OFFICIAL COORDINATION REQUEST FOR
NON-ROUTINE OPERATIONS AND MAINTENANCE

COORDINATION TITLE – 13 LWG 01d *ADCP DATA COLLECTION*
COORDINATION DATE – 5/21/13
PROJECT – Lower Granite Lock and Dam
RESPONSE DATE – 5/23/13

Description of the problem – A physical general tailrace model (1:55 scale) and 2-D Computational Fluid Dynamics (CFD) model are currently being developed for the Lower Granite tailrace area. Extensive tailrace data will need to be collected during the winter, spring, and early summer of 2013 to verify and calibrate these new models and for providing direct hydraulic field information. Field data will primarily consist of Acoustic Doppler Current Profile (ADCP) transects, time-lapse video of the tailrace, and local wind measurements. In order to collect relevant data, project operations will need to remain constant for 6-10 hours during each test condition.

We still need to collect data at one flow condition that requires an operational change (75 kcfs-no spill) in a timely manner for accurate development of potential Lower Granite JBS outfall locations during the summer of 2013.

The last remaining flow condition to be tested for this model will be a flow of approximately 30 kcfs (currently forecasted to occur around July 3) through the powerhouse and spillway, and will not require any change in spill operations.

Type of outage required - The Corps requests to temporarily (6-10 hours) suspend FOP spill in order to obtain field measurements under these conditions of 75 kcfs through the powerhouse only. As of May 21, forecasts indicate Lower Granite inflows will be in this range to collect data either in the last week of May or first week of June.

MAY update

At the May FPOM, we discussed the need to still acquire a data point with no spill at river flows around 75 kcfs. After considerable feedback from CRITFC and NOAA staff, we agreed to again coordinate our decision about moving ahead with ADCP data collection, when we better understood how the timing would coincide with the fish run.

We expect flows to approach the target level to collect the no spill data point of 75 kcfs in the last week of May or the first week of June. This date falls within the range of the original FFDRWG and FPOM coordination (February), where Bill Hevlin recommended late May/early June, when we were transporting at a time of known benefit.

Our collection numbers have plummeted in the last few days, and it appears that the peak passage for spring Chinook (May 8), steelhead (May 13), and sockeye (May 16) have now occurred. During the last five years peak yearling Chinook passage has occurred between April 26 - May 21, and steelhead peak passage occurred between April 26 – May 21.

In 2013 at Lower Granite, 3,313,821 smolts have been collected to date and 2,653,791 (80.1%) have been transported. Daily river flow today at Lower Granite was 87.7 kcfs.

We believe that the bulk of the run of spring fish have now passed Lower Granite dam, and that those collected still benefit from being transported. We also feel that building a successful new bypass outfall to deliver high survival under all flow conditions merits facilitating this data point.

Comments Received

From: Bill Hevlin - NOAA Federal
To: Setter, Ann L NWW
Cc: Bailey, John C NWW; Baus, Douglas M NWD; BPA Scott Bettin; Dave Benner; Ed Meyer (ed.meyer@noaa.gov); Fredricks, Gary; Haeseker, Steve; Jason Sweet; Kiefer,Russell; Klatte, Bernard A NWP; Kruger, Rick; Langeslay, Mike J NWP; Lorz, Tom; Mackey, Tammy M NWP; Moody, Gregory P NWW; Richards, Steven P (DFW); Shutters, Marvin K NWW; Stansell, Robert J NWP; Swenson, Larry; trevor.conder@noaa.gov; Wills, Dave; Cordie, Robert P NWP; Dykstra, Timothy A NWD; Eppard, Matthew B NWP; Faulkner, Donald L NWD; Feil, Dan H NWD; Hausmann, Ben J NWP; Hurd, Terry W NWP; Keller, Paul S NWP; Lear, Gayle HQ @ NWD; Medina, George J NWP; Ocker, Paul A NWD; Peters, Rock D NWD; Rerecich, Jonathan G NWP; Richards, Natalie A NWP; Schneider, Carolyn B NWP; Schwartz, Dennis E NWP; Tackley, Sean C NWP; Traylor, Andrew NWP; Vander-leeuw, Bjorn NWP; Walker, Christopher NWP; Wright, Lisa NWD; Zorich, Nathan A NWP; Zyndol, Miroslaw A NWP; Brooks, Francis C NWW; Dugger, Carl R NWW; Eskildsen, Robert D NWW; FCRPS NWW; Fone, Kenneth R NWW; Fryer, Derek S NWW; Halter, Mike J NWW; Juul, Steve T NWW; Kirts, Linda R NWW; Melanson, George W NWW; Plummer, Mark F NWW; Spurgeon, William F NWW; Weston, Dwayne M NWW; Aaron Jackson; Agnes Lute (axlut@bpa.gov); Ballinger, Dean; Bob Rose; Brian McIlraith; Charles Morrill (charles.morrill@dfw.wa.gov); Chris Caudill (caudill@uidaho.edu); Chris_Peery@fws.gov; Statler, Dave; elmerc@nezperce.org; "Fred Mensik" (lgrsmolt@gmail.com); Fryer, Jeff; Jerry McCann; Kathryn Kostow; Kovalchuk, Greg; Martinson, Rick; Patrick Luke; Roger Dick Jr.; Rosanna Mensik; Shane Scott; Skidmore,John T - KEWR-4; Tucker Jones; Warf, Don; Whiteaker, John
Subject: Re: LWG- ADCP data collection recoordination (UNCLASSIFIED)
Date: Tuesday, May 21, 2013 4:36:03 PM

