

RE: Slate Creek Diversions Under Drought conditions

Zancanella, Kathy [kzancanella@southfeather.com]

Sent: 2/19/2014 3:13 PM

To: "Curt Aikens" <caikens@ycwa.com>, "Glaze, Mike" <glaze@southfeather.com>, "Jeff Mawpin (jeffmaupin@gmail.com)" <jeffmaupin@gmail.com>, "Jeff Maupin (jmaupin@nywd.org)" <jmaupin@nywd.org>

Cc: "Geoff Rabone" <grabone@ycwa.com>, "Mike Kline" <mcline@ycwa.com>, "Peter Wade" <pwade@ycwa.com>

Curt,

I've asked our hydrographer to pull the records from the Slate Creek tunnel gauge at his first opportunity, but considering that the tunnel gates were open less than 48 hours - for the first time since May 2013 - I am doubtful that NYWD's demand of 3,700 AF under Permit 11516 has been fully delivered. I will let you know how much has been diverted from Slate Creek when I receive the data.

Regards,

Kathy Zancanella

South Feather Water & Power Agency

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From: Curt Aikens [mailto:caikens@ycwa.com]

Sent: Wednesday, February 19, 2014 2:15 PM

To: Glaze, Mike; Jeff Mawpin (jeffmaupin@gmail.com)

Cc: Geoff Rabone; Mike Kline; Peter Wade; Zancanella, Kathy

Subject: Slate Creek Diversions Under Drought conditions

Mike

Jeff,

The ongoing drought is resulting in historically low water conditions in the Yuba watershed. Calendar year 2013 rainfall was the lowest amount in 107 years of record at the Colgate Powerhouse. This resulted in low carryover storage in New Bullards Reservoir. Our January 27th snow survey determined that there was 0" of water content at the 3 snow survey sites we have monitored since the completion of our project in 1969. Overall, today's Yuba watershed conditions are drier now than in 1977 when you combine today's New Bullards Bar water storage with the snow pack. Even with over 10 inches of rainfall from the recent storm, conditions in the Yuba watershed are still drier than the 1977 drought of record, which is estimated to have been a 1:200 year event.

These dry conditions are creating the first ever deficiencies in water deliveries to our eight Member Units. In mid-December, YCWA initiated a water conservation program to retain as much water as possible in storage. We applied for and were granted a deviation from the January 1 -15 FERC flow requirements on the lower Yuba. We also applied to FERC and the State Water Resources Control Board for lower flow requirements in February and March. Both FERC and the SWRCB have granted our requests. Furthermore, to conserve as much storage in New Bullards Bar Reservoir as possible, we have reduced generation at the Colgate Powerhouse to the minimum amount needed just to keep the turbine of one unit idling when there is enough other flow in the system to meet downstream requirements. The February DWR B-120 resulted in Accord Schedule 6 flow requirements, the driest of the six Accord flow schedules. Given that the B-120 report overestimates runoff in dry years and that the North Yuba Index

that is used to determine the applicable flow schedule is based on 50% exceedance forecasts, there is the possibility that, with continued dry weather, this year will be a Conference Year under the Yuba Accord. (Conference Years are the driest one percent of all water years and have flow requirements that are even lower than the Schedule 6 requirements.) Under Conference Year conditions, it is generally considered that there will not be enough water to sustain all life stages of anadromous fish in the lower Yuba River.

The drought conditions are so bad that for the first time in YCWA history there will be significant surface water deficiencies unless there is well above normal rainfall for the rest of the rainy season, which appears unlikely given the dry forecasts and short time remaining in the rainy season. Our water planning studies show that water deficiencies to our Member Units could be up to 200,000 acre-feet out of a full dry year demand of about 320,000 acre-feet. This deficiency will create substantial economic and societal impacts in Yuba County.

As you know, the South Feather Water and Power Agency (SFWPA), diverts water out of the Yuba watershed into the Feather watershed via SFWPA's Slate Creek diversion. We appreciate Kathy Zancanella's monitoring of flows in the North Yuba and shutting of the Slate Creek tunnel gates whenever North Yuba flows into New Bullards Bar Reservoir are less than 800 cfs, as necessary to implement our ongoing arrangement on how to address low flows in the North Yuba. However, the historically dry conditions that we are experiencing this year present a situation that we have not had to address before. Here is my understanding of how Slate Creek diversions have been handled in the past and how they should be handled during this historically dry situation. Steve Grinnell and I discussed this with Kathy and she suggested that I describe the situation in writing to you, thus this email.

