Appendix B-7

SONOMA COUNTY WATER AGENCY

DELIVERY VIA EMAIL:
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FILE:CF/42-0.19-9 SWRCB Order Approving Temporary Urgency Change in Permits 12947A, 12949, 12950 & 16596 (Order WR 2009-0027-DWR)

December 30, 2009

Victoria Whitney, Deputy Director
State Water Resources Control Board
Division of Water Rights
P.O. Box 2000
Sacramento, CA 95812-2000

Dear Ms. Whitney:

Re: TEMPORARY URGENCY CHANGE PETITION-ORDER WR 2009-0034-EXEC TERM 18 REPORT

The Sonoma County Water Agency (Agency) has prepared this letter report to fulfill the requirements of Term 18 of the State Water Resources Control Board (SWRCB) Order WR 2009-0034-EXEC.

The Agency filed a temporary urgency change petition with the SWRCB on April 6, 2009. This petition requested temporary changes to the minimum instream flow requirements specified in water-rights Decision 1610. The Agency asked for these changes so that it could conserve stored water in Lake Mendocino to maintain lake levels into the fall so that sufficient releases could be made to support Chinook salmon migration and spawning. On April 6, 2009, you approved the petition by issuing Order WR 2009-0027-DWR. This order was amended on May 28, 2009 by Order WR 2009-0034-EXEC. One of the amendments was the addition of Term 18, which requires the Agency to report when project water releases are being made to the Russian River.

Term 18 states:

"SCWA shall develop a water right accounting procedure and a method for determining when the Russian River is being supplemented by project water. SCWA shall submit a report to the Deputy Director by December 31, 2009 describing the proposed water right accounting procedure. Beginning December 31, 2009, SCWA shall post on its website notification of periods when the Russian River is being supplemented by project water for purposes of meeting instream flow requirements or to satisfy downstream water demands other than those of SCWA."

Agency Water-Right Permits

The Agency is authorized to divert Russian River water under four water-right permits. Permit 12947A (Application 12919A) authorizes diversions to storage of up to 122,500 ac-ft per year in Lake Mendocino and diversions and rediversions of stored water of up to 92 cfs and 37,544 ac-ft per year. Permit 16596 (Application 19351) authorizes diversions to storage of up to 245,000 ac-ft per year from October 1st through May 1st in Lake Sonoma and diversions and rediversions of stored water of up to 180 cfs. Permit 12949 (Application 15736) authorizes direct diversions of up to 20 cfs. Permit 12950 (Application 15737) authorizes direct diversions of up to 60 cfs from April 1st through September 30th.

Other Water-Rights in the Russian River

In addition to supporting Agency diversions, Lake Mendocino project water also serves other water-rights holders in the watershed. Specifically, project water released from Lake Mendocino supports diversions in Mendocino County of up to 8,000 ac-ft/yr under water-right Permit 12947B (Application 12919B), which is administered by the Mendocino County Russian River Flood Control and Water Conservation Improvement District, and diversions in Sonoma County of up to 10,000 ac-ft/yr under the reservation for Russian River diversions in Sonoma County that was created by water-rights Decision 1030. Additionally, reservoir operations must pass through enough Lake Mendocino inflow (when available) to satisfy pre-1949 water-rights on the Russian River.

Reservoir Operations

Lake Mendocino and Lake Sonoma are U.S. Army Corps of Engineers (USACE) projects that provide both flood protection and water supply benefits. The Agency is the local sponsor of these projects and shares operations of these facilities with the USACE. When lake levels rise above the water supply pool, water storage encroaches into the flood control pool and the USACE has operational control of the reservoir. The USACE maintains control and determines the amounts of releases while reservoir storage is within the flood control pool. When reservoir storage levels are below the flood control pool, the Agency has operational control of the reservoir and determines the amounts of water to be released.

The flood control and water supply pool elevations for these reservoirs are documented in the USACE water control manuals.

For Lake Mendocino, the *Coyote Valley Dam and Lake Mendocino, Russian River California, Water Control Manual (Appendix I)* of the *Master Water Control Manual, Russian River Basin,California* describes the pool elevations, which vary over the course of the year, in the *Water Control Diagram (Plate A-10)*. This diagram was last revised in January 2004. A copy of the water control diagram is included with this letter as Attachment 1, and a data table of the values in this diagram is included as Attachment 2. During the winter season, starting approximately November 1, the elevation of the top of the water supply pool is 737.5 feet above mean sea level. During the summer season, the elevation of the top of the water supply pool is 761.8 feet above mean sea level. The transition from the higher to lower level for the top of the water supply pool in the fall occurs over a one month period starting October 1. The start date for the period of transition from the lower to higher level for the top of the water supply pool in the spring is discretionary based on an assessment of hydrologic and meteorological conditions. This transition may start on either March 1 or April 1. The rate of transition for the March 1 start date is more gradual than for the April 1 start date, but for either start date the top of the water supply pool reaches the higher elevation by mid-May.

For Lake Sonoma, the *Warm Springs Dam and Lake Sonoma, Dry Creek, California, Water Control Manual (Appendix II)* of the *Master Water Control Manual, Russian River Basin, California* describes the pool elevations, on the *Flood Control Diagram (Chart A-12)*. The elevation of the top of the water supply pool is maintained year-round at 451.1 feet above mean sea level.

Water stored in either reservoir's water supply pool for future release is project water. Storage and releases that occur for flood control purposes are not storage or releases of project water, because their purpose is to regulate high flows in the river and to minimize downstream flooding. Project

water is water that is stored in Lake Mendocino under either the Agency's water rights or the Mendocino District's Permit 12947B, that then is released to supplement the natural flows in the Russian River to provide water for water supply, recreation or aquatic habitat. During the periods when the reservoir is not operating in the flood control regime, releases from the reservoir can be categorized as being of either 'pass-through water' or 'project water'.

