



**US Army Corps
of Engineers** ®
Portland District

November 19, 2015

MEMORANDUM FOR THE RECORD

SUBJECT: Notes from the October 27, 2015 Meeting

TEAM: WATER Research Monitoring and Evaluation (RM&E) Team

Location: Council Chambers, 851 SW 6th Ave #1100, Portland, OR 97204

Meeting Purpose: Review FY16 final proposals, responses from researchers on comments, and study implementation plans.

Attending:

Primary Agency RM&E Team Members:

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| <input checked="" type="checkbox"/> Piaskowski, Rich (COE) | <input checked="" type="checkbox"/> Burchfield, Stephanie (NMFS) | <input checked="" type="checkbox"/> Schwabe, Lawrence (CTGR) |
| <input checked="" type="checkbox"/> Friesen, Tom (ODFW) | <input type="checkbox"/> Spear, Dan (BPA) | <input checked="" type="checkbox"/> Hudson, Mike (USFWS) |
| <input checked="" type="checkbox"/> Ruff, Jim (NWPC) | <input type="checkbox"/> | <input type="checkbox"/> |

Others Attending:

Hatfield, Kim (NOAA) Scott, Shane (BPA "Rate Payers") Jundt, Melissa (NOAA) Khan, Fenton (COE) Walker, Ricardo, (COE) Fielding, Scott (COE)	Graham-Hudson, Bernadette (ODFW) Donahue, Scott (BPA) Petersen, Christine (BPA) Skiles, Tom (CRITFC) Eppard, Brad (COE)
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NOTES:

The following table summarizes points discussed and actions items relating to each Fy16 final proposal.

ADDITIONAL ITEMS:

Rich will send out a doodle to reschedule the Nov and Dec meetings to a single meeting in December.

The meeting agenda will include reviewing available data and data needs for adult passage and reintroduction, for periods before and after future fish passage improvements are made.

Willamette RM&E 10/27/15 meeting summary notes for each final FY16 proposal. Prepared by Corps, 10/29/2015.

Sub basin	Study code	Short title	Concept paper Obj's	POC	FY Qtr to be funded	Notes from 10/27/15 RM&E meeting			
						Action Agencies (Corps, unless indicated as BPA)	Fish Agencies (NMFS, ODFW, and USFWS)	Other Agencies (as indicated)	Action Items
MF	APH-16-04-FALL	FAL Chinook Pedigree analysis	All	Greg/Rich	2	<u>Plan to fund</u> . See action item.	Unclear how results will inform reintroduction above other Willamette dams. Need to assess selective pressures at both adult and juvenile stages. Consider adding analysis of 4 additional markers to look at pedigree.	None	Rich will ask researchers about adding 4 markers, and benefits of including genetic analysis of juveniles to look at selective pressures at both adult and juvenile stages. UPDATE : Corps plans to fund these additions.
MF	JPL – 15-04-LOP	LOP juv. Ck reservoir survival	Obj. 1.1	TBD	TBD	Continue discussion of study designs after Skalski workshop summary available.	Consider using MK hatchery ck for reservoir survival study, instead of for 'paired release' study.	None	Tom will talk with fish managers to determine if ok to use MK study fish in MF. Rich will set up call with RM&E Team during weeks of NOV 9 or 16 th to discuss. Fenton to provide updated FY15-FY16 reservoir elevation graphic.
MF	JPL-11-02-LOP	Middle Fork paired release	All	Ricardo	TBD (2)	Need to further discuss before proceeding to fund. Value of repeating paired release in FY16 limited since operations for gate repair will not improve passage at LOP. Using MK hatchery fish will confound	MF hatchery fish not available since 2/3's of brood lost to disease. Consider using MK hatchery fish in MF paired release study. NMFS would like to see the study move forward under alternate ops.	None	

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						interpretation of results.			
MF	JPL-14-01-SYS	LOP/DEX predator surveys	All. See comments for sites.	Ricardo	2	<p>Plan to fund. Sites: LOP and DEX. Do not plan to include diet analysis, or walleye spawning telemetry. Diet analyses require many assumptions and extensive data sets, and are often unclear if results representative. Primary question is LOP reservoir Chinook use and survival. Chinook consumption by predators has been documented in LOP, and assume it occurs in DEX. No plans for the FY16 ops to be used for fish passage in future so analysis not needed there. Need bathymetry and substrate distribution data to design operations to reduce walleye spawning success. Mapping spawning sites in FY16 not</p>	<p>Recommend FY16 diet analysis in LOP and DEX be funded. Diet analysis would estimate Chinook consumption rates when LOP reservoir area reduced and predators more concentrated, and provide estimate of consumption in DEX.</p>	None	<p>Flagged study for WATER Steering Team discussion since fish agencies recommend adding diet analyses.</p>

