



FISH PASSAGE CENTER

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MEMORANDUM

TO: Bill Tweit, WDFW
Ritchie Graves, NOAA Fisheries
Howard Schaller, USFWS
Tom Rein, ODFW
Rob Lothrop, CRITFC
Christine Golightly, CRITFC
Pete Hassemer, IDFG
Steve Williams, PSMFC

FROM: Michele DeHart, FPC

DATE: February 17, 2015

RE: Request for Proposal, Biological Services Smolt Monitoring

On February 12, a request for proposal (RFP) for Biological Services for “Trap and Transport” and “quality assurance” for the U.S. Army Corps of Engineers (USACE) smolt transportation program was published. This contract is for 2015 and has options through 2019. In response to your request, we reviewed the details of the RFP. Essentially this is a request for a proposal for the partial funding provided by the USACE for fish condition monitoring and for barge loading calculations. The problem is that these two tasks are presently implemented through the larger Smolt Monitoring Program (SMP). The conduct of these two USACE tasks is largely dependent on the SMP which is not funded by the USACE. **We believe that the RFP is inaccurate and describes the larger SMP tasks, which are not funded by the USACE. This is probably due to the fact that the Walla Walla District of the USACE has developed the RFP unilaterally without consultation with the state, tribal, and federal fishery co-managers. Our overall review conclusion is that the RFP should be recalled because it does not accurately separate the SMP tasks, which are not funded by USACE, from the contractor tasks. Further the RFP does not reflect current regional agreements between the USACE and co-managers regarding collection and reporting of fish condition data. The RFP should be revised in consultation with the state and tribal co-managers to be consistent with regional data reporting agreements.**

- The original inclusion of these two tasks, fish condition monitoring and barge loading calculation, into the SMP represents regional agreement, developed through discussion with the state, federal, tribal fishery agencies, USACE, and the Bonneville Power Administration. The incorporation of the transportation barge loading and fish condition monitoring was the result of discussion and agreement by all of the regional parties (the regional agreement with the USACE is illustrated by the attached FPC memorandums dated June 2, 2008, and March 31, 2009). The objective of integrating the SMP, fish condition monitoring, and barge loading calculations was to achieve a higher level of cost effectiveness, minimize fish handling, and improve the utility and availability of fish condition data. The RFP does not reflect these agreements.
- The SMP is conducted as a single integrated program that meets the needs and objectives of: (1) the USACE Juvenile Fish Transportation Program; (2) requirements of 2014 BiOp RPAs (53.3 and 54.5) specific to transportation and condition monitoring; and (3) the fisheries managers for the collection of data for real time management of the FCRPS and input to a long-term database to guide fisheries management decisions. This integrated program approach was accomplished over many years and commitment of significant resources from the state, tribal, and federal fishery agencies, as well as from the Walla Walla and Portland District USACE, to assure consistent data collection and provision of information to the agencies and tribes for use in management decisions. The RFP does not reflect the regional agreement because the SMP and the USACE-funded components of the SMP barge loading and fish condition sampling are totally integrated for cost effectiveness and efficiency. The USACE by neglecting to consult with regional parties has not considered the impact of their action on the SMP, nor has recognized the considerable resources provided by the SMP to the USACE-specific tasks.
- To accomplish this integrated and efficient program approach, the USACE Juvenile Transportation Program contract has funded 1.0 FTE at each of the Walla Walla District USACE projects during the smolt migration season. This FTE provided under the USACE Juvenile Transportation Program was allocated among the BPA-funded SMP personnel, which allowed for efficient, cost effective management of workloads under the BPA-funded SMP contract and the USACE-funded Transportation contract. The present USACE-solicited RFP (W912EF-15-R-0018) proposes to **sever** this 1.0 FTE from the overall SMP, and award it to an independent contractor. Unlike previous integrated implementation in which personnel had responsibilities to both the SMP and the USACE Transportation Program, the RFP states that the contractor (one person on-site on a daily basis) is expected to participate in the conduct of both programs, but is required to respond and report only to the USACE.
- According to the RFP the contractor is responsible for the delivery of all of the SMP products to the USACE biologist on site. This assumes the provision of all information currently funded under the BPA portion of the SMP. However, the RFP does not require the contractor to use regionally agreed upon protocols or established methodologies for data collection and distribution to the FPC for use by the state, tribal, and federal fishery management agencies. In addition, the contractor is only subjected to oversight by the USACE and only required to report data to the USACE. This USACE RFP represents a significant step backwards from the current level of coordination, collaboration, and cost effective integration and data sharing that has been accomplished to this point.

