LAS VIRGENES – TRIUNFO
JOINT POWERS AUTHORITY
MINUTES
SPECIAL MEETING

9:00 AM February 22, 2021

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance to the Flag was led by Jay Lewitt.

1. CALL TO ORDER AND ROLL CALL

The meeting was called to order at **9:00 a.m.** by Chair Tjulander via teleconference in the Board Room at Las Virgenes Municipal Water District headquarters at 4232 Las Virgenes Road, Calabasas, CA 91302. The meeting was conducted via teleconference pursuant to the provisions of the Governor's Executive Order, N-29-20, which suspended certain requirements of the Ralph M. Brown Act to support social distancing guidelines associated with response to the coronavirus (COVID-19) outbreak. Josie Guzman, Clerk of the Board, conducted the roll call.

Present: Directors Caspary, Lewitt, Lo-Hill, Nye, Orkney, Polan, Renger, Shapiro, Tjulander, and Wall.
Absent: None.

2. APPROVAL OF AGENDA

Director Orkney moved to approve the agenda. Motion seconded by Director Shapiro. Motion carried unanimously by roll call vote.

3. PUBLIC COMMENTS

None.

4. PURE WATER PROJECT LAS VIRGENES-TRIUNFO WATER AUGMENTATION WORKSHOP

Administering Agent/General Manager David Pedersen provided introductory remarks regarding prioritizing water augmentation options in Ventura and Los Angeles Counties, and identifying the most promising options for the success of the Pure Water Project Las Virgenes-Triunfo (Pure Water Project).

Eric Schlageter, Principal Engineer, presented a PowerPoint presentation on the Water Augmentation Study Initial Screening. He introduced the Pure Water Program Manager and Owner-Advisor Team from Jacobs Engineering Group (Jacobs): Rich Nagel, Principal; Jennifer Phillips, Program Manager; and Katie Bollmer, Water Augmentation Specialist. He stated that the goal for the next six months would be to establish the program foundation with processes and tools, final projects, a baseline cost-loaded master schedule, proposed delivery methods, environmental/regulatory strategies, and the public outreach approach.

Katie Bollmer continued the PowerPoint presentation and reviewed the 2018 Tapia Water Reclamation Facility (Tapia) average flows and existing baseline flow, minus recycled water demands, which will feed the Advanced Water Treatment Plant (AWTP). She also reviewed Water Augmentation Objective No. 1 to identify a cost-effective combination of water augmentation sources to achieve a steady-state flow of 7.5 million gallons per day (MGD) of feed water to the AWTP year-round. She also reviewed Water Augmentation Objective No. 2 to evaluate and recommend a cost-effective combination of water augmentation sources and seasonal AWTP operating rates.

Ms. Bollmer reviewed the Water Augmentation Study Guiding Principles focusing on augmentation sources that meet the following criteria:

- Sources that can be implemented within the Pure Water Project timeline to feed the AWTP;
- Flows that will be reliable and controllable towards operation of the AWTP; and
- Options where interception and conveyance of the flows are cost-effective.

Ms. Bollmer also reviewed the screening, analysis and ranking approach for a recommended water augmentation solution, and digital watershed system framework models for existing and proposed infrastructure. She also reviewed water augmentation delivery points and augmentation source types.

Ms. Bollmer provided an overview of the initial screening and noted that water augmentation sources were screened into three categories: high priority, medium priority, and low priority. She explained the initial screening approach used, which provided a score based on implementation risk, reliability, estimated available flow, and estimated water quality. She stated that 36 total augmentation sources were evaluated as part of the draft initial screening, which resulted in 18 high priority, 11 medium priority, and seven low priority recommendations.

Ms. Bollmer reviewed the high priority augmentation sources draft initial screening results. She noted that the source that provided the most flow was under the treated wastewater effluent category, followed by groundwater sources, and lastly by flow diversions. She stated that there was approximately 7 MGD in total available flow from the most likely high priority sources.