Ann,
Thank you for the coordination on the schedule and timing to collect the tailrace velocity and directional flow data at Lower Granite Dam.
This data collection is important to the modeling effort underway to site a new juvenile bypass outfall in a downstream location which provides good egress conditions for migrants over the range of project operations. The new outfall location, along with significant improvements to the juvenile bypass system will increase the survival of ESA listed juvenile salmon and steelhead migrants and is requested by NOAA in the FCRPS Biological Opinion.
To compete the necessary ADCP tailrace data collection requires project operation to remain constant for 6 to 10 hours with the river flow at 75 kcfs and all of that flow passed through the powerhouse, no spill. As stated earlier in this coordination, in order to minimize impact to the migrants we requested that the no-spill condition occur in late May or early June well after the spring juvenile migrations have peaked at Granite, and juvenile transport, which will be increased by the no-spill condition, has been shown to be an advantage.
With this in mind, NOAA Fisheries is supportive of the Corps' request to temporarily (6-10 hours) suspend FOP spill in order to obtain ADCP tailrace data, during either the last week of May or first week of June when the river flow drops to 75 kcfs. Please call me if you have any questions with regard to our comments on this coordination.
Bill Hevlin
NOAA Fisheries

From: Kiefer,Russell
To: "Bill Hevlin - NOAA Federal"; Setter, Ann L NWW; Hassemer,Peter
Cc: Bailey, John C NWW; Baus, Douglas M NWD; BPA Scott Bettin; Dave Benner; Ed Meyer (ed.meyer@noaa.gov); Fredricks, Gary; Haeseker, Steve; Jason Sweet; Klatte, Bernard A NWP; Kruger, Rick; Langeslay, Mike J NWP; Lorz, Tom; Mackey, Tammy M NWP; Moody, Gregory P NWW; Richards, Steven P (DFW); Shutters, Marvin K NWW; Stansell, Robert J NWP; Swenson, Larry; trevor.conder@noaa.gov; Wills, Dave; Cordie, Robert P NWP; Dykstra, Timothy A NWD; Eppard, Matthew B NWP; Faulkner, Donald L NWD; Feil, Dan H NWD; Hausmann,

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Subject: RE: LWG- ADCP data collection recoordination (UNCLASSIFIED)
Date: Wednesday, May 22, 2013 10:38:54 AM

Ann,

IDFG understands and is not opposed to collecting data for the model at 75 kcfs and no spill. However, we are uncertain with current configuration and operations that transportation will return more adults for all ESUs as compared to spilling them at LGR during the late May to early June period. IDFG therefore recommends continuing to spread the risk by increasing spill at LGR during evening hours on the day before and the day of the no spill operation with the intent to maintain overall spill volumes and SPE.

