



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

EMAIL: [mail@inyowater.org](mailto:mail@inyowater.org)  
WEB: <http://www.inyowater.org>

P.O. Box 337  
135 South Jackson Street  
Independence, CA 93526

**COUNTY OF INYO  
WATER DEPARTMENT**

October 24, 2014

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

**Subject: Inyo County comments on LADWP's proposed Operations Plan for the second six months of runoff-year 2014-2015**

---

Dear Mr. Yannotta:

In accordance with Section V.D of the Inyo/Los Angeles Long Term Water Agreement, the following are the Inyo County Water Department's comments on LADWP's proposed Operations Plan for the Second Six Months – October 1, 2014 through March 31, 2015 (Plan).

**General Comments.** Table 6 of the plan lists planned pumping by month and by well field for the period October 2014 through March 2015. Table 6 also lists pumping by well field for the first six months of the runoff year (April through September 2014). At the October 15, 2014 Standing Committee meeting, a table of pumping by month and well field for April through September 2014 was provided to the Standing Committee with somewhat different wellfield pumping totals for April through September 2014. In response to an inquiry from Water Department staff, LADWP staff explained to us that the values in Table 6 were estimates of April through September pumping, whereas the values in the Standing Committee meeting package were measured values (albeit preliminary). In our evaluation of the Plan, we used the April through September pumping from the Standing Committee meeting package rather than the values given in Table 6 of the Plan.

Based on the cover letter provided last April with the operations plan for the first six months of the 2014-2015 runoff year, we understood that total pumping for the period from April 1, 2014 through March 31, 2015 (2014 runoff-year) will likely be around 65,000 acre-feet (AF). Based on the pumping presented in the Plan and the prior pumping totals provided to the Standing Committee, we understand that pumping is now planned to be around 67,959 AF, or around 3,000 AF more than estimated last April. Pumping for April – October was within the planned range of pumping given in the April operations plan (Table 1).

**Analysis of the proposed plan.** In order to analyze the proposed plan, we assumed that pumping for the period April through September 2014 was as provided at the October 15, 2014 Standing Committee meeting, and that pumping for the 2014 runoff year would be the sum of those April-September figures plus the October-March figures given in Table 6 of the Plan. Table 1 reflects these figures, which the Water Department used to estimate water table change over the period April 2014 – March 2015.

**Table 1. Proposed and actual pumping totals for wellfields from April-October 2014 and for the second six months of the 2014 Runoff Year, in acre-feet.**

<b>Wellfield</b>	<b>Proposed Pumping April-Oct.</b>	<b>Actual Pumping April-Oct.</b>	<b>Proposed Pumping Oct.-Mar 2015</b>	<b>Proposed Pumping 2014-2015 ROY</b>
	ac-ft	ac-ft	ac-ft	ac-ft
Laws	5,760-7,200	6,078	120	6,198
Bishop	7,200-8,700	8,518	2,760	11,278
Big Pine	10,200-11,550	11,705	10,375	22,080
Taboose-Aberdeen	1,500-4,500	3,246	4,160	7,406
Thibaut-Sawmill	4,600	4,320	3,960	8,280
Ind.-Oak	5,280-6,600	6,525	2,300	8,825
Symmes-Shepherd	720-2,760	857	750	1,647
Bairs-George	1,080-1,440	519	655	1,174
Lone Pine	730	771	300	1,071
Sum	37,310-48,200	42,579	25,380	67,959

The groundwater regression models used by the County to analyze LADWP pumping predict water levels one year into the future (April 2014 through March 2015) are based on annual pumping in each wellfield. Last April, LADWP indicated that the annual pumping amount will be approximately 65,000 AF but did not apportion that total among wellfields. LADWP has proposed 67,959 AF Owens Valley pumping, which is approximately 3000 AF greater than the annual total anticipated in the April Operations Plan and cover letter. Most of the increase in Owens Valley pumping between the April and October plans will occur in Taboose-Aberdeen and Independence-Oak well fields with smaller amounts in Bishop and Lone Pine. In addition, pumping in Laws and Symmes-Shepherd well fields will be less than assumed in our comments on the April operations plan. In Taboose-Aberdeen and Symmes-Shepherd well fields, it appears LADWP plans to shift some pumping from summer to winter.

