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**COUNTY OF INYO  
WATER DEPARTMENT**

October 28, 2022

Mr. Adam Perez, Aqueduct Manager  
Los Angeles Department of Water and Power  
300 Mandich Street  
Bishop, California 93514

**Subject: Inyo County comments on LADWP's proposed Annual Operations Plan  
for Runoff Year 2022-2023**

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Dear Mr. Perez,

In accordance with Section V.D. of the Inyo/Los Angeles Long Term Water Agreement, this letter transmits Inyo County's comments on LADWP's Draft Owens Valley Operations Plan for the second six months of Runoff Year 2022-2023 (Draft Plan). The Draft Plan indicates that the City intends to pump between 68,461 and 79,841 acre-feet (ac-ft) of groundwater during the entire 2022-2023 runoff year. For comparison, the estimated annual pumping in the April 2022 Draft Plan ranged between 67,210-86,300 ac-ft. The County's analysis was based on the predicted change in water levels for the range of proposed pumping and estimated Owens Valley runoff. The results are described in detail below, but were similar to the results of the County's analysis provided in its April 29, 2022 letter. Given that the proposed pumping still exceeds the County's recommendation, the County reiterates its recommendation that pumping in 2022-23 be managed conservatively given the severity of the drought, uncertainty concerning the length of the drought, and concerns how the effects of climate change may manifest in future years. Several points previously discussed in the County's April 29 letter have been condensed in this letter for brevity.

**General Comments**

The Draft Plan reports that approximately 43,891 ac-ft was pumped between April and September this year. Thank you for recognizing the typographical error in the reported actual pumping for the Taboose-Aberdeen wellfield (Draft Plan, Table 3) and providing the correct value. A reasonable expectation is that LADWP will meet its water supply obligations over the winter months (hatcheries, town supply, mitigation projects) which is approximately 17,200 ac-ft of additional pumping. Adding the summer pumping and minimum pumping for uses over the winter totals approximately 61,081 ac-ft, which is near the County's upper recommended pumping amount of 59,540 ac-ft. LADWP should limit pumping to necessary uses over the next six months.

It is encouraging that runoff is exceeding the dire forecast understanding that summer rains are not a reliable supply for groundwater dependent ecosystems or for water supply planning. Preliminary results of vegetation sampling suggest that average cover in wellfield and control parcels was below baseline in 2022. Vegetation recovery in wellfields after favorable runoff conditions return will depend on the time for the water table to recover which is in part determined by the amount pumped during this drought. The County remains concerned that rather than a departure from normal conditions, the frequency and intensity of droughts in recent years may signal the onset of climate change that will affect water management and conditions in the valley. Experience suggest that conservative amounts of pumping to limit water table decline during recent droughts can prevent vegetation declines below baseline (e.g. 2007-09) or prevent new permanent impacts to vegetation from occurring (e.g. 2012-2016 and subsequent recovery in cover of perennial species). Conservative pumping is key to avoiding the need to implement additional mitigation.

The Inyo Board of Supervisors and LADWP acting through the Standing Committee agreed in May to reasonable reductions in irrigation recognizing that the expected low runoff will continue to present challenges to meet the Water Agreement goals and LADWP needs. In April, the planned water delivery for irrigation was 34,750 ac-ft which would have been the lowest since the adoption of the Water Agreement. LADWP has reported that it will supply slightly more than planned, approximately 38,000 ac-ft, which is the third lowest amount provided for irrigation under the Water Agreement. Our expectation is that the enhancement and mitigation projects will receive their full allotment during October 2022-March, 2023 consistent with the Standing Committee agreement.

The Draft Plan suggests that additional pumping tests of wells subject to the Water Agreement would add to the planned amount. The April Draft Plan mentioned test pumping of 386W near the Five-Bridges mitigation site. Several actions that must occur before testing of W386 can proceed have not been completed and favorable hydrologic conditions are probably not present given the extremely low runoff. Test pumping at Five-Bridges should not be conducted during the remainder of this runoff year.