Thanks,

Russ Kiefer

From: Tom Lorz
To: Setter, Ann L NWW
Subject: Re: LWG- ADCP data collection recoordination (UNCLASSIFIED)
Date: Wednesday, May 22, 2013 11:19:36 AM

We still believe that shutting off fish mitigation spill should not occur without some attempt at keeping the project SPE neutral. Right now we have both spring and summer migrants moving. I would strongly object to this operation in the next week or so given the large number of releases of sub's above LGR that have occurred over the last week. I would argue that current information is unclear whether transport does provide a better SAR versus in-river given the more recent data. Further I am still uncertain what information will be lost if we do not have flow data at the 75 kcfs without spill. This would likely be an upper level of model flows used to site bypasses. We have seen little issues with survival through theis bypass at higher flows and if the bypass is designed to work well at low flows it is very likely to work at high flows and especially since the only data set not collected will 75 kcfs without spill which is not an operation that is envisioned in any management plans I have seen. Only time this might happen is if a max transport operations is initiated which should be when season flow is to average 65 kcfs or less and even then the bulk of the run is to be transported and not bypassed. So while it might be nice to have a complete data set not sure if it is truly needed. Lastly this season we have already tried to keep spill neutral operations at several projects and would expect that we continue this strategy if we have planned outages of spill operations.

From: Wills, David
To: Setter, Ann L NWW
Cc: Bailey, John C NWW; Baus, Douglas M NWD; BPA Scott Bettin; Dave Benner; Ed Meyer (ed.meyer@noaa.gov); Fredricks, Gary; Haeseker, Steve; Hevlin, Bill; Jason Sweet; Kiefer,Russell; Klatte, Bernard A NWP; Kruger, Rick; Langeslay, Mike J NWP; Lorz, Tom; Mackey, Tammy M NWP; Moody, Gregory P NWW; Richards, Steven P (DFW); Shutters, Marvin K NWW; Stansell, Robert J NWP; Swenson, Larry; trevor.conder@noaa.gov; Cordie, Robert P NWP; Dykstra, Timothy A NWD; Eppard, Matthew B NWP; Faulkner, Donald L NWD; Feil, Dan H NWD; Hausmann, Ben J NWP; Hurd, Terry W NWP; Keller, Paul S NWP; Lear, Gayle HQ @ NWD; Medina, George J NWP; Ocker, Paul A NWD; Peters, Rock D NWD; Rerecich, Jonathan G NWP; Richards, Natalie A NWP; Schneider, Carolyn B NWP; Schwartz, Dennis E NWP; Tackley, Sean C NWP; Traylor, Andrew NWP; Van-derleeuw, Bjorn NWP; Walker, Christopher NWP; Wright, Lisa NWD; Zorich, Nathan A NWP; Zyndol, Miroslaw A NWP; Brooks, Francis C NWW; Dugger, Carl R NWW; Eskildsen, Robert D NWW; FCRPS NWW; Fone, Kenneth R NWW; Fryer, Derek S NWW; Halter, Mike J NWW; Juul, Steve T NWW; Kirts, Linda R NWW; Melanson, George W NWW; Plummer, Mark F NWW; Spurgeon, William F NWW; Weston, Dwayne M NWW; Aaron Jackson; Agnes Lute (axlut@bpa.gov); Ballinger, Dean; Bob Rose; Brian McIlraith; Charles Morrill (charles.morrill@dfw.wa.gov); Chris Caudill (caudill@uidaho.edu); Chris_Peery@fws.gov; Statler, Dave; elmerc@nezperce.org; "Fred Mensik" (lgrsmolt@gmail.com); Fryer, Jeff; Jerry McCann; Kathryn Kostow; Kovalchuk, Greg; Martinson, Rick; Patrick Luke; Roger Dick Jr.; Rosanna Mensik; Shane Scott; Skidmore,John T

- KEWR-4; Tucker Jones; Warf, Don; Whiteaker, John
Subject: Re: LWG- ADCP data collection recoordination (UNCLASSIFIED)
Date: Wednesday, May 22, 2013 12:45:06 PM

Ann,

I have no objections to the proposed action. NOAA's earlier concerns about the timing of the outage appear to have been addressed and the information is important for developing a new outfall location at Lower granite Dam.

David Wills
U.S. Fish & Wildlife Service
Columbia River Fisheries Program Office