

Section 2

Mono Basin Operations

**Compliance with State Water Resources Control Board
Decision 1631 and Order Nos. 98-05 and 98-07**

May 2013

Los Angeles Department of Water and Power

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Introduction

Pursuant to State Water Resources Control Board (SWRCB) Decision 1631 and Order Nos. 98-05 and 98-07 (Orders), the Los Angeles Department of Water and Power (LADWP) undertakes certain activities in the Mono Basin in compliance with the terms and conditions of its water right licenses 10191 and 10192. In addition to restoration and monitoring activities covered in Section 1 of this report, LADWP also reports on certain required operational activities.

MONO BASIN OPERATIONS PLAN RY 2013-14

Forecast for RY 2013-14

The Mono Basin's May 1st forecast for Runoff Year (RY) 2013-14 for April to March period is 80,600 acre-feet (AF), or 66 percent of average using the 1961-2010 long term mean of 122,333 AF (attached). The May runoff forecast did not change from the April runoff forecast. This value puts the year type within the "Dry" category. According to the Grant Lake Operations Management Plan (GLOMP) approved under SWRCB Order 98-05, LADWP will follow Guideline 'A' (attached) for the operating requirements during RY 2013-14, with certain variations described below.

Rush Creek

Baseflows will follow Guideline A of 31 cubic feet per second (cfs) from April 1 to September 30, 2013, and 36 cfs from October 1, 2013 to March 31, 2014, or the equivalent of Rush Creek flow at 'Damsite', whichever is less. There is no peak flow release requirement for Dry year type.

Rush Creek Augmentation

In wetter years, LADWP utilizes one or both of its additional facilities to release higher peak flows. These facilities include the 5-Siphons bypass, which can release as tested 100 cfs from Lee Vining Creek, and the Grant Lake Reservoir (GLR) Spillway, which can release large reservoir spills into lower Rush Creek during the wetter years.

5-Siphons Bypass

Aside from utilizing the 5-Siphons bypass facility to augment Rush Creek peak flow requirements, LADWP was intending to test the physical capability to augment up to 150 cfs from the Lee Vining Conduit through the 5-Siphons bypass facility. However, Southern California Edison (SCE) operates the upstream reservoirs and their preliminary estimates show that they most likely will not be able to provide in excess of such flow down the Lee Vining Creek due to lack of adequate forecasted runoff and their operating requirements.

Grant Lake Reservoir Spill

GLR is not forecasted to spill during the RY 2013-14.

Lee Vining Creek

Baseflows will follow Guideline A of 37 cfs, or flow at Lee Vining Creek 'Above', whichever is less, from April 1 to September 30, 2013, and 25 cfs, or Lee Vining Creek

'Above', whichever is less, from October 1, 2013 to March 31, 2014. All flows in excess of these requirements will be diverted to GLR through the Lee Vining Conduit. There is no peak flow passing requirement for Dry year type.

Parker and Walker Creeks

If there is enough runoff available, Parker and Walker creek facilities will be operated according to Guideline A. If the incoming flow is lower than flows in the Guideline, the facilities will be operated as pass through. If the incoming flow is higher, excess flow will be diverted to GLR.

Grant Lake Reservoir (GLR)

GLR storage volume was 35,595 AF, corresponding to a surface elevation of 7,118.8 feet above mean sea level (AMSL) at the start of the runoff year. According to LADWP model, using representative historical data from the 1991 runoff year (64 percent of normal year), and Guideline A baseflows, the model forecasts GLR to be approximately 40,000 AF by the end of the runoff year (see Scenario A at the end of this section). Before selecting a representative historical runoff year for modeling, the year's preceding runoff year is also looked at for similarities with the preceding runoff year of the current forecasted year. Forecasted scenarios will be relatively close only if this year's hydrology turns out to be similar to the hydrology of the selected historical runoff year. Operations are subject to change with variations in actual hydrology during the upcoming runoff year.