In past dry years, SFWPA has shut the Slate Creek tunnel diversion whenever the North Yuba flow was below 800 cfs.

Now, because of the historically dry conditions, we have reviewed the water rights of SFWPA's and YCWA's projects. My general understanding of these water rights is that, once North Yuba Water District's (NYWD's) consumptive demands for the Slate Creek water are met, the next water right priority is to meet YCWA's consumptive demands, and that SFWPA's and NYWD's water right for power generation has the third priority. It appears to us that NYWD's consumptive demands can be met with from water that previously was diverted from Slate Creek into storage in Sly Creek Reservoir. Also, unless substantial rainfall occurs, YCWA's deficiencies are expected to occur throughout 2014, and New Bullards Bar Reservoir will likely reach its minimum pool at the end of the irrigation season.

Given this information, the Slate Creek tunnel should be closed now and should remain closed until storage in New Bullards Bar Reservoir increases to a sufficient level to meet all of YCWA's consumptive use demands for this year.

Here is additional supporting information.

First, as recognized by our ongoing arrangement, it is appropriate for the Slate Creek tunnel gates closed whenever the North Yuba River flow into New Bullards Bar Reservoir is less than 800 cfs. This is appropriate because YCWA's water right Licenses 435 and 3050, which are for total diversions of 800 cfs, have priority over SFWPA's and NYWD's water right License 10940 and are not subject to the 1959 release from priority.

Second, now that the South Feather Power Project construction bonds have been paid off, YCWA's water right Permit 15026, which authorizes direct diversions and storage for irrigation purposes, also has priority over License 10940. Because of the very dry conditions that are occurring this year YCWA's demands

under Permit 15026 will not be satisfied, and this priority therefore prohibits SFWPA from diverting water from Slate Creek under License 10940 this year.

The release from priority that Department of Water Resources issued in 1958 generally releases the priority of various YCWA applications in favor of various later filed applications of SFWPA and NYWD. However, this release contains the following important condition:

and FURTHER SUBJECT TO the condition that after full repayment of bonds . . . issued to finance the capital costs of the South Fork Project . . . , insofar as Applications No. 5629, 5630, 5631, and 5632 include rights to make use of water that have a higher priority under the laws of California than the uses provided for in Applications Nos. 13676, 13956, and 14112 . . . , such higher uses shall have priority over Applications Nos. 13676, 13956, and 14112;

Now that the bonds that were issued to finance the capital costs of the South Feather Power Project have been paid off, this condition applies. YCWA's water right Permit 15026 was issued on Application 5632, and SFWPA's and NYWD's water right License 10940 was issued on Application 13956. Diversions and uses under Permit 15026 are for irrigation, which has a higher priority under California law than power generation, which is the sole authorized purpose of use in License 10940. Accordingly, under this condition, YCWA's rights to divert and use water under Permit 15026 for irrigation have priority over SFWPA's and NYWD's rights to divert and use water under License 10940.

Because of the very dry conditions that are occurring this year, YCWA almost certainly will have to impose significant curtailments on its deliveries of irrigation water to its Member Units. This means that there will not be sufficient water to satisfy all of YCWA's demands for water under Permit 15026 this year. As a result, this means that SFWPA may not divert any water under License 10940 this year.

Water right Permit 11516, which is held by NYWD, was issued on Application 13957, and the condition in the 1959 release from priority quoted above does not apply to Application 13957. SFWPA therefore is authorized to divert water from Slate Creek this year to the extent that NYWD has a demand for water diverted under Permit 11516. If South Feather believes that any additional diversions of water from Slate Creek are needed this year for this permit, then please provide me with an explanation of what additional diversions are needed for this permit, considering the amounts of water that already have been diverted from Slate Creek into Sly Creek Reservoir. Please also let me know how South Feather plans to operate the Slate Creek diversion to ensure that its diversions this year are made only under Permit 11516.

YCWA's request is that no more water is diverted from Slate Creek water under License 10940 this year, even if North Yuba River flows into New Bullards Bar Reservoir rise above 800 cfs. We will inform you if there is enough rainfall and resulting inflow into New Bullards Bar Reservoir to meet YCWA's consumptive demands this year, so that Slate Creek Diversion may start up again when North Yuba inflows into New Bullards Bar Reservoir are above 800 cfs.

I appreciate South Feather's continued cooperation on these water rights priority issues and I look forward to receiving your response to this e-mail. If you have any disagreements with this email, please let me know as soon as possible.

Respectfully Yours,

Curt

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