

**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
Richard Riddle (Parks)
Mark Sandoval (CalParks)

TIME: 1:30 pm
DATE: Thursday December 4, 2014
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 6, 2014

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). Staff will discuss reservoir inflow and inflow forecasts.

5. RECEIVE REPORT ON CLOUD-SEEDING

Staff will report on and discuss possible options for cloud-seeding opportunities.

6. RECEIVE REPORT REGARDING OPERATIONS AND MAINTENANCE ACTIVITIES AT THE RESERVOIRS

Brent Buche, Assistant General Manager / Chief of Operations and Maintenance will present a verbal report discussing the various Operations and Maintenance activities at both reservoirs that have occurred over the last month.

7. 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 SLO COUNTY ACTIVITIES**

8. SET NEXT MEETING DATE AND DISCUSS FUTURE AGENDA ITEMS

The Committee will discuss and determine details for its next meeting.

9. ADJOURNMENT

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

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

John Baillie
Benny Jefferson
Dean Benedix
Richard Riddle (Parks)
Mark Sandoval (CalParks)

TIME: 1:30 p.m.
DATE: **Thursday, November 6, 2014**
PLACE: Monterey County Water Resources Agency
Board Room
893 Blanco Circle
Salinas, CA 93901
(831) 755-4860

MINUTES

1. CALL TO ORDER @ 1:30 p.m. by Chair David Hart.

Members present: David Hart, Ken Ekelund, Richard Ortiz, Mark Nielsen, David Pozzi, John Baillie, Casey Nielsen, *(for Richard Riddle)*, Nate Merkle *(for Mark Sandoval)*

Members absent: Mark Gonzalez, Benny Jefferson, Dean Benedix

A quorum was established.

2. PUBLIC COMMENT

John Baillie commented on the Interlake Tunnel Project and stressed the importance of the project being carried out in the most cost-efficient manner. Mr. Baillie expressed concern about non-support from property owners if the project becomes too costly.

Staff announced a workshop on the Interlake Tunnel Project scheduled for Wednesday November 19, 2014 from 9:00 a.m. to 12:00 p.m., location still pending. The Agenda, available next week, will include a technical memo outlining the tasks that have been completed to-date. A second workshop will be scheduled at a later date.

3. APPROVE THE MINUTES OF THE RESERVOIR OPERATIONS COMMITTEE MEETING HELD ON OCTOBER 2, 2014

Committee Action: On motion and second of Committee members John Baillie and Richard Ortiz, the Committee unanimously approved the minutes.

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

Jason Demers, Hydrologist, provided a summary of current releases and conditions at both reservoirs. The USGS gage is recording approximately 32 cfs at the Salinas River near Bradley. Since the last meeting, the county has received two measurable rainfall events. On October 25-26 approximately 0.20 inch of rain fell in Salinas, with up to 0.50 inch of rain in the coastal mountains. Rainfall received between October 31-November 1st was approximately 1.00-1.50 inches in the Valley, with up to 2 inches in the higher elevations. There were no measurable flows from Nacimiento and San Antonio Rivers above the reservoirs as a result of these storms. The Committee asked if that Agency knew how much storage would be left in Nacimiento Reservoir if we had maintained 60 cfs minimum releases. Mr. Demers indicated he would provide an answer at the next Res-Op meeting.

Howard Franklin, Senior Water Resources Hydrologist, stated that staff will begin evaluating winter inflow forecasts, focusing on San Antonio Reservoir to estimate the amount of inflow that will be needed to operate the Salinas River Diversion Facility.

NACIMIENTO elevation is 715.85 feet and 60,665 acre-feet of storage, 16% of capacity, and current release is 30 cfs.

SAN ANTONIO elevation is 648.50 feet and 11,762 acre-feet of storage, 4% of capacity, and current release is 5 cfs.