After reviewing the RFP, the following concerns have been raised:

- RFP does not state that contractor is to use established and regionally accepted protocols.
- RFP does not state what data collection and transmission methods will be used by contractor.
- RFP states that the contractor will be overseen only by USACE biologist.
- RFP does not establish specific reporting requirements outside of the USACE biologist.
- RFP sets goals and accomplishments that are not possible under the 1.0 FTE (per project) that is provided by the USACE contract.
- Current USACE transportation contract provides funding that is allocated to existing SMP personnel, allowing for overlapping workloads between the SMP and USACE contracts. Current RFP will establish USACE contractor as a separate entity and, therefore, it is unclear how the overlapping workloads of the two programs will work.
- RFP specifically excludes "...the gathering or use of fishery information for management of fish stocks, hatchery or wild, within the waters of the state or for the settling of management criteria therein." This is a direct contradiction to the stated mission of the SMP in providing data on the movement of salmonid smolts through the FCRPS for use in in-season operations decisions relative to flow and spill management,
- RFP does not require the contractor to provide the data collected in a format reflected in current agreed upon SMP reporting system for dissemination to the state and tribal fisheries management agencies via the FPC website.

Specific Comments

Work Item 1b – Endangered Species Act Permits (Page 18)

- RFP does not specify how "take" will be determined and divided between SMP and USACE contractor ESA permits.
- Additionally:
 - It is unclear how to establish handling responsibility and oversight when both SMP personnel and an outside contractor are involved in working the same sample. Under the existing program all "take" is under the SMP permit and subject to oversight from the Fish Passage Center. Again, the contractor is only responsible to the USACE Biologist.
 - Based on the timelines outlined in the RFP, it seems improbable that all necessary state and federal handling permits can be in place by the March 16 start date in 2015. Washington State permits require a lead time of 60 days.
 - The RFP fails to specify that work at LGR, LGS, and LMN would require handling permits from the state of Washington, given that the contractor will not be a state employee or under the supervision of a state employee.

Work Item 1c.1 – Sampling of Juvenile Fish (Page 18)

The first two sentences are contradictory. In the first sentence, the Contractor is responsible for all handling and sampling of juvenile fish. However, the second sentence states that Contractor will participate in daily project sampling activities alongside SMP personnel. These directions are contradictory and do not allow for the operation of the juvenile facility toward accomplishing the joint objective and sampling approach.

The RFP requires the contractor to sample fish according to criteria specified in the USACE Fish Passage Plan. It does not require the contractor to follow the regionally agreed upon protocols or established methodologies for data collection and distribution to the FPC for use by the state, tribal and federal fishery management agencies.

According to the RFP, the Contractor shall anesthetize and handle fish in the daily sample to determine the total number of fish in the sample, species composition, average weight of the fish, and descaling and injury rates. Under the current comprehensive program approach, these tasks require two to three full-time staff. It is not specifically stated how the contractor will accomplish all these tasks with the 1.0 FTE at each project. Furthermore, the RFP does not specifically state how the contractor will work with existing SMP staff to accomplish these tasks or outline oversight between SMP staff and the contractor.

Finally, much of the work outlined in this section is redundant with the BPA-funded SMP contract. The 2015–2016 SMP contract specifically states that SMP personnel will:

Collect/Generate/Validate Field and Lab Data - Sample fish daily throughout the monitoring season at the JMF. Collect species, condition and external mark detail from all sampled fish. Collect detailed condition and length data from a subsample of the sample. Count and identify all species caught in the samples. Tally, review, enter into computer and transmit all data to the FPC daily. During periods of low fish collection, August to October, 24 hour samples may be held and sampled every-other-day

It is unclear how the SMP is to fulfill its contract deliverables under the system outlined by the current RPA or how these responsibilities will be shared by SMP personnel and the contractor.

Work Item 1c.2 – Expanding Facility Collection Counts

Requiring the contractor to “expand the total species composition data from the daily sample to estimate the total facility collection” is redundant with the BPA-funded SMP contract. The 2015–2016 SMP contract specifically states that SMP personnel will:

Transfer/Consolidate Regionally Standardized Data - “Transmit facility collection data to the FPC electronically on a daily basis such as daily sample, catch, fork length, and mark and brand recovery data to the FPC daily. Transmit daily Corps project operations, flow data, fish transport numbers, facility mortalities, percent descaling and average fork length. Include fish condition data collection under the COE funded facility fish condition monitoring in daily batch transmittal to the FPC. Specifically, the data

collected under the COE funded contract is collected according to the regionally agreed upon fish condition sampling protocol manual.”