### **Evaluation of 2022 Operations Plan**

The Draft Plan's proposal to pump water for aqueduct supply including export in areas near vegetation that is measurably and chronically below baseline levels is environmentally harmful. The lower range of proposed pumping is less than long-term average pumping under the Water Agreement (72,284 ac-ft, 1991-2021) but significantly greater than necessary for sole source uses (approximately 55,900 ac-ft). Adjusting pumping to maintain a shallow water table in some areas of groundwater-dependent vegetation in 2022-23 is necessary to stabilize declines at the onset of the present drought and to avoid impacts should the extremely low runoff conditions persist. Shallow groundwater levels are particularly important to maintain perennial grasses which show larger and more persistent declines than total perennial cover and declines in a larger number of parcels.

### **Methods**

Results of three pumping and runoff scenarios are presented in this letter; (1) LADWP's proposed range of pumping in the April Draft Plan, (2) LADWP proposed range of pumping in the October Draft Plan and (3) LADWP proposed range of pumping in the October Draft Plan with the higher estimated runoff (55%). The County's pumping analysis relied on the sum of actual pumping April-September (Table 3 of the Draft Plan) and planned pumping in October-March (Table 4 of the Draft Plan). Pumping was apportioned among wellfields as described in the Draft Plan and shown in Table 1. Runoff was based on the original forecast (47%, 194,300) except for scenario 3 which

relied on 55% of normal runoff to reflect the best available information to assess the effects of proposed pumping. All other methods were the same as described in our April 29, 2022 letter.

The average change in water levels in 2022-2023 for each scenario are presented in Table 2. The analysis of water levels with minimum pumping for specific uses in the Owens Valley (55,900 ac-ft) and to maintain water levels (59,400 ac-ft) were provided in our April letter.

### **Wellfield-specific conditions**

The following sections present the predicted effects of the proposed pumping in 2022-23 (Table 2) and ICWD's comments on LADWP's proposed operations for each wellfield.

Laws. The Draft Plan proposes between 8,958 and 9,588 ac-ft of pumping in the Laws wellfield to supply town water systems, irrigation, enhancement/mitigation (E/M) projects, and export from the wellfield. The proposed pumping amounts in Laws would cause water levels to decline several feet (Table 2). Water levels are predicted to decline even at pumping for in-valley uses in Laws. Given the chronically poor vegetation conditions in several parcels in the wellfield, pumping in the remainder of the runoff year should be limited to uses in Laws (approximately 1,650 ac-ft).

Bishop. LADWP proposes to pump 11,132 ac-ft from the Bishop wellfield. It appears that the proposed pumping will be within the limits of the Hillside Decree. ICWD recommends annual pumping not exceed 12,000 ac-ft provided that it complies with the Hillside Decree and that uses and losses downstream of the operating wells exceed pumping.

Big Pine. LADWP proposes to pump between 19,731 and 21,381 ac-ft from the Big Pine wellfield. The upper amount includes hatchery and town supply as well as several months of operation of exempt well(s) for export or downstream uses. Three parcels in the wellfield exhibit vegetation or grass cover below baseline. The County continues to advocate for reduced pumping in this wellfield due to the consistently high level of annual pumping and the hydrologic stress that creates. Pumping should be limited to uses in the wellfield during the remainder of the year (approximately 10,050 ac-ft).

#### Taboose-Aberdeen.

LADWP proposes to pump between 10,444 and 15,244 ac-ft in the Taboose-Aberdeen wellfield. This is the only wellfield where the planned pumping increased between the April and October plans, and pumping at LADWP's low range is well in excess of the County's recommendation. Four alkali meadow parcels have chronically lower grass cover than baseline despite water level recovery to baseline suggesting a Type C to B conversion may have occurred and the water table regime may be insufficient to recover vegetation to baseline. The County recommends conservative pumping over the winter and that pumping from W118 and W349 should be limited to avoid lowering water levels under the parcels in the northern portion of the wellfield exhibiting grass declines.

