



## MEMORANDUM

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**TO:** SLDMWA BOARD OF DIRECTORS  
**FROM:** TOM BOARDMAN, WATER RESOURCES ENGINEER  
**SUBJECT:** MARCH PROJECT OPERATIONS UPDATE  
**DATE:** MARCH 5, 2019

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### Project Operations

- Jones has been pumping at capacity since mid-February when San Joaquin flows increased enough that the Old and Middle river reverse flow limit of -5,000 cfs no longer constrained pumping. CVP exports are expected to continue at capacity until the CVP share of San Luis reservoir fills early next week. Once the CVP share fills, Jones will be limited by the amount of direct canal-side demand including the delivery of Section 215 surplus water.
- Banks is pumping at 4,700 cfs to meet direct demand since the SWP filled its share of San Luis reservoir late last week. High San Joaquin flows will be enough to sustain the current level pumping into at least next week as the SWP announced the availability of Article 21 surplus water early this week.
- DWR's most recent Bulletin 120 shows the April-July 50% exceedance inflow to Shasta and Folsom at 105% and 150% of average, respectively. The same projections were 88% and 90% a month ago.
- Projected median inflow to San Joaquin river tributary reservoirs is about 30% above average. Current inflows in the San Joaquin basin is expected to help sustain San Joaquin flows in excess of 14,000 cfs through March and possibly higher in April if an early snow melt occurs.
- CVP exports have increased by about 35 TAF since the COA amendment in December. Based on Reclamation's latest operations forecasts, the revised COA may increase CVP exports by about 100 TAF this spring.
- Shasta storage is nearly 4 MAF; an increase of more than 1 MAF over the past 30 days. Current releases are 30,000 cfs to match the inflow rate over the past few days. The sustained basin wetness during the past few weeks has lowered the flood control limit to about 3.4 MAF such that Shasta storage is now encroached into its flood control reservation space by about 600 TAF.
- Folsom storage near its flood control limit of 577 TAF. The current release of 16,000 cfs is passing through reservoir inflow that has varied between 14,000 and 20,000 cfs over the weekend. With the snow pack at 50% above average, Folsom has an increased chance of filling by mid-May.
- CVP demands were about 105 TAF during February which is about 25% below the 15-year average.

## 2019 San Luis Operations and Allocation Projection

When CVP San Luis refills next week, it will be the 10th occurrence during the past 20 years to do so in early spring, but only the 3rd occurrence since the BiOps were issued 10 years ago. As shown on the attached San Luis refill projection charts, the CVP share of San Luis is expected to begin its drawdown in April at a rate that will depend on demands and pumping levels. Although significant export curtailments usually go into effect during April and May per salmon BiOp, possible flood releases from Millerton to the Mendota Pool coupled with high San Joaquin flows into the delta may be high enough to meet some or all canal-side demands. As such, CVP San Luis drawdown could be delayed to later in April.

Reclamation's supporting operations forecast for the current 35% ag allocation assumes minimum pumping during April and May and only moderate amounts of summer pumping due to conservative Shasta temperature control operations to protect salmon. Given improvements over the past 30 days related to accumulated snow pack, higher storage levels, and increased projected San Joaquin river flows, a 10-15% increase in the ag allocation is supportable. However, assumptions related to demands is an outstanding issue on which Reclamation maintains a very conservative position.

Efforts are on-going to persuade Reclamation to adopt a more reasonable approach in estimating demands appropriate for a given allocation.