Methodology

A water balance model of each reservoir was developed to assess the status of reservoir operations. When the Agency is responsible for operational control of a reservoir, the Agency monitors real-time streamflows on a continual basis and sets reservoir releases in response to changing conditions. For project water releases to be occurring to satisfy minimum instream flow requirements or non-Agency diversions, several conditions all must be satisfied. First, the Agency must be in control of releases from the reservoir. Second, the Agency must be making releases of water that is project water. Third, the streamflow at each compliance point upstream of Agency diversions must be less than the sum of the applicable requirement and the applicable operational buffer. A map showing the minimum instream flow requirements that are specified in Decision 1610 and the USGS stream gage locations that are the compliance points for these requirements is included as Attachment 3. Agency Operations staff utilize an operational buffer when making release decisions to ensure compliance with minimum instream flow requirements. The magnitude of the operational buffer varies with seasonal conditions and the associated uncertainties of river diversion estimates.

Lake Mendocino

The Agency analyzes the reservoir operations status of Lake Mendocino every day. The following equation describes the water balance model of the reservoir:

[Inflow] = [Change in Storage] + [Evaporation] – [Precipitation] + [Release] + [Redwood Valley CWD Diversion]

Inflow: value calculated by Agency
Change in Storage: derived from calculated values of reservoir storage (based on a bathymetric survey completed in 2001), using water surface elevations measured by USACE;
Evaporation: derived from value of pan evaporation measured by USACE
Precipitation: value measured by USACE
Release: measured value of streamflow, as recorded at USGS Station 11462000 (EF RUSSIAN R NR UKIAH CA)
Redwood Valley CWD Diversion: value measured by Redwood Valley County Water District of diversions directly from Lake Mendocino

This equation makes the following assumptions in the calculation of reservoir inflow:

- Storage loss to seepage is negligible
- Diversions of stored water for on-site use by USACE is negligible

The amounts of project water releases will be determined with the following equation:

[Project Water] = [Release] – [Inflow].

Project Water: value calculated by Agency
Inflow: calculated as described in previous equation
Release: measured value of streamflow as recorded at USGS Station 11462000 (EF RUSSIAN R NR UKIAH CA)

If [Release] > [Inflow], and if the Agency is controlling reservoir operations, then project water is being released. If project water is being released, then the Agency will assess whether the project water releases are being made to meet the the minimum instream flow requirements. The following USGS stream gages are monitored by Agency Operations staff for upper Russian River compliance:

- East Fork - USGS Station 11462000
- Hopland - USGS Station 11462500
- Cloverdale - USGS Station 11463000
- Digger Bend - USGS Station 11463980
- Healdsburg - USGS Station 11464000

If the measured streamflow at any of these locations is less than the sum of the applicable minimum instream flow requirement plus the operational buffer (and if project water is being released), then project water is being released to meet instream flow requirements and this condition will be reported on the Agency website.

Lake Sonoma

The Agency analyzes the reservoir operations status of Lake Sonoma every day. The following equation describes the water balance model of the reservoir:

[Inflow] = [Change in Storage] + [Evaporation] – [Precipitation] + [Release]

Inflow: value calculated by Agency
Change in Storage: derived from calculated values of reservoir storage (based on a bathymetric survey completed in 1983), using water surface elevations measured by USACE
Evaporation: derived from value of pan evaporation measured by USACE
Precipitation: value measured by USACE
Release: value measured by USACE

The amounts of project water releases will be determined with the following equation:

[Project Water] = [Release] – [Inflow]

Project Water: value calculated by Agency
Inflow: calculated as described in previous equation
Release: value measured by USACE

If [Release] > [Inflow], and if the Agency is controlling reservoir operations, then project water is being released. If project water is being released, then the Agency will assess whether the project water releases are being made to meet the minimum instream flow requirements. The following USGS stream gages are monitored by Agency Operations staff for Dry Creek compliance:

- Dry Creek Mouth - USGS Station 11465350
- Dry Creek Geyserville - USGS Station 11465200

If the measured streamflow at either of these locations is less than the sum of the applicable minimum instream flow requirement and the operational buffer (and if project water is being released), then project water is being released to meet instream flow requirements and this condition will be reported on the Agency website.

Lower Russian River

There are two checks on river operation conditions in the Lower Russian River reach between the confluence with Dry Creek and the Hacienda Bridge in Guerneville. Both of these checks will be used to determine whether project water is being released from either reservoir to meet instream flow requirements in this reach. If project water releases have already been determined to be occurring, based on the above calculations for either Lake Mendocino and Lake Sonoma, and either of the checks described below for the Lower Russian River reach is met, then the Agency is releasing project water to met instream flow requirements in the Lower Russian River, and this condition will be reported the Agency's website.

The first check determines whether the total of the flows in Dry Creek and the Russian River at the Healdsburg gages is less than the sum of the applicable minimum instream flow requirements plus the applicable operational buffer minus the Agency's diversions at its Wohler and Mirabel Water Production Facilities. This check will be made as follows:

If [Dry Crk Flow] + [Russian Flow] – [Agency Diversions] < [Minimum Instream Flow] + [Operational Buffer] , then project water is being released to meet the instream flow requirement.

Dry Crk Flow: as measured by USGS at the Dry Creek gage (the Dry Creek Mouth stream gage will be used during low flows; the Dry Creek Geyserville stream gage will be used during high flows)
Russian Flow: as measured by USGS at the Healdsburg gage
Agency Diversions: as measured by Agency at its Wohler and Mirabel facilities
Minimum Instream Flow: minimum instream flow requirements specified in Decision 1610
Operational Buffer: as determined by Agency operators based on current conditions

The second check on river operation conditions evaluates the reach flows downstream of the Agency's diversions at the Wohler and Mirabel Water Production Facilities. This check determines whether river flows in this reach are less than the sum of the applicable minimum instream flow requirement and the applicable operational buffer. The Lower Russian River has the following USGS stream gage that is monitored by Agency Operations staff for minimum instream flow compliance:

- Hacienda Bridge - USGS Station 11467000

If this check is satisfied while project water is being released, then project water is being released to meet this instream flow requirement, and this condition will be reported on the Agency's website.