Ms. Bollmer responded to a question regarding whether any of these sources would remove water from Malibu Creek in the summer and whether potable water supplement was needed for the creek by stating that flow diversion was included as a source, and the flow diversions would target urban runoff flows from the stormwater system. She noted that the dry weather flow per MS4 permits needed to be removed from the stormwater system. She stated that Jacobs understood that there was a minimum flow requirement in Malibu Creek, and the flow would need to be considered closely when considering flow diversions. She also responded to a question regarding a cost estimate on the infrastructure for tying into all of the different sources in order to achieve 7 MGD by stating that the cost would be factored into in the next phase of the analysis.

Ms. Bollmer presented the water augmentation types and initial screening, and reviewed the map of augmentation sources.

Director Renger noted that there were six abandoned wells in Stokes Canyon and in other areas and inquired regarding the completeness of surveying all wells. Ms. Bollmer responded that additional wells could be added to the list for evaluation through the screening process.

Ms. Bollmer reviewed the treated wastewater effluent category, and recommended that WE-1 Hill Canyon Treatment Plant's 3.3 MGD of treated effluent be placed in the high priority category.

Mr. Schlageter responded to a question regarding whether the treated effluent from the Hill Canyon Treatment Plant was being sent to the Santa Rosa Valley for irrigation purposes by stating that the downstream effluent discharged to Calleguas Creek was utilized by Camrosa Water District (Camrosa), and there were also some commitments from the City of Thousand Oaks to Camrosa; however, the presentation was an estimate of the potential availability of flow that could come to the project. He noted that the 3.3 MGD of treated effluent would need to be refined through further discussions with the City of Thousand Oaks.

Mr. Schlageter also responded to a question regarding the salinity that Camrosa would receive from the creek due to the removal of treated effluent from the Hill Canyon Treatment Plant outflows and the addition of brine to the inflows. He stated that according to the Regional Brine Study, brine would be taken to the Hill Canyon Treatment Plant; however, it would bypass the treatment facility and be routed to Calleguas Municipal Water District's Salinity Management Pipeline. He noted that additional salt loading would not be provided on the influent side of the Hill Canyon Treatment Plant.

Ms. Bollmer reviewed groundwater sources, including Thousand Oaks Wells: GW-2 Los Robles Golf Course Wells, GW-3 Library Well, and GW-TO Additional Thousand Oaks Wells. She also reviewed Other Production Wells, including GW-1 Westlake Wells and GW-13 King Gillette Ranch Wells. She also reviewed

Dewatering, including GW-4 Four Seasons Well, GW-5 Hilton Foundation Dole Building, GW-6 Fire Station #89 Well, GW-7 Tapia Balancing Pond, GW-8 Rancho Las Virgenes Farm Wells, GW-9 Westlake Seepage, GW-10 Old Hilton Foundation Well, GW-11 Perched Groundwater in Agoura Hills, and GW-12 Hidden Hills Wells. She recommended GW-2 Los Robles Golf Course Wells, GW-3 Library Well, and GW-TO Additional Thousand Oaks Wells be placed in the high priority category. She also recommended GW-1 Westlake Wells be placed in the high priority category and GW-13 King Gillette Ranch Well be placed in the medium priority category. She responded to a question regarding ensuring that the flow from Westlake Wells would not be counted twice by stating that all of the flow seen at Tapia in the summer months needed to be taken into account. She noted that the augmentation that would be taken from Westlake Wells would be accounted for in the winter months, while ensuring that the flows would not be counted twice.

Mr. Schlageter responded to a question regarding the feasibility of desalting the Thousand Oaks Wells and using the water for irrigation by stating that the concept was that in lieu of the City of Thousand Oaks investing in infrastructure for wellhead improvements, the flows would be taken directly to the AWTP as a desalting means to utilize the water and save the city on the cost of treatment. He noted that there would be an agreement for offsetting the flows to benefit the City of Thousand Oaks as well. Administering Agent/General Manager David Pedersen added that building a desalter for a single well would be a costly endeavor. He stated that he believed the goal for the City of Thousand Oaks would be to achieve a cost savings by taking the water from the wells to the AWTP. He also stated if the wells remain a high priority, the institutional relationship with the City of Thousand Oaks would need to be developed and brought back to the Board for discussion.

