LOS VAQUEROS RESERVOIR JOINT POWERS AUTHORITY
OPERATIONS AND ENGINEERING COMMITTEE
AGENDA
[REVISED]

Regular Meeting
March 16, 2023 – 10:00 a.m.

Directors participating telephonically:

Jose Gutierrez - 3130 North Fresno Street, Fresno, California 93703
Antonio Martinez – 1331 Concord Ave. Concord, California 94520
Steve Ritchie - 525 Golden Gate Avenue, San Francisco, CA 94102
Jonathan Wunderlich - 43885 S. Grimmer Blvd., Fremont, California 94538

This meeting will be conducted remotely and any member of the public who desires to participate in the open session items of this meeting may do so by accessing the Zoom link below without otherwise complying with the Brown Act's teleconference requirements.

Please click the link below to join the Meeting/Webinar:

https://lagerlof.zoom.us/j/83227564437?pwd=SnBST0lHQXdkbm8rNEp0ODB0NjN0dz09
Webinar ID: 832 2756 4437
Passcode: 567930
Or One tap mobile:
US: +16699006833,,83227564437#,,,,*567930#
or Telephone: +1-669-900-6833

Any member of the public wishing to make any comments to the Committee may do so by accessing the above-referenced link where they may select the option to join via webcam or teleconference. Members of the public may also submit written comments to the Clerk by 4:00 p.m. on the day prior to the meeting for the Clerk to read into the record (subject to three-minute limitation). The meeting Chair will acknowledge such individual(s) at the appropriate time in the meeting prior to making their comment. Members of the public will be disconnected from the meeting prior to any Closed Session, if applicable.

NOTE: *To comply with the Americans with Disabilities Act, if you need special assistance to participate in this Committee meeting, please contact the Authority's Interim Clerk at rperea@lagerlof.com by 4:00 p.m. on March 15, 2023 to inform the Authority of your needs and to determine if accommodation is feasible. Each item on the Agenda shall be deemed to include any appropriate motion, resolution, or ordinance, to take action on any item.* Materials related to items on this Agenda are available for public review at: www.losvaquerosjpa.com/board-meetings.

CALL TO ORDER

PLEDGE OF ALLEGIANCE

ROLL CALL OF COMMITTEE MEMBERS
Jose Gutierrez – Chair, San Luis & Delta-Mendota Water Authority
Jonathan Wunderlich – Alameda County Water District
Antonio Martinez – Contra Costa Water District
Steve Ritchie – San Francisco Public Utilities Commission

PUBLIC COMMENT ON NON-AGENDA ITEMS
Any member of the public wishing to address the Operations and Engineering Committee regarding items not on the Agenda should do so at this time. The Committee welcomes your comments and requests that speakers present their remarks within established time limits and on issues that directly affect the Authority or are within the jurisdiction of the Authority.

DISCUSSION ITEMS

1.1 February 16, 2023 Operations and Engineering Committee Meeting Summary

1.2 Review of Transfer Pipeline Inspection Results

FUTURE AGENDA ITEMS

ADJOURNMENT

ITEM 1.1: FEBRUARY 16, 2023 OPERATIONS AND ENGINEERING COMMITTEE MEETING SUMMARY

RESPONSIBLE/LEAD STAFF MEMBER:

James Ciampa, General Counsel

DISCUSSION:

Attached for the Committee's information is the summary prepared for the February 16, 2023 Operations and Engineering Committee meeting.

ALTERNATIVES:

Any suggested revisions to the attached summary will be considered.

FISCAL ANALYSIS:

Not applicable.

ENVIRONMENTAL REQUIREMENTS:

Not applicable.

EXHIBITS/ATTACHMENTS:

Summary from February 16, 2023 Operations and Engineering Committee meeting

SUMMARY OF REGULAR MEETING OF OPERATIONS AND ENGINEERING COMMITTEE

February 16, 2023 – 10:00 a.m.

Chair Jose Gutierrez and Committee Member Jonathan Wunderlich were present. Committee Member Antonio Martinez arrived to the meeting at approximately 10:10 a.m. due to technical difficulties. Committee member Steve Ritchie was absent.

