(760) 878-0001
FAX: (760) 878-2552

P.O. Box 337
135 South Jackson Street
Independence, CA 93526
WEB: http://www.inyowater.org

COUNTY OF INYO
WATER DEPARTMENT

March 25, 2021

Via Electronic and U.S. Mail

Mr. James Howe
Los Angeles Department of Water and Power
111 North Hope Street, Room 1044
Los Angeles, CA 90012

Subject: Comments on Initial Study/Negative Declaration for the Six-Month Operational Test of Well TW-E at Owens Lake

Dear Mr. Howe,

Inyo County, by and through its Water Department (ICWD) appreciates this opportunity to comment on LADWP's February 2021 Initial Study/Negative Declaration for a Six Month Operational Test of Well TW-E at Owens Lake (IS/ND). Inyo County has participated on the Owens Lake Groundwater and Habitat Working Groups since their creation and realizes the importance of this test to the overall groundwater development project. The proposed 6-month test of TW-E appears to be designed to stress deeper aquifers in the central, fault bonded section of the dry lake to determine hydrologic characteristics of the faults and aquifers/aquitards and also determine the well's ability to supply groundwater for seasonal dust suppression.

The Water Department previously submitted comments in July 2020 on the May 2020 draft of the test plan. LADWP revised the test plan in November 2020 which addressed several of ICWD comments including: 1) additional groundwater and vegetation monitoring, 2) additional water quality sampling, 3) changes to monitoring frequency during and after the test, 4) clarification of the process and participants for setting groundwater level triggers, 5) discussion of the current groundwater model's capabilities and limitations, and 6) justification for trigger levels at vegetated dune areas (VDA).

The 6-month test, as currently designed, would pump more than 1000 acre-feet of groundwater from a previously unstressed area that includes little historic monitoring data for some critical resources that could be impacted. Given the significant increase in pumping, lack of sufficient baseline data, and acknowledged gaps in hydrologic information, there is a risk that the test will result in a significant adverse impact to the environment. Therefore, it is critical to include

measures sufficient to safeguard environmental resources and private wells from pumping during the operational test and to identify and describe mitigation measures that would be implemented if significant impacts should occur as a result of the test. Consequently, a negative declaration is not appropriate. Instead, the CEQA document should be a mitigated negative declaration.

The Water Department has the following concerns that were not fully addressed in the Initial Study/Negative Declaration.

Water level triggers:

1) The reliance on changes in hydraulic gradient between pairs of monitoring wells as a trigger to halt pumping is included in the IS/ND, but gradient triggers should be applied in conjunction with additional limits on water level declines in the downgradient or shallow wells located at the springs and seeps. If declines in water levels occur concurrently in the paired monitoring wells, the gradient trigger may not be reached allowing water level declines in both wells to continue causing an impact to groundwater dependent vegetation. Until the degree and timing of hydrologic communication between upgradient and downgradient monitoring wells has been clearly established, the gradient trigger alone is not protective for the operational test. Although trigger levels based on an absolute change in groundwater levels were included in the IS/ND for monitoring wells P1 and P8 (Table 16), an absolute trigger level must also be included for P2 which is near TW-E pumping and within the Owens Valley Fault zone. Water level triggers should also be included for the other shallow wells at springs and seeps areas (P6 (5'), P7 (5'), T918, T919, and Lizard Tail).

2) Vertical gradient triggers should also be set for P2, P6, and P7. Horizontal gradient triggers should be set at T922/P2 and T928/P6. These pairs were included in previous drafts of the operational test plan and no rationale or discussion was included for why these pairs were removed from the IS/ND.

3) The 50% reduction in vertical gradient trigger at seeps and springs is subjective and could result in significant impacts to groundwater dependent vegetation. Spring flow is dependent on the hydraulic conductivity of the subsurface materials and the upward gradient. If the relationship were simply proportional, a 50% drop in upward gradient could lead to a 50% drop in spring/seep discharge. The Water Department strongly disagrees that a 50% reduction in gradient is not potentially significant and disagrees with LADWP's statements on page 1-9 of the IS/ND that the proposed triggers for the TW-E test are "much more conservative" than future triggers related to Owens Lake Groundwater Development Project activities would be. A smaller gradient reduction should be used. We acknowledge that setting a quantitative gradient trigger is difficult without fully understanding the relationship between the hydraulic gradient and spring/seep discharge. For this reason, the test should either be postponed until after additional baseline monitoring data is available or, if the test is not postponed, absolute

triggers should be established for wells in the springs discussed above to ensure that the hydraulic gradient triggers adopted for the test will prevent impacts to springs/seeps.

4) Trigger levels require customization immediately before the test begins to accommodate actual water levels before the test, to anticipate both natural seasonal variability, and also to protect the site-specific resources. The IS/ND should allow the group of agencies responsible for setting final triggers immediately before the test to consider the seasonality of water level changes when setting triggers. For example, the historic variation between spring and fall water levels is between 2-3 feet for monitoring wells P1 and P8. The proposed drawdown trigger (2-3 feet) in the IS/ND was based on this seasonal pattern. The TW-E pumping test is currently planned to start in the fall when groundwater levels are deepest and continue through the winter when water levels typically rise. Setting the trigger before the test at 2-3 feet deeper than the starting water levels would allow the test to cause water level declines of up to 6 feet. This drawdown would be several feet deeper than during the 2012-2016 drought and would be deep enough to likely to cause impacts to the predominant alkali meadow vegetation. The IS/ND must propose a different trigger or recognize that the group may choose to set more protective triggers than in the IS/ND.

