

**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 p.m.  
**DATE:** Thursday May 7, 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 APRIL 2, 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 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**  
Staff will present a verbal report discussing the various Operations and Maintenance activities at both reservoirs that have occurred over the last month.
  - A. NACIMIENTO HYDROELECTRIC PLANT**
  
- 7. RECEIVE REPORT REGARDING INTERLAKE TUNNEL PROJECT**  
Staff will report on current activities regarding the Interlake Tunnel Project.
  - A. INTERLAKE TUNNEL OPERATION CRITERIA**
  
- 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**
  
- 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 p.m.  
**DATE:** **Thursday, April 2, 2015**  
**PLACE:** Monterey County Water Resources Agency  
Board Room  
893 Blanco Circle  
Salinas, CA 93901  
(831) 755-4860

**MINUTES**

1. **CALL TO ORDER @ 1:32 p.m. by Chair David Hart.**  
Members present: David Hart, Richard Ortiz, Mark Nielsen, David Pozzi, John Baillie, Benny Jefferson, Dean Benedix, Mike Tozzi (representing Parks), Nate Merkle (representing CalParks)  
  
Members absent: Mark Gonzalez and Ken Ekelund  
  
A quorum was established.
2. **PUBLIC COMMENT**  
John D'Ornellas, General Manager, Heritage Ranch Community Services District (HRCSD) provided public comment. HRCSD uses water from Nacimiento reservoir as part of the San Luis Obispo (SLO) County entitlement. Last year HRCSD had the lowest water demand in 15 years as the community is reducing its water demand. HRCSD is coordinating with SLO County on the Nacimiento Water Project emergency work and will be connecting a pipe from the main pipeline to their pump station.
3. **APPROVE THE MINUTES OF THE RESERVOIR OPERATIONS COMMITTEE MEETING HELD ON MARCH 5, 2015**  
**Committee Action: On motion and second of Committee members John Baillie and David Pozzi / 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 status report. Nacimiento elevation is 736.15 feet and 108,413 acre-feet of storage, 29% of capacity, and current release is 25 cfs. San Antonio elevation is 656.95 feet and 16,618 acre-feet of storage, 5% of capacity, and current release is 5 cfs. Approximately 30 cfs is reaching the Salinas River at the Bradley gage. End of flow is between river miles 77 and 78, about 20 miles downstream of Bradley or approximately 10 miles upstream of King City.

Net gain in reservoir storage for the season at Nacimiento is about 50,000 acre-feet and approximately 5,000 acre-feet at San Antonio. San Antonio is still below minimum pool by about 6,500 acre-feet. Since approximately 10,000 acre-feet above minimum pool are needed at San Antonio to begin SRDF operations for the season, the SRDF won't be operated this year. San Antonio is about the same level as it was last year and Nacimiento is about 10 feet higher than last year. San Antonio releases were reduced from 10 cfs to 5 cfs on April 24<sup>th</sup> of last year.

Staff prepared a release schedule that keeps the releases at the current rate of 25-30 cfs from Nacimiento and 5 cfs from San Antonio for the rest of the year. The Nacimiento Water Project will resume water deliveries next week and a daily water usage will be provided to the Agency. This SLO County water usage will be reflected in the release schedule. Last month, the Committee asked if the release schedule could be in WY format. Staff stated that it has always been presented in a calendar-year format.

The water temperature monitoring devices downstream of Nacimiento Dam were in place during the winter but the data has not been checked monthly during the winter. Staff will resume monthly temperature monitoring in May 2015.

**5. RECEIVE REPORT ON CLOUD-SEEDING**

Germán Criollo, Associate Water Resources Hydrologist, reported on possible options for cloud-seeding opportunities. Staff conducted additional research on cloud-seeding programs including PG&E. Their program is similar to that of Sacramento Municipal Utility District. PG&E's program has been in place about 62 years and may not have encountered the same environmental impact constraints as the Agency would face currently. The Agency has received information from a company claiming water can be produced with atmospheric water generation.

Brent Buche provided an update on the Reservoir Operation Committee's recommendation to the Board of Directors. Staff presented the recommendation to direct the use of funds currently allocated for the cloud-seeding program, \$125,000, for the Agency to start researching cloud-seeding options and provide direction to staff. On March 23, 2015, the Board of Directors approved the \$125,000 for the 2015-16 Fiscal Year budget. The funds will be available July 1, 2015.