Ms. Bollmer responded to a question regarding what was known regarding the flow of water in the aquifers by stating that Jacobs had not prepared a detailed hydrogeological study as part of the Water Augmentation Study. She also stated that if the AWTP was going to rely on well water to feed the plant, then a more detailed analysis of individual wells would be necessary to ensure that the water is sustainable over the long period. Administering Agent/General Manager David Pedersen added that the hydrology was better known moving further west in Thousand Oaks where a groundwater study was completed. He stated that in general the water quality moving further to the western side of Thousand Oaks was better and lower in total dissolved solids (TDS), and the TDS increased significantly moving to the eastern side. He noted that the higher quality groundwater would present less of an opportunity for the AWTP because the city could pump the water and supply it for drinking water without the need for a desalter. He noted that although there was natural replenishment, there were some limits in the amount of water that could be pumped year-round from the wells.

Director Caspary noted that Las Virgenes Municipal Water District (LVMWD) had prepared several groundwater studies going back over 30 years. Ms. Bollmer responded that she would work with staff to obtain copies of these studies.

Ms. Bollmer reviewed Groundwater – Dewatering Wells, including the GW-7 Tapia Balancing Pond and Dewatering Wells with low estimated flow at GW-4 Four Seasons Well, GW-5 Hilton Foundation Dole Building Well, GW-6 Fire Station #89 Well, GW-10 Old Hilton Foundation Well, and GW-12 Hidden Hills Wells. She recommended GW-7 Tapia Balancing Pond to the high priority category, and the Dewatering Wells with low estimated flow to the medium priority category. Administering Agent/General Manager David Pedersen noted that there were options for the medium priority category, and there could be other motivations to pursue these options such as an interest in supporting the Hilton Foundation, the Fire Department, or other drivers that push medium priority to high priority.

Ms. Bollmer continued reviewing Groundwater – Dewatering Wells, including GW-9 Westlake Seepage from Las Virgenes Reservoir Dam, and Other Sources including GW-8 Rancho Las Virgenes Farm Wells and GW-11 Perched Groundwater in Agoura Hills. She recommended these sources to the low priority category.

Director Caspary noted that many agencies were responsible for development plans to manage groundwater as part of the Sustainable Groundwater Management Act. He stated that it did not appear there were any high priority basins in the area that were being considered. He suggested the JPA should consider the priority in order to participate in developing a groundwater management for the area in concert with the City of Thousand Oaks, the County of Ventura, and the County of Los Angeles. Administering Agent/General Manager David Pedersen responded that staff had received a notice from the City of Thousand Oaks that it was contemplating initiating a groundwater sustainability study and plan for the groundwater basin within the city. He stated that staff expressed interest in participating in that process.

Director Renger referred to GW-9 Westlake Seepage and stated that there could be much water that goes through the bottom of the reservoir into the ground. He noted that a well was placed downstream and there was a possibility that the water could be scavenged. Ms. Bollmer responded that this source would be added to the list for consideration.

Ms. Bollmer reviewed Flow Diversions, including stream diversions and urban runoff diversions to capture dry weather and some urban weather urban runoff. She noted that both of these types of diversions must meet MS4 requirements for the NPDES permit, and there was a potential for cost sharing. She also reviewed the benefits and challenges from both types of diversions.

Ms. Bollmer responded to a question regarding the need for permits from the Department of Fish and Game for stream diversion by stating that any regulatory issues associated with high priority sources would need to be considered.

Director Lo-Hill commented that stream diversions and urban runoff diversions might be desirable for cities, and suggested that the cities might be willing to pay for the infrastructure to receive purified water after going through the AWTP process.

