From: J. Stuart - NOAA Federal <j.stuart@noaa.gov>

Sent: Saturday, June 15, 2019 3:02 PM
To: Barbara Byrne - NOAA Federal
Cc: Brian Ellrott - NOAA Federal

Subject: Re: ROC LTO: DCC description from I&S update

(under the revised PA) will be closed in at least 90 percent of years.

See my changes in red. I am looking at the first date of observation at the Sac trawl location, and then the 5, 10, and 25% of population arrival dates for the Sac trawl on the SAC PAS web site for the timing.

On Sat, Jun 15, 2019 at 2:31 PM Barbara Byrne - NOAA Federal < <u>barbara.byrne@noaa.gov</u>> wrote: How about this? I think some fish will be exposed to a DCC opening sometime Oct-Jan in all years. **Jeff --** Is that last sentence correct???

Over the full October through January time period, a substantial proportion of the juvenile winter-run Chinook salmon cohort is expected to pass the DCC. The DCC (when the DCC gates are open) and Georgianna Slough (no barrier) are the two key routes for Sacramento-basin-origin salmonids to enter the interior Delta where survival is lower relative to the mainstem Sacramento. In most-many years, between 5 and 25 percent of the current brood year's winter-run population will enter the region adjacent to the DCC gates by the first two weeks of December, particularly in wetter years. During December and January, approximately 50 percent of winter-run population will be in the vicinity of the DCC gates the majority of winter-run Chinook salmon will pass the DCC after December 1, when the DCC gates

On Fri, Jun 14, 2019 at 2:53 PM Brian Ellrott - NOAA Federal < brian.ellrott@noaa.gov> wrote: Looks great. Can you review/revise the summary statement I have in the attachment? Thanks.

On Fri, Jun 14, 2019 at 2:07 PM Barbara Byrne - NOAA Federal < <u>barbara.byrne@noaa.gov</u>> wrote: Here's my take --

The third component affecting winter-run Chinook salmon survival covered in this section is the potential increase in DCC routing that could occur under the PA. Under the modeled PA conditions, the DCC gates are expected to be opened more during October and November which could increase the exposure of early-migrating winter-run Chinook salmon to the risk of routing into the DCC waterway. Revisions to the PA not captured in the modeling include the potential for increased fall flows in Above Normal and Wet years for the Fall Delta Smelt Habitat Action, which might reduce the DCC openings under the PA. The PA also allows for the DCC to be opened for up to 10 days during December through January for water quality concerns (compared to up to 3 days for water quality concerns, and some possible openings for experiments, under the COS). However, revisions to the PA clarified that these December through January DCC openings would be limited to occasions when drought conditions are observed (defined as 90% exceedance hydrology) and gate opening will help to address water quality concerns -- expected to occur less than 10% of the time. The revised PA also included a new commitment to reduce combined CVP/SWP exports to health and safety levels (1,500 cfs) during any DCC gate opening in December or January. During December and January, a substantial proportion of the juvenile winter-run Chinook salmon cohort may be at risk of entrainment into the DCC waterway, but that risk is expected to be realized in less than 10% of years.

On Fri, Jun 14, 2019 at 1:42 PM Brian Ellrott - NOAA Federal < brian.ellrott@noaa.gov > wrote:

Barb (or Jeff),

I think I could update this based on the verbal and written info you've given me, but I'm taking Maria's suggestion and checking with you. Can you update this as needed and send back to me?

The third component affecting winter-run Chinook salmon survival covered in this section is the potential increase in DCC routing that could occur under the PA. Under the PA, the DCC gates are expected to be opened more during October and November, and could be opened up to 10 days more during December through January than current conditions when drought conditions are observed and gate opening will help to address water quality concerns. As such, a substantial proportion of the juvenile winter-run Chinook salmon cohort may be at risk of entrainment into the DCC waterway. [MCR1]

[MCR1] I would expect this paragraph to change fairly substantially based on revisions to proposed action. Talk to barb - - but I think we should analyze only one additional opening in ten years (but double check)

--

Brian Ellrott

Central Valley Salmonid Recovery Coordinator NOAA Fisheries West Coast Region U.S. Department of Commerce Mobile: 916-955-7628

Office: 916-930-3612 brian.ellrott@noaa.gov

--

Barb Byrne

Fish Biologist

NOAA Fisheries West Coast Region
U.S. Department of Commerce
Office: 916-930-5612

barbara.byrne@noaa.gov
California Central Valley Office
650 Capitol Mall, Suite 5-100
Sacramento, CA 95814



Find us online

www.westcoast.fisheries.noaa.gov



--

Brian Ellrott

Central Valley Salmonid Recovery Coordinator NOAA Fisheries West Coast Region U.S. Department of Commerce

Mobile: 916-955-7628 Office: 916-930-3612 brian.ellrott@noaa.gov

--

Barb Byrne

Fish Biologist

NOAA Fisheries West Coast Region
U.S. Department of Commerce
Office: 916-930-5612

barbara.byrne@noaa.gov
California Central Valley Office
650 Capitol Mall, Suite 5-100
Sacramento, CA 95814



Find us online

www.westcoast.fisheries.noaa.gov



--

Jeffrey S. Stuart, M.S. *Fishery Biologist*

NOAA Fisheries West Coast Region U.S. Department of Commerce California Central Valley Office 650 Capitol Mall, Suite 5-100 Sacramento, CA 95814-4706

Office: 916-930-3607 J.Stuart@noaa.gov



Find us online

www.westcoast.fisheries.noaa.gov