Benny Jefferson stated that the Committee has been discussing cloud-seeding for some time, and asked Bill Stevens over the phone if NOAA has funds available to help with Monterey

County's water situation. Mr. Stevens stated he's never heard of cloud-seeding discussed at NOAA but can look into the request.

SLO County staff stated they have proposed funds for cloud-seeding in the budget for next fiscal year. SLO County has discussed participation with two other agencies that may be interested. If Monterey County and SLO County obtain approval from CEQA for the use of a Negative Declaration instead of an EIR, then the initial study can begin immediately.

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

**A. QUARTERLY REPORT ON DAM OPERATIONS AND MAINTENANCE PROJECT PRIORITY LIST**

Chris Moss, Senior Water Resources Engineer, provided an update on operations and maintenance activities at the reservoirs. A list of maintenance items for Nacimiento and San Antonio was presented.

Nacimiento maintenance items include the addition of survey monuments to monitor settlement and movement. There are currently 13 monuments at various locations on the surface and an additional five are currently being installed. San Antonio has 20 monuments. DSOD has requested upgrades be made to some items on the spillway inflatable gates, including modifying the control logic. Other maintenance items include exercising the valves, emergency generators, low and high-level valves, rodent control, and vegetation management.

San Antonio maintenance activities include replacement of the trash-racks, which need to be designed. The settlement survey was completed two weeks ago. The annual piezometer monitoring is complete and the final report will be available next month. The contract for the surveillance work will expire at the end of the year and the Agency has issued a Request For Proposal (RFP) for a new contract. The annual piezometer flushing has been completed. Agency staff is working on finalizing the contract for work on the abutment and spillway drains.

The Committee requested items being carried over from last year be identified on the lists. The Committee asked when the trash racks would be installed at San Antonio. Staff stated that the racks are difficult to reach as they are mounted internally on the face of the structure and requires a person to climb through a hatch in order to make the repairs. Staff is evaluating different types of designs and are considering something with a face-mount instead that would enable future repairs to be carried out externally. The Committee suggested a design with a slide-gate system with rails that can slide out.

**B. NACIMIENTO HYDROELECTRIC PLANT**

Chris Moss provided an update on the Nacimiento Hydroelectric Plant. The Committee viewed a chart displaying the power generated in megawatts per day. The chart also displayed the power that could potentially be generated from reservoir releases. Releases were reduced from 60 cfs to 30 cfs in June 2014. Unit 2 was generating 0.12 megawatts per hour. Unit 2 was shut off due to the low reservoir elevation and insufficient amount of water to operate the unit. It resumed operation when the reservoir

elevation went above 728 ft. The amount of revenue generated from July 2014 through February 2015 is approximately \$35,000. Dave Chardavoigne, General Manager, stated that the lack of hydroelectric revenue hinders the ability to provide operations and maintenance to the facility. When in operation, Unit 1 can generate approximately \$1 million in revenue for the year. The Committee reviewed a list containing 71 maintenance items for the Nacimiento Hydroelectric Plant.

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

**A. INTERLAKE TUNNEL OPERATION CRITERIA**

Brent Buche, Assistant General Manager & Chief of Operations and Maintenance, reported on the Interlake Tunnel Project. The two Request For Proposal (RFP) documents, for Environmental Compliance and Engineering Services, were advertised earlier this week. The RFPs are being handled by Monterey County Purchasing Department and are available on the Agency and the County of Monterey websites. A mandatory meeting for contractors submitting proposals is scheduled for April 16, 2015 at Heritage Ranch Community Services District. A tour of the interlake tunnel portal sites at San Antonio and Nacimiento reservoirs will be given after the meeting. Proposals are due by 3 pm June 5, 2015. After proposals are evaluated, ranked, and screened, the most qualified firms will be invited for an interview. Staff anticipates awarding both contracts by mid July 2015.