Because of the differences between the LADWP's proposed pumping in the Plan and the estimates used in the County's analysis last April, the model predictions were revised to reflect the annual amounts proposed for 2014-2015 shown in Table 1. The models for the Taboose-Aberdeen well field do not include Blackrock Hatchery pumping, yet that pumping affects the southern portion of the TA wellfield. Hatchery pumping was reduced beginning in May. Based on the response in test wells in the southern Taboose-Aberdeen well field thus far, wells 505T, 417T, and 803T should experience greater recovery in the water level than the predicted values shown in Table 3. It is not certain if the effects of the reduced hatchery pumping will affect wells further north over the course of this winter (e.g. 419T, 418T, or 586T) or wells in the Thibaut-Sawmill well field southwest of the hatchery. Similarly, the annual pumping at the Hatchery is beyond the historical range of pumping amounts used to construct the model for 415T. That well has already experienced greater recovery than predicted. Table 3 gives both the estimated change in depth to water from last April's pumping plan comments, and the revised estimates made

based on the updated pumping amounts. Discussions of the predictions for each wellfield are given below.

Table 3. Predicted water level changes at indicator wells and monitoring sites estimated from the April 2014 operations plan (65,016 AF) and the present plan (67,959 AF). Negative DTW values denote a decline.

Station ID, Monitoring site	Predicted change in DTW (ft) 65,015 AF	Predicted change in DTW (ft) 67,959 AF
<b>Laws</b>		
107T	1.23	1.63
436T	0.10	0.28
438T	0.21	0.35
490T	-0.50	-0.42
492T	-0.90	-0.38
795T, LW1	1.92	2.13
V001G, LW2	-1.01	-0.68
574T	0.56	0.62
<b>Big Pine</b>		
425T	-0.88	-0.94
426T	-0.64	-0.67
469T	0.13	0.10
572T	0.47	0.41
798T, BP1	0.63	0.58
799T, BP2	-0.12	-0.15
567T, BP3	-1.30	-1.36
800T, BP4	-0.61	-0.66
<b>Taboose-Aberdeen</b>		
417T	0.03	-0.63
418T	-0.24	-0.54
419T, TA1	-0.47	-1.20
421T	-0.49	-1.23
502T	-0.04	-0.38
504T	-0.52	-1.42
505T	0.10	-0.58
803T, TA6	-0.08	-0.74
586T, TA4	-0.02	-0.62
801T, TA5	0.68	0.51
<b>Thibaut-Sawmill</b>		
415T	2.13	2.45
507T	0.65	0.74
806T, TS2	-0.34	-0.18
<b>Independence-Oak</b>		
406T	0.19	-0.06
407T	1.02	0.33

Station ID, Monitoring site	Predicted change in DTW (ft) 65,015 AF	Predicted change in DTW (ft) 67,959 AF
408T	0.54	0.07
409T	2.44	0.72
546T	-0.04	-0.36
809T, IO1	-1.40	-1.93
<b><i>Symmes-Shepard</i></b>		
402T	-0.01	0.11
403T	0.02	0.37
404T	0.49	0.62
510T	0.38	0.50
511T	0.46	0.60
447T	0.20	1.00
646T, SS2	NA	
V009G, SS1	0.16	0.87
<b><i>Bairs-George</i></b>		
398T	-0.59	-0.25
400T	0.13	0.19

**Laws:** The proposed pumping is less than originally analyzed in our April comments. Pumping was to supply irrigation in Laws, as expected. The high range provided by LADWP in the April plan may just be a conservative estimate based on the water used at the start of the ranch project. The ranch in recent years has required about 6,500 AF, so the reduction in wellfield pumping does not really reflect a change in operations, but it results from a rough estimate included in the pumping plan that we include in our analysis. Water levels are predicted to decline slightly (<1 ft) or rise.

**Comment:** Any reduction in water supply for enhancement/mitigation projects requires that the Inyo County Board of Supervisors and City of Los Angeles agree to such reductions by acting through the Inyo/Los Angeles Standing Committee.

**Comment:** If pumping for stock water will be required similar to last year, the Technical Group should consider the necessary actions prior to the need for stock water.

**Comment:** Pursuant to Green Book Section IV.B.2.c, please provide all well and test data related to W422.

**Question:** In 2012, LADWP announced a plan to seal the shallow portions of the screens of wells W385 and W386. Has this work been completed and tested, and if so, what were the results?

**Bishop:** Projected pumping roughly aligns with the Water Department's estimates of winter time water uses on the Bishop Cone.

**Question:** What wells will be run on the Bishop Cone?

**Big Pine:** Proposed pumping differs little from the Water Department's estimate. Water levels are predicted to decline or rise less than 1 foot except for a 1.4 ft decline predicted for 567T. Winter

pumping is for the hatchery/town and possibly for replacement water for the Big Pine Northeast Regreening Project in December.

Question/comment: Is the 175 AF of additional pumping in December replacement water for the Big Pine Northeast Regreening Project? Such replacement water may not exceed 150 AF/year.

