Usage Fees
Version: Updated February 2021**

The Contra Costa Water District (CCWD) and Local Agency Partners (LAPs) are currently evaluating the Los Vaqueros Reservoir Expansion Project Phase 2 (Project). The Project would include expansion of the Los Vaqueros Reservoir from 160 thousand acre-feet (TAF) to 275 TAF and construction of new conveyance facilities. The Project would also rely on several of CCWD's existing facilities to provide the desired benefits to the LAPs and the future Joint Powers Authority (JPA). CCWD would be compensated for the usage of its existing facilities, which includes the Rock Slough Intake and four associated pumping plants, Old and Middle River Intakes and Pumping, Transfer Pump Station/Tank, Los Vaqueros Reservoir/Dam, and associated conveyance. A figure showing CCWD's existing facilities in relation to the new facilities proposed for the Project is provided as Attachment 1. Revenues that would be paid to CCWD through the usage fee are intended to cover an equitable proportion of capital and renewal/replacement costs based on actual use of the aforementioned facilities. LAPs will also pay a proportion of fixed O&M costs and the power required to deliver water.

CCWD's Board of Directors adopted ten principles in 2003 that must be met for CCWD's participation in a further expansion of the Los Vaqueros Reservoir. The principles have been included in memoranda of understanding between the LAPs and CCWD and are an attachment to the Multi-Party Agreement. Principles 6 through 9 are most relevant to the consideration of usage fees and are listed in Figure 1. The usage fee methodology and resulting fees presented in this memorandum are subject to further consideration and approval from CCWD's Board of Directors.

The intent of the usage fees is to provide reasonable compensation to CCWD that is fair to both the Project partners that are receiving benefits from the existing facilities, and CCWD's customers who have paid for or are paying for the facilities. CCWD developed preliminary usage fees which were initially released for review in October 2018. The LAPs contracted with Bartle Wells Associates (BWA) to conduct a third-party review of the methodology and resulting fees. On December 30, 2019, BWA released their final report, *Los Vaqueros Reservoir Expansion Evaluation of Proposed Water Wheeling Charges*, and included several recommendations and alternatives for consideration in the usage fee determination. The usage fee methodology was updated and circulated for review and input from the LAPs on March 9, 2020. This memorandum reflects incorporation of the BWA alternatives and the additional comments received from LAPs on the March 9, 2020 version. All LAP comments, including remaining concerns, are provided as an attachment to this memorandum, along with CCWD's response.

Figure 1. CCWD Board Principles

6. CCWD continues as owner and manager of the Los Vaqueros Watershed;
7. CCWD maintains control over recreation in the Los Vaqueros Watershed;
8. CCWD continues as operator of the Los Vaqueros Reservoir system;
9. CCWD will be reimbursed for the value of the existing Los Vaqueros Project assets shared, replaced, rendered unusable or lost with the expansion project and said reimbursement will be used to purchase additional drought supply and water quality benefits or reduce debt on the existing Los Vaqueros Project;

**Contra Costa Water District Proposed Usage Fees
Version: Updated February 2021**

Conveyance Facilities

BWA made the following primary recommendations for consideration in the usage fees for conveyance facilities, which includes intakes, pump stations and pipelines.

- *BWA recommends moving away from use of a flow-based “utilization factor” in the fee. As previously noted, BWA believes it is more reasonable to apportion capital-related costs by some reasonable measure of facility capacity, which need not be full design capacity but instead can be “firm operational capacity” or “average day design capacity” excluding additional capacity built in to meet peak demands. BWA also believes that the LAPs – who have a lower priority of use and can only wheel water when spare capacity is available – should only have to pay for capacity in facilities involved in the wheeling of water.*
- *BWA suggests that a single charge could replace the combined Capacity Usage and Renewal/Replacement fees. This charge can recover costs for both the replacement cost of facilities (in current dollars) as well as estimated or actual costs of financing, apportioned over the life of the asset. BWA recognizes that this would result in a lower charge than the two proposed charges combined, but also believes it would compensate CCWD in current dollars for facilities as well as financing costs associated with each facility.*

The intent of the usage fee is to cover a proportional and fair share of the value of the existing CCWD facilities utilized as part of the Project, including the original investment and ongoing wear and tear on the facilities (renewal and replacement costs). CCWD’s original usage fees included two separate components--Capacity Usage and Renewal/Replacement fees--to recover both capital cost considerations. BWA suggested a single charge to replace the combined fees to recover a proportional share of the replacement cost as well as costs of financing, apportioned over the life of the asset. The usage fees were updated based on the BWA recommendations to combine the usage fees and to apportion the costs over the facility’s life. In addition, any proceeds received from State or Federal grants have been removed from consideration of the facility value.

The single proposed Conveyance Usage Fee would replace the Capacity and Renewal/Replacement Usage fees in CCWD’s original memorandum. The Conveyance Usage Fees are determined according to the following equation and presented in Table 1.

$$= \frac{\text{Facility Value, \$}}{(\text{Useful Life, YRS}) * (\text{Water Deliveries, AF/YR})}$$

**Contra Costa Water District Proposed Usage Fees
Version: Updated February 2021**

Table 1 – Revised Conveyance Usage Fees

Facilities (Year Built)	Original Cost Less Grants	Current Value	Useful Life, Years	Water Deliveries, AF/YR	Usage Fee, \$/AF
Rock Slough Facilities (Various)	\$117,170,377	\$304,803,409	75	89,443	\$45.44
Middle River Pipeline (2011)	40,963,850	52,657,853	75	63,888	10.99
Old River Pipeline (1996)	38,293,849	91,164,893	75	81,776	14.86
Los Vaqueros Pipeline (1996)	48,519,455	115,508,654	75	102,220	15.07
Transfer Pipeline (1996)	23,998,870	57,133,312	75	51,110	14.90
Middle River Intake (2011)	24,736,150	31,797,611	50	63,888	9.95
Old River Intake (1996)	30,497,364	72,604,061	50	63,888	22.73
Transfer Pump Station/Tank (1996)	17,281,844	41,142,311	40	51,110	20.12

Original Cost Less Grants: Actual cost of facility at the time of construction or acquisition. This amount excludes any funds that CCWD received from State or Federal grants. The Rock Slough and Middle River facilities received grant funding.

Current Value: The CCWD facilities proposed to be used as part of the Project were debt financed. The Current Value was determined based on the present value of the stream of debt service payments escalated or discounted into current dollars. Past costs were escalated using the San Francisco Engineering News Record Construction Cost Index. Future costs were discounted assuming an annual rate of 3% (ten-year average SF ENR). Interest rates and debt issuance costs were updated for this version based on the actual debt service costs rather than an estimated average interest rate of 4%. The actual interest rates reflect the aggregate interest rate cost of the entire bond issuance to maturity, including consideration of any premiums received from CCWD. Actual debt service interest rates are:

- Los Vaqueros Project: 4.52%
- Los Vaqueros Expansion: 3.39%
- Middle River Intake Project: 3.07%
- Rock Slough Facilities: 3.342%

Debt issuance costs were updated from the estimated value of 1.5% to the actual weighted average of 0.4%. Calculation of the present value of debt is provided in Attachment 2.

Useful Life: Estimate of the number of years an asset can provide benefits. Value represents the average of all components within a given facility.

Water Deliveries: The estimated average annual quantity of water delivered from the Project, including CCWD, LAPs, and wildlife refuges. The usage fee for each pathway in CCWD’s untreated water conveyance system was based on the average utilization, or total quantity of water delivered from the system. Overall system utilization, as compared to the

Contra Costa Water District Proposed Usage Fees
Version: Updated February 2021

capacity of the individual facility components, ranges from approximately 32% to 35% as estimated in the operations models. Basing a usage fee on the amount of water delivered from a network, or integrated system, is consistent with industry practice including treated water distribution system fees and charges and wheeling rates for the State and Federal water projects. CCWD also evaluated the consideration of using the Firm Operational Capacity of the system based on comments and remaining concerns expressed by the LAPs. The Firm Operational Capacity of the conveyance facilities was estimated as the ratio of the capacity of the proposed Transfer-Bethany Pipeline (300 CFS) to the total capacity of CCWD's intakes (350 + 250 + 250 CFS). The Firm Operational Capacity was determined to be 35.3% (300 CFS / 850 CFS) of the installed capacity. Example calculation for Rock Slough: 350 CFS capacity is approximately 253,379 AF/YR, with 89,443 AF/YR (35.3% of capacity) of Firm Operational Capacity. Consideration of Water Deliveries and Firm Operational Capacity results in a similar determination of the conveyance usage fees (35% vs 35.3%). CCWD has used a value of 35.3% to determine the utilization and amount of water delivered from the project as the throughput basis of the usage fee determination.

Conveyance of water by CCWD would involve the use of multiple facilities depending on the specific intake utilized and pathway. A summary of the revised Conveyance Usage Fee by delivery route is provided in Table 2 on the following page and includes a comparison to the previous values proposed by CCWD.

LAPs have commented that any portion of the conveyance usage fee that is for reimbursement of original facility costs should sunset or end upon attainment of the assumed useful life of the facility. LAPs would then pay only for wear and tear (renewal and replacement) costs after that point. CCWD is agreeable to include an end date for the reimbursement component of the facility usage fee. The end date would be subject to further negotiation and assessment of the remaining useful life, including past CCWD investments in facility renewal and replacement.

**Contra Costa Water District Proposed Usage Fees
Version: Updated February 2021**

Table 2 – Comparison of Original and Revised Conveyance Usage Fees

Delivery Pathway	June 2019 (Original)¹ Version, \$/AF	March 2020 Version, \$/AF	Current Version, \$/AF	Reason for Change (March to Current)
Rock Slough	\$115.05	\$97.36	\$60.50	<ul style="list-style-type: none"> • Removal of grant funds • Decrease of debt interest rate from 4% to 3.342% • Decrease of debt issuance cost from 1.5% to 0.4% • Use of Water Deliveries/Firm Operational Capacity
Old River	60.09	39.40	37.59	<ul style="list-style-type: none"> • Increase of debt interest rate from 4% to 4.52% • Decrease of debt issuance cost from 1.5% to 0.4% • Use of Water Deliveries/Firm Operational Capacity
Middle River	87.46	53.04	35.81	<ul style="list-style-type: none"> • Removal of grant funds • Decrease of debt interest rate from 4% to 3.07% • Decrease of debt issuance cost from 1.5% to 0.4% • Use of Water Deliveries/Firm Operational Capacity
Weighted Average (RS, MR, OR)	103.37	81.52	52.59	
Transfer to Reservoir	53.80	36.71	35.03	<ul style="list-style-type: none"> • Increase of debt interest rate from 4% to 4.52% • Decrease of debt issuance cost from 1.5% to 0.4% • Use of Water Deliveries/Firm Operational Capacity

1. Includes both the Capacity and Renewal/Replacement conveyance usage fees from the June 2019 Contra Costa Water District Proposed Usage Fees.