1.1 December 15, 2022 Operations and Engineering Committee Meeting Summary.

The summary from the December 15, 2022 Operations and Engineering Committee meeting was presented. The draft summary was accepted with no revisions.

1.2 Review of Transfer-Bethany Pipeline Status.

Taryn Ravazzini, Executive Director, introduced Bryan Perkins, CCWD staff, who provided the Committee with a review of the current status of the Transfer-Bethany Pipeline, including an overview of that pipeline, a review of the proposed alternative alignments, including the preferred alignment, and discussion of the status of the land acquisition plan for that pipeline.

Committee Member Wunderlich noted he is in favor of the preferred alignment. Chair Gutierrez asked, in connection with right-of-way acquisition from private landowners, that if eminent domain will be necessary to acquire any of the right-of-way lands. Mr. Perkins stated eminent domain will be used if necessary.

FUTURE AGENDA ITEMS:

- Review Transfer Pipeline inspection results
- Discuss Right-of-Way Acquisition Policy
- Updated Schedule
- Vendors for pipe acquisition for the Transfer-Bethany Pipeline
- Update of revised costs for construction and water supplies for the Project

The meeting was adjourned at 10:24 a.m.

James D. Ciampa

James D. Ciampa
General Counsel

ITEM 1.2: REVIEW OF TRANSFER PIPELINE INSPECTION RESULTS

RESPONSIBLE/LEAD STAFF MEMBER:

Taryn Ravazzini, Executive Director

DISCUSSION:

The existing Transfer Pipeline (TPL) is used to fill and draw water from the Los Vaqueros (LV) Reservoir. The pipeline will continue to be relied upon following construction of the expanded Los Vaqueros Reservoir, and it will be operated under higher pressure with the increased LV Reservoir water level. CCWD conducted an inspection of the TPL to determine whether the pipeline has sufficient pressure capacity to reliably operate under the future higher-pressure condition. The purpose of this inspection report is to describe CCWD's approach to pipeline assessment and inspection, and to provide a report of the findings of the inspection.

Bryan Perkins, Senior Engineer on CCWD's Los Vaqueros Project team, will review of the results from the recent inspection of the TPL.

ALTERNATIVES:

For information only

FISCAL ANALYSIS:

Not applicable

ENVIRONMENTAL REQUIREMENTS:

Not applicable

EXHIBITS/ATTACHMENTS:

Slide deck regarding Transfer Pipeline Inspection Results

LOS VAQUEROS RESERVOIR EXPANSION PROJECT

JPA O&E Committee

Transfer Pipeline Inspection Results

March 16, 2023

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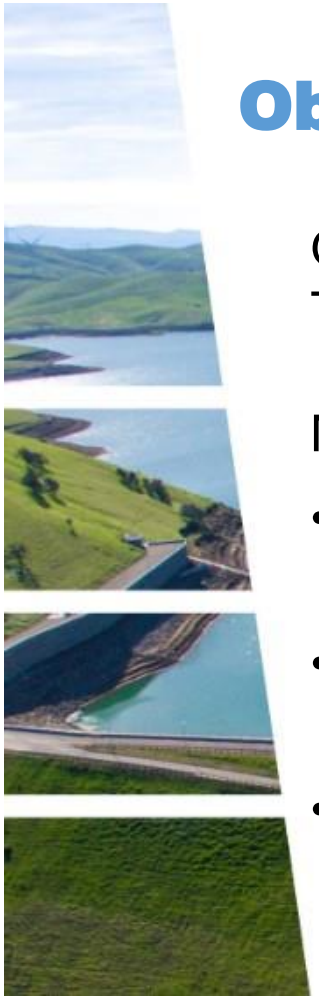

Objectives and Messages

Objective: Present the results of the inspection of the Transfer Pipeline

Message:

- The pipeline will experience higher pressures after reservoir expansion
- Evaluations were completed to determine whether modifications may be needed
- Pipeline is good condition and does not require significant repairs or replacement