Public Notification of River System Operations

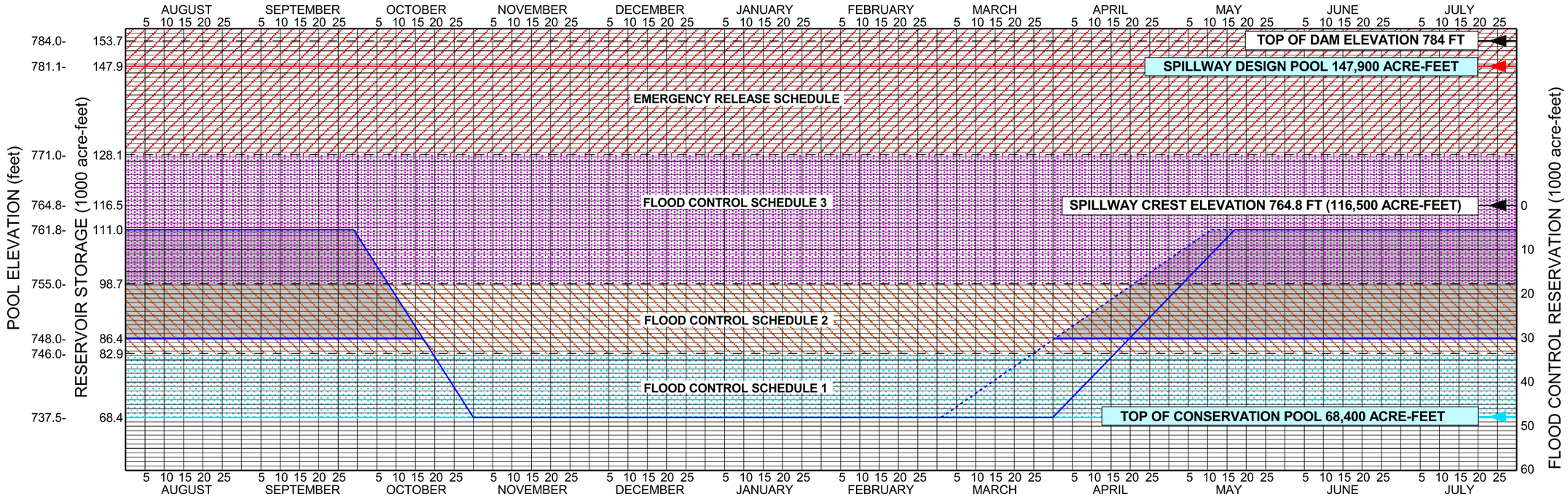
Commencing on December 31, 2009, Agency staff will use the above-described methodology to determine "periods when the Russian River is being supplemented by project water for purposes of meeting instream flow requirements or to satisfy downstream water demands other than those of SCWA," as required by Term 18 of Order WR 2009-0034-EXEC. As required by this term, this status will be posted on the internet at the Agency's website—http://www.scwa.ca.gov/ each day. Specifically, this information will be posted in the *Daily Reservoir Operations Status* section of the *Current Water Supply Conditions* webpage that is accessible from the Agency's homepage via the pull-down menu found under *Water Supply*. The URL for this webpage is http://www.scwa.ca.gov/current-water-supply-levels/. A copy of a sample webpage is included as Attachment 4.

Sincerely,

Pamela Jeane for
Randy D. Poole, P.E.
General Manager / Chief Engineer

Attachments
(1) Lake Mendocino Water Control Diagram
(2) Lake Mendocino Water Control Flood Pool Designation Table
(3) Streamflow Requirements
(4) Sample of *Current Water Supply Conditions* Webpage from Sonoma County Water Agency Website

c: Todd Schram, Donald Seymour, Pamela Jeane, James Zambenini – Sonoma County Water Agency
Steve Shupe – Sonoma County Counsel
Alan Lilly – Bartkiewicz, Kronick & Shanahan



RELEASE SCHEDULES

WATER SUPPLY SCHEDULE
As directed by the Sonoma County Water Agency

FLOOD CONTROL SCHEDULE 1, Pool elevations reached between 737.5 and 746.0 feet
Release up to a max of 4,000 cfs depending on antecedent ground conditions and time of year; subject to Limitations 1 thru 4, shown hereon.

FLOOD CONTROL SCHEDULE 2, Pool elevations reached between 746.0 and 755.0 feet
Release up to a maximum of 4,000 cfs subject to Limitations 1 thru 4, shown hereon.

FLOOD CONTROL SCHEDULE 3, Pool elevations reached greater than 755.0 feet
Release up to a maximum of 6,400 cfs subject to Limitations 1 thru 4, shown hereon.

EMERGENCY RELEASE SCHEDULE

Pool Elevation (feet)	Gate Releases (cfs)
764.8 - 771.0	0
771.0 - 771.3	800
771.3 - 771.5	1,700
771.5 - 771.8	2,500
771.8 - 772.0	3,300
772.0 - 772.3	4,200
772.3 - 772.5	5,000
772.5 - 772.8	5,800
772.8 - 773.0	6,600
773.0 and above	7,500 (gates 100% open)

NOTES:

1. Gates may be used when the pool is above spillway crest (elevation 764.8 feet) for Flood Control Schedule 3 releases; however, the sum of the spill and the releases must not exceed 6,400 cfs (i.e. - outlet discharge is reduced as spillway discharge increases), and should not exceed Limitations 1 thru 4, shown hereon, to the extent possible.
2. The Corps of Engineers will reduce the flood control space on the 1st of March if it is determined the flood control functions of the project will not be impaired.
3. Normally, the summer pool elevation will be kept at 748.0 feet to maximize recreational opportunities at the lake; however, Sonoma County Water Agency retains the right to raise the summer pool elevation to 761.8 feet based on demonstrated demand and NEPA criteria being met.
4. Pertinent reservoir pool elevations correspond to the following reservoir storages:

737.5 ft	68,400 acre-feet	Top of Conservation Pool
746.0 ft	82,900 acre-feet	
748.0 ft	86,400 acre-feet	Summer Pool
755.0 ft	98,700 acre-feet	
761.8 ft	111,000 acre-feet	
764.8 ft	116,500 acre-feet	Spillway Crest
771.0 ft	128,100 acre-feet	
781.1 ft	147,900 acre-feet	Spillway Design Pool
784.0 ft	153,700 acre-feet	Top of Dam

LIMITATIONS

1. The rate of change for flood releases will be as follows when the pool elevation is at or below 764.8 ft:

Flow Range	Max Rate (cfs/hr) falling	rising
minimum - <250	25	1000
250 - <1000	250	1000
1000 - 6400	1000	2000

2. When flow at the Russian River near Ukiah gage exceeds 2,500 cfs and is rising, flows in the Russian River will be monitored hourly so that reductions in releases from Coyote Valley Dam can be made to ensure dam operations will adhere to all other limitations and operating criteria.
3. Flood releases which contribute to flows greater than 8,000 cfs at the Russian River near Hopland gage, will not be made, insofar as possible. Also, releases will be limited to the discharge that results in flow at the Russian River near Hopland gage being less than that reached during the previous storm or storm series. The previous storm or storm series is defined as an event(s) separated by no more than 10 days, which caused the highest flow at the specified gage location above.
4. When the National Weather Service QPF is 1 inch or more for the next 24 hours or 1/2 inch or more for any 6-hour period in the next 24 hours, flows in the Russian River will be monitored hourly so that reductions in releases from Coyote Valley Dam can be made to ensure dam operations will adhere to all other limitations and operating criteria.