**Contra Costa Water District Proposed Usage Fees
Version: Updated February 2021**

Storage Facilities

The Project includes the expansion of the Los Vaqueros Reservoir from its current capacity of 160 TAF to 275 TAF. The costs to expand the dam would be fully paid by the Project beneficiaries. The existing reservoir will serve as the foundation to the expanded reservoir and previous CCWD investment and existing dam facilities will provide benefits to the Project. CCWD developed a preliminary usage fee for the existing Los Vaqueros Dam/Watershed following similar methodology as the conveyance facilities based on debt service interest only. The original usage fee was volumetric (\$38/AF/yr) and was proposed to be applied each year water is stored in the expanded reservoir. BWA noted in the report that CCWD's preliminary charge was based on the original cost of the facilities and would be significantly higher if based on current/replacement value of facilities and/or current market value of land.

BWA recommended an alternative approach to determine a fixed usage fee for storage that would be determined similar to a land right. BWA recommendations for storage facilities are summarized below:

- *BWA suggests an alternative approach for cost recovery based a fixed amount of payments to reimburse CCWD for the LAPs share of costs for land and shared foundational facilities. This fixed amount could be allocated to the LAPs by the same approach ultimately used to allocate costs for the reservoir expansion project. The costs could be paid up front or could be recovered over time via annual payments (similar to debt service payments).*
- *This approach would entail first identifying land and shared foundational assets that benefit the expansion project but exclude assets that only benefit CCWD's 160 TAF of reservoir capacity that are not shared assets. Cost recovery for these "shared facilities" could be allocated based on a pro-rata share of total capacity of the expanded reservoir with the LAPs allocated 115/275 or roughly 42% of the costs identified for recovery, similar to the allocation incorporated in CCWD's proposed charge.*

The land and shared facilities such as the foundation, spillway, inlet/outlet structures, utilities, and utilities relocation can be viewed as a component of the future expansion costs that were previously funded by CCWD. Following is a discussion of the determination of the value of the 1) shared land and 2) foundational storage assets ("Improvements").

Land

CCWD purchased approximately 19,288 acres of land for a total cost of \$79 million in Contra Costa County from 1986 to 1998 to support the Los Vaqueros dam facilities and watershed. A map of the watershed property is provided as Attachment 3. There are three distinct areas shown in the map which are described further below:

160 TAF Inundation Area: The inundation area of CCWD's 160 TAF reservoir is approximately 1,916 acres. The underlying land is considered shared as it supports CCWD's 160 TAF as well

Contra Costa Water District Proposed Usage Fees
Version: Updated February 2021

as the JPA's expansion of 115 TAF, which will conceptually sit on top of CCWD's existing reservoir. The value of underlying land is allocated 58.2% (160/275ths) to CCWD and 41.8% (115/275ths) to the JPA.

275 TAF Inundation Area (incremental): Expansion of the reservoir will incrementally increase the reservoir inundation area by approximately 585 acres. The incremental inundation area solely benefits the proposed 115 TAF expansion in terms of storage, as the expansion and increase in reservoir storage is for the JPA. The incremental inundation area does provide retained value to CCWD as part of the overall watershed. The allocation to the JPA was updated based on the proportional usage of the land area as storage versus watershed. The area provides 100% of the storage benefit to the JPA and 41.8% (115/275ths) of the watershed benefit to the JPA. The area provides 0% storage benefit to CCWD and 58.2% (160/275ths) of the watershed benefit to CCWD. Considering both the watershed and storage benefits, the resulting allocation to the JPA is 70.9%.

Watershed: The remainder of the watershed property totals 16,787 acres. The watershed protects water quality and captures local runoff as a minor water supply; these functions will benefit both CCWD and the LAPs. The value of the shared land is allocated 58.2% to CCWD and 41.8% to the JPA. A portion of the watershed was purchased as mitigation for the original LV. The mitigation area (approx. 1,600 acres) has retained value to the JPA as part of the watershed but was purchased as mitigation for CCWD's original project. This area was valued following the same methodology as the 275 TAF Inundation Area. The area provides 0% of the storage benefit to the JPA and 41.8% (115/275ths) of the watershed benefit to the JPA. The area provides 100% storage benefit (as mitigation) to CCWD and 58.2% (160/275ths) of the watershed benefit to CCWD. Considering both the watershed and storage benefits, the resulting allocation to the JPA for the watershed mitigation area is 20.9%.

The value of the shared land and allocation to the JPA is provided in Table 3. The Current Value of the land was determined from the present value of the debt service payments associated with the original cost for land, then allocated to the JPA based on the resulting capacity share. A discount factor of 90% was applied to the resulting value to recognize that ownership of the land is not being conveyed to the JPA consistent with CCWD's Board principles for participation in an expansion. The proportional share of value of the land benefitting the JPA was estimated to be approximately \$69.7 million.

CCWD has not commissioned a formal land appraisal but estimates the land value would increase by a minimum of 30% if it were based on current market value, versus the original cost escalated. Costs for similar land in Contra Costa County are currently estimated to range from \$12,000 to \$15,000 per acre. This estimated market value information is provided for reference only and was not used in determining the estimated value of the

**Contra Costa Water District Proposed Usage Fees
Version: Updated February 2021**

JPA share. The proposed valuation of land utilizing the present value of past debt payments results in a cost to the JPA that is significantly less than market value.

Table 3 – Value of Los Vaqueros Watershed Land

Watershed Area	Current Value ¹	JPA Allocation, %	JPA Share @ 90%, \$
160 TAF Inundation	\$18,716,780	41.8%	\$7,041,253
275 TAF Inundation (Incremental)	5,712,764	70.9%	3,645,782
Watershed (Remaining)	149,799,123	41.8%	56,354,430
- Watershed (Mitigation)	14,196,580	20.9%	2,669,812
	\$188,422,247		\$69,711,277

1. Current Value of the land was determined based on the present value of the debt service payments associated with the original cost for land.

The estimated value of the JPA’s portion of the shared land is approximately \$69.7 million. The final negotiated value for land could be paid upfront by the JPA or over time. Assuming a term of 50 years and 3%, the annual fixed payment for land would be \$2.709 million. Under the annual payment scenario, the JPA would receive a right to utilize the land for the life of the Project, and the fixed payment for land would terminate after year 50.

Improvements

BWA recommended a similar approach to valuing the dam improvements by identifying shared assets and excluding those that solely benefit CCWD’s existing 160 TAF of reservoir storage. Cost recovery for the shared facilities was recommended to be based on a pro-rata share of total capacity of the expanded reservoir with the LAPs allocated 115/275 or 41.8% of the costs identified for recovery. Costs below and shown in Table 4 for the original 100 TAF reservoir (“Original LV”) are in 1996 dollars. Costs for the 60 TAF expansion are in 2013 dollars.

Costs Excluded from JPA

Following is a discussion of the facilities and estimated costs for those improvements that only benefit CCWD’s existing 160 TAF of reservoir capacity. The costs associated with these facilities are excluded from any allocation to the JPA.

Recreation: All costs associated with recreation are excluded from the JPA reimbursement and assumed to benefit only CCWD. This includes approximately \$17.6M for the Original LV and \$13.7M for the 60 TAF expansion.

Mitigation: All cost for mitigation associated with the inundation of CCWD’s 160 TAF reservoir capacity are excluded from JPA reimbursement. This includes \$15.4M for the 60 TAF expansion.

**Contra Costa Water District Proposed Usage Fees
Version: Updated February 2021**

CCWD Facilities: Facilities that only benefit CCWD were assumed to be the placement of all dam material associated with CCWD's 160 TAF capacity. This includes procurement and placement of all borrowed and imported dam material for both the Original LV and the 60 TAF expansion. Costs associated with the excavation and rework for the 60 TAF expansion (i.e., the haircut) were also assumed to benefit only CCWD. In addition, any facilities that were replaced in kind by CCWD as part of the 60 TAF expansion, or will be replaced in kind by the JPA, were excluded from cost recovery. Examples of facilities replaced in kind include the inlet/outlet building, dam access road and associated pavement and structures, and SCADA and communication equipment. Facilities that will be replaced in kind are excluded from JPA reimbursement as the JPA will fund replacement as part of the future 115 TAF expansion project at no cost to CCWD. CCWD Facilities as described above that will be excluded from JPA reimbursement total approximately \$17.2M for the Original LV and \$44.2 M for the 60 TAF expansion.

Costs for items listed above that are excluded from recovery from the JPA are \$34.8M for the Original LV and \$73.3M for the 60 TAF expansion as shown in Table 4 below.

Table 4 – Value of Los Vaqueros Dam Shared Facilities

	Original LV Dam, \$ (1996)	60 TAF Expansion, \$ (2013)
Total Costs	\$210,888,779	\$111,422,000
Costs Excluded		
<i>Recreation</i>	<i>(17,574,128)</i>	<i>(13,667,000)</i>
<i>Mitigation</i>	<i>0</i>	<i>(15,421,597)</i>
<i>Dam/Earthwork/Demo</i>	<i>(17,216,999)</i>	<i>(44,217,420)</i>
Costs Excluded (Subtotal)	<i>(34,791,127)</i>	<i>(73,306,017)</i>
<i>Total Shared Costs</i>	<i>\$176,097,652</i>	<i>\$38,115,983</i>

Remaining Costs Allocated to the JPA and CCWD

Remaining facilities that benefit both CCWD and the JPA include Vasco Road relocation, utilities and utilities relocation, foundation and abutment work, drainage facilities, emergency release valves/piping, bypass valves/piping, inlet outlet structures, and the spillway. These facilities are shared and are allocated 41.8% to the JPA and 58.2% to CCWD. The determination of the value of shared facilities is provided in Table 5. Similar to the conveyance facilities, the Current Value was determined from the present value of the associated debt service payments.

