

**MONTEREY COUNTY WATER RESOURCES AGENCY  
BOARD OF DIRECTORS  
RESERVOIR OPERATIONS COMMITTEE**

**COMMITTEE MEMBERS**

David Hart, Chair  
Ken Ekelund  
Richard Ortiz  
Mark Nielsen  
David Pozzi  
Mark Gonzalez

John Baillie  
Benny Jefferson  
Dean Benedix  
Michael Tozzi (Parks)  
Mark Sandoval (CalParks)

**TIME:** 1:30 p.m.  
**DATE:** Thursday December 3, 2015  
**PLACE:** Monterey County Water Resources Agency  
Board Room  
893 Blanco Circle  
Salinas, CA 93901

**AGENDA**

- 1. CALL TO ORDER**
- 2. PUBLIC COMMENT**  
*(Limited to three (3) minutes per speaker on matters within the jurisdiction of the Agency not listed on this agenda. The public will have the opportunity to ask questions and make statements on agenda items as the Committee considers them.)*
- 3. APPROVE THE MINUTES OF THE RESERVOIR OPERATIONS COMMITTEE MEETING HELD ON NOVEMBER 5, 2015**  
The Committee will consider approval of the minutes of the above-mentioned meeting (Attachment 1).
- 4. REVIEW THE STATUS OF BOTH RESERVOIRS; REVIEW RELEASES AND RELEASE SCHEDULE**  
Staff will present a summary of current conditions at both reservoirs, as well as provide a synopsis of release changes that have occurred since the last meeting (Attachments 2, 2a, 3, 3a, 4).
- 5. RECEIVE REPORT ON THE STATUS OF THE OPERATIONS POLICY MANUAL FOR SAN ANTONIO AND NACIMIENTO RESERVOIRS**

Staff will report on the status of the current San Antonio and Nacimiento Reservoirs Operations Policy manual and discuss incorporating reservoir operational requirements implemented with the construction of the Salinas Valley Water Project.

6. **RECEIVE REPORT REGARDING OPERATIONS AND MAINTENANCE ACTIVITIES AT THE RESERVOIRS**  
Staff will present a verbal report discussing the various Operations and Maintenance activities at both reservoirs that have occurred over the last month.
7. **RECEIVE REPORT REGARDING INTERLAKE TUNNEL PROJECT**  
Staff will report on current activities regarding the Interlake Tunnel Project.
8. **RECEIVE REPORTS ON STATUS OF:**
  - A. LAKE RECREATION BY CONCESSIONAIRE & PARKS DEPARTMENT
  - B. EASEMENTS AND AGENCY LEASES
  - C. QUAGGA / ZEBRA MUSSEL PLAN
  - D. UPDATE ON SAN LUIS OBISPO COUNTY ACTIVITIES
  - E. NATIONAL MARINE FISHERIES SERVICE
  - F. CLOUD SEEDING
9. **SET NEXT MEETING DATE AND DISCUSS FUTURE AGENDA ITEMS**  
The Committee will discuss and determine details for its next meeting.
10. **ADJOURNMENT**

**MONTEREY COUNTY WATER RESOURCES AGENCY  
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**TIME:** 1:30 PM  
**DATE:** Thursday, November 5, 2015  
**PLACE:** Monterey County Water Resources Agency  
Board Room  
890 Blanco Circle  
Salinas, CA 93901  
(831) 755-4860

**MINUTES**

1. **CALL TO ORDER @ 1:32 p.m. by Chair David Hart and a quorum was established.**

**Members present:** David Hart, Richard Ortiz, Mark Nielsen, John Baillie, Benny Jefferson, Dean Benedix, Michael Tozzi, Mark Sandoval

**Members absent:** Ken Ekelund, David Pozzi, Mark Gonzalez

**Bill Stevens and Joel Casagrande, NOAA National Marine Fisheries Service (NMFS), participated in the meeting via Conference Call.**

2. **PUBLIC COMMENT**

The Committee stated that the minutes include NMFS participation via conference call. Benny Jefferson requested including a South County representative to sit on the subcommittee that will work on reviewing and updating the existing reservoir operations policy manuals.

3. **APPROVE THE MINUTES OF THE RESERVOIR OPERATIONS COMMITTEE MEETING HELD ON OCTOBER 1, 2015**

**ACTION:** On motion and second of Committee members Baillie and Sandoval, the Committee approved the minutes, revised to include NMFS participation.