Background

LOS VAQUEROS RESERVOIR EXPANSION PROJECT

- Transfer Pipeline is a 72-inch, 4-mile pipeline
- Used to fill and release water from LV Reservoir
- Constructed in 1996 as part of the LV Project
- Water is pumped through the Transfer Pump Station to fill at up to 200 CFS
- Releases are currently controlled by Flow Control Station #1 to deliver water to CCWD
- LVE will enable future releases to the Transfer-Bethany Pipeline at up to 300 CFS

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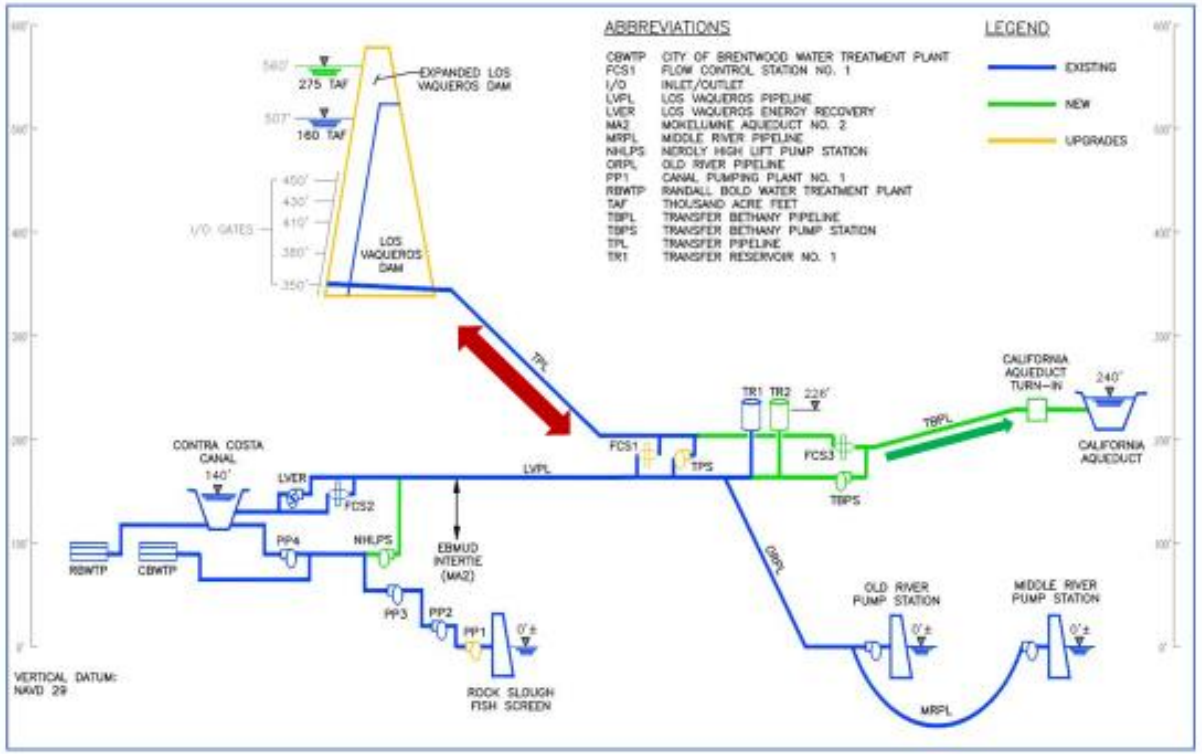
LVE Hydraulic Profile



TPL Alignment

LOS VAQUEROS RESERVOIR EXPANSION PROJECT

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Background (cont.)