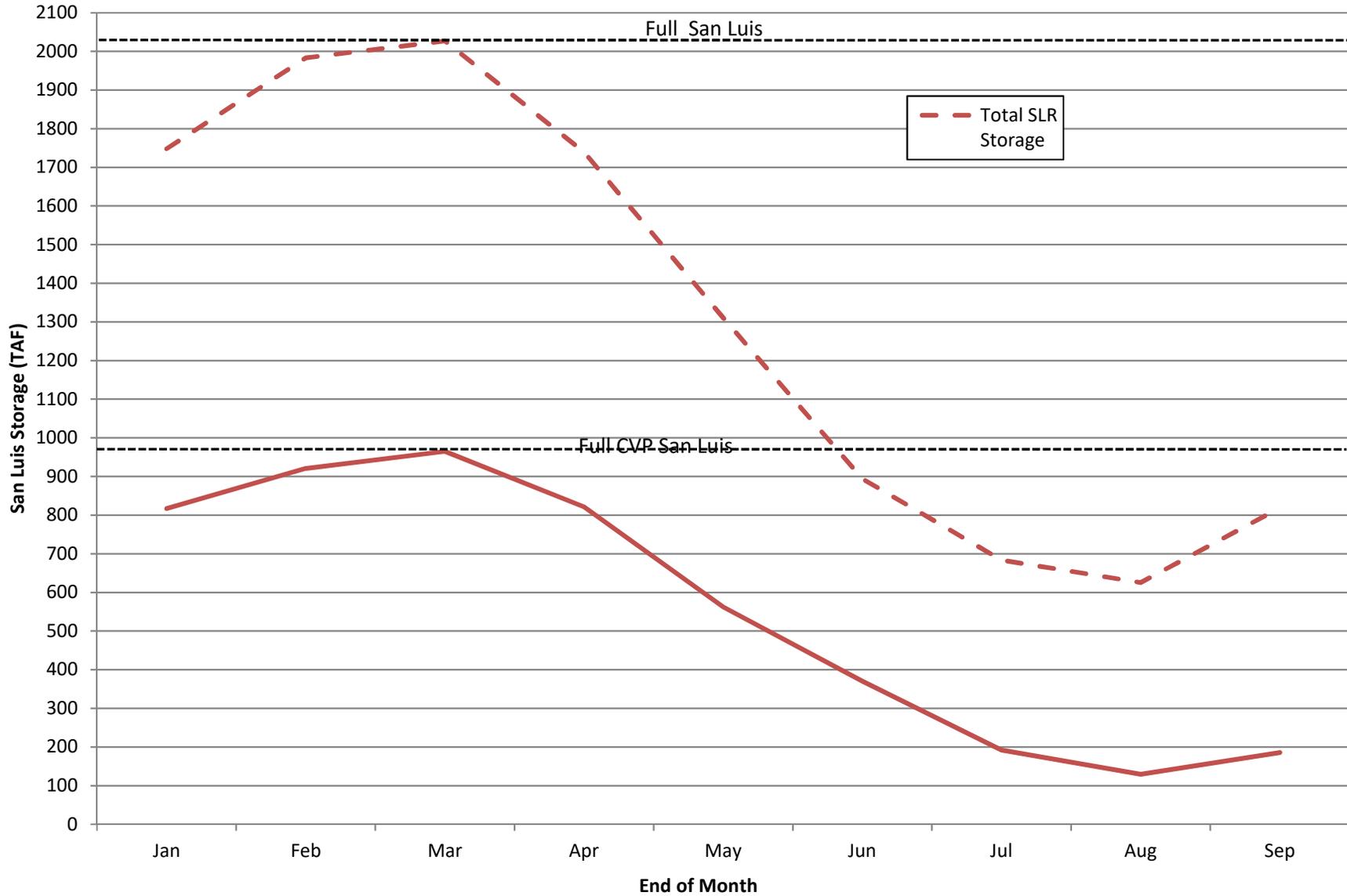
The ag allocation could increase to 65-70% with increased San Joaquin river flows in April and May. As such, an allocation increase is not likely until sufficiently high San Joaquin flows appear certain, ie by late spring.

### Rescheduling Opportunities

Total Rescheduling requests are estimated to be about 215 TAF which includes about 50 TAF of non-Project water. Based upon the current daily demand rate, foregone pumping could begin to accumulate by about 4 TAF per day when CVP San Luis fills next week. In accordance with the Rescheduling Guidelines, the accumulated foregone pumping will not be imputed against the rescheduled water until the beginning of a sustained draw down. If the salmon BiOp begins to limit exports on April 1 and causes SLR to draw down, the total amount undelivered rescheduled water could be reduced by about 75 TAF. The Guidelines state that undelivered non-Project water, recaptured SJRRP water, and refuge water will be the first water lost. If San Joaquin flows remain high enough to allow Jones to meet demands and delay a CVP San Luis draw down later into April, the loss of total amount of undelivered rescheduled water will be reduced.

# 2019 San Luis Storage Projection

## 50% Exceedance Hydrology



# 2019 San Luis Storage Projection

## 90% Exceedance Hydrology