USE OF DIAGRAM

1. Releases from the lake will be made in accordance with the highest schedule reached during the current or previous storm or storm series, shown hereon, subject to the applicable limitations.
2. Depending on conditions prevailing at the time, the Corps of Engineers District may direct that flood releases be increased or decreased from those required by this diagram without requiring a deviation.

Developed by PEP/BJA - Prepared by JSM

COYOTE VALLEY DAM - LAKE MENDOCINO
RUSSIAN RIVER, CALIFORNIA

WATER CONTROL DIAGRAM

U.S. ARMY CORPS OF ENGINEERS
SAN FRANCISCO DISTRICT
(Water Management by Sacramento District)

Lake Mendocino Water Control Flood Pool Designation

No. 1: March 1st
No. 2: April 1st

	(ft amsl)		(ac-ft)	
Date	**No. 1**	**No. 2**	**No. 1**	**No. 2**
01-Oct	761.80	761.80	111,000	111,000
02-Oct	760.99	760.99	109,580	109,580
03-Oct	760.18	760.18	108,160	108,160
04-Oct	759.37	759.37	106,740	106,740
05-Oct	758.56	758.56	105,320	105,320
06-Oct	757.75	757.75	103,900	103,900
07-Oct	756.94	756.94	102,480	102,480
08-Oct	756.13	756.13	101,060	101,060
09-Oct	755.32	755.32	99,640	99,640
10-Oct	754.51	754.51	98,220	98,220
11-Oct	753.70	753.70	96,800	96,800
12-Oct	752.89	752.89	95,380	95,380
13-Oct	752.08	752.08	93,960	93,960
14-Oct	751.27	751.27	92,540	92,540
15-Oct	750.46	750.46	91,120	91,120
16-Oct	749.65	749.65	89,700	89,700
17-Oct	748.84	748.84	88,280	88,280
18-Oct	748.03	748.03	86,860	86,860
19-Oct	747.22	747.22	85,440	85,440
20-Oct	746.41	746.41	84,020	84,020
21-Oct	745.60	745.60	82,600	82,600
22-Oct	744.79	744.79	81,180	81,180
23-Oct	743.98	743.98	79,760	79,760
24-Oct	743.17	743.17	78,340	78,340
25-Oct	742.36	742.36	76,920	76,920
26-Oct	741.55	741.55	75,500	75,500
27-Oct	740.74	740.74	74,080	74,080
28-Oct	739.93	739.93	72,660	72,660
29-Oct	739.12	739.12	71,240	71,240
30-Oct	738.31	738.31	69,820	69,820
31-Oct	737.50	737.50	68,400	68,400
01-Nov	737.50	737.50	68,400	68,400
02-Nov	737.50	737.50	68,400	68,400
03-Nov	737.50	737.50	68,400	68,400
04-Nov	737.50	737.50	68,400	68,400
05-Nov	737.50	737.50	68,400	68,400
06-Nov	737.50	737.50	68,400	68,400
07-Nov	737.50	737.50	68,400	68,400
08-Nov	737.50	737.50	68,400	68,400
09-Nov	737.50	737.50	68,400	68,400
10-Nov	737.50	737.50	68,400	68,400
11-Nov	737.50	737.50	68,400	68,400
12-Nov	737.50	737.50	68,400	68,400
13-Nov	737.50	737.50	68,400	68,400
14-Nov	737.50	737.50	68,400	68,400
15-Nov	737.50	737.50	68,400	68,400
16-Nov	737.50	737.50	68,400	68,400
17-Nov	737.50	737.50	68,400	68,400
18-Nov	737.50	737.50	68,400	68,400
19-Nov	737.50	737.50	68,400	68,400
20-Nov	737.50	737.50	68,400	68,400
21-Nov	737.50	737.50	68,400	68,400
22-Nov	737.50	737.50	68,400	68,400
23-Nov	737.50	737.50	68,400	68,400
24-Nov	737.50	737.50	68,400	68,400
25-Nov	737.50	737.50	68,400	68,400
26-Nov	737.50	737.50	68,400	68,400
27-Nov	737.50	737.50	68,400	68,400
28-Nov	737.50	737.50	68,400	68,400
29-Nov	737.50	737.50	68,400	68,400
30-Nov	737.50	737.50	68,400	68,400
01-Dec	737.50	737.50	68,400	68,400
02-Dec	737.50	737.50	68,400	68,400