LOS VAQUEROS RESERVOIR EXPANSION PROJECT

- Increased LV reservoir water level will increase Transfer Pipeline pressure by 23 psi
- Structural integrity analysis evaluated the ability of the TPL to handle increased pressure
  - Reviewed as-built drawings and construction submittals
  - Calculated installed pipeline strength
  - If in good condition, the pipeline strength exceeds the future required pressure capacity
  - Recommended inspections to confirm condition assumptions
  - Future assessment of Flow Control Station #1 sleeve valves to meet flow and pressure requirements

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Inspection Objectives

- Determine whether conditions indicate the steel strength meets or exceeds assumptions
  - Primary indicator is the condition of the pipeline lining
  - No evidence of excessive ovality
- Confirm flanges, valves, and other minor facilities are rated for the higher pressure
- Identify whether improvements are needed prior to operating the expanded reservoir
- Establish a baseline pipeline condition for future assessments

Inspection Approach

LOS VAQUEROS RESERVOIR EXPANSION PROJECT

- Evaluated a wide variety of technologies, considering:
  - Ability to determine liner condition and ovality
  - Limited shutdown window available
  - Safety
  - Cost
- Considered multiple technology options and associated outage requirements

Selected Inspection Approach

LOS VAQUEROS RESERVOIR EXPANSION PROJECT

- 3D LiDar to measure pipeline deflection
- Track-mounted HD CCTV camera to visually inspect the interior
  - Identify mortar lining deterioration, cracking, spalling, or other signs of deformation or corrosion
- Visual inspection of above ground facilities, including vaults, blowoffs and air release valves

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Outage Requirements

LOS VAQUEROS RESERVOIR EXPANSION PROJECT

- Pipeline inspection required shutting down and draining the Transfer Pipeline
  - Drained TPL by gravity and temporary pumping
  - Closed the LV Interpretive Center
  - Provided a temporary water system to the LV Watershed Office to maintain CCWD operations
  - Provided temporary piping to continue supplies to LV mitigation ponds
- Received blending water from East Bay Municipal Utility District to maintain CCWD water quality
  - This represented the first long-term test of this operation
  - Similar operation will be critical to mitigating CCWD water quality impacts during the reservoir outage

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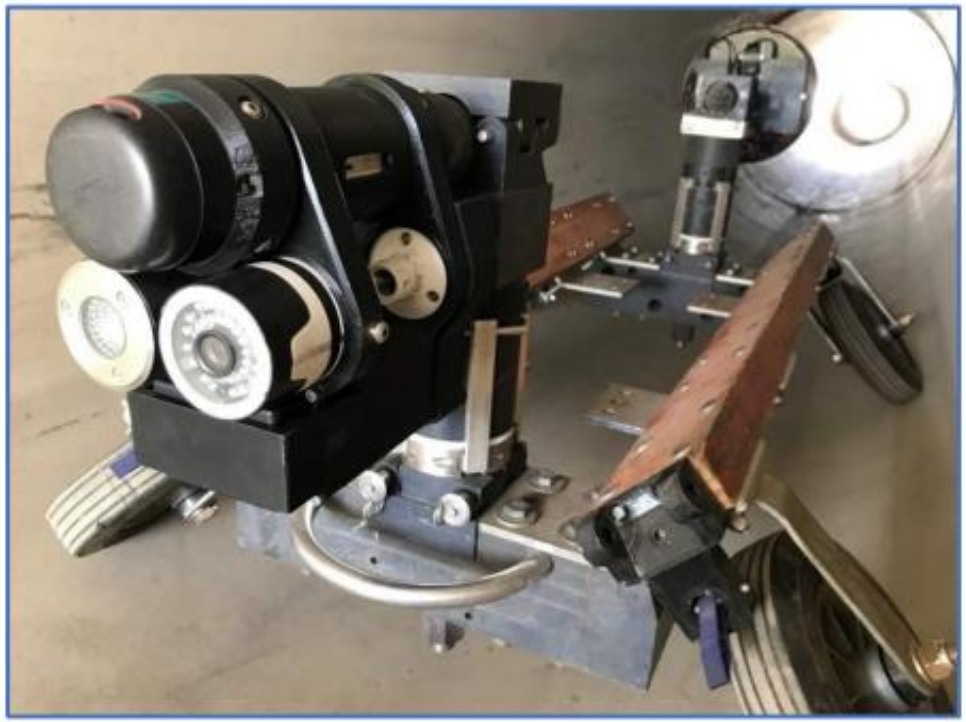
Interior Inspection Results