Ms. Bollmer reviewed stream diversions to the AWTP at FD-1 Medea Creek Diversion, FD-2 Triunfo Creek Diversion, and FD-3 Las Virgenes Creek Diversion, and recommended these sources be placed in the high priority category.

Director Orkney inquired which district would receive credit for increased flow to Tapia. She noted that the flow from Ventura County would come from Medea Creek and Lindero Creek, and she suggested that the JPA would need to consider how to apportion the flow if there was a stream diversion. Administering Agent/General Manager David Pedersen responded that this was flagged as an item for further discussion on institutional issues. He suggested that another JPA Strategic Planning Meeting should be held and include this as one of the topics of discussion. He stated that there could be water augmentation strategies that the JPA might want to pursue as a JPA, and there could be some that each member agency might want to pursue individually.

Ms. Bollmer reviewed Urban Runoff Diversion Sources by municipality, including FD-4 Agoura Hills, FD-5 Calabasas, FD-6 Oak Park, FD-7 Hidden Hills, FD-8 Unincorporated Los Angeles County, FD-9 Thousand Oaks, FD-10 Westlake Village, and screening considerations. She recommended these sources be placed in the high priority category.

Director Lewitt commented that he had lived in Agoura Hills for over 30 years and nearly every day he has seen a stream of water across the sidewalks and down the gutters. He stressed that urban runoff diversion should be placed in the high priority category, as well as awareness of the amount of water and fertilizer in the runoff.

Director Caspary noted that the Los Angeles Regional Water Quality Control Board (LARWQCB) was in the process of approving the local cities' MS4 permits, which must comply with the timeline of having their diversions planned and implemented. He suggested having a well-developed participation arrangement that could be presented to the cities as an alternative for construction of infiltration and/or treatment facilities. Administering Agent/General Manager David Pedersen responded that the MS4 permit was anticipated to be brought before the LARWQCB as soon as April, and the LARWQCB was discussing time extensions for the various TMDLs for all of the municipalities. He noted that staff and Jacobs were working with 12 other agencies in the Los Angeles Basin in the

development of a White Paper for the use of existing infrastructure and capacity in the wastewater systems to treat urban runoff and some first-flush stormwater. Ms. Bollmer reviewed potential Septic-to-Sewer Conversions from residential water-only customers, including SS-1 Malibu Lake Septic, SS-2 Chesebro and Old Agoura Septic, and SS-3 Monte Nido Septic. She noted that these types of projects would require construction of new local sewers and possible extension of trunk sewers. She recommended these sources be placed in the medium priority category. She responded to a question regarding a legal requirement for homes in these areas to connect to the sewer system by confirming that there was no legal requirement to connect. Administering Agent/General Manager David Pedersen added that over time all of these septic systems would eventually be converted to a centralized sewer system as the LARWQCB adopts new septic system standards. He asked Ms. Bollmer to follow-up with TWSD General Manager Mark Norris regarding any areas in the TWSD service area that were on septic systems.

Director Polan inquired regarding possible sources area along Mulholland Highway in Calabasas. Ms. Bollmer responded that this area could be added to the list.

Director Lo-Hill noted that there were some penitentiary facilities on Encinal Canyon Road that might be a septic source. Ms. Bollmer responded that this area could be added to the list as well.

Mr. Schlageter noted that the challenge that septic-to-sewer conversions would provide was that there was no control as to when they may or may not occur. He stated that in looking at the long term, these conversions would be supported and staff would continue to work with the local adjacent agencies.

Director Caspary suggested exploring whether there might be an opportunity in receiving sewage from the Top 'O Topanga Mobile Home Park. He also suggested it might be interesting for the Board to know the cost of sewer connection options compared to the construction cost for a new septic system.