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						useful since sites will change annually; instead use literature info on spawning habitat preferences. If decide in future to pursue volitional DSP improvements at LOP, then re-consider need to investigate juvenile Chinook survival and predation in DEX.			
MF	JPL-15-04-LOP	Fry nearshore distribution	All	Fenton	2	<u>Plan to fund.</u> Re-surveying in FY16 under extended drawdown conditions, to compare distribution data from full pool conditions.	None	None	None
MK	APH-09-01-CGR	CGR pedigree study		Rich		Hatchery supplementation above CGR will continue until DSP improved. Genetic pedigree information for current conditions documented. Funding for analysis of Fy14 and FY15 samples recently provided to USGS/OSU. Results	Analysis of FY16 samples should be funded to quantify natural production, evaluate fitness of HOR vs NOR, and inform trap and transport practices.	None	Flagged for Steering Team discussion since Corps not planning to fund pedigree analysis of FY16 samples until FY14 and FY15 results reviewed; FY16 analysis ranked HIGH by fish agencies

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						from analysis of FY14 and FY15 samples will further inform trapping and transport practices, and should be reviewed before funding additional analysis.			
MK	JPL-13-01-CGR	CGR PFFC study	All	Scott	2	Study need & approach to be confirmed in DEC 2015 before proceeding. Planned as JSATS study on yearling CK behavior, and monitoring fish catch during spring PFFC operation.	Need to know if PFFC is currently working. Can USGS provide an in-season summary to help inform need/objectives for Fy16 study?	None	Corps will request in-season summary and plan to discuss before proceeding with funding study, in January. Flagged for Steering Team discussion since ranked LOW by fish agencies
NS	APH-09-01-DET	DET Chinook Pedigree analysis	All	Rich	2	<u>Plan to fund.</u> Plan to have N. Santiam winter steelhead samples analyzed with steelhead genetic study analysis.	None	None	None
NS	JPL-11-02-DET	N. Santiam paired release	All	Ricardo	2	<u>Plan to fund.</u> Study includes both steelhead and Chinook in FY16 (steelhead only if not operating lower RO).	None	None	Corps to provide updated FY15-FY16 reservoir elevation graphic and indicate what outlets expect to use, and when,

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									during Fy16.
SS	APH-09-01-FOS	FOS Chinook Pedigree analysis	All	Rich	2	Plan to fund. Continues analysis of returns to inform CRR, etc. under existing conditions.	None	None	None
SS	APH-09-01-FOS	FOS Steelhd Pedigree analysis	All	Rich	2	Plan to fund. Will request clarification to obj 7 (see action item).	Recommend removing obj. 7 to evaluate effectiveness of providing a wild fish sanctuary. Since a goal/criteria is not established, researchers shouldn't weigh in on "effectiveness". Question need for smoltification analysis, as added to proposal.	None	Rich will ask researchers to clarify methods for Obj. 7, and simply report on genetic findings relating to unmarked hatchery steelhead outplanted, and not provide opinion on "effectiveness". Flagged for Steering Team to discuss fish agencies questions on need for steelhead smoltification analysis
SS	APH-15-05-FOS	FOS AFF ladder use study	All	Fenton	1	Plan to fund. Will use alternative study methods (didson camera) to initially assess Chinook entry and exist patterns relative to environmental conditions. Believe radio telemetry is	Radio tagging may be reconsidered in future if other methods do not resolve questions on ladder use. Agree with using didson camera and recommend	None	Fenton will discuss other observational methods with researchers.

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						the only method as proposed which can fully address objectives, however fish agencies do not believe the need for this type of study outweighs risks for adults from at this time.	considering other observational methods.		
SS	APH-16-03-SYS	Steelhead spawning surveys	All	Rich	1	<u>Plan to fund.</u> Conduct as a pilot study to evaluate feasibility. Include summer steelhead surveys.	Support including summer steelhead spawning surveys.	None	Tom will work with Cam and plan to include summer steelhead spawning surveys.
SS	JPL-11-05-FOS	Foster juvenile radio telemetry passage study	All except 2	Fenton	1	<u>Plan to fund.</u>		None	To address ODFW comment, Fenton will ask researchers to clarify in final proposal regarding statement about mid-reservoir releases may not have simulated natural fish movement.
SS	WQFM-15-03-	Foster TDG study	All	Fenton	1	<u>Plan to fund.</u> Study focus on assessment of TDG levels under different ops, and exposure of Chinook adults and eggs below	Need to take action to reduce TDG below BC, since this is being used for wild fish.	None	Flagged for WATER Steering Team discussion on near-term management of BC to Minto reach for CK and ST spawning, and need

