

CHANNEL AND RIPARIAN MAINTENANCE (CRM) FLOWS FOR THE SOUTH FORK SAN JOAQUIN RIVER BELOW FLORENCE RESERVOIR

The channel riparian maintenance (CRM) flows for the South Fork San Joaquin River below Florence Reservoir are described below. Wet Water Year and Above Normal Water Year types shall be based on the April 1 forecast for the California Department of Water Resources (DWR), Bulletin No. 120, San Joaquin Valley Water Year Index, or its successor index that is most representative of the Big Creek watershed. All CRM flow releases shall be measured at the United States Geological Survey (USGS) Gage No. 11230215 downstream of Hooper Creek, near Florence Lake. The Licensee will release CRM flows within the limitations of equipment and measurement. CRM flows are based on a 24-hour average. Licensee will make up any deficiency in total CRM release volume within the existing release period.

Areal Inundation Mapping of Jackass Meadow Complex

No later than one year after license issuance, the Licensee shall survey the micro-topography of the Jackass Meadow Complex at a scale and level of detail that is sufficient to evaluate the areal extent of inundation from CRM flows. This mapping will be provided to the United States Department of Agriculture-Forest Service (USDA-FS), United States Fish and Wildlife Service (USFWS), and other interested governmental agencies at the annual consultation meeting following the completion of the mapping. During the first two Wet Water Years that occur after issuance of the New License, the Licensee shall map and calculate the areal extent of inundation for at least three flow levels between and including 1,000 cubic feet per second (cfs) and 1,600 cfs. In coordination with the USDA-FS, USFWS, and other interested governmental agencies, the Licensee will use the resultant maps and information to determine: 1) whether a flow less than 1,600 cfs will provide the same level of inundation as provided at 1,600 cfs; and 2) the flow necessary to inundate approximately 75% of the area inundated at 1,600 cfs. If the USDA-FS concurs that the results of the Jackass Meadow Inundation Study (SCE 2007) indicates that a peak flow less than 1,600 cfs provides the same level of inundation as provided by 1,600 cfs, the Licensee may release the agreed upon lesser amount after notification to the Federal Energy Regulatory Commission (FERC or Commission). The minimum total volume released will be adjusted down to reflect the reduced peak.

Wet Water Years

During Wet Water Years following license issuance, the Licensee shall, within the extent of its control, release sufficient flow or augment a natural spill event which meets all of the following characteristics:

- Gradually ramp flows from the base flow to 1,600 cfs over three days, in as even increments as feasible,
- Maintain an average daily flow of at least 1,600 cfs for three consecutive days,

- Decrease flow from 1,600 cfs to the minimum instream flow (MIF) over the next eight days according to the schedule below.
 - decrease flow to approximately 1,000 cfs for one day,
 - decrease flow to approximately 750 cfs for two days,
 - decrease flow to approximately 500 cfs for three days,
 - decrease flow to approximately 150 cfs for one day,
 - decrease flow to the minimum instream flow over one day, and
- Release a total flow volume of at least 22,000 acre-feet (ac-ft).

To the extent feasible, CRM flows in Wet Water Years shall be implemented starting between June 1 and July 7.

If the CRM peak and volume release requirements are met by natural spill, then Licensee will make a good faith effort to provide down ramping releases on the descending limb of the hydrograph to meet the following characteristics to accommodate whitewater boating. During these releases, Licensee will make a good faith effort to stabilize the flow releases between 10:00 a.m. and 4:00 p.m. for whitewater boating purposes, if the area is accessible to boaters.

- Approximately 750 cfs for three days,
- Approximately 500 cfs for two days, and
- Licensee will make a good faith effort to provide at least one day of flow between approximately 500 cfs and 750 cfs during a weekend.

Above Normal Water Years

The Licensee shall release CRM flows during Above Normal Water Years beginning in the first Above Normal Water Year after the Licensee has completed its consultation with the USDA-FS regarding calculation of the CRM flow necessary to inundate 75% of the areal extent inundated by 1,600 cfs. To the extent within its control, Licensee shall release sufficient flow, augment a natural spill event, or document a natural spill event, which meets all of the following characteristics:

- Gradually increase flow over one day from the base flow to a peak flow that will provide approximately 75% of the areal extent of inundation measured at 1,600 cfs.
- Maintain an average daily flow at the level of the peak flow for two consecutive days.
- Decrease flow from the peak flow to the MIF over the next five days according to the schedule below.

- maintain flow of approximately 700 cfs for one day,
- maintain flow of approximately 500 cfs for three consecutive days,
- decrease flow to the MIF over one day, and
- Release a total flow volume of at least 6,000 ac-ft plus the volume of the two days of peak flow. In no event will the Licensee be required to increase the flow release volume above 13,000 ac-ft.
- Licensee will make a good faith effort to provide at least one day of flow between approximately 500 and 700 cfs during a weekend.

To the extent feasible, CRM flows in Above Normal Water Years shall be completed before the Memorial Day weekend.

If Above Normal Water Years occur prior to the completion of the Jackass Meadow Inundation study, the Licensee shall provide at least four consecutive days of flow between 500 cfs and 750 cfs for whitewater boating purposes, including two weekend days.

Literature Cited

Southern California Edison Company (SCE). 2007. Jackass Meadow Inundation Study Summary. *In* SCE's Amended Preliminary Draft Environmental Assessment (APDEA) for the Big Creek ALP (Mammoth Pool Project (FERC Project No. 2085), Big Creek Nos. 1 and 2 (FERC Project No. 2175), Big Creek Nos. 2A, 8 and Eastwood (FERC Project No. 67), and Big Creek No. 3 (FERC Project No. 120)). February 2007 (Volume 4, SD-E, Books 18 and 24).