5. RECEIVE REPORT ON TEMPERATURE SURVEY ON THE NACIMIENTO RIVER

Elizabeth Krafft, Senior Water Resources Hydrologist, provided a report on temperature monitoring on the Nacimiento River below Nacimiento Dam. River water temperatures are cooling from summer highs, currently in the 20° C and below range; which is the range of temperatures we like to see for steelhead habitat. Staff does not expect temperature issues through the remainder of the winter. It was announced that the Agency's Biologist has resigned his position. That loss of staff may result in the Agency reducing temperature reporting to bi-monthly or quarterly instead of the monthly reporting requested by National Marine Fisheries Service (NMFS). NMFS is not as concerned with winter temperatures and has indicated that the reduction in reporting frequency is acceptable.

6. RECEIVE REPORT ON WATER QUALITY SAMPLING AT SAN ANTONIO RESERVOIR

Tamara Voss, Hydrologist, provided a report on the results of water quality sampling at San Antonio Reservoir last month. The survey was undertaken to address Committee and BOD concerns of the potential for increased pathogen concentrations as a result of low water levels and increased wildlife presence at the reservoir.

Two samples, surface and depth, were collected at three sites in San Antonio. The samples were analyzed for Enterococcus, Total Coliform, Fecal Coliform, and E. coli. The sample locations were 1) by the dam, 2) the middle of the reservoir, and 3) by Harris Creek. Results are listed below:

- E. coli results were <10 for all sites/both surface and depth.
- Fecal Coliform results were either <2 or 2 for all sites/both surface and depth.
- Enterococcus results were <10 for all samples/all sites.
- Total Coliform results: Site 1 was 122/1376 surface/depth
Site 2 was 109-63 surface/depth
Site 3 was <10/171 surface/depth

All results were either below test reporting levels or less than CA health standards for impact to human health.

The cost for the six tests (two samples at each of the three sites) was estimated at approximately \$2,600 (including labor). The Agency does not have a revenue source identified for this or future testing. Casey Nielsen stated this testing was requested by the Wildflower Festival promoter due to water quality concerns that surfaced on social media, and that this testing is not routine for the event. Committee members suggested a program for annual sampling, especially prior to events such as the Wildflower. Mr. Nielsen suggested a possibility for cost-sharing with the Agency on future sampling at the reservoirs. Staff explained that routine (general mineral) sampling is conducted at the reservoirs in order to assess agricultural suitability and assess the risks of Quagga/Zebra Mussel infestation. Staff reported that water quality conditions in both reservoirs are very favorable to Quagga/Zebra Mussel infestation.

7. RECEIVE REPORT ON CLOUD-SEEDING

Howard Franklin, Senior Water Resources Hydrologist, provided a report. Agency staff has not had communication with other Counties regarding cloud-seeding efforts. Agency staff will contact the surrounding counties (Santa Cruz) to discuss interest in cost-sharing for cloud-seeding activities and report out next meeting.

8. RECEIVE REPORT REGARDING OPERATIONS AND MAINTENANCE ACTIVITIES AT THE RESERVOIRS

Chris Moss, Senior Water Resources Engineer provided a report on various Operations and Maintenance activities.

A. OPERATIONS AND MAINTENANCE ACTIVITIES

A list of maintenance “work items” for Nacimiento and San Antonio Dam, which include dam safety regulatory compliance items, was presented for review by the Committee. The list categorizes 48 “work items” for Nacimiento and 29 “work items” for San Antonio Dam. The categories included; priority (high/medium/low) regulatory reference (operations/maintenance/improvement), frequency of maintenance occurrence, estimated staff man-hours, and estimated consultant contractor supplies cost. The Committee discussed budget and other sources of revenue for these maintenance items and requested quarterly updates on the status of the maintenance “work items” list. Staff committed to another update in January, with quarterly updates to follow.

B. NACIMIENTO HYDROELECTRIC PLANT

A Power Production Analysis was presented and discussed. Staff discussed options for future modifications to the Hydroplant in order to maximize power generation within the parameters of our current and projected releases and reservoir elevations.