**Contra Costa Water District Proposed Usage Fees
Version: Updated February 2021**

Table 5 – Current Value and Allocation of Shared Facilities¹

Facilities	Original Cost, \$	Current Value, \$	JPA Share, %	JPA Share, \$
Original 100 TAF LV (1996)	\$176,097,652	\$419,229,826	41.8%	\$175,314,291
60 TAF Expansion (2013)	38,115,983	48,152,456	41.8%	20,136,482

The annual usage fee associated with storage facilities was determined by apportioning the present value over the estimated useful life and are presented in Table 6. The depreciated value of the dam facilities was used (as opposed to full value in the case of the conveyance facilities) to determine the annual usage fee as CCWD and the JPA will pay a proportional share of future renewal/replacement costs as an integrated and shared dam facility.

Table 6 – Usage Fee for Los Vaqueros Dam Shared Facilities that benefit JPA

Facilities	Current Value (JPA Share)	Depreciated Value ¹	Useful Life, Years	Usage Fee, \$/yr
Original 100 TAF LV	\$175,314,291	\$134,992,004	100	\$1,349,920
60 TAF Expansion	20,136,482	18,928,293	100	189,283
Total				\$1,539,203

1. 2019 used as basis to determine facility to maintain consistency with previous memorandums. Depreciated value was determined assuming an age of 23 years for the Original 100 TF LV and 6 years for the 60 TAF Expansion.

The total usage fee for the dam and watershed is the combined value of land and shared facilities. The preliminary estimate of the combined value is approximately \$4.8 million per year as shown in Table 7. This table includes a comparison to the usage fee from the previous version.

Table 7 – Revised Usage Fee for Los Vaqueros Land and Shared Facilities

Facility	March 2020 Version Value	June 2020 Version Value	Reason for Change (March to June)
Land ¹	\$3,044,502	\$2,709,363	<ul style="list-style-type: none"> • Increase of debt interest rate from 4% to 4.52% • Decrease of debt issuance cost from 1.5% to 0.4% • Change in incremental allocation area from 100% to 70.9% • Application of 90% of estimated value to reflect lack of ownership
Shared Facilities ¹	1,892,739	1,539,203	<ul style="list-style-type: none"> • Increase of debt interest rate for original LV from 4% to 4.52% • Decrease of debt interest rate for 60 TAF LV Expansion from 4% to 3.39% • Decrease of debt issuance cost from 1.5% to 0.4%
Total	\$4,937,241	\$4,248,566	

1. Estimate assumes annual payments for the value of land and facilities. CCWD would be open to considering an up-front payment for storage facilities, in lieu of annual usage fees.

**Contra Costa Water District Proposed Usage Fees
Version: Updated February 2021**

Operations and Maintenance

BWA did not have significant comments on the allocation of O&M costs, and generally concurred with the previous methodology used by CCWD. The discussion of O&M costs from the previous CCWD memo is included below.

CCWD incurs both fixed and variable costs in operating and maintaining the existing facilities. Some examples of fixed O&M costs include valve exercising, preventative maintenance, labor, agency fees, and biological monitoring. These fixed costs do not change significantly in response to varying water deliveries. Fixed O&M costs for the existing facilities are proposed to be allocated to the LAPs based on the average historical modeled deliveries, as established in the Proforma financial model. On average, the LAPs proportional share of deliveries (excluding refuges) through CCWD conveyance facilities has ranged from approximately 30 to 35%, depending on the particular CALSIM run utilized. The LAPs receive approximately 33% of the water delivered through the facilities and would be allocated 33% of the fixed O&M costs associated with those facilities. The fixed O&M is currently estimated to be \$3.2 million per year. The proportion allocated for reimbursement is 33% of this amount or \$1.05 million.

Power is the primary variable O&M cost, and the additional power costs associated with pumping of water for Project beneficiaries would be passed on directly to the LAPs. Current estimates of power costs for the existing facilities are shown in Table 8.

Table 8 – Variable Power Costs

Facility	Estimated Power Cost (\$/AF)
Middle River Intake	\$46.70
Old River Intake	38.20
Rock Slough Facilities	22.70
Transfer Pump Station	70.00

Other BWA Recommendations:

The BWA report included several other recommendations regarding implementation of the usage fees. The BWA recommendation and CCWD’s response is provided below.

Since CCWD anticipates choosing the source of water supply and associated intake/pathway based on operational preferences and needs, both CCWD and the LAPs may want to consider establishing a single “weighted average” charge for the three intakes and pathways, in line with the “postage stamp” approach.

CCWD is open to consider establishing a weighted usage fee.

Contra Costa Water District Proposed Usage Fees
Version: Updated February 2021

Annual True Up: This charge component is based on a number of variables such as a) volume of LAPs' wheeled water, b) volume of CCWD water conveyance, c) amount of applicable CCWD fixed operating costs incurred each year. As such, BWA recommends that these charges be established each year based on reasonable estimates with a subsequent true up to reflect the actual flows and costs that had been incurred. The true up could be applied toward the LAPs charges in the subsequent year or potentially refunded at year end.

Agreed.

Multi-Year Averaging: Since the volume of water conveyed by CCWD and the LAPs can vary from year to year, BWA recommends consideration of multi-year averaging in the fee calculation. For example, the share of flow allocated to the LAPs could be based on a trailing 3-year average.

The original estimates were determined based on long-term averages from the operations modeling. CCWD agrees it would be appropriate to establish a process based on multi-year averaging of actual deliveries to allocate fixed O&M costs.

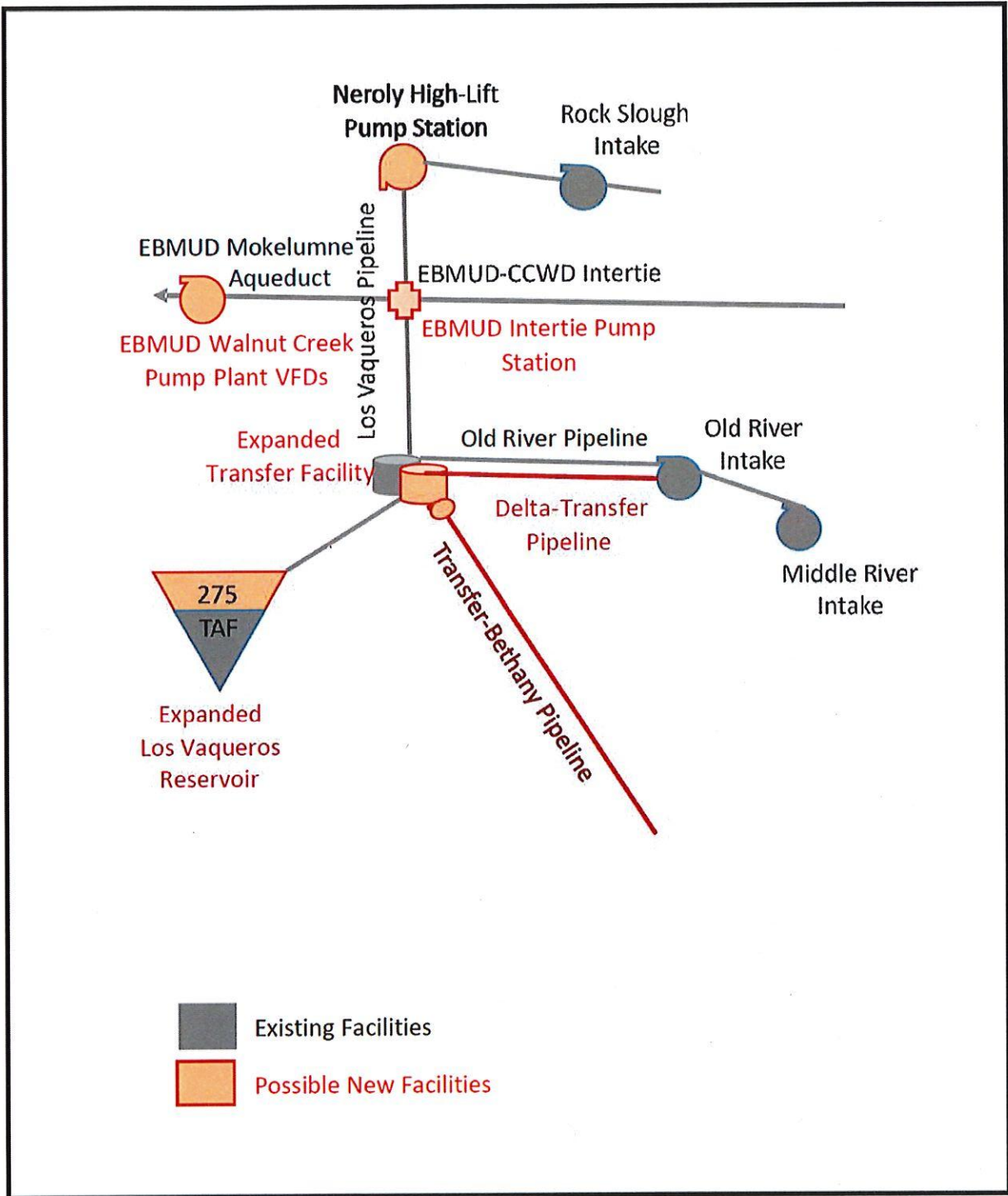
Annual True Up: Due to the variability of electricity charges, CCWD's Variable O&M Charge can be levied based on reasonable estimates and subject to a subsequent true up to reflect the actual power costs incurred.

Agreed. Power costs are intended to be passed on directly to the JPA without mark-up. A true-up process would be utilized to reconcile estimated versus actual costs.

BWA recommends CCWD and the LAPs establish a method for periodically reviewing and updating or modifying the water wheeling charges to ensure future charges are reasonable and "fairly compensate" CCWD for costs incurred wheeling water. For example, a review/advisory committee could be established to periodically review the charges.

CCWD agrees that there should be triggers for reviewing the usage fees including such considerations as a general periodic review, major facility replacements, or events that significantly impact the assumptions utilized to determine the usage fees. An example would be a natural disaster that significantly reduces the estimated life of a given facility.