Thibaut-Sawmill. LADWP proposes to pump 10,174 to 10,774 ac-ft in the Thibaut-Sawmill wellfield. Two parcels in the southern portion of this wellfield have chronically depressed water levels and grass cover. Pumping should be managed to maintain the water table under these parcels by not pumping W382. ICWD analysis suggests that pumping be limited to hatchery supply.

Independence-Oak. LADWP proposes to pump between 5,451 and 6,511 ac-ft in the wellfield. Water levels in the southern portion remain below baseline and have not recovered since 2018. Pumping should be limited to sole source uses over the remainder of the runoff year.

Symmes-Shepherd. LADWP proposes to pump 802-2,512 ac-ft from the Symmes-Shepherd wellfield for sole source irrigation supply and export or uses. One parcel, IND139, exhibits chronically depressed grass cover. The ICWD analysis suggests that pumping be limited to stabilize the predicted water levels.

Bairs-Georges. LADWP proposes to pump 781 to 2,512 ac-ft in the Bairs-Georges wellfield. Approximately 1200 ac-ft of annual pumping can maintain water levels in 2022-23.

Lone Pine. LADWP proposes to pump 988-1048 ac-ft from the Lone Pine wellfield for town and E/M project supply. This is within the range in actual pumping for these uses in recent years of approximately 1,000 ac-ft. The County recommends pumping not exceed uses in this wellfield.

We look forward to addressing these comments at the Technical Group meeting on November 7, 2022. If you wish to discuss these comments prior to the Technical Group meeting, feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Aaron S', written over a horizontal line.

Aaron Steinwand, Water Director

cc: Inyo County Board of Supervisors  
Inyo County Water Commission  
Nate Greenberg, County CAO  
John Vallejo, County Counsel  
Greg James, Special Counsel

Table 1. Pumping totals by wellfield evaluated using the regression models. Regression modeling is not completed for Bishop because pumping in that wellfield must comply with the Hillside decree and for Lone Pine because the proposed pumping is for mitigation and town supply only.

Wellfield	LADWP Min (68,461 AF)	LADWP Max (79,841 AF)	In-Valley Min (55,900 AF)	ICWD Reduced (59,540)
	Ac-ft/year	Ac-ft/year	Ac-ft/year	Ac-ft/year
Laws	8,958	9,588	8,000	8,000
Bishop	11,132	11,132	12,000	12,000
Big Pine	19,731	21,381	18,120	18,120
Taboose-Aberdeen	10,444	15,244	300	2,500
Thibaut-Sawmill	10,174	10,774	8,400	8,800
Independence-Oak	5,451	6,511	6,420	6,420
Symmes-Shepherd	802	2,512	1,200	1,500
Bairs-George	781	1,651	460	1,200
Lone Pine	988	1,048	1000	1000

Table 2. Comparison of the range in average predicted water level changes in 2022-23 for LADWP minimum and maximum proposed pumping using the ICWD set of indicator well for three scenarios Data are in ft of change and negative values denote decline.

Wellfield	April ICWD Estimated pumping	October Planned Pumping	October Planned Pumping and increased runoff
Laws	-2.6 to -3.1	-2.6 to -2.8	-2.6 to -2.8
Big Pine	-1.9 to -2.3	-1.8 to -2.0	-1.6 to -1.8
Taboose-Aberdeen	-0.8 to -2.7	-1.7 to -2.8	-1.6 to -2.6
Thibaut-Sawmill	-0.5 to -0.8	-0.5 to -0.8	-0.4 to -0.6
Independence-Oak	-0.7 to -1.2	-0.2 to -0.5	0.0 to -0.4
Symmes-Shepherd	+0.1 to -0.4	0.2 to -0.3	0.3 to -0.2
Bairs-George	+0.2 to -0.9	0.4 to -0.4	0.5 to -0.4