The Committee was reminded that a new power purchase contract became effective on April 1, 2014. Two shut-downs will be scheduled for maintenance at Nacimientto. The first shut-down will be for approximately four (4) hours in order to conduct maintenance on the switchyard transformer. The second shut-down will be for approximately three to four (3-4) days and includes several maintenance items: fire alarm repair, valve installation on the hydraulic power units, re-installment of accumulators, installment of ground-fault relay, and Unit 1 runner maintenance will be performed. Minimum flows will be maintained during these planned shutdowns. Planned maintenance shut downs must occur outside of the May thru October period.

C. DAM SAFETY REPORT

The Committee received a report on the safety of Nacimientto and San Antonio Dams. As a new requirement of the Federal Energy Regulatory Commission (FERC), the Agency must develop and maintain an "Owner's Dam Safety Program." The program was developed and documented; then presented to and adopted by Agency's Board of Directors in April 2014. The "Owner's Dam Safety Program" documents that both dams have been deemed safe for continued operation. The programs main components include on-going maintenance and surveillance. These plan components were discussed with the Committee. Improvement plans for dam safety were also discussed with the Committee. The program report document was provided to FERC and the California Department of Water Resources, Division of Safety of Dams (DSOD). The jurisdiction for Nacimientto Dam is the Agency, FERC, and DSOD. Jurisdiction of San Antonio Dam is the Agency and DSOD. Reporting requirements by FERC at Nacimientto are much more extensive than DSOD reporting requirements.

Committee Action: On motion and second of Committee members John Baillie and Ken Ekelund, the Committee received reports presented in Item 8: A, B and C.

9. RECEIVE REPORTS ON STATUS OF:

A. LAKE RECREATION BY CONCESSIONAIRE & PARKS DEPARTMENT

Casey Nielsen, Monterey County Parks Department, and Nate Merkle, CalParks, provided a status report. Mr. Nielsen thanked Elizabeth Krafft for her efforts on preparing and submitting the grant application for the Quagga / Zebra Mussel Program. Mr. Nielson also reported that there have been problems with the gate cable being cut at San Antonio by visitors exiting the park after hours. Parks is recruiting for a new director and hopes to fill the position in January 2015. Mr. Merkle reported that it was a difficult season for both lakes, especially San Antonio. Revenue for Nacimientto was 50% of normal for the summer. "Shallow Water" markers have been placed throughout Nacimientto but there have still been vessels running aground. During the winter, CalParks staff will be involved with maintenance projects and developing different marketing strategies for the reservoirs.

B. EASEMENTS AND AGENCY LEASES

Chris Keehn, Right-Of-Way Specialist, provided an update to the Committee. The owner of a 24-acre parcel adjacent to the Agency's Lease #2 at Nacimientto is requesting documentation of the easement to their parcel as they are considering the sale of that

parcel. The parcel owner is seeking verification of that easement from the Agency. Staff will update the Committee as the request is reviewed.

Staff updated the Committee on a previously reported a fiber-optic cable installation along the Tank Road, at San Antonio, which was originally scheduled to begin in June, 2014 by the U.S. Army. The project has not yet begun. The Army will add the Agency to a contact list and keep the Agency updated on the progress of the project.

There was discussion of an easement request which is currently being reviewed by County Counsel. Staff will continue to maintain contact with the property owner in an attempt to develop a solution. Also discussed was the possibility of a lease agreement with Tri-Counties.

C. QUAGGA / ZEBRA MUSSEL PLAN

Elizabeth Krafft, Senior Hydrologist, provided a report. Grant applications to the State Department of Boating and Waterways were due on October 20, 2014. After review, the Agency submitted, with the Parks Department, only one application for \$200,000 for Parks to provide education and outreach programs and enforcement. It was initially thought that we'd be able to submit two separate applications, one for the Agency and one for Parks, but it was learned that only thirteen grants would be dispersed statewide, and we'd likely be competing against ourselves. It was also learned that applicants must own or manage the lakes for which they are seeking grants, making SLO County ineligible for grant funding programs at Nacimiento or San Antonio reservoirs. Agency, Parks, and SLO staff will be meeting in two weeks to discuss planning for the Quagga/Zebra Mussel program next season. Committee members asked about the results of water samples collected at the reservoirs through October. Staff relayed that samples were negative for indications of infestation. The Agency will begin sampling again in April 2015. CA Fish & Wildlife will continue providing support for this sampling effort.