Attachment 1
Los Vaqueros Reservoir Expansion Phase 2
Existing and Proposed New Facilities



Attachment 2
Calculation of Present Value of Debt Service Payments

Debt Service Calculations

Rock Slough Facilities

Assumptions:

Construction Year	1987	Current SF-ENR	12764.52	(December 2019)
Term, years	30			
Interest Rate, %	3.342%			
Issuance Costs, %	0.4%			
Amount Borrowed	\$1,000,000			

Year	Principal	Interest	Total Debt Service	SF ENR	PV Adjustment	Present Value
1988	\$19,960	\$33,554	\$53,514	5734.48	222.6%	\$119,117
1989	\$20,627	\$32,887	\$53,514	5932.57	215.2%	\$115,140
1990	\$21,316	\$32,197	\$53,514	6055.61	210.8%	\$112,800
1991	\$22,029	\$31,485	\$53,514	6222.06	205.1%	\$109,783
1992	\$22,765	\$30,749	\$53,514	6293.15	202.8%	\$108,543
1993	\$23,526	\$29,988	\$53,514	6477.95	197.0%	\$105,446
1994	\$24,312	\$29,202	\$53,514	6530.35	195.5%	\$104,600
1995	\$25,124	\$28,389	\$53,514	6558.16	194.6%	\$104,156
1996	\$25,964	\$27,549	\$53,514	6629.61	192.5%	\$103,034
1997	\$26,832	\$26,682	\$53,514	6731.08	189.6%	\$101,481
1998	\$27,729	\$25,785	\$53,514	6845.59	186.5%	\$99,783
1999	\$28,655	\$24,858	\$53,514	6816.70	187.3%	\$100,206
2000	\$29,613	\$23,901	\$53,514	7447.99	171.4%	\$91,713
2001	\$30,603	\$22,911	\$53,514	7399.07	172.5%	\$92,319
2002	\$31,625	\$21,888	\$53,514	7644.46	167.0%	\$89,356
2003	\$32,682	\$20,831	\$53,514	7788.80	163.9%	\$87,700
2004	\$33,774	\$19,739	\$53,514	8228.39	155.1%	\$83,014
2005	\$34,903	\$18,610	\$53,514	8462.45	150.8%	\$80,718
2006	\$36,070	\$17,444	\$53,514	9108.66	140.1%	\$74,992
2007	\$37,275	\$16,239	\$53,514	9131.81	139.8%	\$74,802
2008	\$38,521	\$14,993	\$53,514	9781.67	130.5%	\$69,832
2009	\$39,808	\$13,705	\$53,514	9722.17	131.3%	\$70,260
2010	\$41,139	\$12,375	\$53,514	10120.29	126.1%	\$67,496
2011	\$42,513	\$11,000	\$53,514	10204.29	125.1%	\$66,940
2012	\$43,934	\$9,579	\$53,514	10355.09	123.3%	\$65,965
2013	\$45,402	\$8,111	\$53,514	10898.84	117.1%	\$62,674
2014	\$46,920	\$6,594	\$53,514	10915.84	116.9%	\$62,576
2015	\$48,488	\$5,026	\$53,514	11155.41	114.4%	\$61,233
2016	\$50,108	\$3,405	\$53,514	11609.44	109.9%	\$58,838
2017	\$51,783	\$1,731	\$53,514	12014.72	106.2%	\$56,853
Total	\$1,004,000	\$601,407	\$1,605,407			\$2,601,369
Value Multiplier	2.601					

Debt Service Calculations

Los Vaqueros Facilities

Assumptions:

Construction Year	1996	Current SF-ENR	12764.52	(December 2019)
Term, years	30			
Interest Rate, %	4.52%			
Issuance Costs, %	0.4%			
Amount Borrowed	\$1,000,000			

Year	Principal	Interest	Total Debt Service	SF ENR	PV Adjustment	Present Value
1997	\$16,401	\$45,381	\$61,782	6731.08	189.6%	\$117,161
1998	\$17,143	\$44,639	\$61,782	6845.59	186.5%	\$115,201
1999	\$17,918	\$43,865	\$61,782	6816.70	187.3%	\$115,689
2000	\$18,727	\$43,055	\$61,782	7447.99	171.4%	\$105,884
2001	\$19,574	\$42,208	\$61,782	7399.07	172.5%	\$106,584
2002	\$20,459	\$41,323	\$61,782	7644.46	167.0%	\$103,162
2003	\$21,383	\$40,399	\$61,782	7788.80	163.9%	\$101,251
2004	\$22,350	\$39,432	\$61,782	8228.39	155.1%	\$95,841
2005	\$23,360	\$38,422	\$61,782	8462.45	150.8%	\$93,191
2006	\$24,416	\$37,366	\$61,782	9108.66	140.1%	\$86,579
2007	\$25,520	\$36,263	\$61,782	9131.81	139.8%	\$86,360
2008	\$26,673	\$35,109	\$61,782	9781.67	130.5%	\$80,622
2009	\$27,879	\$33,903	\$61,782	9722.17	131.3%	\$81,116
2010	\$29,139	\$32,643	\$61,782	10120.29	126.1%	\$77,925
2011	\$30,456	\$31,326	\$61,782	10204.29	125.1%	\$77,283
2012	\$31,833	\$29,950	\$61,782	10355.09	123.3%	\$76,158
2013	\$33,271	\$28,511	\$61,782	10898.84	117.1%	\$72,358
2014	\$34,775	\$27,007	\$61,782	10915.84	116.9%	\$72,246
2015	\$36,347	\$25,435	\$61,782	11155.41	114.4%	\$70,694
2016	\$37,990	\$23,792	\$61,782	11609.44	109.9%	\$67,929
2017	\$39,707	\$22,075	\$61,782	12014.72	106.2%	\$65,638
2018	\$41,502	\$20,280	\$61,782	12115.37	105.4%	\$65,093
2019	\$43,378	\$18,404	\$61,782	12764.52	100.0%	\$61,782
2020	\$45,339	\$16,444	\$61,782	<i>13147.46</i>	97.1%	\$59,983
2021	\$47,388	\$14,394	\$61,782	<i>13541.88</i>	94.3%	\$58,236
2022	\$49,530	\$12,252	\$61,782	<i>13948.14</i>	91.5%	\$56,539
2023	\$51,769	\$10,014	\$61,782	<i>14366.58</i>	88.8%	\$54,893
2024	\$54,108	\$7,674	\$61,782	<i>14797.58</i>	86.3%	\$53,294
2025	\$56,554	\$5,228	\$61,782	<i>15241.50</i>	83.7%	\$51,742
2026	\$59,110	\$2,672	\$61,782	<i>15698.75</i>	81.3%	\$50,235
Total	\$1,004,000	\$849,467	\$1,853,467			\$2,380,667

Value Multiplier 2.381 *Italic = assumed 3%*

Debt Service Calculations

Middle River Facilities

Assumptions:

Construction Year	2011	Current SF-ENR	12764.52	(December 2019)
Term, years	30			
Interest Rate, %	3.07%			
Issuance Costs, %	0.4%			
Amount Borrowed	\$1,000,000			

Year	Principal	Interest	Total Debt Service	SF ENR	PV Adjustment	Present Value
2012	\$20,865	\$30,823	\$51,688	10355.09	123.3%	\$63,715
2013	\$21,506	\$30,182	\$51,688	10898.84	117.1%	\$60,536
2014	\$22,166	\$29,522	\$51,688	10915.84	116.9%	\$60,442
2015	\$22,846	\$28,842	\$51,688	11155.41	114.4%	\$59,144
2016	\$23,548	\$28,140	\$51,688	11609.44	109.9%	\$56,831
2017	\$24,271	\$27,417	\$51,688	12014.72	106.2%	\$54,914
2018	\$25,016	\$26,672	\$51,688	12115.37	105.4%	\$54,457
2019	\$25,784	\$25,904	\$51,688	12764.52	100.0%	\$51,688
2020	\$26,575	\$25,113	\$51,688	13147.46	97.1%	\$50,182
2021	\$27,391	\$24,297	\$51,688	13541.88	94.3%	\$48,721
2022	\$28,232	\$23,456	\$51,688	13948.14	91.5%	\$47,302
2023	\$29,099	\$22,589	\$51,688	14366.58	88.8%	\$45,924
2024	\$29,992	\$21,696	\$51,688	14797.58	86.3%	\$44,586
2025	\$30,913	\$20,775	\$51,688	15241.50	83.7%	\$43,288
2026	\$31,862	\$19,826	\$51,688	15698.75	81.3%	\$42,027
2027	\$32,840	\$18,848	\$51,688	16169.71	78.9%	\$40,803
2028	\$33,848	\$17,840	\$51,688	16654.80	76.6%	\$39,614
2029	\$34,887	\$16,800	\$51,688	17154.45	74.4%	\$38,461
2030	\$35,959	\$15,729	\$51,688	17669.08	72.2%	\$37,340
2031	\$37,062	\$14,625	\$51,688	18199.15	70.1%	\$36,253
2032	\$38,200	\$13,488	\$51,688	18745.13	68.1%	\$35,197
2033	\$39,373	\$12,315	\$51,688	19307.48	66.1%	\$34,172
2034	\$40,582	\$11,106	\$51,688	19886.71	64.2%	\$33,177
2035	\$41,828	\$9,860	\$51,688	20483.31	62.3%	\$32,210
2036	\$43,112	\$8,576	\$51,688	21097.81	60.5%	\$31,272
2037	\$44,435	\$7,253	\$51,688	21730.74	58.7%	\$30,361
2038	\$45,799	\$5,889	\$51,688	22382.66	57.0%	\$29,477
2039	\$47,205	\$4,482	\$51,688	23054.14	55.4%	\$28,618
2040	\$48,655	\$3,033	\$51,688	23745.77	53.8%	\$27,785
2041	\$50,148	\$1,540	\$51,688	24458.14	52.2%	\$26,976
Total	\$1,004,000	\$546,637	\$1,550,637			\$1,285,471
Value Multiplier	1.285			<i>Italic = assumed 3%</i>		