Planned Exports for RY 2013-14

LADWP plans to export the allowed 16,000 AF this year in accordance with SWRCB Decision 1631 and Guideline A. The plan is to export the 16,000 AF much earlier than common at about 50 cfs until early September. Emergencies and/or maintenance issues may arise and as a result export may need to be halted and resumed later at a different rate to achieve the 16,000 AF before the end of the RY.

Expected Mono Lake Elevations during RY 2013-14

Mono Lake began this runoff year at 6,382.2 ft AMSL where it is forecasted to decrease and end the runoff year at approximately 6,381.0 ft AMSL (see attached chart).

REVIEW OF THE MONO BASIN RY 2012-13 OPERATIONS

Rush Creek

The runoff from Rush Creek was approximately 28,356 AF which amounts to the total water delivered to Grant's 'Damsite'.

Rush Creek flows below 'the Narrows', which consist of Rush Creek releases (Return Ditch, Spill, and 5-Siphons augmentation) combined with Parker and Walker Creek flows, had an approximate total of 31,190 AF. This flow terminated into Mono Lake with the highest flow of 72 cfs occurring on April 25, 2012.

RY 2012 was forecasted as a Dry year type and as such, following Guideline A, there was no peak flow released.

Rush Creek Augmentation

To meet high flow targets for lower Rush Creek, LADWP at times must employ facilities in addition to the Mono Gate One Return Ditch (MGORD) which has a 380 cfs capacity limit. During these wetter years, LADWP utilizes one or both of its additional facilities to release higher peak flows. These facilities include the 5-Siphons bypass, which can release up to 100 cfs (150 cfs is the plan but that has yet to be tested due to lack of runoff) from Lee Vining Creek, and the Grant Reservoir Spillway, which can release large reservoir spills, into lower Rush Creek and during the wetter year types.

5-Siphons Bypass

RY 2012 was forecasted as a Dry year type and as such, following Guideline A, there was no peak flow released in Rush Creek and therefore 5-Siphons were not utilized.

Grant Reservoir Spill

Grant did not spill during RY 2012.

Lee Vining Creek

RY 2012 was forecasted as a Dry year type and as such, following Guideline A, there was no 'pass the peak' operation.

Lee Vining Creek had its highest flow on April 22 with 59 cfs. Total runoff for the year was approximately 24,296 AF.

Parker and Walker Creeks

Parker and Walker were diverted according to Guideline A. However, they were only diverted a portion of the time due to the lack of enough runoff.

Parker Creek had its highest flow on August 19 at 19 cfs. Total runoff for the year was approximately 5,222 AF.

Walker Creek had its highest flow on April 27 at 9 cfs. Total runoff for the year was approximately 2,294 AF.

Grant Lake Reservoir

Grant Lake began the runoff year at approximately 35,496 AF (7,118.8 ft AMSL). The reservoir did not spill during the RY. Final storage volume by the end of the RY of March 31, 2013 was approximately 32,281 AF (7115.5 ft AMSL).

Exports during RY 2012-13

During RY 2012-13, LADWP exported 15,839 AF from the Mono Basin, which falls below the allowed 16,000 AF under Decision 1631.