Ms. Bollmer reviewed Raw Wastewater Sources, including RW-1 Increase in Pepperdine Wastewater Flows, RW-2 Chatsworth-Twin Lakes Sewer Flow to Los Angeles Sanitation and Environment (LASAN), RW-3 Swimming Pool Maintenance Flows, and RW-4 Malibu Mesa Treatment Plant. She recommended these sources be placed in the low priority category.

Director Caspary commented that he believed there were also flows from Triunfo Water & Sanitation District in Bell Canyon going to LASAN, and he suggested that this should be included in Raw Wastewater Sources.

Ms. Bollmer responded to a question regarding an increase in flow to Tapia or Hill Canyon Treatment Plant from new development by stating that Jacobs had not

considered new development; however, they discussed the future influent to Tapia for baseline projections with staff. She noted that Jacobs was in the process of updating the baseline for 2030 to address projected new development.

Administering Agent/General Manager David Pedersen responded to a question regarding whether there would be enough flow from the Malibu Mesa Treatment Plant that would be beneficial instead of building an injection system by stating that this option was considered, as well as capturing the treated effluent from the new Malibu Civic Center Wastewater Treatment Plant. He noted that the City of Malibu intended to use the Title 22 recycled water to irrigate city parks during the wintertime; however, due to lack of storage, the city was planning to inject the water in some of the newly constructed injection wells. He stated that there could be an option to take the water from the City of Malibu and supply it to Pepperdine University, which would reduce the amount of recycled water from Tapia that would be conveyed to the university. Director Caspary suggested taking this concept to the City of Malibu's City Council for consideration.

Ms. Bollmer responded to a question regarding whether underground storage could store the excess water flow in the ground and in the creek during the winter months by stating that there was discussion regarding subsurface storage at the Rancho Las Virgenes Farm. She stated that this would require a deeper analysis than what could be done under the Water Augmentation Study to locate a suitable site for subsurface storage. Administering Agent/General Manager David Pedersen noted that the farm had high nitrate levels, and the water would likely be lost to the creek due to its proximity. He also noted that prior discussions included subsurface storage in Hidden Valley.

Ms. Bollmer reviewed Recycled Water Conservation Sources, including TWD-1 LV Recycled Water Conservation Program, and recommended this source be placed in the high priority category.

Director Caspary mentioned that the base flows in the prior five years at the Tapia influent were better than 10 MGD; however, it was now was averaging 7.5 MGD due to a change in customer behavior. Administering Agent/General Manager David Pedersen responded that staff was monitoring this trend, which spoke to the need for water augmentation and seeking new water sources. He stated that this should be monitored going forward and addressed in the next master plan update. Mr. Schlageter added that there was limited growth in the service area, and future projections for growth within the watershed were limited.

Ms. Bollmer responded to a question regarding the yearly shortfall by stating that Jacobs had not calculated the difference between what is available and what is needed to operate the AWTP at 7.5 MGD year round; however, she could provide a calculation. Administering Agent/General Manager David Pedersen stated that the yearly shortfall was in the range of 1,000 acre-feet.

Ms. Bollmer continued reviewing Recycled Water Conservation Sources, including RWD-2 Procure Malibu Excess Tertiary Flow for Pepperdine, which was recommended for the medium priority category, and RWD-3 Recycled Water Conservation at Pepperdine, which was recommended for the low priority category.

A lengthy discussion ensued regarding potential institutional barriers and the longstanding relationship with Pepperdine University. Administering Agent/General Manager David Pedersen suggested moving RWD-2 Procure Malibu Excess Tertiary Flow for Pepperdine and RWD-3 Recycled Water Conservation at Pepperdine to the high priority category, and revisiting these options if some high priority sources needed to be moved back to the medium priority category. He noted that the goal for this project with Pepperdine University would be to continue to receive additional wastewater from them and work with them to minimize the amount of recycled water used on campus so that the AWTP could produce more purified water.

Ms. Bollmer reviewed the draft initial screening results and stated that priorities would be moved as discussed.