At the public meeting at Heritage Ranch, there were questions about the operation criteria and feedback was provided by participants. Staff is planning to meet with NWRMAC to discuss this. In response to Committee questions about turbulence, staff stated it is mentioned in the RFP and staff is evaluating an energy dissipation structure at San Antonio. The tunnel will have a control valve with the ability to completely shut off the tunnel on the downstream. As the project moves forward, the Agency will continue providing updates to stakeholders and the public.

A discussion was held about the white bass population at Nacimiento Reservoir. White bass were introduced into Nacimiento Reservoir by the California Department of Fish & Wildlife (CDFW) years ago. Agency staff recently met with CDFW staff to discuss this and was advised to either eradicate or contain the white bass population in Nacimiento Reservoir. The Agency is uncertain if this is CDFW's final decision but will request a statement from them in writing. Nacimiento is the only reservoir in the California with a white bass population. They previously existed in another lake in California but were eradicated.

There was discussion about options for backing out of the project if necessary and staff replied that these options would be included in the contract with language specifying that the Agency has the ability to cancel the contract at any time. The Agency is requesting monthly estimates on the cost of the project which would provide early warnings of potential problems. Weekly meetings are held with the program manager and other supporting consultants to review updates. The project labor agreement must follow the requirements of AB 155. The Agency, labor unions, contractors, and landowners will be involved when establishing the protocols of the agreement. The Committee also expressed concern about the initial cost of \$20-30 million is now at \$60 million.

**8. RECOMMEND TO THE BOARD OF DIRECTORS TO APPROVE A NEW ONE-YEAR LEASE AGREEMENT WITH THE HERITAGE RANCH OWNERS ASSOCIATION(HROA) FOR 25 ACRES OF LAKEFRONT PROPERTY**

Brent Buche provided a verbal report with background and status information of the HROA lease for the Committee to consider recommending to the Board of Directors (BOD) to approve the lease. In 2012, the BOD approved the current lease agreement with HROA which will expire in June 1, 2015. This agreement was never completed because all agreements involving Agency property requires approval from both the BOD, and Board of Supervisors (BOS). HROA continued paying the monthly \$2,500 fee throughout the three year period of the agreement. Staff seeks the recommendation of this Committee to move this forward. This will be presented to the Personnel/Admin Committee, the BOD, and the BOS.

Tony Foti spoke on behalf of HROA. Mr. Foti talked about an area known as the Point which is a portion of the lake bottom that is currently dry. HROA plans to have the ramp open at this location for Memorial Day and hopefully through July 2015. This is an extremely busy area and one of HROA's best amenities and a very important part of the community's recreation. Mr. Foti stated that he was previously the chief of security there and made sure that the Agency's land was protected. He stated that HROA will continue to protect it and urged the Agency and the Committee to consider approving a new contract with HROA.

The Committee requested a map of the 25 acres and surrounding property. This was originally part of the Water World Resorts lease which leased the Agency land on the east coast of the lake up to HROA. Part of the property line goes through HROA and a 25 acre portion is water-bound on one side and HROA is adjacent. There are no grazing leases at that location. The Committee recommended all future leases be in the form of a seven year term.

**Committee Action: On motion and second of Committee members Benny Jefferson and John Baillie, the Committee recommends the Board of Directors approve a new three-year lease agreement with Heritage Ranch Owners Association for 25 acres of lakefront property.**

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

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

Nate Merkle from CalParks, provided a report. There was an increase in business due to the warm weather in March. Reservoir levels also increased a bit from the last rains. CalParks is concerned about the lingering perception of the lakes having "no water" but there are hopes to have a good season overall. There is gas available again at the reservoir, and it will be throughout the summer.

Mike Tozzi, Parks Department, provided a report. The new Parks Department director started this week and is getting oriented. As far as lake operations, the season is beginning to pick up and the hours have been expanded for the launch ramps and the

invasive species inspection program. San Antonio's North Shore lake recreational facility is still closed but South shore remains open.

Parks staff previously discussed the possibility of closing all of San Antonio in an effort to save manpower and costs due to staff and budget cutbacks. No action has been taken and staff is still evaluating these options. The Wildflower Festival is scheduled for May 2015 and a concert is scheduled for the Memorial Day weekend at North Shore. Parks is still faced with staffing challenges at the reservoirs.