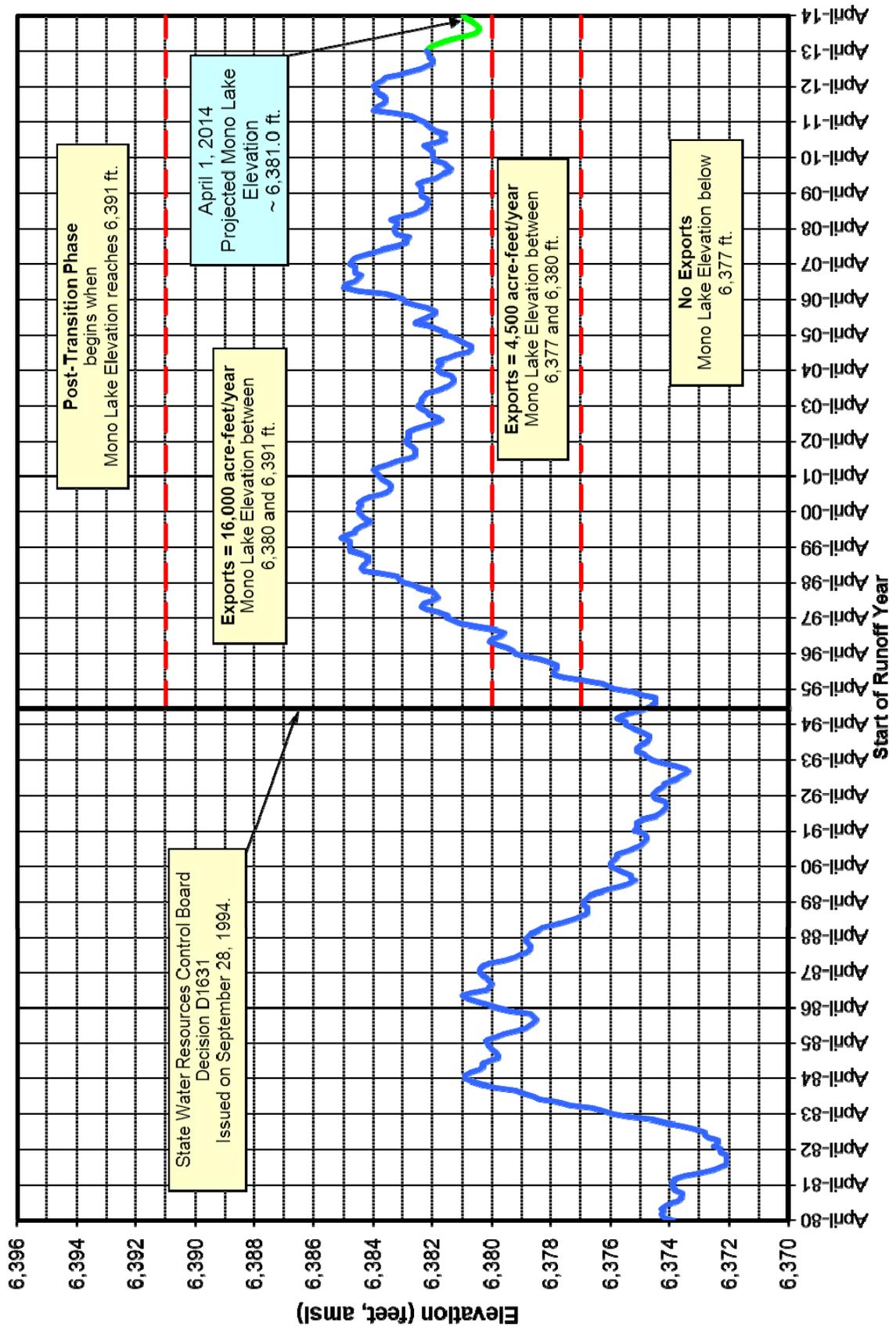
Mono Lake Elevations during RY 2012-13

Mono Lake elevations were monitored 32 times during RY 2012-13 as shown in the following table. The Lake elevation was at 6,384.0 ft AMSL at the beginning of the runoff year, and ended the runoff year at 6,382.2 ft AMSL, a decrease of 1.8 ft.