**VOTE:** Motion carried unanimously by those members present.

4. **REVIEW THE STATUS OF BOTH RESERVOIRS; REVIEW RELEASES AND RELEASE SCHEDULE**

Germán Criollo, Associate Hydrologist, reported on this item. There is flow of 56 cfs in the Salinas River at the Bradley gage. End of flow in the Salinas River is at river mile 82.9. There

was no inflow to the reservoirs from the recent rains. The Committee requested an estimate of the total costs of releasing water from San Antonio with the use of pumps.

Nacimiento Reservoir elevation is 720.95 feet and 71,043 acre-feet of storage, 19% of capacity, and current release is 60 cfs.

San Antonio Reservoir elevation is 645.85 feet and 10,431 acre-feet of storage, 3% of capacity, and current release is 3 cfs.

**5. RECEIVE REPORT ON THE STATUS OF THE OPERATIONS POLICY MANUAL FOR SAN ANTONIO AND NACIMIENTO RESERVOIRS**

Brent Buche, Deputy General Manager, reported on this item.

**6. RECEIVE REPORT ON CLOUD SEEDING**

Dean Benedix, San Luis Obispo County Public Works, reported on this item.

**7. RECEIVE REPORT REGARDING OPERATIONS AND MAINTENANCE ACTIVITIES AT THE RESERVOIRS**

Brent Buche, Deputy General Manager, reported on this item.

**8. RECEIVE REPORT REGARDING INTERLAKE TUNNEL PROJECT**

Dave Chardavoyne, General Manager, reported on this item.

**9. RECEIVE REPORTS ON STATUS OF:**

**A. LAKE RECREATION BY CONCESSIONAIRE & PARKS DEPARTMENT**

Mark Sandoval, CalParks, and Mike Tozzi, Parks Department reported on this item.

**B. EASEMENTS AND AGENCY LEASES**

Brent Buche reported on this item.

**C. QUAGGA / ZEBRA MUSSEL PLAN**

Elizabeth Krafft, Senior Hydrologist, reported on this item.

**D. UPDATE ON SLO COUNTY ACTIVITIES**

Dean Benedix, San Luis Obispo County Public Works, reported on this item.

Public Comment: Mr. Jeff Taylor provided input

**E. NATIONAL MARINE FISHERIES SERVICE**

Bill Stevens and Joel Casagrande, NOAA National Marine Fisheries Service (NMFS), reported on this item.

**10. SET NEXT MEETING DATE AND DISCUSS FUTURE AGENDA ITEMS**

The next meeting is scheduled for Thursday December 3, 2015 at the Agency.

**11. ADJOURNMENT BY CHAIR DAVID HART AT 2:56 P.M.**

**SUBMITTED BY: TERESA CAMPA**

**MONTEREY COUNTY WATER RESOURCES AGENCY  
BOARD OF DIRECTORS - RESERVOIR OPERATIONS COMMITTEE**

<b>MEETING DATE:</b>	December 3, 2015	<b>AGENDA ITEM:</b>	
<b>AGENDA TITLE:</b>	Reservoir Release Update		
Consent ( )		Action ( )	
Information ( X )			
<b>SUBMITTED BY:</b>	Germán Criollo	<b>PREPARED BY:</b>	Jason Demers
<b>PHONE:</b>	(831) 755-4860	<b>PHONE:</b>	(831) 755-4860
<b>DEADLINE FOR BOARD ACTION:</b>		December 3, 2015	

**RECOMMENDED BOARD ACTION:**

None – item presented for informational purposes.

**SUMMARY:**

The Board of Directors receives monthly updates on the status of Agency reservoirs.

**DISCUSSION/ANALYSIS:**

**RESERVOIR ELEVATION / STORAGE:** As of November 23, 2015, San Antonio Reservoir is at an elevation of approximately 645.75 feet mean sea level (msl), 10,380 acre-feet of storage. Nacimiento Reservoir is at elevation 719.7 feet msl, 68,370 acre-feet of storage. San Antonio Reservoir is currently at 3% of storage capacity and Nacimiento Reservoir is at 18% of capacity.

**RESERVOIR RELEASES:** Beginning Friday, August 28, 2015, releases from San Antonio Reservoir were gradually increased from a rate of 5 cubic feet per second (cfs) up to a maximum rate of 191 cfs on September 4, 2015. Since that time, releases from San Antonio gradually reduced due to head loss until September 21, 2015 when bypass pumping of 3 cfs began. Releases from Nacimiento Reservoir remain at 60 cfs.

