

**OFFICIAL COORDINATION REQUEST FOR
NON-ROUTINE OPERATIONS AND MAINTENANCE**

TITLE - 17BCL07 Remedial Investigation, Spill, and TDG

COORDINATION DATE - 12 September 2017

PROJECT - Big Cliff Dam

RESPONSE DATE - 26 September 2017

Description of the problem

Big Cliff reservoir will have to be drawn down to an elevation of 1175 feet during the last two weeks of October (~ Oct 16-27th) so a remedial investigation can be performed. For at least two days (as many as four days), an additional drawdown to a pool elevation of ~1165 ft will be required to allow contractors the opportunity to inspect and sample additional areas. Since these elevations are below the power pool a turbine outage (during outage period) will be required and discharge will be routed through the spillway, thus, elevated total dissolved gas (TDG) levels will be observed. Minimum gate openings at these elevations may allow discharge to be distributed across multiple spillways.

Dates of impacts/repairs

Approximately October 16 through October 27, 2017.

Expected impacts on fish

Elevated TDG levels will be observed in the North Santiam River below Big Cliff Dam impacting late spawning spring Chinook salmon and/or eggs incubating in redds.

Comments from agencies

See Attachment 1 for NMFS Comments

-----Original Message-----

From: Hoque, Yamen M CIV USARMY CENWP (US)
Sent: Thursday, September 28, 2017 11:42 AM
To: Anne Mullan - NOAA Federal <anne.mullan@noaa.gov>; Walker, Christopher E CIV USARMY USACE (US) <Christopher.E.Walker@usace.army.mil>
Cc: Scullion, Mary K CIV USARMY CENWP (US) <Mary.K.Scullion@usace.army.mil>; Elise Kelly <elise.x.kelley@state.or.us>; Bernadette Graham-Hudson <bernadette.n.graham-hudson@state.or.us>; Friesen, Tom <Tom.Friesen@oregonstate.edu>; Sharpe, Cameron <Cameron.Sharpe@oregonstate.edu>; Lawrence Schwabe <Lawrence.Schwabe@grandronde.org>; Nancy Gramlich <nancy.h.gramlich@state.or.us>; Leslie Bach <LBach@nwcouncil.org>; Jim Myers <Jim.Myers@noaa.gov>; Rich Zabel <rich.zabel@noaa.gov>; Hudson, Michael <michael_hudson@fws.gov>; Diana Dishman - NOAA Affiliate <diana.dishman@noaa.gov>; marc.liverman@noaa.gov
Subject: RE: [EXTERNAL] 17BCL07 comments

Hi Anne,

Thanks for the feedback from NMFS. We plan to monitor turbidity real-time so that if there are any significant spikes during drawdown so as to cause concern, we can either slow the drawdown rate or stop.

Thanks,

Yamen.

-----Original Message-----

From: Scullion, Mary K CIV USARMY CENWP (US)
Sent: Tuesday, September 26, 2017 2:47 PM
To: Diana Dishman - NOAA Affiliate <diana.dishman@noaa.gov>
Cc: Walker, Christopher E CIV USARMY USACE (US)
<Christopher.E.Walker@usace.army.mil>; Anne Mullan - NOAA Federal
<anne.mullan@noaa.gov>; Hoque, Yamen M CIV USARMY CENWP (US)
<Yamen.Hoque@usace.army.mil>
Subject: RE: [EXTERNAL] Re: Correction: WFPOM: 17BCL07 Remedial
Investigation, Spill, and TDG

Yes, the station order is written and on file.

Please see attached.

Thanks,
Mary Karen

-----Original Message-----

From: Diana Dishman - NOAA Affiliate [mailto:diana.dishman@noaa.gov]
Sent: Monday, September 25, 2017 4:19 PM
To: Scullion, Mary K CIV USARMY CENWP (US)
<Mary.K.Scullion@usace.army.mil>
Cc: Walker, Christopher E CIV USARMY USACE (US)
<Christopher.E.Walker@usace.army.mil>; Anne Mullan - NOAA Federal
<anne.mullan@noaa.gov>; Hoque, Yamen M CIV USARMY CENWP (US)
<Yamen.Hoque@usace.army.mil>
Subject: Re: [EXTERNAL] Re: Correction: WFPOM: 17BCL07 Remedial
Investigation, Spill, and TDG

Thanks Mary Karen! That simplifies things. And thank you for the additional information on timing Chris.

Also, we're planning on having our spill-spreading operation in place by the time of this operation, yes?

Thanks for your help,
Diana

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Diana Dishman
Scientist, Contractor with Ocean Associates, Inc.
NOAA Fisheries West Coast Region
U.S. Department of Commerce
1201 NE Lloyd Blvd, Suite 1100 Portland OR 97232
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diana.dishman@noaa.gov <mailto:first.last@noaa.gov>

-----Original Message-----

From: Scullion, Mary K CIV USARMY CENWP (US)
Sent: Monday, September 25, 2017 2:04 PM
To: Diana Dishman - NOAA Affiliate <diana.dishman@noaa.gov>; Walker, Christopher E CIV USARMY USACE (US) <Christopher.E.Walker@usace.army.mil>
Cc: Anne Mullan - NOAA Federal <anne.mullan@noaa.gov>; Hoque, Yamen M CIV USARMY CENWP (US) <Yamen.Hoque@usace.army.mil>
Subject: RE: [EXTERNAL] Re: Correction: WFPOM: 17BCL07 Remedial Investigation, Spill, and TDG

We don't plan on changing the project outflow so you will see stable river flow and stage below Big Cliff. Any redds or fish below Big Cliff won't be impacted by this operation. If we do need to change Big Cliff outflow we will follow the ramp rates identified in the BiOp. We also do not intend to reduce flow below minimum BiOp flow.

Thanks,
Mary Karen

-----Original Message-----

From: Diana Dishman - NOAA Affiliate [mailto:diana.dishman@noaa.gov]
Sent: Friday, September 22, 2017 4:02 PM
To: Walker, Christopher E CIV USARMY USACE (US) <Christopher.E.Walker@usace.army.mil>; Scullion, Mary K CIV USARMY CENWP (US) <Mary.K.Scullion@usace.army.mil>
Cc: Anne Mullan - NOAA Federal <anne.mullan@noaa.gov>; Hoque, Yamen M CIV USARMY CENWP (US) <Yamen.Hoque@usace.army.mil>
Subject: [EXTERNAL] Re: Correction: WFPOM: 17BCL07 Remedial Investigation, Spill, and TDG

Hello Chris and Mary Karen,

NMFS is working on comments in response to this MOC, but I wanted to make sure we were looking at all of the expected impacts. TDG is mentioned, but will this larger drawdown also cause a noticeable elevation change in the tailrace? Or is it being lowered at such a rate that the discharge volume would be relatively constant, having little effect on downstream elevation between Big Cliff and Minto? If the elevation will be affected we'd be concerned about late spawners creating redds in areas that will be left high and dry once this operation is over and downstream elevations return to normal.

Thanks,
Diana

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Diana Dishman
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diana.dishman@noaa.gov <mailto:first.last@noaa.gov>

Final results

The operation was implemented as planned. Elevated TDG levels were observed.

Please email or call with questions or concerns.

Thank you,

Chris Walker

Fish Biologist

NWP Operations Division

503.808.4316

Christopher.E.Walker@usace.army.mil