	(ft amsl)		(ac-ft)	
Date	**No. 1**	**No. 2**	**No. 1**	**No. 2**
01-Apr	747.96	737.50	86,742	68,400
02-Apr	748.30	738.04	87,333	69,347
03-Apr	748.64	738.58	87,925	70,293
04-Apr	748.97	739.12	88,517	71,240
05-Apr	749.31	739.66	89,108	72,187
06-Apr	749.65	740.20	89,700	73,133
07-Apr	749.99	740.74	90,292	74,080
08-Apr	750.32	741.28	90,883	75,027
09-Apr	750.66	741.82	91,475	75,973
10-Apr	751.00	742.36	92,067	76,920
11-Apr	751.34	742.90	92,658	77,867
12-Apr	751.67	743.44	93,250	78,813
13-Apr	752.01	743.98	93,842	79,760
14-Apr	752.35	744.52	94,433	80,707
15-Apr	752.69	745.06	95,025	81,653
16-Apr	753.02	745.60	95,617	82,600
17-Apr	753.36	746.14	96,208	83,547
18-Apr	753.70	746.68	96,800	84,493
19-Apr	754.04	747.22	97,392	85,440
20-Apr	754.37	747.76	97,983	86,387
21-Apr	754.71	748.30	98,575	87,333
22-Apr	755.05	748.84	99,167	88,280
23-Apr	755.39	749.38	99,758	89,227
24-Apr	755.72	749.92	100,350	90,173
25-Apr	756.06	750.46	100,942	91,120
26-Apr	756.40	751.00	101,533	92,067
27-Apr	756.74	751.54	102,125	93,013
28-Apr	757.07	752.08	102,717	93,960
29-Apr	757.41	752.62	103,308	94,907
30-Apr	757.75	753.16	103,900	95,853
01-May	758.09	753.70	104,492	96,800
02-May	758.42	754.24	105,083	97,747
03-May	758.76	754.78	105,675	98,693
04-May	759.10	755.32	106,267	99,640
05-May	759.44	755.86	106,858	100,587
06-May	759.77	756.40	107,450	101,533
07-May	760.11	756.94	108,042	102,480
08-May	760.45	757.48	108,633	103,427
09-May	760.79	758.02	109,225	104,373
10-May	761.12	758.56	109,817	105,320
11-May	761.46	759.10	110,408	106,267
12-May	761.80	759.64	111,000	107,213
13-May	761.80	760.18	111,000	108,160
14-May	761.80	760.72	111,000	109,107
15-May	761.80	761.26	111,000	110,053
16-May	761.80	761.80	111,000	111,000
17-May	761.80	761.80	111,000	111,000
18-May	761.80	761.80	111,000	111,000
19-May	761.80	761.80	111,000	111,000
20-May	761.80	761.80	111,000	111,000
21-May	761.80	761.80	111,000	111,000
22-May	761.80	761.80	111,000	111,000
23-May	761.80	761.80	111,000	111,000
24-May	761.80	761.80	111,000	111,000
25-May	761.80	761.80	111,000	111,000
26-May	761.80	761.80	111,000	111,000
27-May	761.80	761.80	111,000	111,000
28-May	761.80	761.80	111,000	111,000
29-May	761.80	761.80	111,000	111,000
30-May	761.80	761.80	111,000	111,000
31-May	761.80	761.80	111,000	111,000
01-Jun	761.80	761.80	111,000	111,000
02-Jun	761.80	761.80	111,000	111,000

	(ft amsl)		(ac-ft)	
Date	**No. 1**	**No. 2**	**No. 1**	**No. 2**
03-Dec	737.50	737.50	68,400	68,400
04-Dec	737.50	737.50	68,400	68,400
05-Dec	737.50	737.50	68,400	68,400
06-Dec	737.50	737.50	68,400	68,400
07-Dec	737.50	737.50	68,400	68,400
08-Dec	737.50	737.50	68,400	68,400
09-Dec	737.50	737.50	68,400	68,400
10-Dec	737.50	737.50	68,400	68,400
11-Dec	737.50	737.50	68,400	68,400
12-Dec	737.50	737.50	68,400	68,400
13-Dec	737.50	737.50	68,400	68,400
14-Dec	737.50	737.50	68,400	68,400
15-Dec	737.50	737.50	68,400	68,400
16-Dec	737.50	737.50	68,400	68,400
17-Dec	737.50	737.50	68,400	68,400
18-Dec	737.50	737.50	68,400	68,400
19-Dec	737.50	737.50	68,400	68,400
20-Dec	737.50	737.50	68,400	68,400
21-Dec	737.50	737.50	68,400	68,400
22-Dec	737.50	737.50	68,400	68,400
23-Dec	737.50	737.50	68,400	68,400
24-Dec	737.50	737.50	68,400	68,400
25-Dec	737.50	737.50	68,400	68,400
26-Dec	737.50	737.50	68,400	68,400
27-Dec	737.50	737.50	68,400	68,400
28-Dec	737.50	737.50	68,400	68,400
29-Dec	737.50	737.50	68,400	68,400
30-Dec	737.50	737.50	68,400	68,400
31-Dec	737.50	737.50	68,400	68,400
01-Jan	737.50	737.50	68,400	68,400
02-Jan	737.50	737.50	68,400	68,400
03-Jan	737.50	737.50	68,400	68,400
04-Jan	737.50	737.50	68,400	68,400
05-Jan	737.50	737.50	68,400	68,400
06-Jan	737.50	737.50	68,400	68,400
07-Jan	737.50	737.50	68,400	68,400
08-Jan	737.50	737.50	68,400	68,400
09-Jan	737.50	737.50	68,400	68,400
10-Jan	737.50	737.50	68,400	68,400
11-Jan	737.50	737.50	68,400	68,400
12-Jan	737.50	737.50	68,400	68,400
13-Jan	737.50	737.50	68,400	68,400
14-Jan	737.50	737.50	68,400	68,400
15-Jan	737.50	737.50	68,400	68,400
16-Jan	737.50	737.50	68,400	68,400
17-Jan	737.50	737.50	68,400	68,400
18-Jan	737.50	737.50	68,400	68,400
19-Jan	737.50	737.50	68,400	68,400
20-Jan	737.50	737.50	68,400	68,400
21-Jan	737.50	737.50	68,400	68,400
22-Jan	737.50	737.50	68,400	68,400
23-Jan	737.50	737.50	68,400	68,400
24-Jan	737.50	737.50	68,400	68,400
25-Jan	737.50	737.50	68,400	68,400
26-Jan	737.50	737.50	68,400	68,400
27-Jan	737.50	737.50	68,400	68,400
28-Jan	737.50	737.50	68,400	68,400
29-Jan	737.50	737.50	68,400	68,400
30-Jan	737.50	737.50	68,400	68,400
31-Jan	737.50	737.50	68,400	68,400
01-Feb	737.50	737.50	68,400	68,400
02-Feb	737.50	737.50	68,400	68,400
03-Feb	737.50	737.50	68,400	68,400
04-Feb	737.50	737.50	68,400	68,400
05-Feb	737.50	737.50	68,400	68,400
06-Feb	737.50	737.50	68,400	68,400
07-Feb	737.50	737.50	68,400	68,400

