

## Cathy Marcinkevage - NOAA Federal <cathy.marcinkevage@noaa.gov>

## Fwd: [EXTERNAL] Shasta upper gate access

Evan Sawyer - NOAA Federal <evan.sawyer@noaa.gov>

Fri, May 10, 2019 at 2:21 PM

To: Cathy Marcinkevage - NOAA Federal <cathy.marcinkevage@noaa.gov>

Just FYI Randi's response below. I Think Randi's explanation 'fits' with what I tried to put in my original email.

----- Forwarded message ------From: FIELD, RANDI <rfield@usbr.gov> Date: Fri, May 10, 2019 at 1:53 PM

Subject: Re: [EXTERNAL] Shasta upper gate access

To: Evan Sawyer - NOAA Federal <evan.sawyer@noaa.gov>

Hi Evan,

I think I can see where there may be some confusion. Both pieces of information are correct but in different time contexts.

Physically, all five of the Shasta TCD Upper gates can not be used if the water surface elevation is below 1035 feet or approximately 3.66 MAF. This is any time.

Our historical "rule of thumb" (April total volume/cold water pool volume relationship based on past experience) guide suggests that if we are to have a high likelihood of achieving a Balls Ferry Target of 56 oF for the entire season, then the end of April total storage should be around 3.9-4.1 MAF (and the end of April cold water pool volume below 52 oF should be around 2.5 - 2.7 MAF). However, I am certain that at these total storage volumes, the added flexibility of using the upper gates at the right time (end of April on) affords a higher probability of successfully meeting a 56 oF at Balls Ferry for the season.

I'm not sure if I'm doing this justice of not, but I hope it is at least a bit clearer.

I'm happy to chat with you on the phone also.

Have a great weekend. -Randi

On Fri, May 10, 2019 at 8:52 AM Evan Sawyer - NOAA Federal <evan.sawyer@noaa.gov> wrote: Hi Randi,

I had a question regarding whether there is a difference between being able to 'access' the upper gates of the Shasta TCD, and being able to 'operate' using the upper gates? Based on documentation 3.66 MAF Shasta storage is necessary to 'access' the upper gates (elevation 1,035 with 35 feet of submergence) but during discussion we were told that a storage of about 3.9-4.1 MAF was needed to 'operate' using water drawn from the upper gates?

Or, to put it another way, is the following sentence accurate?

While, a minimum Shasta storage of about 3.66 MAF is necessary to access the upper gates of the TCD, a greater volume (4.1 MAF?) of Shasta storage is necessary for operations to effectively blend water from the warmer upper reservoir levels and thereby reduce reliance on the limited cold water pool (during the temperature management season, May 15 - October 31?).

Thanks for the help,

Evan

Evan Bing Sawyer,

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