Furthermore, the RPA does not require that the contractor share collected information with the fisheries managers. Therefore, it is unclear how the SMP is to fulfill its contract deliverables under the system outlined by the current RPA.

Work Item 1c.7 – Dissemination of Information and Coordination with Biologists at Other Operating Projects (Page 19)

RFP specifically excludes “...the gathering or use of fishery information for management of fish stocks, hatchery or wild, within the waters of the state or for the settling of management criteria therein.” This is a direct contradiction to the stated mission of the SMP in providing data on the movement of salmonid smolts through the FCRPS for use in in-season operations decisions relative to flow and spill management and for the development of long-term databases for use in developing and establishing needed fish protection measures.

Work Item 1f – Contractor’s Requirements for Collaborating (Page 20)

According to the RFP work conducted by contractor “in multiple agency/multiple entity environment will mean the necessary sharing of some resources, information and staff to achieve objectives.” While this statement may suggest that the contractor will be assisting SMP personnel with the collection and dissemination of data, the RFP mentions that the contractor is responsible only for reporting data to the USACE biologist and not the FPC for dissemination to the tribal and agency fishery managers. This section of the RFP also fails to establish how oversight of collaborative parties will work; specifically, who will have oversight and supervisory responsibility, because the RFP implies that the contractor and SMP personnel will be conducting the same tasks.

Work Item 2c.3 – Water Temperature Data Collection (MCN) (Page 22)

RFP states that contractor will maintain temperature data in a computer spreadsheet to be included in weekly reports and a final report. However, since 2013, upon the request of the fishery managers, these data have been provided to the FPC for dissemination to the tribal and state fisheries managers. The current RFP does not maintain the cooperative agreement to provide these data to the fisheries managers.



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MEMORANDUM

TO: FPAC

Michele DeHart

FROM: Michele DeHart

DATE: June 2, 2008

RE: Fish Condition Sampling at SMP Sites: Current practices and plans for the interim and 2009 sampling seasons.

Prior to the start of the 2007 sampling season, the FPAC requested that the FPC begin reporting condition data collected at SMP sites. After review and discussion of present sampling and reporting procedures the FPC has developed an interim process for 2008 and is developing a standardized process for all of the sites for the future. The purpose of this memorandum is to advise FPAC and the remote site project leaders of our progress to date and to request a written response from the remote site project leaders regarding their implementation of the interim procedure.

The fish condition data collection has been under the control of the USACE, whose contracts with SMP crews had called for sampling fish injuries. At the start of the 2008 season the FPC set out to develop a standardized method for reporting injuries and disease data collected at various sites. Crews were surveyed and asked to attend a meeting at FPC to assist in developing a standardized reporting method. It was clear that each site collected different data and initially the FPC tried to accommodate this by gathering the diverse data and summarizing it under two broad categories; injury and disease. However, as the season got underway it became clear that this was only a temporary solution and that some level of standardization was necessary. Two problems arose with this approach to data reporting. First, some sites were tallying total injuries and as a result some fish with multiple types of injuries could be counted twice. Second, various types of maladies were being reported as disease, injury or descaling at various sites. Without a common standard it was difficult to compare reports from the sites.

The USACE recently reviewed condition sampling at the Walla Walla District sites and concluded that standardization was warranted (see attached memo from Dave Hurson,

USACE). With the cooperation of the COE and FPAC the FPC is developing a standardized method for collection and reporting of condition data for full implementation in 2009. The goal is to report data on fish condition that is comparable from site to site. However, it is still possible that crews at each site may want to collect other data than what FPC requests; FPC will not discourage that practice as long as the standardized reporting is not affected.

Prior to full implementation in 2009, some changes to current SMP fish condition reporting practices are warranted in order to achieve some level of standardization. Herein, we describe how fish condition data are currently being collected, what changes would need to be made in the interim, and what the ultimate goal is for full implementation in 2009.

Current Practices and Changes for the Interim:

The FPC has developed a sampling and reporting system for the interim period that is designed to minimize disruption of current sampling and recording procedures and minimize additional effort by the sampling site personnel. Table 1 provides information on how data are currently being collected and reported by the various SMP sites. Table 1 also lists how these current procedures will need to change in the interim in order to obtain a greater level of standardization. For your reference, a copy of the standardized spreadsheet is also attached.