	(ft amsl)		(ac-ft)	
Date	**No. 1**	**No. 2**	**No. 1**	**No. 2**
03-Jun	761.80	761.80	111,000	111,000
04-Jun	761.80	761.80	111,000	111,000
05-Jun	761.80	761.80	111,000	111,000
06-Jun	761.80	761.80	111,000	111,000
07-Jun	761.80	761.80	111,000	111,000
08-Jun	761.80	761.80	111,000	111,000
09-Jun	761.80	761.80	111,000	111,000
10-Jun	761.80	761.80	111,000	111,000
11-Jun	761.80	761.80	111,000	111,000
12-Jun	761.80	761.80	111,000	111,000
13-Jun	761.80	761.80	111,000	111,000
14-Jun	761.80	761.80	111,000	111,000
15-Jun	761.80	761.80	111,000	111,000
16-Jun	761.80	761.80	111,000	111,000
17-Jun	761.80	761.80	111,000	111,000
18-Jun	761.80	761.80	111,000	111,000
19-Jun	761.80	761.80	111,000	111,000
20-Jun	761.80	761.80	111,000	111,000
21-Jun	761.80	761.80	111,000	111,000
22-Jun	761.80	761.80	111,000	111,000
23-Jun	761.80	761.80	111,000	111,000
24-Jun	761.80	761.80	111,000	111,000
25-Jun	761.80	761.80	111,000	111,000
26-Jun	761.80	761.80	111,000	111,000
27-Jun	761.80	761.80	111,000	111,000
28-Jun	761.80	761.80	111,000	111,000
29-Jun	761.80	761.80	111,000	111,000
30-Jun	761.80	761.80	111,000	111,000
01-Jul	761.80	761.80	111,000	111,000
02-Jul	761.80	761.80	111,000	111,000
03-Jul	761.80	761.80	111,000	111,000
04-Jul	761.80	761.80	111,000	111,000
05-Jul	761.80	761.80	111,000	111,000
06-Jul	761.80	761.80	111,000	111,000
07-Jul	761.80	761.80	111,000	111,000
08-Jul	761.80	761.80	111,000	111,000
09-Jul	761.80	761.80	111,000	111,000
10-Jul	761.80	761.80	111,000	111,000
11-Jul	761.80	761.80	111,000	111,000
12-Jul	761.80	761.80	111,000	111,000
13-Jul	761.80	761.80	111,000	111,000
14-Jul	761.80	761.80	111,000	111,000
15-Jul	761.80	761.80	111,000	111,000
16-Jul	761.80	761.80	111,000	111,000
17-Jul	761.80	761.80	111,000	111,000
18-Jul	761.80	761.80	111,000	111,000
19-Jul	761.80	761.80	111,000	111,000
20-Jul	761.80	761.80	111,000	111,000
21-Jul	761.80	761.80	111,000	111,000
22-Jul	761.80	761.80	111,000	111,000
23-Jul	761.80	761.80	111,000	111,000
24-Jul	761.80	761.80	111,000	111,000
25-Jul	761.80	761.80	111,000	111,000
26-Jul	761.80	761.80	111,000	111,000
27-Jul	761.80	761.80	111,000	111,000
28-Jul	761.80	761.80	111,000	111,000
29-Jul	761.80	761.80	111,000	111,000
30-Jul	761.80	761.80	111,000	111,000
31-Jul	761.80	761.80	111,000	111,000
01-Aug	761.80	761.80	111,000	111,000
02-Aug	761.80	761.80	111,000	111,000
03-Aug	761.80	761.80	111,000	111,000
04-Aug	761.80	761.80	111,000	111,000
05-Aug	761.80	761.80	111,000	111,000
06-Aug	761.80	761.80	111,000	111,000
07-Aug	761.80	761.80	111,000	111,000
08-Aug	761.80	761.80	111,000	111,000

	(ft amsl)		(ac-ft)	
Date	**No. 1**	**No. 2**	**No. 1**	**No. 2**
08-Feb	737.50	737.50	68,400	68,400
09-Feb	737.50	737.50	68,400	68,400
10-Feb	737.50	737.50	68,400	68,400
11-Feb	737.50	737.50	68,400	68,400
12-Feb	737.50	737.50	68,400	68,400
13-Feb	737.50	737.50	68,400	68,400
14-Feb	737.50	737.50	68,400	68,400
15-Feb	737.50	737.50	68,400	68,400
16-Feb	737.50	737.50	68,400	68,400
17-Feb	737.50	737.50	68,400	68,400
18-Feb	737.50	737.50	68,400	68,400
19-Feb	737.50	737.50	68,400	68,400
20-Feb	737.50	737.50	68,400	68,400
21-Feb	737.50	737.50	68,400	68,400
22-Feb	737.50	737.50	68,400	68,400
23-Feb	737.50	737.50	68,400	68,400
24-Feb	737.50	737.50	68,400	68,400
25-Feb	737.50	737.50	68,400	68,400
26-Feb	737.50	737.50	68,400	68,400
27-Feb	737.50	737.50	68,400	68,400
28-Feb	737.50	737.50	68,400	68,400
01-Mar	737.50	737.50	68,400	68,400
02-Mar	737.84	737.50	68,992	68,400
03-Mar	738.18	737.50	69,583	68,400
04-Mar	738.51	737.50	70,175	68,400
05-Mar	738.85	737.50	70,767	68,400
06-Mar	739.19	737.50	71,358	68,400
07-Mar	739.53	737.50	71,950	68,400
08-Mar	739.86	737.50	72,542	68,400
09-Mar	740.20	737.50	73,133	68,400
10-Mar	740.54	737.50	73,725	68,400
11-Mar	740.88	737.50	74,317	68,400
12-Mar	741.21	737.50	74,908	68,400
13-Mar	741.55	737.50	75,500	68,400
14-Mar	741.89	737.50	76,092	68,400
15-Mar	742.23	737.50	76,683	68,400
16-Mar	742.56	737.50	77,275	68,400
17-Mar	742.90	737.50	77,867	68,400
18-Mar	743.24	737.50	78,458	68,400
19-Mar	743.58	737.50	79,050	68,400
20-Mar	743.91	737.50	79,642	68,400
21-Mar	744.25	737.50	80,233	68,400
22-Mar	744.59	737.50	80,825	68,400
23-Mar	744.93	737.50	81,417	68,400
24-Mar	745.26	737.50	82,008	68,400
25-Mar	745.60	737.50	82,600	68,400
26-Mar	745.94	737.50	83,192	68,400
27-Mar	746.27	737.50	83,783	68,400
28-Mar	746.61	737.50	84,375	68,400
29-Mar	746.95	737.50	84,967	68,400
30-Mar	747.29	737.50	85,558	68,400
31-Mar	747.62	737.50	86,150	68,400