**B. EASEMENTS AND AGENCY LEASES**

At the Committee's request, staff will obtain an update on the fiber-optic cable placement along Tank Road by military personnel. The Tri-County owners would like to lease a portion of a grazing lease parcel nearby. There has been no recent discussion about their house that is located on the Agency's property. The Committee requested a list of easement and leases awaiting review by County Counsel and suggested it be reviewed by the Personnel/Admin Committee and an update be provided by County Counsel.

**C. QUAGGA / ZEBRA MUSSEL PLAN**

Elizabeth Krafft, Senior Hydrologist, provided a report. Staff continues coordinating with SLO County staff on preparations for additional mussel prevention training. The Agency received an invitation to tour Lake Piru on April 24, 2015. Staff is seeking to learn about what action is being taken and what information is being provided to boaters at Lake Piru. Also, the Agency has requested CDFW staff to coordinate a tour to San Justo. Reservoir ramp coordinators would be invited to the tour. The Parks Department has been awarded a \$200,000 grant from CDFW.

**D. UPDATE ON SLO COUNTY ACTIVITIES**

An update on the Nacimiento Water Project was provided by John D'Ornellas in the public comment agenda item. Dean Benedix, San Luis Obispo County, provided an update on a grant application for \$250,000 by San Luis Obispo County.

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

The next meeting is scheduled for Thursday May 7, 2015 at 1:30 p.m. at the Agency. There was mention of holding the June meeting in South County and tour the site of the Interlake Tunnel Project.

**10. ADJOURNMENT BY CHAIR DAVID HART @ 3:08 P.M.**

**SUBMITTED BY: TERESA CAMPA**



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

<b>MEETING DATE:</b>	May 7, 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>	May 7, 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 April 30, 2015, San Antonio Reservoir is at an elevation of approximately 656.5 feet mean sea level (msl), 16,325 acre-feet of storage. Nacimiento Reservoir is at elevation 735.2 feet msl, 105,800 acre-feet of storage. San Antonio Reservoir is currently at 5% of storage capacity and Nacimiento Reservoir is at 28% 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 April 30, 2015:

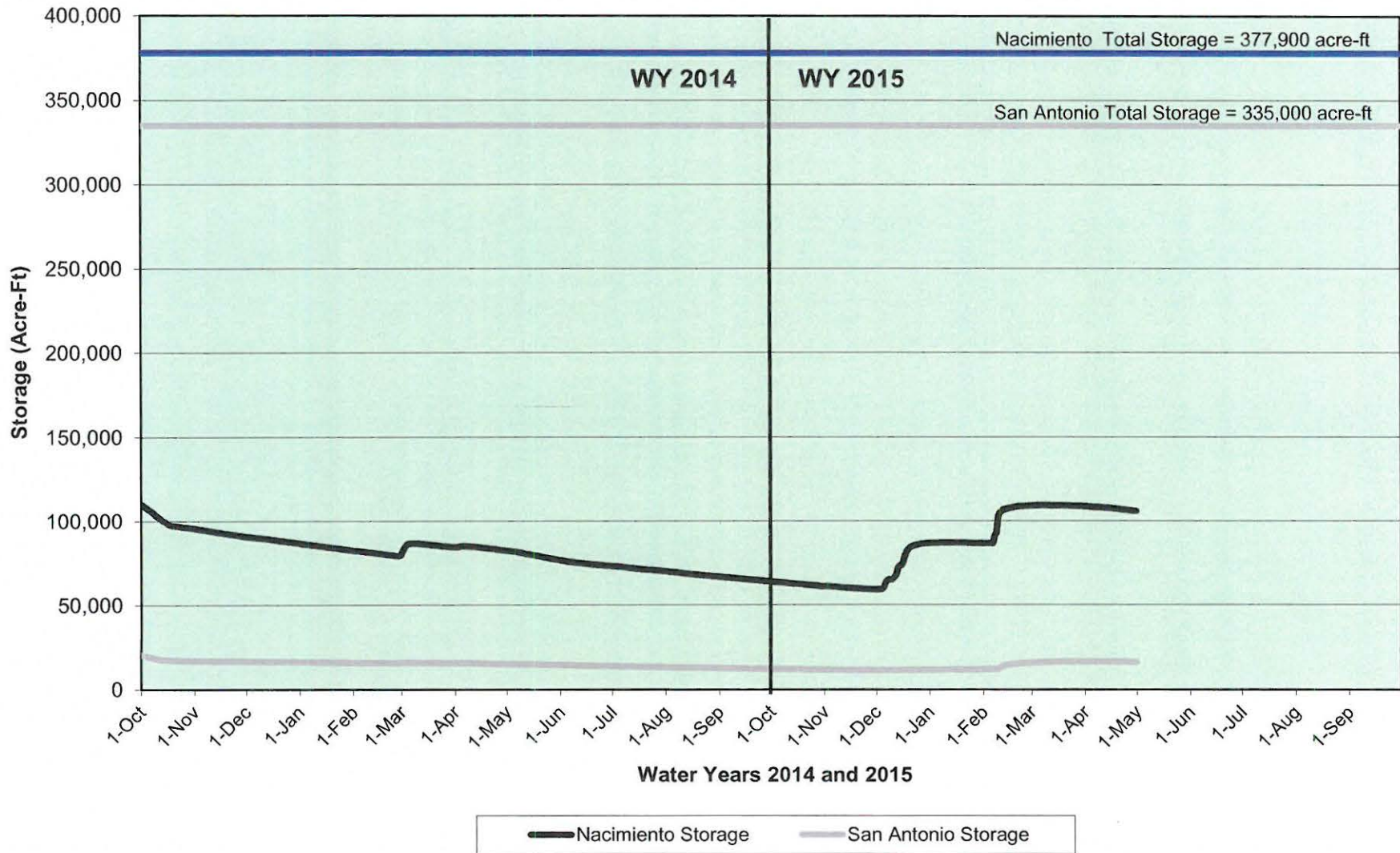
- Nacimiento Reservoir: 30 cfs
- San Antonio Reservoir: 5 cfs

