

**SAN BERNARDINO VALLEY WATER CONSERVATION DISTRICT**  
**MINUTES OF THE OPERATIONS COMMITTEE MEETING**  
**AUGUST 6, 2024**  
**9:00 A.M.**

Chairman Corneille called the Operations Committee meeting to order at 9:00 A.M. The meeting was held as a hybrid meeting with in-person and Zoom/teleconference attendance.

**OPERATIONS COMMITTEE MEMBERS PRESENT:**

Richard Corneille, Chair  
Robert Stewart

**STAFF PRESENT:**

Betsy Miller, General Manager  
David Cosgrove, General Counsel  
John Lambie, Consulting Chief Engineer and Hydrogeologist  
Laura Torres, Assistant Engineer

**OTHERS PRESENT:**

None

1. PUBLIC PARTICIPATION

There was no public participation.

2. ADDITIONS/DELETIONS TO AGENDA

There were none.

3. APPROVAL OF MEETING MINUTES FROM MAY 21, 2024

**It was moved by Vice President Stewart and seconded by Director Corneille to approve the meeting minutes from May 21, 2024, as presented. The motion carried 2-0, with all directors present voting in the affirmative.**

**Vice President Stewart: Yes**

**Director Corneille: Yes**

4. FIELD OPERATIONS UPDATE PRESENTATION

Mr. Colunga presented the Field Operations Update, noting that water flows in the Santa Ana River and Mill Creek remain higher than usual for August, with the exception of limited SAR flows during maintenance work on Seven Oaks Dam. He shared that Tommy Purvis developed a new locking tool for the Mill Creek intake gates which will limit vandalism to our facilities, and that Mike Guizar earned his drone pilot certification which allows the District to increase the safety and efficiency of our site patrols and natural resource monitoring activities. loader with rock teeth has increased efficiency for cleaning recharge ponds. The team has also been using the District's equipment to repair erosion damage to roads

near the SAR basins. The field team also initiated vegetation clearing near property lines at the **Mendoza Property, and scheduled additional work in this area by CalFire. In addition, the team delivered** fill material to the Mentone Shop construction site to support installation of the septic system. Finally, the field team coordinated with BLM staff to complete a site assessment of a 64-acre fire that occurred in the riverbed.

- Water persists in the CEMEX pit, observed cascading down the east bank, likely due to pumping near Highway 210.

Ms. Miller and Ms. Torres presented a preliminary draft of the Mill Creek facility maintenance plan, which includes criteria for maintenance prioritization and a map of prioritized maintenance at Mill Creek. The plan, which is based on field assessments and discussions between our field team, engineers, and natural resource staff, categorizes maintenance strategies based on wet and dry year scenarios, focusing on safety, recharge efficiency, and a balance between staff-led and contractor tasks to ensure the highest value per dollar spent. Staff plans to prepare a similar document for the Santa Ana basins following completion and initial operation of the Enhanced Recharge project. Director Corneille requested clarification on the overlap in 3-year and 5-year maintenance needs. Ms. Torres discussed the way the draft document shows annual tasks, 3-year tasks, and 5-year tasks

The Board reviewed a proposed plan to license material processing at Mill Creek with Upland Rock, including requirements to minimize environmental and traffic impacts.

#### 5. MENTONE SHOP CONSTRUCTION VERBAL UPDATE

Ms. Miller reported that the contractor has vacated the Mentone Shop site last week. The District is assessing next steps, including a review of bonds and documentation of all communications with the contractor and subcontractors and retention of special counsel. The Board discussed the status of the contractor's cessation of work. Director Stewart inquired about the potential for corrective action. Mr. Cosgrove explained that the contract includes a 48-hour default notice option, which may be exercised pending the contractor's response. Discussion ensued regarding the effect of disputes on a project's timeline and cost. Mr. Cosgrove noted that the primary objective is to complete the project as quickly and affordably as possible within the current constraints.

#### 6. ENHANCED RECHARGE VERBAL UPDATE

Ms. Torres presented an update on construction of the Enhanced Recharge basins, detailing the facilities currently receiving water and ongoing construction activities. She explained that specific basins are temporarily dry to facilitate construction tasks such as rebar installation, backfilling, and compacting. Individual basins in various stages of completion, with some undergoing rough grading while others undergo final adjustments.