	(ft amsl)		(ac-ft)	
Date	**No. 1**	**No. 2**	**No. 1**	**No. 2**
09-Aug	761.80	761.80	111,000	111,000
10-Aug	761.80	761.80	111,000	111,000
11-Aug	761.80	761.80	111,000	111,000
12-Aug	761.80	761.80	111,000	111,000
13-Aug	761.80	761.80	111,000	111,000
14-Aug	761.80	761.80	111,000	111,000
15-Aug	761.80	761.80	111,000	111,000
16-Aug	761.80	761.80	111,000	111,000
17-Aug	761.80	761.80	111,000	111,000
18-Aug	761.80	761.80	111,000	111,000
19-Aug	761.80	761.80	111,000	111,000
20-Aug	761.80	761.80	111,000	111,000
21-Aug	761.80	761.80	111,000	111,000
22-Aug	761.80	761.80	111,000	111,000
23-Aug	761.80	761.80	111,000	111,000
24-Aug	761.80	761.80	111,000	111,000
25-Aug	761.80	761.80	111,000	111,000
26-Aug	761.80	761.80	111,000	111,000
27-Aug	761.80	761.80	111,000	111,000
28-Aug	761.80	761.80	111,000	111,000
29-Aug	761.80	761.80	111,000	111,000
30-Aug	761.80	761.80	111,000	111,000
31-Aug	761.80	761.80	111,000	111,000
01-Sep	761.80	761.80	111,000	111,000
02-Sep	761.80	761.80	111,000	111,000
03-Sep	761.80	761.80	111,000	111,000
04-Sep	761.80	761.80	111,000	111,000
05-Sep	761.80	761.80	111,000	111,000
06-Sep	761.80	761.80	111,000	111,000
07-Sep	761.80	761.80	111,000	111,000
08-Sep	761.80	761.80	111,000	111,000
09-Sep	761.80	761.80	111,000	111,000
10-Sep	761.80	761.80	111,000	111,000
11-Sep	761.80	761.80	111,000	111,000
12-Sep	761.80	761.80	111,000	111,000
13-Sep	761.80	761.80	111,000	111,000
14-Sep	761.80	761.80	111,000	111,000
15-Sep	761.80	761.80	111,000	111,000
16-Sep	761.80	761.80	111,000	111,000
17-Sep	761.80	761.80	111,000	111,000
18-Sep	761.80	761.80	111,000	111,000
19-Sep	761.80	761.80	111,000	111,000
20-Sep	761.80	761.80	111,000	111,000
21-Sep	761.80	761.80	111,000	111,000
22-Sep	761.80	761.80	111,000	111,000
23-Sep	761.80	761.80	111,000	111,000
24-Sep	761.80	761.80	111,000	111,000
25-Sep	761.80	761.80	111,000	111,000
26-Sep	761.80	761.80	111,000	111,000
27-Sep	761.80	761.80	111,000	111,000
28-Sep	761.80	761.80	111,000	111,000
29-Sep	761.80	761.80	111,000	111,000
30-Sep	761.80	761.80	111,000	111,000

Cumulative inflow to Lake Phillsbury (Acre Feet) as of	1/1	2/1	3/1	4/1	5/1	6/1	
NORMAL	≥8,000	≥39,200	≥65,700	≥114,500	≥145,600	≥160,000	Water Supply Conditions Prevailing on 6/1 Apply Through 12/31
DRY	<8,000	<39,200	<65,700	<114,500	<145,600	<160,000	
CRITICAL DRY	<4,000	<20,000	<45,000	<50,000	<70,000	<75,000	

LEGEND

All flows are minimums, expressed in cubic feet per second.

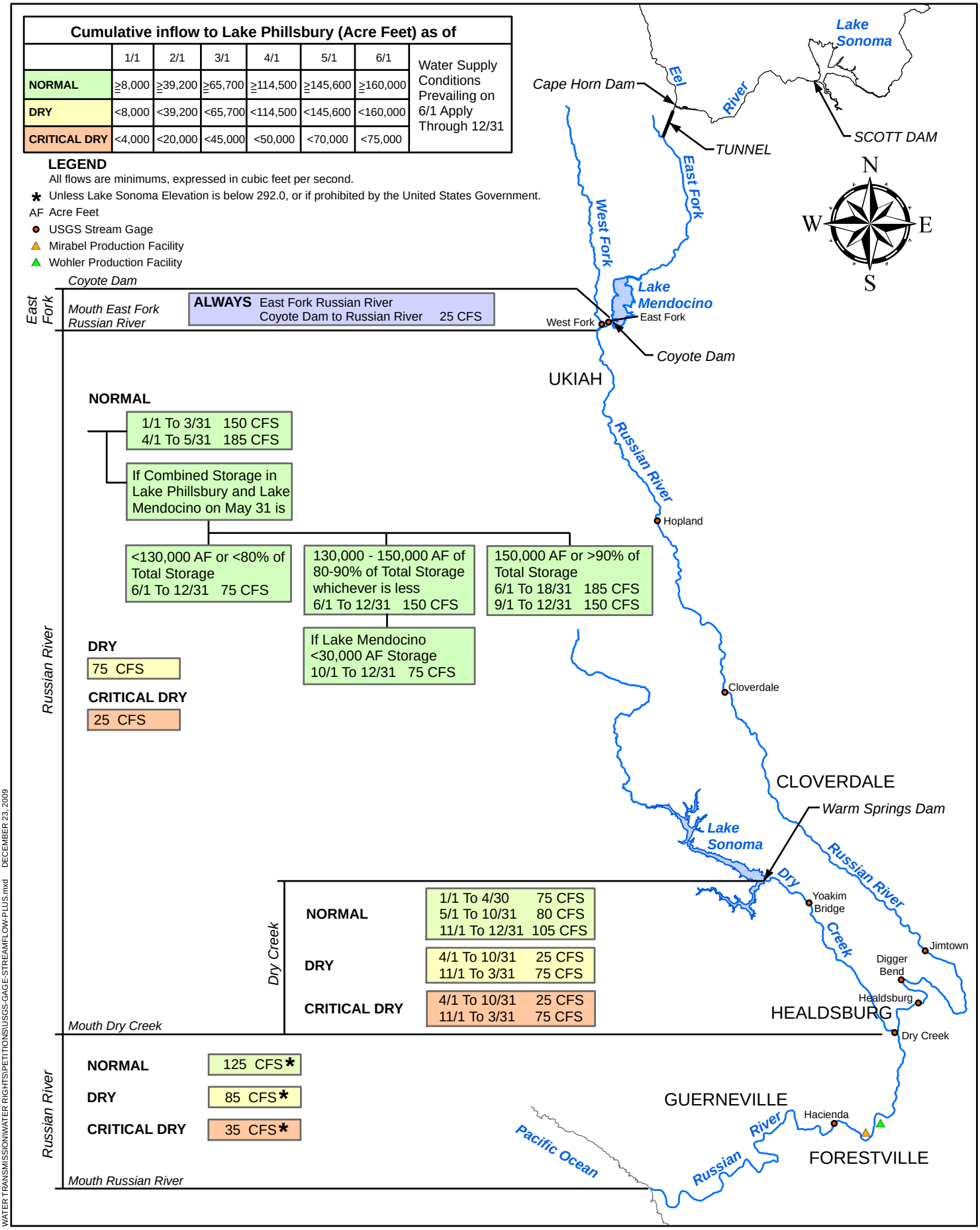
* Unless Lake Sonoma Elevation is below 292.0, or if prohibited by the United States Government.