Releases as of November 24, 2015:

- San Antonio Reservoir: 3 cfs
- Nacimiento Reservoir: 60 cfs

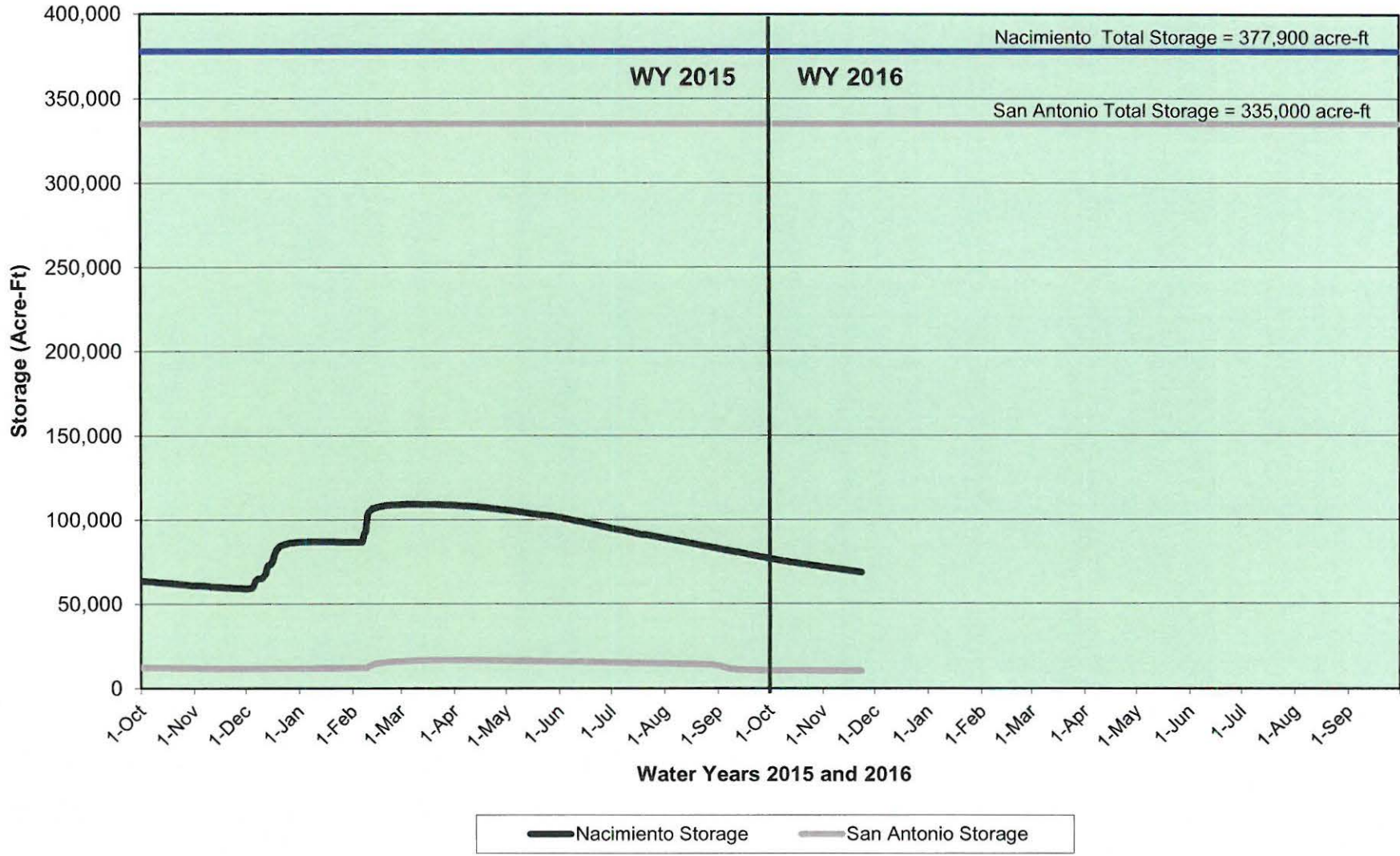
Total releases from both reservoirs to the Salinas River are approximately 63 cfs. The following “provisional” flows have been recorded by the USGS:

