

Initial Study Report

Mason Dam Hydroelectric Project
FERC No. P-12686-001

Prepared by
Baker County

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Introduction

Baker County filed for their preliminary license and received it on October 8, 2003 for the 3 MW Mason Dam Hydroelectric Project (P-12686-001). The project is run of release meaning Baker County does not and will not have any control over the release of the water at Mason Dam. The Bureau Of Reclamation and Baker Valley Irrigation District have control of the release of water and will not change water flows at Baker County's request.

I became involved in the Mason Dam Hydroelectric Project in December 2007. Since then the learning curve has been a steep one that I am still climbing. While still performing my other duties for the County, I helped change the study plans prior to their determination and implementation of them. In the following report I describe the implementation, variances, and modifications to the study plans. For those plans that I was directly involved with more details are provided. As I reviewed the first field season I found areas I would like to improve upon. However, looking at the big picture I feel I made some leaps and bounds in the right direction. I have become proficient in most of the study plans but I am not an expert.

Study Plan 1 Dissolved Oxygen, Water Quality, and Temperature

To implement this study plan, Baker County decided to hire a consultant. When we wrote this plan we went with the information provided by Oregon Department of Environmental Quality (ODEQ) and looking at similar plans. When it came time to compose a Request For Proposal (RFP) a greater understanding was needed to write the plan and then to understand the proposals received in order to make a decision on which consultant to hire. I worked with ODEQ in Bend and the lab in Portland to obtain an operational understanding of the study plan. This proved helpful, as there was an \$80,000 difference among the amounts submitted by different consultants. It took some extra time to ensure apples to apples comparison was done of all the consultants. Baker County hired a consultant and began the study on May 4, 2007. The schedule for this project was to start May 1, 2007 or two weeks after ice off of Phillips Lake. As mentioned above the additional time it took in selecting a consultant delayed our start by about two weeks due to the ice off.

The first time out into the field I noticed a problem when I met with the consultant that morning. There was no boat to conduct the sampling at site five, near the intake in Phillips Lake. There was also a misunderstanding about how the samples would be taken at site five. The consultant thought that site five was much like site four with a cement structure that we could survey from and only take one sample like the other sites. The study plan called for vertical sampling at site five with one meter intervals down to one or two meters of the bottom of the lake. The consultant did not have the proper equipment to take all the readings with a multi-probe and there were no longer cables available to extend the range of their current meters. Calls were made to discuss the situation with ODEQ to come up with a solution to continue to gather data that would meet the needs of the study. We decided to use the existing probe and a Van Dorn style sampler used to gather five meter interval readings beyond the capability of the probe. This type of sampling took longer than expected by the consultant who needed to change the amount of the contract to cover the additional hours. The amount of increase was more than enough for Baker County to buy our own equipment. We decided to buy a multi-meter probe and work with the ODEQ Water Quality Volunteer Program who had additional equipment we could use in exchange for the data received. The consultant continued to gather data while I received training from the ODEQ lab in Portland as well as the consultant in the field.

The data was collected according to the QAPP found in the study plan. There were some instances where equipment malfunctions delayed or seized us from collecting data. By resetting and calibrating the equipment we were able to collect the data needed for the study. There was one instance where we needed to send the multi-probe back in to ensure accuracy throughout the field season.

The variations that occurred in the study plan and schedule began with a misunderstanding of the requirements needed to collect samples at site five. Once I took over the fieldwork for the water quality study I wanted to catch up in the monthly reports that the consultant failed to do. I spoke with the water quality volunteer program coordinator who advised me to wait until at least after summer to submit the data as they

were too busy to really look at it. I made an assumption that because ODEQ was one of the lead players for this study, the other stakeholders would be in the same position and would rather receive the data at the end of the study. Also, the data collection done on alkalinity was deemed unnecessary and thus was dropped from the study.