AF Acre Feet

USGS Stream Gage

Mirabel Production Facility

Wohler Production Facility



Coyote Dam

East Fork

Mouth East Fork Russian River

ALWAYS East Fork Russian River Coyote Dam to Russian River 25 CFS

Russian River

NORMAL

1/1 To 3/31 150 CFS
4/1 To 5/31 185 CFS

If Combined Storage in Lake Phillsbury and Lake Mendocino on May 31 is

<130,000 AF or <80% of Total Storage
6/1 To 12/31 75 CFS

130,000 - 150,000 AF of 80-90% of Total Storage whichever is less
6/1 To 12/31 150 CFS

If Lake Mendocino <30,000 AF Storage
10/1 To 12/31 75 CFS

150,000 AF or >90% of Total Storage
6/1 To 18/31 185 CFS
9/1 To 12/31 150 CFS

DRY

75 CFS

CRITICAL DRY

25 CFS

Dry Creek

NORMAL

1/1 To 4/30 75 CFS
5/1 To 10/31 80 CFS
11/1 To 12/31 105 CFS

DRY

4/1 To 10/31 25 CFS
11/1 To 3/31 75 CFS

CRITICAL DRY

4/1 To 10/31 25 CFS
11/1 To 3/31 75 CFS

Mouth Dry Creek

Russian River

NORMAL 125 CFS*

DRY 85 CFS*

CRITICAL DRY 35 CFS*

Mouth Russian River

WATER TRANSMISSION\WATER RIGHTS\PETITIONS\USGS-GAGE-STREAMFLOW-PLUS.mxd DECEMBER 23, 2009

Russian River Basin
Streamflow Requirements

Per State Water Resources Control Board Decision 1610, April 1986

- Home > Water Supply > **Current Water Supply Conditions**

Current Water Supply Conditions

Daily Reservoir Operation Status

Sonoma County Water Agency (SCWA) is the local cost-sharing partner for Lake Mendocino and Lake Sonoma, and determines the amount of water to be released when the lake level is in the water supply pools. The US Army Corps of Engineers determines the amount of water to be released when the lake level is above the water supply pools and in the flood control pools.

The Russian River is a managed river system with reservoir releases controlling river flows, especially throughout most of the summer and fall. When tributary stream flows are low, SCWA releases water stored in the reservoirs to supplement the natural flows in the Russian River to provide adequate flows for water supply, recreation and aquatic habitat. A release from a reservoir can be categorized as being of 'pass-through water' or 'stored water'. The term 'project water' is often used instead of stored water and is used to describe water that is present because of the dam and reservoir project. Pass-through water is water flowing into the reservoir that is not stored in, but passes through, the reservoir. Project water releases to supplement the natural flows in the Russian River and Dry Creek are necessary to meet mandatory minimum streamflow requirements that exist for both of these watercourses.

Current status of reservoir and river operations:

Last Update: 12/30/2009 @ 10:00	Operational Control	Agency is Releasing Project Water to Meet Instream Flow Requirements
Lake Mendocino	Water Agency	No
Lake Sonoma	Water Agency	No
Lower Russian River (Dry Creek to Hacienda Bridge)	-	No

Monthly Summary Data

Reservoir Levels and Releases

Last Update: 12/29/2009 @ 10:00	Water Supply Pool Capacity (acre-feet)	Current Water Supply Pool Storage (acre-feet)	Water Supply Storage % Full	Reservoir Release (cfs)	Required Minimum Instream Flow (cfs)	Instream Flow Regulatory Region
Lake Mendocino	68,400	33,337	49%	102	75	Upper Russian River
Lake Sonoma	245,000	182,306	74%	115	105	Lower Dry Creek

*cfs—cubic feet per second

- Real-time Data for Lake Sonoma Reservoir
- Real-time Data for Lake Mendocino Reservoir

Russian River Flow Data

Last Update: 12/28/2009 @ 10:00	Flow (cfs)	Required Minimum Instream Flow (cfs)	Instream Flow Regulatory Region
Hacienda Bridge	392	125	Lower Russian River

*cfs—cubic feet per second

- Real-time Flow Data for Russian River

PG&E Potter Valley Project Data

Last Update: 12/28/2009 @ 24:00	Water Supply Pool Capacity (acre-feet)	Current Water Supply Pool Storage (acre-feet)	Water Supply Storage % Full	Reservoir Release (cfs)	Cumulative Inflow as of Oct 1st (acre-feet)
Lake Pillsbury (Eel River Watershed)	78,901	27,235	36%	209	14138

Last Update: 12/28/2009 @ 24:00	Reservoir Release to Eel River (cfs)	Potter Valley Project Diversion (cfs)
Lake Van Arsdale	172	46

*cfs—cubic feet per second

- Real-time Data for Potter Valley Project

Disclaimer: The above data is based on provisional data that is subject to revision.