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

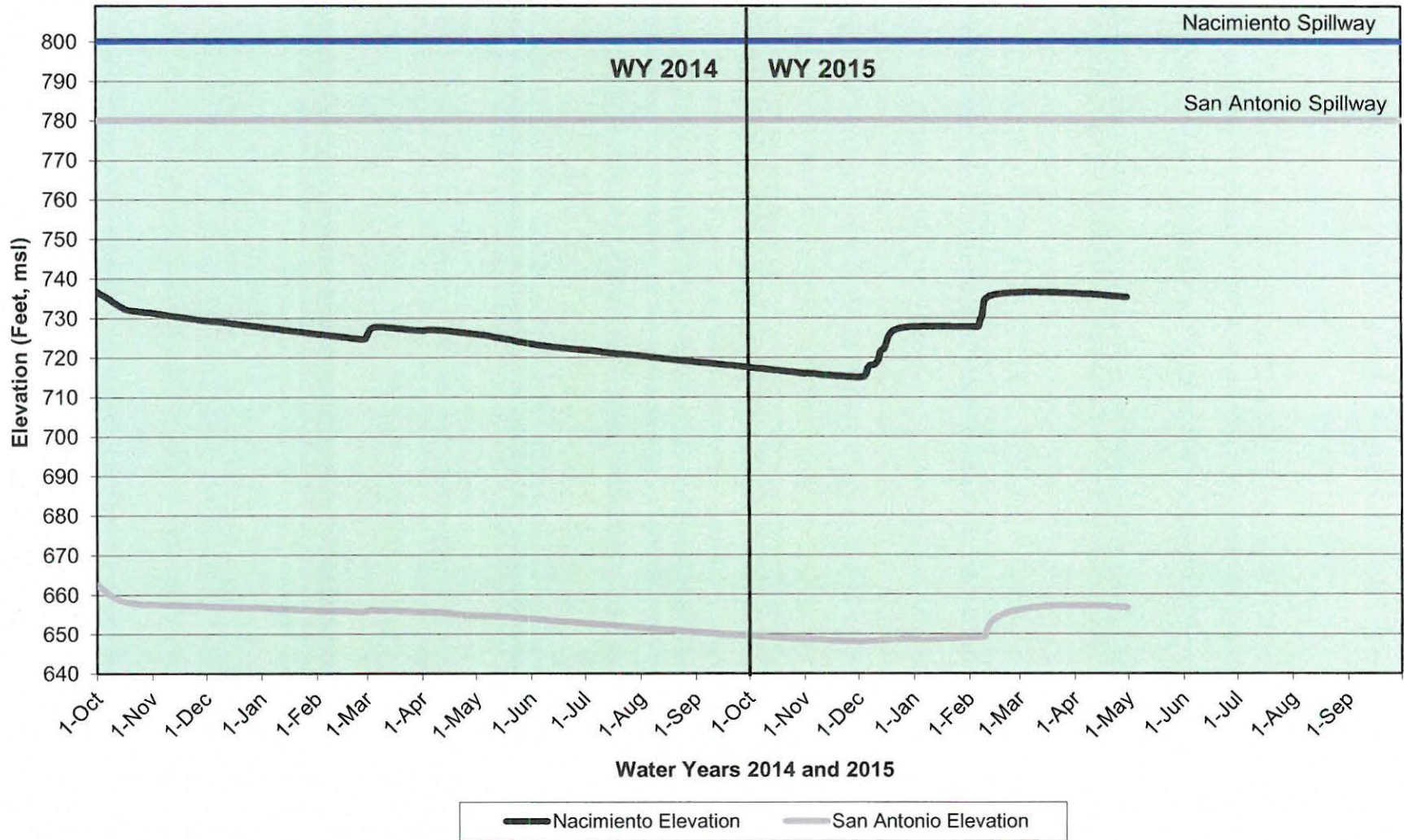
- Salinas River near Spreckels: 0 cfs
- Salinas River near Chualar: 0 cfs
- Salinas River near Soledad: 0 cfs
- Salinas River near Bradley: 22 cfs (steady)