Future Implementation (2009 Sampling Season)

Prior to the 2009 sampling season, the FPC will develop a touch screen data entry program that will generate a "Fish Condition" batch file that will be sent to the FPC daily for import into the FPC database for posting onto the web. LGR and MCN currently have touch screens that will need to be reprogrammed when the new data entry program is completed. LGS, LMN, JDA, and BON do not have touch screens and will each need to have one installed and programmed when new data entry program is completed. When the time comes, the FPC will assist the sites with installation and programming of the touch screens. Also, prior to implementation in 2009, the FPC will analyze fish condition data from 2008 and advise FPAC on future condition sampling protocol (i.e., sample sizes) and frequency.

Table 1. Plan of action for standardization of fish condition data collection at SMP sites in the interim (Summer 2008).

Project	Current Fish Condition Procedure	Interim Procedure
Lower Granite and McNary	<ul style="list-style-type: none"> • Currently sending fish condition data for individual fish via Excel Spreadsheet (Cumulative Data). • FPC runs macros and SQL storage procedures that import condition data from LGR and MCN Excel File into LGR and MCN specific SQL tables in FPC Database. 	<ul style="list-style-type: none"> • FPC will develop a standardized Master Fish Condition Table on the FPC database. • FPC will develop a macro allowing sites to push a single button that will take LGR and MCN data from daily Excel file (in its current form) and populate the Standardized Spreadsheet. • Standardized Spreadsheet will be sent to FPC for import into Master Fish Condition Table on FPC database.
Little Goose and Lower Monumental	<ul style="list-style-type: none"> • Currently not providing individual fish condition data. 	<ul style="list-style-type: none"> • FPC will develop a standardized Fish Condition Data Hand Log for this site that allows for recording of individual fish condition data. • FPC will develop a standardized Fish Condition Data Entry Program that will populate the Standardized Spreadsheet. • Standardized Spreadsheet will be sent to FPC for import into Master Fish Condition Table on FPC Database
John Day and Bonneville	<ul style="list-style-type: none"> • Currently sending fish condition data for individual fish via Excel Spreadsheet (Daily Data). • FPC runs macros and SQL storage procedures that import condition data from daily JDA and BON Excel File into JDA and BON specific SQL tables in FPC Database. 	<ul style="list-style-type: none"> • FPC will develop a standardized Master Fish Condition Table on the FPC database. • FPC will develop a macro allowing sites to push a single button that will take JDA and BON data from daily Excel file (in its current form) and populate the Standardized Spreadsheet. • Standardized Spreadsheet will be sent to FPC for import into Master Fish Condition Table on the FPC database.

TO: Fish Passage Center

FROM: Dave Hurson and John Bailey, Walla Walla District, Corps of Engineers

SUBJECT: Review of Smolt Monitoring Program/Transport Program Fish Injury Protocols.

1. Background. The Corps contracts with PSMFC to provide biological assistance for the Juvenile Fish Transportation Program at each of the Walla Walla District transport facilities; Lower Granite, Little Goose, Lower Monumental, and McNary dams. The contract requires PSMFC to provide a biologist (transport biologist) 8 hours per day seven days per week (56 hours per week) from late March through early October or November, depending on the project. One of the contract requirements is for the transport biologists to assist biologists from the Smolt Monitoring Program (SMP biologist) in sampling fish. PSMFC subcontracts this work to WDFW for work at Lower Granite, Lower Monumental, and McNary dams and ODFW for work at Little Goose Dam. At Lower Granite and McNary dams, there are 3 state biologists working at each dam so there is always a transport biologist working alongside a SMP program biologist when the sample is done. At Little Goose and Lower Monumental dams, there are only 2 biologists working at each dam, so about 4 days per week the only biologist on duty is the transport biologist. The remaining 3 days per week, there are 2 biologists there. This staffing level though is sufficient to meet the sampling and other requirements for both programs.

2. Common Practices. Fish at each project are sampled using similar methods. All fish are anesthetized in preanesthetic chambers in the sample holding tanks. Fish are then passed via gravity flow into handling troughs in the sample rooms where they are identified by species, clipped versus unclipped, and evaluated for descaling. All projects do what we call full sample descaling examinations using the standard criteria: a fish is descaled if it has 20% or greater descaling on one side of the fish. This descaling data is reported by both the SMP and Transport Program as descaling in daily data submissions. This descaling rate is what is primarily used by the Corps for managing facility operations for debris and other requirements.