**Taboose-Aberdeen:** Proposed pumping is substantially greater than originally analyzed by the County last April. Winter pumping will occur in the northern area of the wellfield (118W and/or 349W). Water levels are predicted to decline 0.4 to 1.4ft in most wells. Instead of small declines predicted for 505T, 417T, and 803T (Table 3), we expect that water levels probably will actually rise due to reduced pumping for the Black Rock Hatchery.

**Thibaut-Sawmill:** Pumping from 356W apparently is slightly less than anticipated in the April plan. Well 415T has already exhibited a larger rise in water levels than predicted in Table 3.

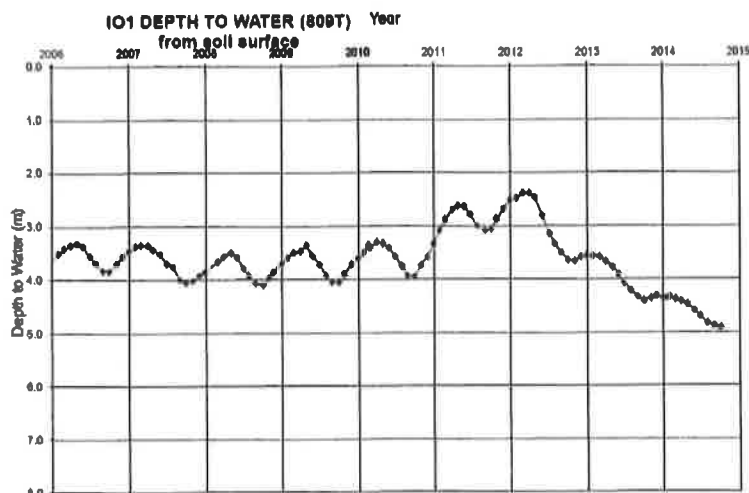
Comment: Reiterating our letter of March 18, 2014 and comments made at the October 15, 2014 Standing Committee meeting, we believe that monitoring the effect on groundwater levels of reduced pumping at the Black Rock Hatchery should be a Technical Group effort.

**Independence-Oak:** Proposed pumping is substantially greater than estimated from the April plan, almost all due to increased exempt well pumping this winter. Water levels were predicted to rise except for one well (809T, IO1). Under the October planned pumping, water levels are expected to remain about the same or decline almost two feet.

Comment: Pursuant to Green Book Section IV.B.2.c, please provide all well and test data related to the new supply well for the Independence Eastside Regreening Project.

Recommendation: Independence-Oak well field pumping and operation of exempt wells 59W and 65W over this winter should be reduced to try to stabilize water levels at monitoring site IO1. Figure 1 shows that depth to water at IO1 is currently deeper than it has been for at least the past eight years. The full record for T809 shows that water levels at this site have not been this low since 1995.

Figure 1. Depth to water at monitoring site IO1 (well 809T).



**Symmes-Shepherd:** Proposed pumping is less than originally analyzed by the County. Water levels are still predicted to remain the same or rise slightly.

**Question:** What is the purpose of the winter-time pumping in Symmes-Shepherd?

**Bairs-George:** Proposed pumping is slightly less than analyzed last April by the Water Department. Water levels are predicted to remain about the same.

**Comment:** We understand that the replacement well for W076 was unsuccessful. Pursuant to Green Book Section IV.B.2.c, please provide all well and test data related to replacement well for W076.

**Question:** In 2012, LADWP announced a plan to seal the shallow portions of the screen of well W348. Has this work been completed and tested, and if so, what were the results?

**Lone Pine:** In Lone Pine, the draft April plan neglected to include 425W which was corrected in the final plan after the County's analysis was completed. Accounting for 425W pumping, the County's estimated pumping in Lone Pine differs from proposed pumping by about 130 AF.

**Questions:** In 2012, LADWP announced a plan to seal the shallow portions of the screen of well W416. Has this work been completed and tested, and if so, what were the results?

**Question:** How much water was provided to the Van Norman Field and High School Farm this year from well W425?

**Comment:** Pursuant to Green Book Section IV.B.2.c, please provide all well and test data related to W425.

Thank you for your consideration of these comments. As required by Water Agreement Section V.D, we should schedule a Technical Group meeting within 10 days (November 2) to attempt to resolve the County's concerns related to the Plan.

Sincerely,



Robert Harrington, Water Director

cc: Inyo County Board of Supervisors  
Inyo County Water Commission  
Kevin Carunchio, County CAO  
Marge Kemp-Williams, County Counsel  
Greg James, Special Counsel