RY 2012-13 Mono Lake Elevation Readings

YEAR	MO	DY	Mono Elev.	YEAR	MO	DY	Mono Elev.
2012	4	10	6,384.0	2012	12	5	6,382.0
2012	4	19	6,383.9	2012	12	13	6,382.0
2012	5	2	6,383.9	2013	1	9	6,382.0
2012	5	15	6,383.8	2013	2	6	6,382.1
2012	6	21	6,383.6	2013	3	5	6,382.1
2012	6	28	6,383.3	2013	3	14	6,382.1
2012	7	11	6,383.4	2013	3	21	6,382.2
2012	7	19	6,383.1				
2012	7	25	6,383.0				
2012	8	1	6,383.1				
2012	8	8	6,382.9				
2012	8	15	6,383.0				
2012	8	22	6,382.8				
2012	8	29	6,382.7				
2012	9	5	6,382.7				
2012	9	13	6,382.7				
2012	9	19	6,382.6				
2012	9	26	6,382.5				
2012	10	3	6,382.4				
2012	10	9	6,382.3				
2012	10	18	6,382.3				
2012	10	24	6,382.2				
2012	10	31	6,382.2				
2012	11	7	6,382.2				
2012	11	20	6,382.0				
2012	11	28	6,382.0				

Mono Lake Elevation



**2013 EASTERN SIERRA
RUNOFF FORECAST
May 1, 2013**

APRIL THROUGH SEPTEMBER RUNOFF

	MOST PROBABLE		REASONABLE	REASONABLE	LONG-TERM MEAN
	VALUE (Acre-feet)	(% of Avg.)	MAXIMUM (% of Avg.)	MINIMUM (% of Avg.)	(1961 - 2010) (Acre-feet)
MONO BASIN:	64,400	62%	74%	50%	103,522
OWENS RIVER BASIN:	140,500	46%	59%	33%	303,903

APRIL THROUGH MARCH RUNOFF

	MOST PROBABLE		REASONABLE	REASONABLE	LONG-TERM MEAN
	VALUE (Acre-feet)	(% of Avg.)	MAXIMUM (% of Avg.)	MINIMUM (% of Avg.)	(1961 - 2010) (Acre-feet)
MONO BASIN:	80,400	66%	79%	52%	122,333
OWENS RIVER BASIN:	220,900	54%	66%	41%	412,284

NOTE - Owens River Basin includes Long, Round and Owens Valleys (not incl Law s Area)

MOST PROBABLE - That runoff which is expected if median precipitation occurs after the forecast date.

REASONABLE MAXIMUM - That runoff which is expected to occur if precipitation subsequent to the forecast is equal to the amount which is exceeded on the average once in 10 years.

REASONABLE MINIMUM - That runoff which is expected to occur if precipitation subsequent to the forecast is equal to the amount which is exceeded on the average 9 out of 10 years.

Mono Basin Operations, Guideline A

Year Type.....DRY
 Forecasted Runoff in acre-feet.....≤ 83,655

Lower Rush Creek

Base Flows:

	Apr-Sep	Oct-Mar
Flow (cfs)	31	36

Minimum base flows are those specified above unless Grant Lake storage drops below 11,500 acre-feet (7,089.4' elevation), in which case base flows should equal the lesser of Grant Lake inflow or the minimum requirements listed above (D-1631, p 197-198).

Peak Flows: - None.

Ramping: - None.

Lee Vining Creek

Base Flows:

	Apr-Sep	Oct-Mar
Flow (cfs)	37	25

Minimum base flows are those specified above or the stream flow at the point of diversion, whichever is less.

Peak Flows: - None.

Ramping: - None.

Diversions: - Divert flows in excess of base flows.

Augmentation: - None.

Parker and Walker Creeks

Base Flows:

	Apr-Sep	Oct-Mar
Parker (cfs)	9	6
Walker (cfs)	6	4.5

Minimum base flows are those specified above or the stream flow at the point of diversion, whichever is less.

Peak Flows: - None.

Ramping: - None.

Diversions: - Divert flows in excess of base flows.

Exports

4,500 acre-feet scenario – Maintain 6 cfs export throughout the year.

16,000 acre-feet scenario – As much as possible, maintain 22 cfs export throughout the year.

Scenario A: RY 2013 Grant Lake Reservoir Storage Projection