Director Stewart asked about data collection for groundwater recharge and recent groundwater mounding. Ms. Torres described the weekly well readings that are taken by District staff, and shared that these data are provided Valley District to support calibration of the groundwater model for improved predictive power moving forward. Director Stewart asked if additional wells may be needed, with Ms. Miller confirming that the ten monitoring wells managed by the District along with USGS well data appears to be sufficient for the District's needs at this time.

Mr. Lambie noted that the Conservation District and Valley District are both interested in calibrating the San Bernardino Basin regional model. We expect Valley District to issue an RFP for this work later in 2024.

The Committee discussed the increased capacity for recharge resulting from construction of the new Enhanced Recharge basins. Mr. Lambie noted that the canal was engineered for 500 cfs, dependent on volume and duration. Ms. Miller stated that the new basins were designed to accept this flow for approximately three months. Discussion on recharge of additional flows that may be available following the Forecast-Informed Reservoir Operations (FIRO) process ensued.

#### 7. PROGRAM FOR EXPANSION OF RECHARGE CAPACITY (PERC) POLICY COMMITTEE STATUS REPORT NO. 19

Mr. Lambie provided an update on recent PERC expenditures, noting that spending has been modest through late spring and early summer. He reviewed progress at the Mill Creek basins: Following discussions with Valley District, the District's grading alternative is now defined to allow an inflow of 162 cfs from the new diversion and 13 cfs from the Redlands Aqueduct. A maintenance flow sequence plan is being developed to ensure capacity is maintained while accommodating 175 cfs total inflow. Mr. Lambie stated that work to define the second and third grading alternatives is on-going with significant input from land resources, operations, and engineering teams.

Mr. Lambie reviewed timelines for Plunge Creek, Oak Creek, and Waterman projects, with hydrology modeling on track for completion. An October meeting with Flood and Valley District is planned to ensure continued alignment on project updates. Mr. Lambie stated that the Plunge and Oak Creek hydrology work is progressing quickly and is expected to conclude by mid-August. He summarized recent interactions with the Flood District and Valley District on the Joint Groundwater Recharge and Facilities Planning Agreement, noting collaborative progress on alternative grading and hydraulic modeling, particularly around Waterman and Twin Creek facilities. A new grading alternative for Waterman is now entering the hydraulic modeling phase. At Twin Creek, draft berm design has been altered to address sediment and water retention and incorporating broad-crested weirs to prevent erosion and preserve recharge capacity. Valley District also suggested elongating the Twin Creek flow path within the spreading grounds; this concept is under review given the site's high flow variability.

Director Corneille and Mr. Lambie discussed broad-crested weir designs for Twin Creek, with Director Corneille requesting information on the ability of these facilities to control overflow. Mr. Lambie noting that the design under consideration is expected to prevent erosion and manage flow loads of up to 4,000 cfs. Hydraulic modeling will be used to further assess the feasibility of the design. On the Lynwood Basin project, Mr. Lambie explained that the reduced-scale approach will rely on existing infrastructure to divert Twin Creek post-storm flows, enhancing recharge without major earthwork. Hydraulic modeling for this operational alternative will proceed accordingly.

Finally, Mr. Lambie presented an updated project schedule and cost projections for each contract and preliminary cost projections for each project, highlighting Tetra Tech's contract status. Options to stay within budget on the Tetra Tech contract include scope adjustments or additional authorization of funds. Director Stewart raised concerns about available resources for concurrent feasibility studies and cost-benefit analyses. Mr. Lambie discussed development of a decision matrix for evaluating and prioritizing the PERC projects, focusing on technical, cost, environmental, social, and legal factors. Within these

factors, proposed criteria could include recharge capacity, project timing, environmental impact, public safety, and regulatory compliance. The board agreed to refine these metrics to prioritize the most impactful factors for upcoming evaluations.

## 8. HIGH GROUNDWATER LEVELS

Ms. Miller introduced the topic of high groundwater levels, noting previous Board discussion and requests for information. She stated that Mr. Lambie would present an analysis of well level monitoring data for further discussion.