Ms. Bollmer responded to a question regarding RW-3 Swimming Pool Maintenance Flows and stated that customers could dewater their swimming pools to the sewer sanitary system. She also responded to a question regarding disqualifying water sources by stating that this was not considered during the initial screening. She stated that the wastewater treatment plant included a certain water quality profile for the flows that would be sent for treatment. She noted that a TDS or high salt content in flows to Tapia could upset the treatment process and result in poor quality discharge. She also stated that for the initial screening, TDS was considered across the water quality profile from a standpoint of whether to send flows to Tapia or the AWTP. She noted that Jacobs did not identify any other constituent that would cause concern during the initial screening level.

Director Caspary asked that sources containing contaminants that would be difficult to treat should not be considered as augmentation options. He noted that there was a recent letter to the editor that intimated there were some contaminants that the AWTP would not be able to treat or remove.

A discussion ensued regarding whether to move some of the wells to the low priority category or to keep them in medium or high priority due to water volume.

Administering Agent/General Manager David Pedersen responded to a question regarding TW-2 Chatsworth-Twin Lakes Sewer Flow as a low priority water augmentation source by stating that a major infrastructure investment would be required for the collection system; however, this water source could be analyzed further. He also stated that he believed a feasibility study was completed that determined it would not be cost effective.

Director Orkney suggested adding Bell Canyon as a water source and that perhaps there could be a trade with LASAN or the Los Angeles Department of Water and Power for additional water in exchange for sewage. Administering Agent/General Manager David Pedersen responded that this could be explored further. He noted that LASAN was also pursuing potable reuse under Operation NEXT, as well as a project at the Tillman Water Reclamation Plant to replenish the San Fernando Basin.

Director Renger requested a copy of the PowerPoint presentation. Administering Agent/General Manager David Pedersen responded that a copy of the presentation would be emailed to the Board, and staff would search for a copy of the Chatsworth-Twin Lakes feasibility study.

Ms. Bollmer reviewed the high priority augmentation sources, including treated wastewater effluent, likely groundwater sources, and flow diversions. She noted there was approximately 7 MGD in total available from the most likely high priority sources.

Director Shapiro expressed concern with heavy reliance on treated wastewater effluent and endocrine disrupters in treated wastewater effluent. He inquired whether the treatment drain proposed for the Pure Water Project would deal with endocrine disrupters. Ms. Phillips responded that the project would comply with reservoir water augmentation regulations. She stated that the treatment strategy would consider having barriers before reaching the potable water source in the reservoir. Mr. Schlageter noted that staff was currently in the process of conducting the challenge testing at the demonstration facility as part of the implementation test plan. He stated that staff could begin to look at testing and sampling for those types of constituents. Administering Agent/General Manager David Pedersen added that this was an area of much research and on-going study. He stated that the advanced water treatment process was very robust in removing constituents of emerging concern, including a physical process of removal through the reverse osmosis membrane that would remove compounds down to very small levels. He stated that any remaining compounds would be destroyed through the ultraviolet light/advanced oxidation processes. He also stated that the on-going research and the use of the demonstration facility would show the removal effectiveness for these compounds and would be part of the public outreach strategy.

Ms. Phillips reviewed the next steps and target milestones, which would include:

- Updating the Digital Watershed with Water Augmentation Sources (March)
- Performing Alternatives Analysis and Identifying Cost-effective Augmentation Solutions (April)
- Ranking Solutions and Identifying Recommendations (April)
- Drafting Supporting Documentation (May)

Administering Agent/General Manager David Pedersen noted that there was a scheduling conflict for the next workshop planned on March 29th, and he suggested that the next workshop be held on March 30th from 10:00 a.m. to 12:00 p.m. The Board agreed.

5. ADJOURNMENT

Seeing no further business to come before the Board, the meeting was duly adjourned at **11:21 a.m**.

Ray Tjulander, Chair

ATTEST:

Jay Lewitt, Vice Chair