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

Sent: Thursday, May 23, 2019 12:42 PM **To:** Cathy Marcinkevage - NOAA Federal

Subject: Re: Document for Shasta

To insert in doc.

Egg to fry survival (measured at RBDD) is included as another metric to assess compliance with meeting the survival objectives of *Summer Cold Water Pool Management*, but where it only need be considered if Reclamation exceeds the TDM objectives of a particular tier of operation. The decision to include a performance metric based on ETF survival was made so as to incorporate the potential benefit of the many non-flow related action components that are part of the PA. The proposed ETF survival targets for years in tier 1, 2 and 3 are based on the recent history of Shasta operations and the associated ETF survival over the last 20 years (1996 – 2018, not including 2000 and 2001 due to a lack of information). Using the third quartile of ETF survival associated with a tier during this period (highest 25% of ETF survival in those years) provides a secondary survival objective for when the tier-specific TDM is exceeded. To remain consistent with the frequency and TDM objectives, the ETF survival objectives of tiers 2 and 3 were combined. A survival objective is proposed for tier 4 as a target, understanding that in those years hydrology will likely limit Reclamation's ability to manage temperature control.

On Thu, May 23, 2019 at 12:10 PM Evan Sawyer - NOAA Federal < evan.sawyer@noaa.gov> wrote: Hi Cathy,

still working here's what I have and I'm gonna write a paragraph on ETF survival and send that separate?

I may have gotten mixe up between rationale and approach. Sorry.

Evan

On Thu, May 23, 2019 at 10:45 AM Cathy Marcinkevage - NOAA Federal <<u>cathy.marcinkevage@noaa.gov</u>> wrote:

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