Mr. Lambie reported his extensive review of groundwater data from the District's ten wells, spanning from 2010 to the present, as well as relevant U.S. Geological Survey (USGS) readings to examine groundwater patterns and recharge effects over time. The findings highlighted consistent data quality, with adjacent wells indicating similar trends. He pointed out specific instances, such as in October 2019, where elevated water levels likely correlated with recharge operations, as reflected by the sharp groundwater rise during a typically dry season. A visual comparison with natural hydrological data from Plunge Creek, which flows without regulation, showed no corresponding increase, reinforcing the connection between District operations and the observed groundwater spike.

Additionally, Mr. Lambie noted an unusually high groundwater level in December 2017. Despite examining both District and natural flow data, no clear cause for this leve was found, making it an anomaly in the data set. He emphasized that the consistency of Plunge Creek data provides a reliable baseline, indicating natural water flow patterns in the region and serving as a valuable reference for distinguishing operational impacts on groundwater levels.

Mr. Lambie presented findings from data analyzed at a USGS well, focusing on the second interval at approximately 100 feet depth, one of six monitored vertical layers in the aquifer. He noted a clear correlation between recharge operations on the Santa Ana River system and rising shallow groundwater levels.

The data indicated that recharge activities were outpacing the natural groundwater outflow, resulting in gradually increasing water levels. This sustained rise suggests that more water is being introduced into the system than it can naturally disperse, addressing Director Stewart's question on the ultimate capacity of the Santa Ana River wash to absorb recharge.

Mr. Lambie emphasized that the USGS well cluster provided extensive, dependable data, demonstrating typical recharge from surface sources rather than upward flow from deeper aquifer layers—a common characteristic in mountain-front recharge systems. He also noted that operations teams monitor these levels closely and adjust recharge activities accordingly. When groundwater levels in critical wells (e.g., well 11H and well 4) approach thresholds, recharge is shifted to prevent impacts on nearby mining activities whenever possible. This strategic response has proven effective in managing groundwater surcharge near the mining site.

Ms. Miller confirmed that the District's response to rising groundwater levels complies with lease requirements, which involves redistributing recharge when levels approach critical points unless the system is fully saturated. She explained that these efforts focus on mitigating impacts on mining operations rather than limiting recharge. She emphasized the value of reviewing the data and noted the rapid decline

of water levels after peak recharge periods—an observation that highlights the large available storage capacity in the basin. Discussion on groundwater demand ensued. Committee members expressed appreciation for the data compilation

#### 9. WATER FLOWS IN EXCESS OF DIVERSION CAPACITY 2022-2024

Ms. Miller presented the final agenda item, addressing the board's request for data on water loss from the local sub-basin during recent years of high precipitation. She noted that Ms. Torres and Mr. Lambie compiled the information and asked Ms. Torres to explain the findings.

Ms. Torres reviewed data on river recharge levels and the water that bypassed District recharge facilities in water years 2022-2023 and 2023-2024. Due to ongoing construction projects and operational protocols to limit intake of highly turbid flows, certain high flows were not diverted. Director Corneille acknowledged the operational challenges of balancing recharge and release, especially during unique storm events like Tropical Storm Hillary, which caused significant, atypical flows.

Ms. Torres discussed monthly and annual recharge amounts at District facilities and noted that substantial recharge was achieved in both Santa Ana River and Mill Creek basins.

The discussion turned to the broader recharge strategy, where Ms. Miller emphasized the importance of utilizing all available District lands for recharge, including in-river recharge. Discussion on the benefits of FIRO to increase recharge in the future ensued.

Board members concluded by acknowledging the importance of scientific data and ongoing collaboration with federal agencies to support FIRO, though the process remains lengthy due to regulatory requirements.

#### 10. NEXT QUARTERLY MEETINGS

The next quarterly meeting is scheduled for November 5, 2024.

#### 11. ADJOURN

There was no further business, and the meeting adjourned at 11:27 A.M.

**It was moved by Director Corneille and seconded by Vice President Stewart to adjourn. The motion carried 2-0, with all directors present voting in the affirmative.**

**Vice President Stewart: Yes  
Director Corneille: Yes**