- Salinas River near Spreckels: 0 cfs
- Salinas River near Chualar: 0 cfs
- Salinas River near Soledad: 0 cfs
- Salinas River near Bradley: 72 cfs (steady)

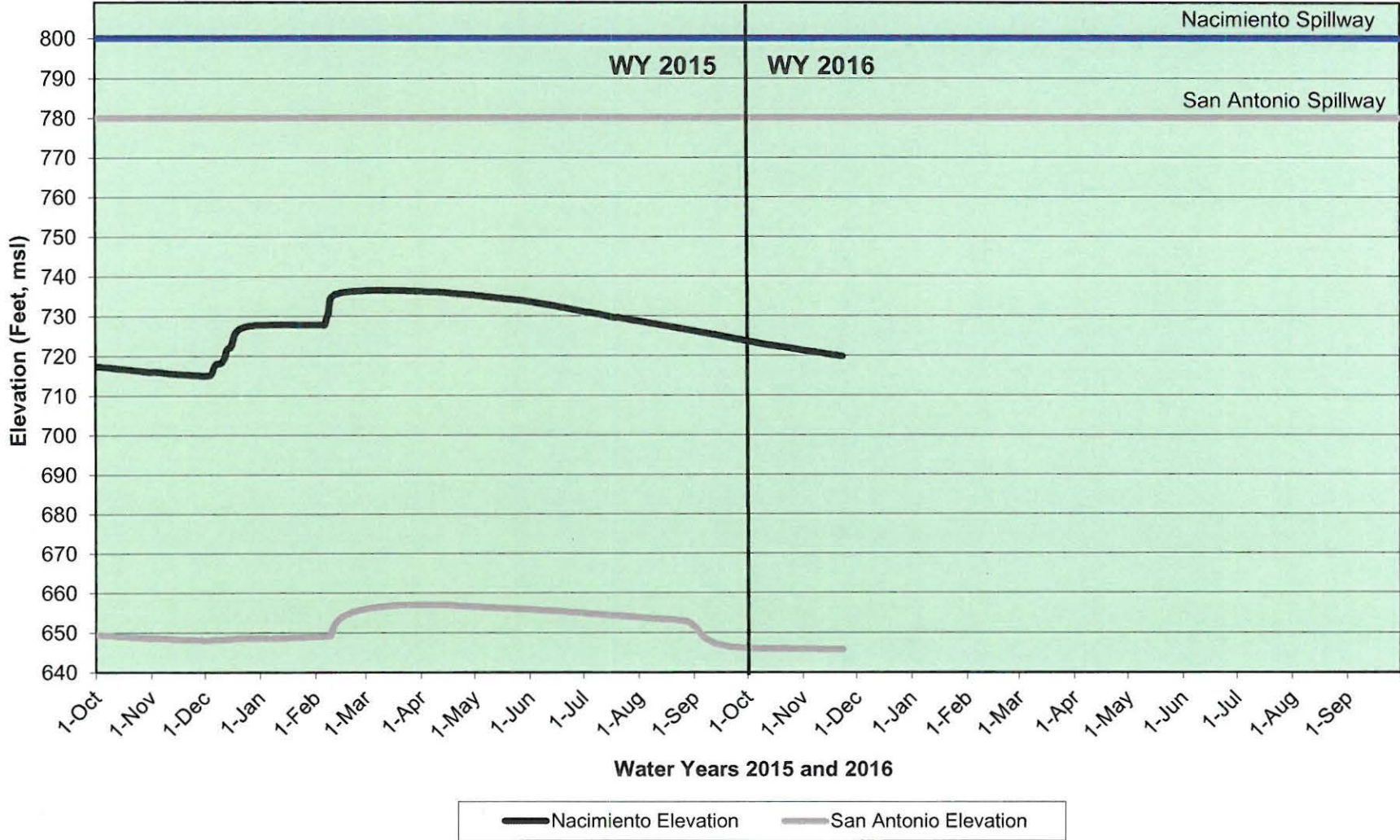
**Synopsis of Reservoir Release Changes from  
August 28, 2015 to November 30, 2015**