3. From this point on, what the state biologists do in terms of evaluating fish for further maladies varies considerably from dam to dam. For instance ODFW at Little Goose examines all fish

for maladies if numbers are not too great. State biologists at the other three dams examine only a subsample of fish for maladies, like 50 to 100 of each predominant species. McNary and Lower Monumental ignore all descaling that is less than the standard criteria, while Little Goose classifies less than 20% descaling as body injuries, and Lower Granite has five subcategories for various descaling levels for the subsample. Outside of descaling conditions, projects appear to be either "lumpers" or "splitters" when dealing with other maladies with the number of different categories/conditions ranging from 19 at Lower Monumental to 30 at Lower Granite. Protocols appear to have partly evolved based on what dam some person(s) in the past worked at and then adopted those protocols to the next dam they worked at. In most cases, these persons are not involved in the programs anymore but protocols have carried on. In some cases biologist at a project just started recording data on what they have observed over time.

4. There is some commonality to the types of injuries and other maladies that are recorded, and here is sort of a combined/lumped list by category so everyone can see what is recorded. Some of the projects keep track by right side versus left side, but we don't think that really matters.

Head injuries:

- Eye
- Pop eye
- Operculum damage
- Other head injuries

Body injuries:

- Body injuries - including lacerations, abrasions, punctures, and bruises
- Fin damage (other than apparent hatchery eroded fins)

Predation marks:

- Bird bites
- Fish bites
- Lamprey marks

Diseases:

- Fungus
- Columnaris
- BKD
- Parasites
- Fin hemorrhaging
- Deformity

5. Recommendations. Descaling data should continue to be gathered using the standard descaling criteria and full sample descaling evaluations. Other non-standard descaling data can be kept on the subsample examined fish, but it should be clearly labeled as other descaling data and not injuries or combined with the standard descaling data. Other maladies examined should somewhat conform to the list above, unless there are some specific reasons to add more items or break down the categories further. Again, these other maladies are not really used for the Juvenile Fish Transportation Program, but may be of interest to the Salmon Managers and the SMP.



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MEMORANDUM

TO: Tim Dykstra, Walla Walla District COE
Bernie Klatte, Portland District COE
FPAC

FROM: Michele DeHart

DATE: March 31, 2009

RE: Standardized Sample Size requirements for SMP condition sampling and transportation Barge loading data requirements and weight calculations

The FPC has invested considerable effort over the past year in standardizing the Smolt Monitoring Program (SMP) data collection and recording procedures among the SMP sites. In addition, in response to requests from the fishery management agencies and tribes the FPC has worked with the region to develop a standard fish condition monitoring protocol for data collection and reporting. The COE and site personnel requested that their data bases for COE sampling of facility fish impacts and barge loading remain unchanged in this process. The FPC staff expended considerable efforts to build individual tools for each site to maintain their present COE data and procedures. As a result of this process we have noted several issues that can only be addressed by the COE and the fishery management agencies regarding inconsistencies in data collection for COE facility monitoring and transportation program barge loading. We believe that there are opportunities to standardize these efforts among sites and reduce fish handling and fish impact. Since this is the last year of the COE three year contract for sampling for facility impacts and transportation implementation, it may be appropriate to address these issues at this time. There are opportunities to reduce sampling and handling impacts. Specifically:

- Although the management question of barge loading is the same at each transportation site, different data are collected at each site to determine barge loading. For example at LGR poundage is reported for barge loading by species type, and clip type, whereas LGS reports poundage by steelhead clip type and salmon combined. These different

procedures require different sample sizes. The management application is the same, and sample size requirements could be reviewed in terms of reducing sampling and handling and standardization among sites.

- Currently the condition monitoring protocol, as determined by the FPOM subgroup on fish condition monitoring, was set at 100 fish of each species and clip type. This means that during the spring, when potentially four species (clipped and unclipped) of juvenile migrants are present, up to 800 juvenile salmon could be examined on a daily basis for injury and disease information. There may be ways to reduce this amount of handling for detailed condition information and still get necessary information on fish condition.
- Neither rationale nor calculations of sample size requirements for fish condition data collection at individual sites is available. As mentioned above, these sample sizes for each site are currently not consistent. The COE and fishery agencies should consider and review guidelines used to select the target sample sizes, relative to the management application of the data. This should include consideration of the 100 fish criteria per clip type objective, such as detecting a particular incidence of occurrence of injuries or descaling.
- The rationale for different condition sampling at transportation sites versus non-transportation sites is unclear. The rationale for collecting injury information on clipped and non-clipped fish is unclear, specifically as it relates to the resulting management action and whether or not the existing data suggest that injury levels are different enough to warrant the additional sampling and handling.
- Procedures and codes differ among sites. For example, MCN collects weight and length data on incidental fish, but other sites do not. Sample codes differ among sites.

cc. Charlie Morrill, WDFW
Rick Martinson, PSMFC
Pat Kinery, ODFW