Debt Service Calculations

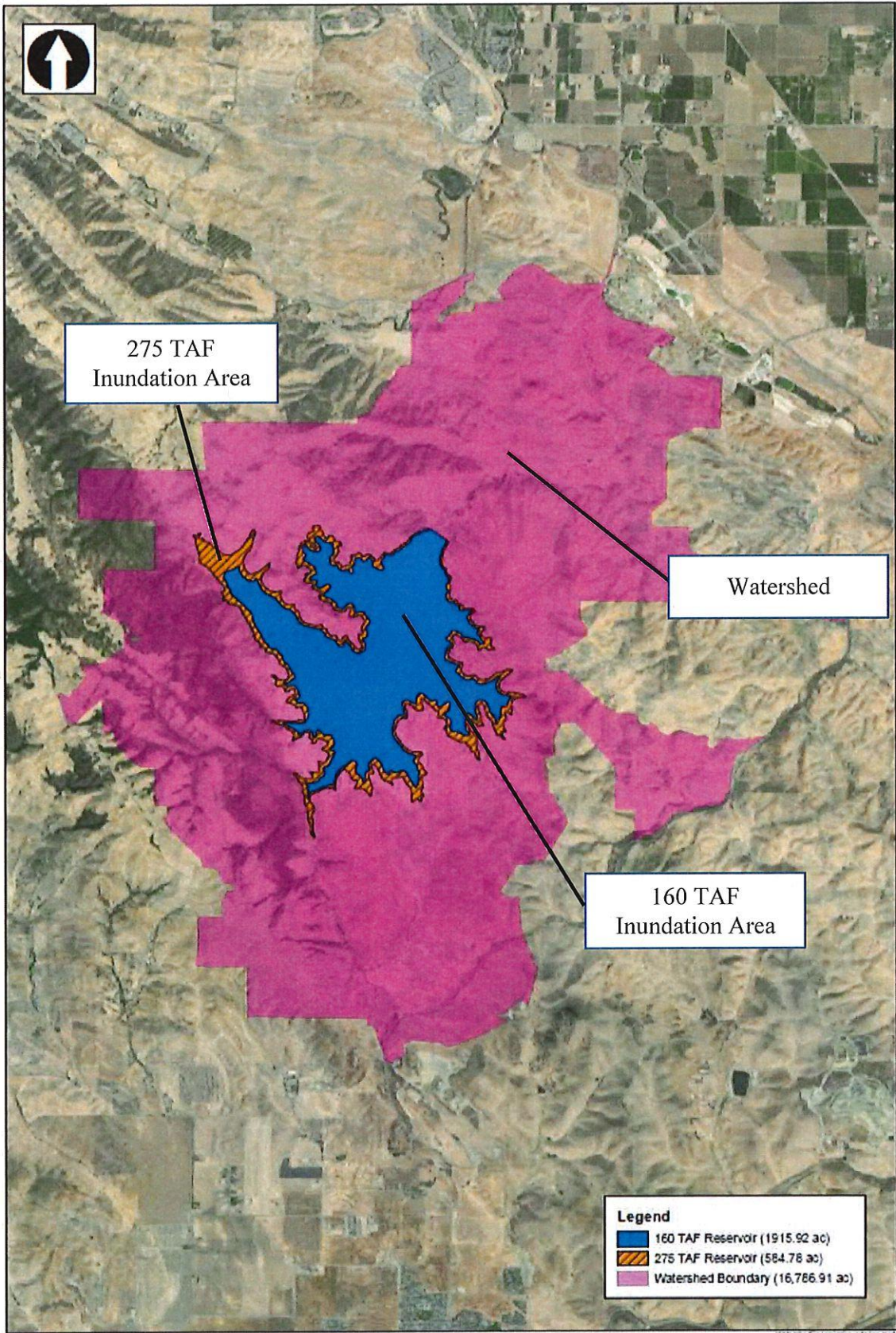
Los Vaqueros Expansion

Assumptions:

Construction Year	2013	Current SF-ENR	12764.52	(December 2019)
Term, years	30			
Interest Rate, %	3.39%			
Issuance Costs, %	0.4%			
Amount Borrowed	\$1,000,000			

Year	Principal	Interest	Total Debt Service	SF ENR	PV Adjustment	Present Value
2014	\$19,803	\$34,036	\$53,839	10915.84	116.9%	\$62,957
2015	\$20,475	\$33,364	\$53,839	11155.41	114.4%	\$61,605
2016	\$21,169	\$32,670	\$53,839	11609.44	109.9%	\$59,196
2017	\$21,887	\$31,953	\$53,839	12014.72	106.2%	\$57,199
2018	\$22,628	\$31,211	\$53,839	12115.37	105.4%	\$56,724
2019	\$23,396	\$30,443	\$53,839	12764.52	100.0%	\$53,839
2020	\$24,189	\$29,650	\$53,839	13147.46	97.1%	\$52,271
2021	\$25,009	\$28,830	\$53,839	13541.88	94.3%	\$50,749
2022	\$25,857	\$27,983	\$53,839	13948.14	91.5%	\$49,270
2023	\$26,733	\$27,106	\$53,839	14366.58	88.8%	\$47,835
2024	\$27,639	\$26,200	\$53,839	14797.58	86.3%	\$46,442
2025	\$28,576	\$25,263	\$53,839	15241.50	83.7%	\$45,089
2026	\$29,545	\$24,294	\$53,839	15698.75	81.3%	\$43,776
2027	\$30,547	\$23,293	\$53,839	16169.71	78.9%	\$42,501
2028	\$31,582	\$22,257	\$53,839	16654.80	76.6%	\$41,263
2029	\$32,653	\$21,186	\$53,839	17154.45	74.4%	\$40,061
2030	\$33,760	\$20,079	\$53,839	17669.08	72.2%	\$38,894
2031	\$34,904	\$18,935	\$53,839	18199.15	70.1%	\$37,762
2032	\$36,087	\$17,752	\$53,839	18745.13	68.1%	\$36,662
2033	\$37,311	\$16,528	\$53,839	19307.48	66.1%	\$35,594
2034	\$38,576	\$15,264	\$53,839	19886.71	64.2%	\$34,557
2035	\$39,883	\$13,956	\$53,839	20483.31	62.3%	\$33,551
2036	\$41,235	\$12,604	\$53,839	21097.81	60.5%	\$32,574
2037	\$42,633	\$11,206	\$53,839	21730.74	58.7%	\$31,625
2038	\$44,078	\$9,761	\$53,839	22382.66	57.0%	\$30,704
2039	\$45,573	\$8,266	\$53,839	23054.14	55.4%	\$29,809
2040	\$47,118	\$6,721	\$53,839	23745.77	53.8%	\$28,941
2041	\$48,715	\$5,124	\$53,839	24458.14	52.2%	\$28,098
2042	\$50,366	\$3,473	\$53,839	25191.88	50.7%	\$27,280
2043	\$52,074	\$1,765	\$53,839	25947.64	49.2%	\$26,485
Total	\$1,004,000	\$611,173	\$1,615,173			\$1,263,314
Value Multiplier	1.263				<i>Italic = assumed 3%</i>	

Attachment 3
Map of Los Vaqueros Reservoir Watershed



LOCATION MAP
NTS

Attachment 4
Response to Local Agency Partner Comments

Los Vaqueros Reservoir Expansion Phase 2 – Local Agency Partner Comments and Responses

Comment ID	Agency	Comment	Description	CCWD Response
1	ACWD	Conveyance - Grant funds that supported initial construction should be considered	We request that any grants received to help fund the initial construction of a facility be considered in developing the corresponding usage fee. This is particularly relevant since the facility valuation method used (net present value of debt payments) is based on the original construction cost to CCWD to build the facility and the grants received reduced that cost. Additionally, most grants were likely provided by State or Federal programs. All California residents, including ACWD's customers, support these programs through their State and Federal taxes. This comment applies to facilities included in all proposed usage fees that received grant funds; not just conveyance facilities.	CCWD has removed all grant funds received from the cost basis of the usage fees. Grant funds were received for the Rock Slough and Middle River facilities.
2	ACWD	Conveyance - The general utilization factor of 32% continues to be applied	We request that conveyance usage fees be calculated based on firm operational capacity. We recognize that maximum capacity would not be a reasonable basis for a usage fee calculation for a facility that is not designed to operate at that level. However, because we only have access to the facility when there is spare capacity (i.e. CCWD's ability to use the facility is never infringed upon by the LVE project), we do not consider it reasonable to develop fees that require us to either 1) pay for unused operational capacity, or 2) pay based on our peak facility use. If CCWD were willing to provide facility access on par with their own rights, then we would be open to discussing alternative capacity calculation approaches to allocate LAP costs.	The conveyance usage fees were recalculated considering the Firm Operational Capacity, rather than the capacity utilization. Both assumptions (Water Deliveries and Firm Operational Capacity) result in similar usage fee determinations. Firm Operational Capacity of the conveyance facilities was determined as the ratio of the capacity of the proposed Transfer-Bethany Pipeline (300 CFS) to the total capacity of CCWD's intakes (350 + 250 + 250 CFS). The Firm Operational Capacity was determined to be 35.3% (300 CFS / 850 CFS) of the installed capacity. Example calculation for Rock Slough: 350 CFS capacity is approximately 253,379 AF/YR, with 89,443 AF/YR (35.3% of installed capacity) of Firm Operational Capacity.
3	ACWD	Conveyance - Facilities were valued based on the net present value of debt service payments with some cost estimation.	Bartle Wells identified a total of eight potential approaches to value facilities used to convey water and those approaches likely represent the reasonable range for calculating facility value. Bartle Wells did not identify a specifically recommended option from these various approaches and we note that the approach selected by CCWD does not represent an average or midpoint of the various approaches, but is the second most expensive option. To balance the interests of CCWD and LAPs, ACWD has focused on the approach that escalates the net book value (less grant funds) by CPI. This approach will provide for the initial facility value funded by CCWD's rate payers to be escalated by the metric that best reflects the time value of money. This approach further recognizes that up until this point CCWD has been the sole beneficiary of the facility and should reasonably be expected to pay the full cost of facility use for this period (and similarly, this recognizes that LAPs are not receiving a brand new facility). Also, we are concerned by 1) the use of estimated debt issuance costs in the revised proposal as actual or average actual costs should be used instead, and 2) the approach for escalating past costs and deflating future costs because it provides for relatively greater escalation of past costs compared to deflation of future costs (although these two concerns are not relevant to the facility valuation methodology suggested by ACWD in this comment).	Usage of the book value as the basis of the usage fees would exclude the costs incurred by CCWD to finance the facilities, and would not adequately collect a proportional share of renewal/replacement costs. The revised usage fee calculations retain the previous methodology of using the present value of the debt service payments. CCWD has revised the usage fee calculations to reflect the actual and true interest costs of debt service. In addition, interest rates were revised (lowered) to account for debt sold at a premium, meaning CCWD received more proceeds than the outstanding debt. Actual weighted and true average debt service interest rates are: Los Vaqueros Project: 4.52% Los Vaqueros Expansion: 3.39% Middle River Intake Project: 3.07% Rock Slough facilities: 3.342% The future valuation was based on the historical 10-year average ENR rate. CCWD is open to consider other reasonable averaging periods as the basis to deflate future facility values.