D. UPDATE ON SLO COUNTY ACTIVITIES

There was no SLO representative present – no update provided.

10. SET NEXT MEETING DATE AND DISCUSS FUTURE AGENDA ITEMS

The next meeting is scheduled for Thursday December 4, 2014 at 1:30 p.m. at the Agency.

11. ADJOURNMENT BY CHAIR DAVID HART @ 3:10 P.M.

SUBMITTED BY: TERESA CAMPA / HOWARD FRANKLIN

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

MEETING DATE:	December 4, 2014	AGENDA ITEM:	
AGENDA TITLE:	Reservoir Release Update		
	Consent ()	Action ()	Information (X)
SUBMITTED BY: PHONE:	Howard Franklin (831) 755-4860	PREPARED BY: PHONE:	Jason Demers (831) 755-4860
DEADLINE FOR BOARD ACTION:	December 4, 2014		

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, 2014, San Antonio Reservoir is at an elevation of approximately 648.2 feet mean sea level (msl), 11,611 acre-feet of storage. Nacimiento Reservoir is at elevation 715.15 feet msl, 59,335 acre-feet of storage. San Antonio Reservoir is currently at 3% of storage capacity and Nacimiento Reservoir is at 16% of capacity.

RESERVOIR RELEASES: As directed by the Agency Board of Directors and in coordination with guidelines provided by the National Marine Fisheries Service, releases from Nacimiento were incrementally decreased to a target flow rate of 25 cfs. Releases from San Antonio Reservoir remain at 5 cfs.

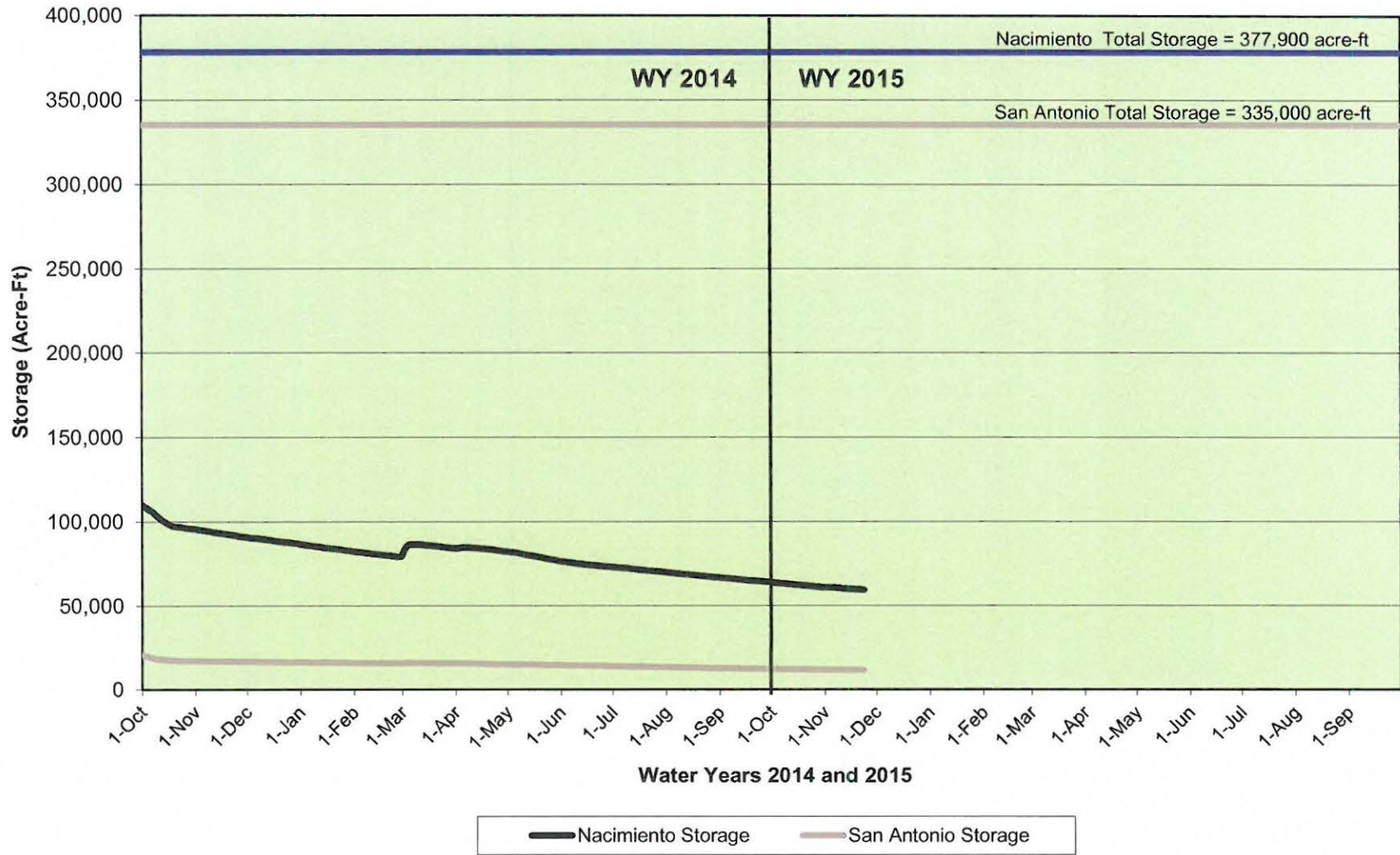
Releases as of November 23, 2014:

- Nacimiento Reservoir: 30 cfs
- San Antonio Reservoir: 5 cfs

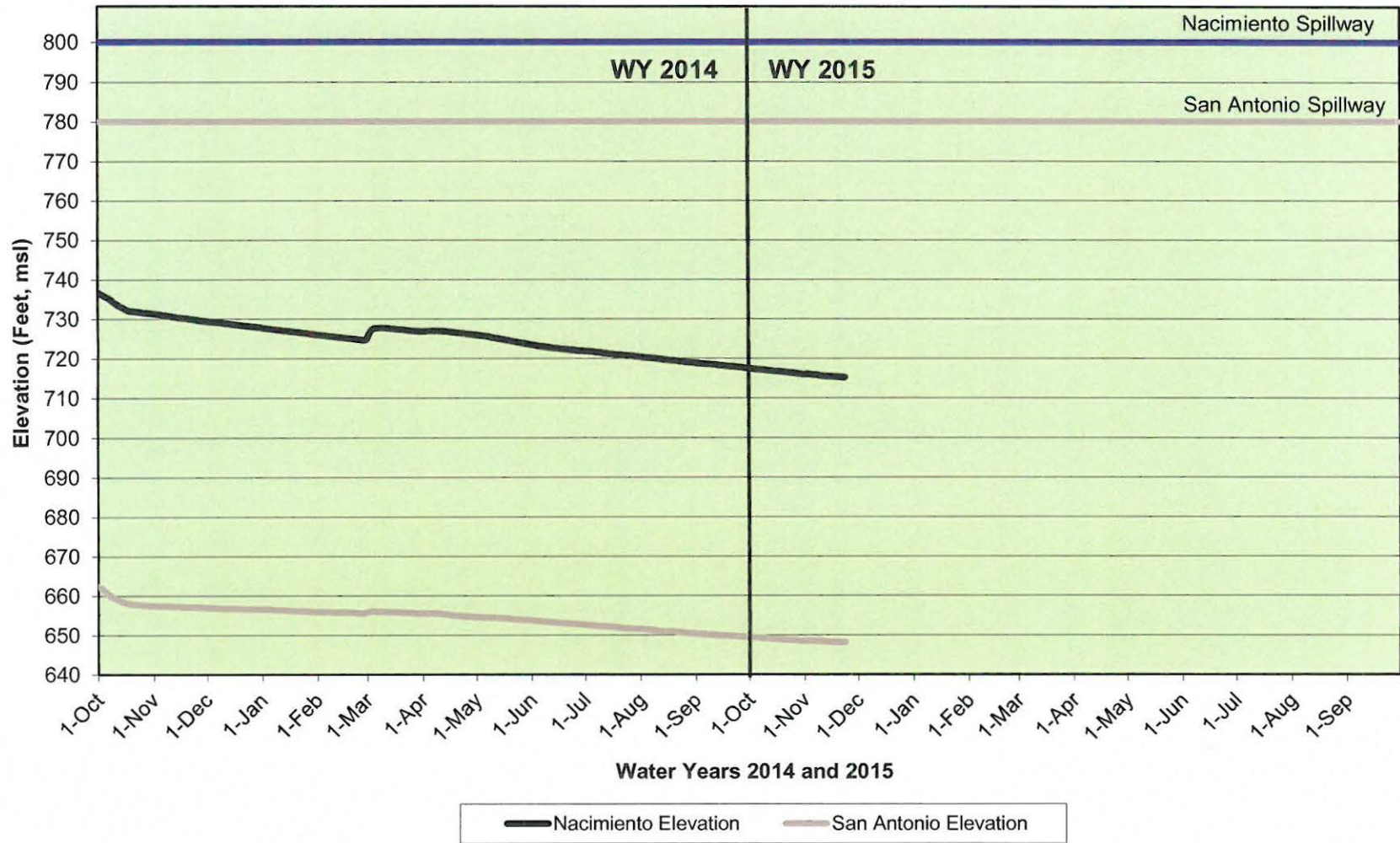
Total releases from both reservoirs to the Salinas River are approximately 35 cfs. The following “provisional” flows have been recorded by the USGS:

- Salinas River near Spreckels: 0 cfs
- Salinas River near Chualar: 0 cfs
- Salinas River near Soledad: 0 cfs
- Salinas River near Bradley: 24 cfs (steady)

Reservoir Storage



Reservoir Elevation



MONTEREY COUNTY WATER RESOURCES AGENCY

PRELIMINARY - Estimated Elevation/Storage/NWP Diversions after November 1st

11/23/2014

RESERVOIR RELEASE SCHEDULE FOR 2014

	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)
1/1/2014	70	4,304	237	60	3,689	755	123	86,393	727.7	68	10	615	16,390	656.6
2/1/2014	70	3,888	300	60	3,332	1,037	86	82,165	725.9	87	10	555	15,935	655.9
3/1/2014	71	4,346	563	61	3,731	1,033	91	81,695	725.7	151	10	615	15,935	655.9
4/1/2014	69	4,128	561	60	3,570	1,133	106	84,200	726.8	154	9	558	15,675	655.5
5/1/2014	65	3,997	1,215	60	3,689	1,165	819	82,012	725.8	135	5	307	15,042	654.5
6/1/2014	41	2,418	1,198	36	2,120	1,707	100	76,288	723.5	422	5	298	14,600	653.8
7/1/2014	36	2,188	1,237	31	1,880	1,907	0	72,870	721.8	302	5	307	13,880	652.6
8/1/2014	31	1,934	1,637	26	1,626	1,966	0	69,753	720.4	295	5	307	13,271	651.5
9/1/2014	30	2,083	1,055	30	1,785	1,758	0	66,490	718.8	130	5	298	12,669	650.3
10/1/2014	35	2,152	950	30	1,845	1,243	0	63,650	717.4	121	5	307	12,241	649.4
11/1/2014	30	1,785	420	25	1,488	953	TBR	60,855	716.0	149	5	298	11,813	648.6
12/1/2014	30	1,845	264	25	1,537	744	TBR	57,994	714.4	90	5	307	11,366	647.7
1/1/2015								55,449	713.0				10,969	646.9
TOTALS:		35,066	9,636		30,294	15,403	1,325			2,103		4,772		

* 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.