## Reservoir Storage



# Reservoir Elevation



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

4/30/2015

**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	35	2,152	255	30	1,845	175	0	86,638	727.8	47	5	307	11,775	648.6
2/1/2015	35	1,944	540	30	1,666	310	0	86,515	727.7	123	5	278	12,003	649.0
3/1/2015	35	2,152	945	30	1,845	923	0	109,100	736.4	192	5	307	15,903	655.9
4/1/2015	30	1,785	688	25	1,488	1,469	TBR	108,550	736.2	154	5	298	16,618	657.0
5/1/2015	30	1,845	1,845	25	1,537	2,009	TBR	105,663	735.2	472	5	307	16,293	656.5
6/1/2015	30	1,785	2,234	25	1,488	2,353	TBR	100,271	733.1	563	5	298	15,514	655.3
7/1/2015	30	1,845	2,502	25	1,537	2,334	TBR	94,197	730.8	641	5	307	14,653	653.8
8/1/2015	30	1,845	2,277	25	1,537	2,393	TBR	87,823	728.2	571	5	307	13,704	652.3
9/1/2015	30	1,785	1,682	25	1,488	2,175	TBR	81,616	725.7	421	5	298	12,826	650.6
10/1/2015	30	1,845	1,145	25	1,537	1,436	TBR	76,271	723.3	287	5	307	12,107	649.2
11/1/2015	30	1,785	564	25	1,488	951	TBR	72,153	721.5	150	5	298	11,513	648.0
12/1/2015	30	1,845	360	25	1,537	512	TBR	69,150	720.1	91	5	307	11,065	647.1
1/1/2016								66,741	718.9				10,667	646.3
<b>TOTALS:</b>		<b>22,612</b>	<b>15,039</b>		<b>18,992</b>	<b>17,040</b>	<b>0</b>			<b>3,712</b>		<b>3,620</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:**

1. Nacimiento Reservoir storage capacity 377,900 acre feet.
2. San Antonio Reservoir storage capacity 335,000 acre feet.
3. Reservoir Operations Committee may make release considerations for fish spawn and holiday periods to benefit recreation.
4. Shaded areas represent periods when elevations are influenced by inflow/runoff; releases may include flood control releases.
5. Preliminary Schedule assumes no inflow to reservoirs after May 1st.
6. "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)
7. NACIMIENTO "NWP Diversions" do not include lakeside water use which is estimated at approximately 1,750 acre feet per year.