LOS VAQUEROS RESERVOIR EXPANSION PROJECT

- Inspection was completed in fall 2022
- Pipeline deflections found to be below the 3%; within allowable limits
- The lining is in good condition with few cracks, no delamination or signs of corrosion
- Pipeline is in good shape, no areas of concern inside

Interior Inspection Results

LOS VAQUEROS RESERVOIR EXPANSION PROJECT



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Interior Inspection Results

LOS VAQUEROS RESERVOIR EXPANSION PROJECT

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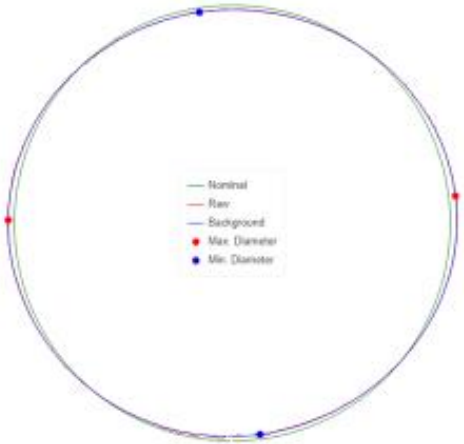
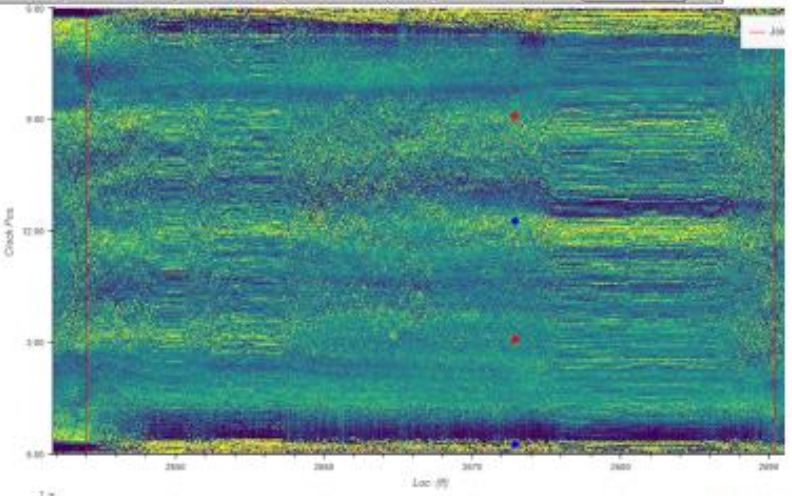
Interior Inspection Results

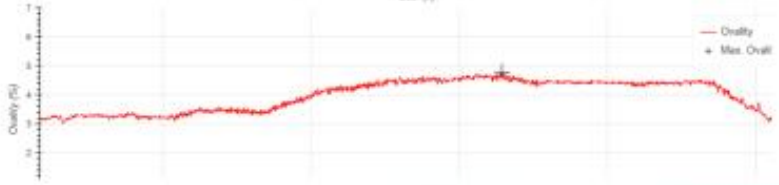
LOS VAQUEROS RESERVOIR EXPANSION PROJECT

STA 23+10.86 to STA 35+34.97

Segment	US Segment	DS Segment	US Joint Loc.	DS Joint Loc.	Length (ft)	Max. Ovality Loc. (ft)	Max. Diameter (in)	Min. Diameter (in)	Max. Diameter Clock Pos.	Min. Diameter Clock Pos.	Max. Ovality (%)	Notes
26+43.98	26+00.57	26+90.40	26+43.98	26+90.40	46.42	2672.89	73.97	70.51	2:30	11:30		







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Next Steps

LOS VAQUEROS RESERVOIR EXPANSION PROJECT

- Appurtenance improvements will be included in a future design contract
- Modifications will be included in the Dam Expansion or Transfer PS Improvements contract
- Assess FCS1 sleeve valves
  - Conduct surge modeling to determine sleeve valve characteristics and operating times
  - Determine whether replacement or upgrades are needed
- The District is in the process of developing conceptual costs for these improvements
- Costs for upgrades to meet the higher pressure will be included in the LVE Project cost estimate

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