Los Vaqueros Reservoir Expansion Phase 2 -- Local Agency Partner Comments and Responses

Comment ID	Agency	Comment	Description	CCWD Response
4	ACWD	Storage - Third-party review of calculations.	Proposed usage fees for storage facilities have been substantially revised in response to the Bartle Wells report. ACWD views many of these changes as positive; however, given the substantial changes we believe it would be advisable to have Bartle Wells review the calculations as they have done for other proposed fees even if that requires a contract amendment for Bartle Wells.	No response required.
5	ACWD	Storage - Land and facilities were valued based on the net present value of debt service payments	Similar to conveyance facilities, CCWD has valued land and facilities based on the net present value of debt service payments. ACWD believes that other approaches, as described previously, may more reasonably allocate costs between respective beneficiaries. Additionally, we ask that CCWD confirm that land value was not adjusted based on estimated market value.	The land value was not based on market value. The information on estimated market value is provided for reference only in the usage fee memo. The methodology used by CCWD is resulting in a cost basis that is estimated to be at least 30% below market value for the land. This is a benefit that is realized by the JPA using the existing methodology. CCWD did not escalate the value of land based on market value.
6	ACWD	Storage - Allocation of specific facility benefits to LAPs	Except as noted below, ACWD offers no opinion about how CCWD has proposed to allocate specific storage facility benefits to LAPs. Other LAPs may be better positioned to provide specific feedback regarding which existing dam facilities benefit LAPs through the LVE project.	No response required.
7	ACWD	Storage - Incremental inundation area cost allocation.	The cost of these 585 acres has been fully allocated to LAPs. However, it is unclear why CCWD wouldn't benefit from this land at the same rate as it benefits from general watershed land or why CCWD's aggregate benefit of all inundated and watershed land is less than its proportional share of an expanded reservoir. Consequently, ACWD requests that the value of this land be allocated between CCWD and LAPs in the same manner as general watershed land.	CCWD agrees that there is retained value to CCWD within the incremental inundation area as part of the overall watershed. However, the JPA benefits exclusively from the incremental area for the purposes of water storage. The allocation to the JPA was updated based on the proportional usage of the land area as storage vs watershed. <u>Proportional Benefit (Storage %, Watershed %)</u> CCWD: (0% Storage, 58.2% Watershed) JPA: (100% Storage, 41.8% Watershed) <u>Weighted Benefit</u> CCWD: 29.1% JPA: 70.9%
8	ACWD	Storage - Buy-in for Los Vaqueros land payment options.	ACWD finds the concept of a 50-year payment plan with 3% interest reasonable, but also requests an option to buy-in with a lump sum payment. Additionally, because LAPs are buying into the land, this should convey an ownership right. For example, if an LAP were to leave the project in the future, they should be reimbursed for their ownership share of the land whether their share of the project is bought by another agency or otherwise distributed back to Los Vaqueros Reservoir beneficiaries. If CCWD does not intend to convey an ownership right on par with their own rights, then land-use costs for LAPs should be discounted.	CCWD would be open to up-front consideration of the storage usage fee. Ownership of the land would remain with CCWD, consistent with CCWD's Board principles. If an LAP were to leave the project in the future and transfer associated benefits to another party, CCWD believes it is fair for the leaving member to be expected to be compensated for costs paid for the storage usage fee (if paid up-front). The leaving member would have also paid for, or will be paying for, new facilities constructed as part of the project. Consideration of members leaving or joining the project, and procedures for negotiating costs and transferring project benefits should be established by the JPA. CCWD has applied a factor of 90% to the present value of land in the revised usage fees to recognize the lack of ownership.

Los Vaqueros Reservoir Expansion Phase 2 – Local Agency Partner Comments and Responses

Comment ID	Agency	Comment	Description	CCWD Response
				CCWD notes that the proposed present value methodology results in a significantly lower cost for land to the JPA than current market value.
9	ACWD	Storage - Future adjustments to shared storage facilities usage fee.	The memo states that the JPA will pay a proportional share of future renewal/replacement costs. As investments are made by the JPA to renew/replace facilities, the usage fee should be adjusted to reflect those investments. This comment also applies to any costs shared by the JPA for future renewal/replacement of conveyance facilities.	This comment only applies to dam facilities. The depreciated value of the dam facilities was used to determine the usage fee since LAPs will pay a proportional share of future actual R/R costs for the new dam, which will be a joint facility. LAPs will not be responsible for a proportional share of future R/R costs for conveyance facilities beyond what is being paid through the usage fee.
10	BAWSCA	Conveyance - Grant funds that supported initial construction should be considered	We request that any grants received to help fund the initial construction of a facility be considered in developing the corresponding usage fee. This is particularly relevant since the facility valuation method used (net present value of debt payments) is based on initial construction cost and the grants received reduced the construction cost of the facility for CCWD. Additionally, most grants were likely provided by State or Federal programs, supported by all California residents including BAWSCA's customers through their tax dollars. This comment applies to facilities included in all proposed usage fees that received grant funds; not just conveyance facilities.	See response to Comment 1.
11	BAWSCA	Conveyance - Conveyance usage fees should be calculated based on firm operational capacity	BAWSCA appreciates that CCWD has updated conveyance usage fees, based on the BWA recommendations, to combine the capacity usage and renewal/replacement fees into a single charge and to apportion the costs over the facility life. However, we request that conveyance usage fees be calculated based on firm operational capacity, rather than the general utilization factor of 32%. We recognize that maximum capacity would not be a reasonable basis for a usage fee calculation for a facility that is not designed to operate at that level. Because we only have access to the facility when there is spare capacity (i.e. CCWD's ability to use the facility is never infringed upon by the LVE project), we do not consider it reasonable to develop fees that require us to either 1) pay for unused operational capacity, or 2) pay based on our peak facility use. If CCWD were willing to provide facility access on par with their own rights, then we would be open to discussing alternative approaches that spread LAP costs across an alternative capacity calculation.	See response to Comment 2.
12	BAWSCA	Conveyance - An average or midpoint of the potential approaches to value conveyance facilities should be used.	Bartle Wells identified a total of eight potential approaches to value facilities used to convey water and those approaches likely represent the potential range for calculating facility value but did not identify a recommended option from these approaches. CCWD's proposed valued facilities based on the net present value of debt service payments with some cost estimation. We note that the approach selected by CCWD is the second most expensive option. We request that CCWD consider an average or midpoint of the various approaches to balance the interests of CCWD and the LAPs. In particular, we support the approach for valuation of conveyance facilities proposed by ACWD in their comment letter and encourage CCWD to consider their approach.	See response to Comment 3.

Los Vaqueros Reservoir Expansion Phase 2 – Local Agency Partner Comments and Responses

Comment ID	Agency	Comment	Description	CCWD Response
			Additionally, we note that the full value of conveyance facilities was used in the calculation of the true value of assets (as opposed to the depreciated value). Per Governmental Accounting Standards Board, Statement No. 62, 2010 (GASB 62) ¶ 5-22 authoritative guidance, the only amount of debt that qualifies for capitalization are the interest payments from project inception until assets are placed in service. The true value of the underlying assets should be the original cost (with capitalized interest) less depreciation.	<p>GASB 62: GASB 62 provides guidance on financial reporting and accounting for governmental agencies. GASB 62 does not provide guidance on the recovery of costs through rates and charges, wheeling fees, or other assessments. The CCWD facilities being used by the LAPs were debt funded and interest costs were or are being incurred to make those facilities available to the LAPs. It is reasonable to include consideration of those costs in the determination of the usage fees.</p> <p>The majority of wheeling or usage fee examples that CCWD has reviewed have included the costs of financing or the "value of capital". Costs for the delivery of non-project water through the CVP and SWP facilities include consideration of interest costs.</p>
13	BAWSCA	Conveyance - More information is needed on CCWD's Intake Operation Criteria.	Conveyance of water by CCWD would involve the use of multiple facilities depending on the specific intake utilized and pathway. CCWD anticipates choosing the source of water supply and associated intake/pathway based on operational needs. While we conceptually support BWA's recommendation for establishing a single "weighted average" charge for the intakes and pathways, we would like to better understand CCWD's intake operation criteria, especially during a drought. The intake selection impacts both usage fee and the O&M charges.	The usage fee includes O&M for existing facilities. CCWD selects the intakes to use based on hydrology, Delta salinity, regulations, and permit constraints. During a drought, direct diversions will likely be limited by Delta salinity and other curtailments that may be needed to comply with regulations. During a drought, it is anticipated that most of the water delivered to partners will come from storage. Partners would be charged to use our intakes when the water is put into storage when the Delta is fresh and water is available; when the water is released from storage at a later time, no new usage fees would be incurred.
14	BAWSCA	Storage - Third-party review of calculations of storage facility usage fees is needed	Proposed usage fees for storage facilities have been substantially revised in response to the Bartle Wells report. Given the extent of the changes, BAWSCA requests that Bartle Wells provide an independent review the detailed calculations for these proposed fees.	No response required.
15	BAWSCA	Storage - Other approaches should be considered for valuation of land and facilities	Similar to conveyance facilities, CCWD has valued land and facilities based on the net present value of debt service payments. BAWSCA believes that other approaches may more reasonably allocate costs between respective beneficiaries. Additionally, we ask that CCWD confirm that land value was not adjusted based on estimated market value.	<p>The comment notes potential alternatives to allocate costs but does not provide specific details.</p> <p>CCWD notes that the current methodology results in a land value basis that is significantly lower than market value.</p> <p>The JPA enjoys an efficiency through the future expansion in that every foot of dam height expansion provides a greater volume of created storage than the original project. Other allocation methodologies, such as a proportional share of all costs to construct a 275 TAF reservoir, would result in a greater allocation of the cost of CCWD's original facilities to the JPA.</p> <p>CCWD did not base the value of land on current market value. As noted in the comment and the usage fee memo, land value was based on the present value of past debt service payments.</p>

Los Vaqueros Reservoir Expansion Phase 2 – Local Agency Partner Comments and Responses