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	SYS					FOS. Not assessing TDG below BC since unclear why reach would be used after fish passage improvements made at DET.			for TDG improvements. Corps ask K. Tackley to provide summary of TDG data below BC.
SYS	APH – 09-04-SYS	Chinook PSM studies		Rich/Fenton	TBD	Illegal harvest proposal not being funded. Corps seeking separate proposal to further evaluate fate of adult Chinook above Willamette Falls.	(Not discussed)	(Not discussed)	(Not discussed)
SYS	APH-15-01-SYS	Chinook above-dam spawning surveys	All. See comment for sites.	Rich	3	Plan to fund surveys above DET and FOS to assess new adult trap ops, and spawning distribution study above DET. Below-dam spawning surveys covered by hatchery O&M contract. Excluding funding of surveys above CGR, LOP and HC dams since adequate data now available under existing conditions, and adult traps will cont. to provide #'s	Annual surveys above CGR, LOP and HC needed, along with other sites, to continue evaluating trap and haul, and reintroduction. This data needed not for current fish pass designs, but for long-term monitoring of distribution, spawning success and productivity, and to	None	At December meeting, WATER RM&E Team will review available data, and further discuss specific adult passage and reintroduction data needs, for periods before and after future fish passage improvements are made. Flagged for WATER Steering Team discussion since Corps only plans to fund surveys of some sites, however all sites ranked

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						transported upstream, and screwtraps will provide juvenile production estimates.	support pre/post effectiveness evaluations of future management actions. Also, w/o spawning surveys and otolith collection, will not be able to assess the number of unmarked hatchery fish that spawn above Cougar.		HIGH by fish agencies.
SYS	JPL-10-02-SYS	Above-dam screwtrapping	All – see comment for sites.	Ricardo	2	<u>Plan to fund</u> above dam sites: DET, FOS, FAL, LOP, CGR	None	None	None
SYS	JPL-11-01-SYS	Below-dam screwtrapping	All – see comment for sites.	Ricardo	2	<u>Plan to fund</u> below dam sites: BCL (if lower RO operating), FAL, LOP, CGR. Investigating alternative methods below FOS not needed since other methods being used to provide passage timing and abundance data for Chinook and steelhead.	None	None	None

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SYS	JPL-13-02-SYS	Life history studies	2 to 9	Rich	2	<p><u>Plan to fund.</u> Work is complimentary to previous work by ODFW, since it includes above dam reaches and uses latest available scale, otolith and pedigree data from new database. Different combinations of abundance, productivity, spatial structure and diversity can result in viable populations. Fish agencies require fry be returned to reservoirs in comparable systems due to concerns with fry survival downstream – should same approach be used in Willamette? Analysis of available data will inform success of different life history types (and therefore planning and operations for fish passage)</p>	<p>Do not recommend funding UI analysis. Analysis of life history under current dam passage conditions not essential for making downstream passage decisions. ODFW peer-reviewed paper on below dam life history, with MK focus, recently accepted for publication. Recommend continued funding of ODFW to maintain database to support evaluation of future questions. Goal is to provide juvenile passage at dams similar (in regards to timing and size of fish), to un-dammed conditions.</p>	None	<p>Researchers did not address all comments from ODFW. Rich will send out researcher responses once received.</p> <p>Flagged for WATER Steering Team discussion since Corps plans to fund and analysis was ranked LOW by fish agencies.</p>

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SYS	JPL-14-02-SYS	Lentic to Lotic study	3	Cindy	2	Plan to fund. Focus on completing models using data collected to date. Minimal field work included for FY16, with data collected as part of LOP sampling by ODFW for other study, and analysis of fry predation using isotopes.	Question why field work is included, when previously discussed only funding model completion in Fy16.	None	Rich will send out final proposal. Flagged for WATER Steering Team discussion since ranked low by fish agencies.
SYS	TD-10-08	WF juvenile passage detection	Obj. 6		TBD	Continue discussion of need and study designs after Skalski workshop summary available.	None	NWPPCC- Inquired about including proposals to improve WF PIT detection	Rich will send out write-up from Skalski from DSP workshop, and schedule additional discussion with RM&E team.
SYS	WQFM-15-02-SYS	Mainstem temperature and flow analysis			TBD	Corps (Chris Walker) to organize workshop in FY16 to discuss flow management questions, analysis approaches and data needs	Would like to have input on workshop organization and agenda	None	Stephanie and Chris will discuss workshop plans and agenda