<u>Groundwater modeling.</u>

1) The groundwater model results presented in the Initial Study/Negative Declaration are insufficient to conclude no impacts to resources will occur. Setting water level triggers that halt pumping cannot automatically be assumed to prevent impacts in this hydrologic setting consisting of multiple aquifers separated by clay layers. The time lag between measured drawdown and maximum drawdown during the test in the trigger wells could result in water levels continuing to decline after the trigger has been reached and pumping halted or after the conclusion of the 6-month pumping test. The details regarding the groundwater model results presented in the IS/ND TW-E are insufficient to adequately evaluate this possibility. Specifically, the Water Department requests groundwater model results include comparisons of the magnitude and timing of drawdown and recovery in the deeper and intermediate aquifer zones compared with the shallow zones for the two scenarios (pumping TW-E at 3 cfs for six months versus no pumping). The results should include predicted water levels over time for several of the cluster or multiple completion wells monitored during the 6-month test to collect data for shallow, intermediate and deep aquifer zones. This will give greater insight into how the model-predicted the drawdown in the deeper aquifer zones (or model layers) migrates into the shallow zones, how long drawdown persists in the various aquifer zones, and when the maximum drawdown occurs in the various zones. We acknowledge that the hydrologic communication between aquifers is incompletely understood, but the groundwater model represents the best available science to assess whether the triggers and design of the test are adequate to protect the identified resources. If the model is insufficient to make this assessment, the test should be revised with a lower pumping rate

or shorter duration to incrementally improve hydrologic knowledge with less risk to resources. The uncertainty in the model results increases the need for conservative protective triggers.

Baseline Data:

The Water Department is encouraged that LADWP has initiated additional studies and monitoring of groundwater level and vegetation relationships in the VDAs. Much of the uncertainty regarding the susceptibility of the VDA to changes in water levels may be addressed by these and other ongoing studies. Consequently, the test should be postponed until at least the Fall of 2022 to allow the IS/ND to rely on better understanding of baseline conditions and to set trigger levels based on the results of the VDA monitoring and studies.

Mitigation:

Considering the potential breadth of significant environmental harms at issue from LADWPs proposed project, LADWP should revisit this process and circulate, at least, a mitigated negative declaration to establish how it will rehabilitate the environment, habitat, and ecological resources if and when they are affected by LADWPs pumping. Given the previous difficulty in rehabilitating the Keeler Dunes area, a mitigation measure should be added describing the performance standards for mitigation of any significant adverse impacts to the VDA and describing how and when LADWP will mitigate such impacts. If such impacts occur, the cost of mitigation could be substantial, and the County requests that a mitigation measure be added in the form of a bond to ensure the immediate availability of financial resources to pay for the needed mitigation efforts in the event that mitigation of such a significant impact is not timely implemented by LADWP. The full amount of the bond should be established following an analysis of the likely mitigation costs if a VDA is significantly impacted, but an initial bond in the amount of $5,000,000.00 should be posted.

Miscellaneous comments

1) On December 21, 2011, LADWP submitted a request to the Technical Group to resolve the issue of whether groundwater pumping to supply water to a dust control project at Owens Lake implemented by LADWP pursuant to an order by the GBUAPCD under the authority of Health and Safety Code section 42316 is governed by the Water Agreement.

   LADWP believes that such groundwater pumping is not governed by the Water Agreement because section XVIII of the Water Agreement provides that "*Any project implemented pursuant to Health and Safety Code section 42316 is not a part of this Stipulation and Order*." The County believes that the exclusion from the Water Agreement of Health and Safety Code section 42316 projects does not include groundwater pumping to supply such projects because section 42416 provides that any air quality mitigation measures that the GBUAPCD orders LADWP to implement "…*shall not affect the right of the city to produce, divert, store or convey water*…"; therefore, the GBUAPCD is without authority to order LADWP to pump groundwater to supply mitigation measures order by the GBUAPCD.

The issue submitted by LADWP has not been resolved. The Technical Group tabled the issue because LADWP and other agencies and organizations were in the process of developing a Master Plan for Owens Lake which could include a plan for supplying groundwater to dust control projects on Owens Lake that might be acceptable to LADWP and to the County. By submitting these comments on this Initial Study/Negative Declaration, the County is not admitting that groundwater pumping under the test is not governed by the Water Agreement.

2) LADWP recently publicly reaffirmed its commitment to not increase its export of water out of the Owens Valley. This commitment is imperative to help protect the environmental health of the region. LADWP should follow through with its commitment and utilize any water savings ultimately realized from the proposed Owens Lake pumping test on Long Term Water Agreement mitigation projects that have not yet achieved final success, or on other beneficial uses within the valley.

Thank you for considering these comments, and we look forward to receiving a revised IS/Mitigated ND and to continued participation at the Groundwater Working Group. If you have any questions, do not hesitate to contact me at the Water Department.

Sincerely,

Aaron Steinwand, Ph.D.
Inyo County Water Director

Cc: (via email)

Inyo County Board of Supervisors
Inyo County Water Commission
Mr. Nelson Mejia, LADWP
Dr. Saeed Jorat, LADWP