Comment ID	Agency	Comment	Description	CCWD Response
16	BAWSCA	Storage - Incremental inundation area costs should be allocated between CCWD and the LAPs	The cost of these 585 acres has been fully allocated to LAPs. However, it is unclear why CCWD wouldn't benefit from this land at the same rate as it benefits from general watershed land. Consequently, BAWSCA requests that the value of this land be allocated between CCWD and LAPs in the same manner as general watershed land.	See response to Comment 7.
17	BAWSCA	Storage - Buy-in for Los Vaqueros land payment options should convey an ownership right	The proposed cost structure calls for LAPs to buy in to land under a 50-year payment plan with 3% interest. This proposed structure should convey an ownership right. For example, if an LAP were to leave the project in the future, they should be reimbursed for their ownership share of the land whether their share of the project is bought by another agency or otherwise distributed to Los Vaqueros Reservoir beneficiaries.	See response to Comment 8.
18	BAWSCA	Storage - Future adjustments to shared storage facilities usage fee should be made as JPA invests in renewal and replacement costs	The memo states that the JPA will pay a proportional share of future renewal/replacement costs. As investments are made by the JPA to renew/replace facilities, the usage fee should be adjusted to reflect those investments.	See response to Comment 9.
19	BWA	Our general recommendation is that the final charges should fall somewhere along this continuum.	As presented in our Evaluation of Proposed Water Wheeling Charges dated December 20, 2019, our general findings were that a) we found CCWD's proposed charges for recovering operating and maintenance costs were reasonable, and b) we identified issues/concerns regarding CCWD's proposed charges to recover costs for use of capacity in CCWD infrastructure. Additionally, we calculated a range of conceptual fee alternatives for capital cost recovery. These fee alternatives were not recommendations, but were developed to provide estimates of charges for capital cost recovery under a range of approaches along a continuum from "Incremental or Marginal" cost recovery to "Maximum" cost recovery.	<p>The usage fee memo was intended to inform the LAPs when changes made to the methodology or underlying assumptions were consistent with the alternatives presented in the BWA report. CCWD was not intending to suggest that BWA recommends or supports CCWD's selection of an alternative or its application of information from the BWA report.</p> <p>The intent of the discussion is to inform LAPs where CCWD incorporated changes consistent with the alternatives in the BWA report, and to be transparent about BWA comments that were not incorporated.</p>
20	BWA	Utilization factor	Our initial report identifies a number of concerns with CCWD's proposed use of a "Utilization Factor" for capital cost recovery and questions whether the use of a 32% utilization factor is "reasonable" as calculated and applied. BWA is concerned the utilization factor results in charges that may exceed the definition of "fair compensation". Our understanding is that CCWD's water supply and transmission system is sized to provide substantial redundancy and meet peak capacity needs for the benefit of CCWD's customer base. These benefits are provided to CCWD customers even when water is not being conveyed. The system redundancy and peaking component of facilities do not provide similar benefit to the LAPs (who are not regular customers). Our concern is that the utilization factor results in LAPs paying for facilities and/or capacity not used or needed for the temporary wheeling of water when spare capacity is available.	<p>See response to Comment 2.</p> <p>CCWD notes that use of its existing facilities for the proposed project is not "temporary". The operating and service agreements are anticipated (subject to negotiation and input from JPA members) to have an initial term of 50-years. The project, if implemented, is likely to exist in perpetuity. The new project facilities will be fully integrated with CCWD existing facilities. Renewal/ Replacement costs are typically recovered based on water deliveries (utilization).</p>
21	BWA	Minor comments (unspecified)	BWA also has some minor concerns with details of the calculations of various fee components of CCWD's revised draft charges. These details can be identified and considered as CCWD and the LAPs move forward in their discussions.	No response required.

Los Vaqueros Reservoir Expansion Phase 2 – Local Agency Partner Comments and Responses

Comment ID	Agency	Comment	Description	CCWD Response																																							
22	EBMUD	Please consider developing a list of guiding principles to clarify proposed cost allocations	There are several topics EBMUD feels need to be outlined and presented to potential JPA members that, until now, only appear to have been captured in verbal statements, presentation slides, or eluded to in fee methodology memos. We feel that the underlying costs, benefits, and risks would be clearer if these topics were addressed upfront, and then linked to each element of a proposed cost allocation method in memorandums.	Principles governing the development of usage fees have been identified in the usage fee memo, and CCWD’s Board principles for expanding to a regional facility are included as an attachment to the Multi-Party Agreement executed by all parties.																																							
23	EBMUD	Please consider only allocating the “expansion” elements to the JPA	CCWD is proposing to collect fees from the JPA that pay for a portion of facilities and land that CCWD already owns in fee or is paying debt service, and that CCWD is the sole benefactor (e.g., existing 160 TAF). Pending item 1 above, we would like CCWD to investigate limiting the cost allocation to the JPA to only those facilities solely required to expand the dam. If the methodology doesn't include the JPA funding a portion of the original 160 TAF, please clarify that in the memorandum, and if it does, please describe the benefits the JPA would receive (including ownership and use) for the portion of the 160 TAF funded by the JPA.	Facilities or land that are solely benefitting CCWD have been excluded from cost recovery in the usage fee. Existing facilities that are shared or benefit the future expansion are included in the cost basis of the usage fee. The shared facilities are described in the memo and include Vasco Road relocation, utilities and utilities relocation, foundation and abutment work, drainage facilities, emergency release valves/piping, bypass valves/piping, inlet outlet structures, and the spillway. These facilities are shared and provide benefits to both CCWD and the JPA’s share of storage facilities. The JPA enjoys an efficiency through the future expansion in that every foot of dam height increase yields a greater volume of created storage than the original project. Other allocation methodologies, such as a proportional share of all costs to construct a 275 TAF reservoir, would result in a greater allocation of the cost of the original facilities to the JPA.																																							
24	EBMUD	Please explain how CCWD’s modified debt service is accounted for in the proposed methodology.	CCWD modified its debt service for LVE facilities in 2013. We would like CCWD to explain how the debt service, if at all, is incorporated into the proposed user fee methodology.	CCWD constructed the 60 TAF reservoir expansion project in 2013. Debt funding for the expansion was separate from the original LV project and did not impact the original debt service. The value of each component (original LV and 60 TAF expansion) is based on the present value of the separate debt service payments.																																							
25	EBMUD	Adjust the value of the conveyance facility to reflect the portion of the facility being used by CCWD and the JPA.	The formula proposed by CCWD adjusts the water deliveries using a 32% utilization factor; however, the full value of the facility is still being used even though CCWD and the JPA only use 32% of the facility. We would ask CCWD to consider reducing the Facility Value to remove the “peak” capacity not being used by the JPA during wheeling.	See response to Comment 2. LAP peak use of facilities is comparable to CCWD. Peak use of facility capacity is shown below: <table border="1" data-bbox="1255 993 1858 1279"> <thead> <tr> <th rowspan="2">Facility</th> <th colspan="3">Peak Usage, % of Capacity</th> </tr> <tr> <th>CCWD</th> <th>Refuges</th> <th>LAP</th> </tr> </thead> <tbody> <tr> <td>15. Los Vaqueros Pipeline</td> <td>77%</td> <td>63%</td> <td>64%</td> </tr> <tr> <td>16. Middle River Intake</td> <td>100%</td> <td>100%</td> <td>100%</td> </tr> <tr> <td>17. Middle River Pipeline</td> <td>100%</td> <td>100%</td> <td>100%</td> </tr> <tr> <td>18. Old River Intake</td> <td>100%</td> <td>100%</td> <td>100%</td> </tr> <tr> <td>19. Old River Pipeline</td> <td>96%</td> <td>94%</td> <td>94%</td> </tr> <tr> <td>20. Rock Slough Facilities</td> <td>100%</td> <td>71%</td> <td>58%</td> </tr> <tr> <td>21. Transfer Pipeline</td> <td>100%</td> <td>100%</td> <td>100%</td> </tr> <tr> <td></td> <td>96%</td> <td>90%</td> <td>88%</td> </tr> </tbody> </table>	Facility	Peak Usage, % of Capacity			CCWD	Refuges	LAP	15. Los Vaqueros Pipeline	77%	63%	64%	16. Middle River Intake	100%	100%	100%	17. Middle River Pipeline	100%	100%	100%	18. Old River Intake	100%	100%	100%	19. Old River Pipeline	96%	94%	94%	20. Rock Slough Facilities	100%	71%	58%	21. Transfer Pipeline	100%	100%	100%		96%	90%	88%
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Los Vaqueros Reservoir Expansion Phase 2 – Local Agency Partner Comments and Responses

Comment ID	Agency	Comment	Description	CCWD Response
26	EBMUD	Revise the method used to value each conveyance facility.	CCWD proposes using the present value of the stream of debt service to value each facility. We would ask that CCWD consider using the value of the original cost of the facility plus inflation. We think the value of the facility is more accurately estimated by inflating the original cost rather than incorporating a theoretical debt service schedule and inflating or deflating the principal and interest payments.	See responses to Comments 3 and 12. It is typical for usage fees to include consideration of financing costs, including rates developed to convey non-project water in SWP and CVP facilities. EBMUD's principles for the use of Freeport facilities includes recovery of financing costs. The usage fees have been updated to reflect actual debt service interest rates, instead of estimated rates.
27	EBMUD	Revise the Allocation of Land between CCWD and JPA. CCWD divided the land associated with the project into three categories: Inundation for the first 160 TAF (52% CCWD & 48% JPA); Inundation associated with the expansion (100% JPA); and remaining watershed area (52% CCWD & 48% JPA). We would ask that CCWD consider the following:	Inundation of first 160 TAF – We feel this is 100% CCWD since the land – not the reservoir expansion – is already a sunk cost and being used solely by CCWD. Inundation of Incremental 115 TAF – If CCWD maintains that the JPA is responsible for a portion of the inundation of land for the first 160 TAF, then the same “beneficial” argument can be made that CCWD benefits from the incremental inundation. Also, EBMUD understands that the original purchase of the land that will now be incrementally inundated was necessary for the creation and ongoing operations of the existing reservoir. The fact that it will be inundated with the expansion does not remove the necessity or usefulness of this land to CCWD. For example, CCWD would not be willing to sell this land to a private party for development, thereby losing control over it. Therefore, CCWD still benefits from this land after expansion. Remaining Watershed Area – The remaining watershed area shown in the March 9th memorandum appears to be associated with the original 160 TAF, and it is unclear how much of the area is attributable to the need of the expansion (both in management and/or mitigation). We feel the JPA should only be responsible for the watershed land draining into the reservoir and any land required for the mitigation of the expansion. Ownership and Rights of Land Paid for by the JPA: CCWD indicates that the JPA would receive a right to land; please clarify whether this is ownership in fee or something else.	The land underlying the 160 TAF inundation area benefits both CCWD and the JPA, as the JPA's water theoretically resides on top of CCWD's 160 TAF. CCWD agrees the incremental inundation area has retained value to CCWD as part of the watershed. See response to Comment 7 for the updated calculation. All land purchased for the original Los Vaqueros Project was necessary and benefits future expansion by protecting water quality, providing water supply (minimal), and by providing a buffer. Mitigation that was required for inundation of CCWD's 160 TAF was excluded from cost recovery as this only benefits CCWD. The service and/or usage fee agreements will provide a right to utilize land and said facilities for the life of the project.
28	EBMUD	Dam Improvements Allocated to the JPA should be limited to the expansion.	CCWD should provide more justification for the allocation of improvements to the JPA. For example, based on the information provided, the expansion will not require moving Vasco Road since Vasco Road appears to be outside of the watershed area. Utilities allocated to the JPA also need more definition so we can better understand why they are being allocated to the JPA.	Existing facilities that are shared or benefit the expansion are included in the cost basis of the usage fee. The shared facilities are described in the memo and include Vasco Road relocation, utilities and utilities relocation, foundation and abutment work, drainage facilities, emergency release valves/piping, bypass valves/piping, inlet outlet structures, and the spillway. These facilities are shared and provide benefits to both CCWD and the JPA's share of storage facilities. Utilities, such as power, will benefit operation of the future expanded facility. CCWD paid for the relocation of Vasco Road for the original Los Vaqueros Project. The original project, and any future expansion, would not be possible without the previous relocation of Vasco Road.