Date	San Antonio Reservoir		Nacimiento Reservoir		Total Releases
	Starting Flow	Ending Flow	Starting Flow	Ending Flow	
August 28, 2015	5	56	60	60	116
August 29, 2015	56	100	60	60	160
September 1, 2015	100	113	60	60	173
September 2, 2015	113	138	60	60	198
September 3, 2015	138	175	60	60	235
September 4, 2015	175	191	60	60	251
September 5, 2015	191	145	60	60	205
September 6, 2015	145	115	60	60	175
September 7, 2015	115	97	60	60	157
September 8, 2015	97	84	60	60	144
September 9, 2015	84	75	60	60	135
September 10, 2015	75	55	60	60	115
September 11, 2015	55	50	60	60	110
September 12, 2015	50	45	60	60	105
September 13, 2015	45	40	60	60	100
September 14, 2015	40	37	60	60	97
September 15, 2015	37	35	60	60	95
September 16, 2015	35	32	60	60	92
September 17, 2015	32	28	60	60	88
September 18, 2015	28	25	60	60	85
September 19, 2015	25	23	60	60	83
September 20, 2015	23	20	60	60	80
September 21, 2015	20	3	60	60	63

# Reservoir Storage



# Reservoir Elevation





**MONTEREY COUNTY WATER RESOURCES AGENCY**  
**PRELIMINARY - Estimated Elevation/Storage/NWP Diversions; after October 1<sup>st</sup>**

11/24/2015

**RESERVOIR RELEASE SCHEDULE FOR 2015**

	NACIMIENTO									SAN ANTONIO				
	Combined Releases (cfs)*	Combined Releases (ac-ft)	Evap. Losses (ac-ft)**	Reservoir Releases (cfs)*	Reservoir Releases (ac-ft)	NWP Orders (ac-ft)	NWP Diversions (ac-ft)	Storage (ac-ft)	Elev. (ft)	Evap. Losses (ac-ft)**	Reservoir Releases (cfs)*	Reservoir Releases (ac-ft)	Storage (ac-ft)	Elev. (ft)
1/1/2015								86,638	727.8				11,775	648.6
2/1/2015	35	2,152	263	30	1,845	175	0	86,515	727.7	67	5	307	12,003	649.0
3/1/2015	35	1,944	282	30	1,666	310	0	109,100	736.4	70	5	278	15,903	655.9
4/1/2015	35	2,152	600	30	1,845	923	0	108,550	736.2	141	5	307	16,618	657.0
5/1/2015	35	2,083	862	30	1,785	1,469	965	105,525	735.1	201	5	298	16,325	656.5
6/1/2015	41	2,549	756	36	2,241	2,009	1,303	101,225	733.5	180	5	307	15,838	655.8
7/1/2015	65	3,868	1,740	60	3,570	2,353	1,264	94,650	731.0	310	5	298	15,230	654.8
8/1/2015	65	3,997	1,070	60	3,689	2,334	1,171	88,720	728.6	293	5	307	14,630	653.8
9/1/2015	76	4,663	1,326	60	3,689	2,393	1,065	82,640	726.1	436	16	974	13,220	651.3
10/1/2015	112	6,651	1,537	60	3,570	2,175	908	76,625	723.5	311	52	3,081	10,507	646.0
11/1/2015	63	3,874	901	60	3,689	1,436	793	71,500	721.2	225	3	184	10,456	645.9
12/1/2015	63	3,749	455	60	3,570	951	TBR	67,530	719.3	77	3	179	10,355	645.7
1/1/2016						512	TBR							
<b>TOTALS:</b>		<b>37,681</b>	<b>9,790</b>		<b>31,161</b>	<b>17,040</b>	<b>7,470</b>			<b>2,310</b>		<b>6,520</b>		

\* Mean daily flow for the month in cubic feet per second.

\*\* Evap. Losses estimated from long term pan evaporation data at Nacimiento and San Antonio Reservoirs.

**NOTES:**

- Nacimiento Reservoir storage capacity 377,900 acre feet.
- San Antonio Reservoir storage capacity 335,000 acre feet.
- Reservoir Operations Committee may make release considerations for fish spawn and holiday periods to benefit recreation.
- Shaded areas represent periods when elevations are influenced by inflow/runoff; releases may include flood control releases.
- Preliminary Schedule assumes no inflow to reservoirs after May 1st.
- "NWP Diversions" are San Luis Obispo County - Nacimiento Water Project conveyance facilities diversions. Max. allowable diversions for water year (Oct. 1 - Sept. 30) are 15,750 ac-ft. To Be Reported (TBR)
- NACIMIENTO "NWP Diversions" do not include lakeside water use which is estimated at approximately 1,750 acre feet per year.