Los Vaqueros Reservoir Expansion Phase 2 – Local Agency Partner Comments and Responses

Comment ID	Agency	Comment	Description	CCWD Response
29	SFPUC	Usage Fees for Conveyance (CCWD Intakes, Pump Stations and Pipelines)	<ol style="list-style-type: none"> 1. In this case, the SFPUC would pay up front for the peak capacity needed during a dry year (~20 TAF) as a buy-in charge. However, the ability to take delivery of this water may be limited by the SBA, in which case the delivery may not be available. This calculation does not appear to fully consider the potential downstream conveyance constraints of the SBA. The bottleneck capacity should be considered in this calculation. 2. Point of clarification: is there a buy-in charge that is a one time charge (based on 20 TAF in the above example and a second capacity charge based on actual usage, which would be dynamic (based on volume of dry year deliveries in the case of the SFPUC)? Based on the recommendation in the Bartle Wells' recommendation, we are assuming that there is a single charge. 	<p>The usage fee does not consider SBA operations or capacity. As the usage fee is incurred only when CCWD's existing facilities are used, those fees will be incurred when water is diverted to storage for SFPUC. When SFPUC calls upon previously stored water, no additional usage fees will be incurred.</p> <p>There is no upfront payment or buy-in charge anticipated for conveyance. Conveyance usage fees will be variable and charged as facilities are used.</p> <p>CCWD has indicated it is open to considering an up-front payment for the storage usage fee, if desired by the LAPs.</p>
30	SFPUC	Usage Fees for Conveyance (CCWD Intakes, Pump Stations and Pipelines)	<ol style="list-style-type: none"> 3. Since CCWD anticipates choosing the source of water supply and associated intake/pathway based on operational needs, and that on BWA's recommendation, LAPs may want to consider establishing a single "weighted average" charge for the intakes and pathways, we would like to better understand CCWD's intake operation criteria, especially during a drought. The intake selection impacts both usage fee and the O&M charges. 	See response to Comment 13.
31	SFPUC	Usage Fees for Conveyance (CCWD Intakes, Pump Stations and Pipelines)	<ol style="list-style-type: none"> 4. What was the rationale for using the full value of conveyance facilities in the calculation of the true value of assets? By contrast, the valuation of the dam utilized the depreciated value, which seems appropriate here as well. Per Governmental Accounting Standards Board, Statement No. 62, 2010 (GASB 62) ¶ 5-22 authoritative guidance, the only amount of debt that qualifies for capitalization are the interest payments from project inception until assets are placed in service. The true value of the underlying assets should be the original cost (with capitalized interest) less depreciation. 5. How is the "average utilization factor" calculated? A discussion would be instructive. It seems that using the firm operational capacity as the basis for calculating conveyance usage fees may be appropriate rather than an average factor of 32% as the LAPs will not be using the facilities on a regular basis. 	<p>See response to Comment 12.</p> <p>The basis of the usage fee calculation was revised to be based on Firm Operational Capacity.</p>
32	SFPUC	Usage Fees for Storage	<ol style="list-style-type: none"> 6. Based on internal discussion, we think that the methodology used to capitalize the underlying Los Vaqueros asset (using present value of interest) seems reasonable. Based on the memo, it appears that the estimated market value was used only as a reference, and not for calculation (which is consistent with our reasoning). However, as we do not have direct experience with utilizing this methodology for sharing costs of assets, this is an area we believe would benefit from independent review by Bartle Wells. We would also like to better understand how these costs will be shared between the parties. 	No response required.
33	SFPUC	Usage Fees for Storage	<ol style="list-style-type: none"> 7. As is the case with the original inundation area, it seems that CCWD would also benefit from the incremental inundation area of 585 acres. We would like there to be consideration of sharing these costs. 	See response to Comment 7.

Los Vaqueros Reservoir Expansion Phase 2 – Local Agency Partner Comments and Responses

Comment ID	Agency	Comment	Description	CCWD Response
34	SFPUC	Usage Fees for Storage	8. Based on the reference text, it appears that once annual payments for the JPA's share of the land costs terminate after year 50, there are no further obligations for the property and the JPA will continue to operate lease-free. However, if an LAP were to leave the project, they would not benefit from the payment into the underlying asset (land). There should be some provisions in place contemplating scenarios under which partial monetization of the asset is envisioned.	See response to Comment 8.
35	SFPUC	EBMUD Usage Fees	9. This memo addresses the proposed methodology for developing CCWD's usage fees. Will there be a similar effort to consider usage fees associated with the use of EBMUD facilities?	Will be discussed with EBMUD.
36	Valley Water	General Point 1	It appears CCWD is calculating usage fees bases differently between different types of facilities, in some cases using the original construction costs (Table 1 conveyance), in others an inflated 'market value' (Table 3 land value), and depreciated values (Table 5 dam facilities). Valley Water requests that CCWD provide comparison of these different valuations between all conveyance and storage facilities and provide rationale for the use of these different methods.	<p>The market value of land was not used to determine usage fees.</p> <p>Methodology to value conveyance and facilities was determined based on the present value of the debt service paid by CCWD.</p> <p>The full value (no depreciation) was used for conveyance facilities since renewal/replacement is considered and recovered in the usage fee. LAPs have no future responsibility for conveyance renewal/replacement costs beyond the usage fee.</p> <p>The depreciated value of the dam facilities is used because LAPs will be paying a proportional share of actual future dam renewal/replacement costs. The renewal/replacement cost is included separately in the pro forma model.</p>
37	Valley Water	General Point 2	It is not clear if conveyance usage fees will be structured in a way that would allow for immediate or close-to-immediate pass-through of LAP water supplies through LVE Project facilities, including Valley Water deliveries through Transfer-Bethany. Valley Water requests additional information on how utilization factor could change if non-LVE project water supplies are passed through project facilities without use of storage or use of storage for a limited number of days	The basis of the usage fees was revised to Firm Operational Capacity. This comment regarding the former methodology using the utilization factor is no longer applicable. Firm Operational Capacity is a fixed quantity and would not change.
38	Valley Water	Page 2	Valley Water understands that CCWD wishes to charge for use of existing facilities based on a portion of their "original cost" (with that portion for LAPs yet to be determined). All CCWD original cost values for the facilities and storage appear to be based on gross amount instead of amount net of grants received, meaning the costs shown in the document are higher than the BWA Report (third-party usage fee review by Bartle Wells Associates). While it's understood that the original costs are based on actual expenses incurred to construct applicable facilities, Valley Water requests that CCWD net out any grants received before allocating costs to the LAPs or clarify why this was not done in the proposed original cost values	See response to Comment 1.

Los Vaqueros Reservoir Expansion Phase 2 – Local Agency Partner Comments and Responses

Comment ID	Agency	Comment	Description	CCWD Response
39	Valley Water	Page 3	CCWD appears to be retaining the earlier proposal of “water delivered based on 32% utilization (factor)” applied to the denominator in calculating the Usage Fee \$/AF. Valley Water believes that to make this a fair assessment for the LAPs the numerator should also be multiplied by the same factor (scaling the “Original Cost”) so that the LAPs are only paying for the cost of a facility sized to deliver the water as they’ve calculated. Valley Water requests that CCWD apply the utilization factor consistently in the Usage Fee calculations to avoid potential LAP “over-payment” for excess facility capacity.	See response to Comment 2
40	Valley Water	Page 5	The overall basis for LAP payment for watershed lands should be explained. For storage, CCWD states that the “value of the shared land (watershed) is allocated 58.2% to CCWD and 41.8% to the JPA” but does not specify how these values were obtained. It does not appear the LAPs would benefit from captured runoff in the Los Vaqueros watershed (as only CCWD would own the water rights to benefit from that water). Valley Water requests clarification on the breakdown of watershed lands between CCWD and the JPA, and how runoff water supplies would be allocated once captured in Los Vaqueros Reservoir.	<p>The memo indicates the basis of the cost allocation, which is the proportional share of the expanded reservoir capacity of 275 TAF. CCWD retains use of 160 TAF, or 58.2% of the usable storage. The JPA would use up to 115 TAF, or 41.8% of the storage capacity.</p> <p>It is not feasible to accurately differentiate reservoir losses between seepage and evaporation, or accurately estimate water supply contributions from the watershed. Local runoff is much less than evaporation on an average annual basis. All participants will benefit from local run-off being captured as a reduction in annual water losses.</p>
41	Valley Water	Page 5	Assuming a reasonable basis for LAP’s sharing the cost of watershed lands is arrived at, the use of current market value of land should be re-examined. For storage, CCWD appears to be inflating the original Los Vaqueros Reservoir land cost by 30% to reflect a ‘current market value’. Valley Water requests that CCWD provide comparison using a different metric(s), such as CPI or from a land value assessor, for estimates of land value	<p>CCWD did not use market value to determine the usage fee. That information is provided for reference only.</p> <p>The current methodology results in a value that is estimated to be at least 30% below market value. This is a benefit being realized by the JPA.</p>
42	Valley Water	Page 5	Assuming a reasonable basis for LAP’s sharing the cost of watershed lands is arrived at, the usage fees would best be aligned with the life of the project. For storage, CCWD states that the LAPs will receive the right to utilize the land for the life of the project and fixed payment for the land would terminate after year 50. Valley Water requests that clarification be provided to the LAPs regarding JPA utilization of project lands following the repayment period, and asks why the residual value of the land should not be subtracted from the current value to derive the usage fees to reflect the ownership retention by CCWD	See response to Comment 8.
43	Valley Water	Attachment 3	It appears CCWD is using the SF-ENR inflation factor to calculate the discount rate for PV adjustment, which generally results in a higher value multiplier as opposed to the CPI method used in the BWA Report. Valley Water requests that clarification be given to the LAPs on why the SF-ENR inflation factor was used when calculating PV adjustment.	CPI is a general indicator of the change in prices for goods and services. The Engineering News Record index is a measure of construction costs and more accurately reflects changes in the value of constructed facilities.