As mentioned earlier the study schedule started a little later than desired. We did not catch the spring lake stratification like we did in October. There were also three weeks of sampling that did not occur according to the schedule a week in July, August, and September. The boat needed was in the shop the Friday before I was going to use it, I was sick for three days, and I had to send the multi-probe back to the company, respectively. If it is decided that more data is needed in order to come to a conclusion about the water quality of the Mason Dam project, I would suggest looking at simplifying the study to only include the necessary data needed. This would include looking at all the parameters and deciding which ones are primary and which are secondary. Also for site five, divide the lake into three sections to sample instead of the one-meter intervals for the whole water column.

Study Plan 2: Vegetation, Rare Plant and Noxious Weeds

In implementing this study plan, Baker County thought we would use the Forest Service as well as the Baker County Weed Department. The Weed Department took a look at the study plan and told me that he would be able to complete the whole study with the background he has obtained.

Receiving update information on the project was difficult because the field season for the study plan coincided with the Weed Departments field season.

The only variance pertains to the schedule with a delay in the draft report being completed. This occurred due to a family tragedy inside the Weed Department.

The only modification to this plan may occur because of an update to the 2004 Pacific Northwest Region Regional Forester Sensitive Species List made by the Forest Service. This would require an additional field season to obtain the additional information. Baker County would request the Forest Service to condense the list to that which only would “more than likely” occur in the project area and was an addition to the original list.

Study Plan 3: Threatened, Endangered and Sensitive Species Assessment

To implement this study plan Baker County originally thought they would be able to use the local agencies to conduct this assessment. However, the Forest Service was not able to fit our project into their field season schedule this year. Baker County prepared a Request For Proposal and hired a consultant to perform the study. The consultant updated me throughout the study plan and worked well with all agencies involved to gather background information. The draft and final reports have been submitted for this study.

The only variance occurred when the draft study plan was submitted to me and I was unable to e-file it due to the size of the file.

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County would request that the Forest Service to condense the list to that which only would “more than likely” occur in the project area and was an addition to the original list.

Study Plan 4: Fish Entrainment Study

Instead of implementing the study plan as outlined in section 4.5 Baker County proposed to mitigate in lieu of the study by screening the intake for Mason Dam.

Study Plan 5: Recreation Visitor Survey and Use Study

This study plan was implemented as described in the study plan. The trial survey period was done in April. This allowed us to test the survey and make needed changes if any. In order to test the survey however, we needed to have someone stop so that we could conduct the survey. Those that were recreating in the area would veer around the surveyor and not stop when we approached them. The addition of three signs increased our odds that we would be allowed to at least see if those recreating wanted to participate in the survey. The three signs used was, “Survey Crew Ahead”, “Be Prepared to Stop”, and a “Stop” sign. I had two high school students work for me during the summer and used them to survey occasionally. Even after explaining the survey and conducting some surveys with the students, I still had some areas that we needed to work on to have complete surveys. This area usually was around entering either an entry or exit time to determine the length of stay/use of the area. There was also a misunderstanding of the sites until a map of the area was included with the survey. The data collected was inputted into a computer database. This allowed me to look over all the forms completed and analyze the information. Another aspect of this study was the information received from a traffic counter. The traffic counter was installed in May and removed in Early October. We ended up using three different road counters in order to obtain accurate data.

Some variances from the study plan and schedule occurred throughout the field season. One of the questions was changed two times. The question “If the Forest Service decided due to the use statistics and lack of funding to remove the outhouse, picnic tables, and fire rings from site 2. What would your opinion be?” We changed it to “If the outhouse, picnic tables and fire rings were removed from site 2. What would your opinion be?” This change was done because of phone call being made to the local Forest Service Ranger District. Then the question was changed to “What site did you use? What activities did you participate in at that site?” This way we could gather data about the sites used without any negative relationship to the question. I also added an entry time to the survey. I decided to install an additional traffic counter to help obtain additional data. In the study plan it called for one traffic counter near the exit of site one. The additional counter was placed by the exit to site two. With the addition of this second counter we could monitor the use at each site more accurately. One survey day was missed due to illness. Also, according to the study plan we were supposed to try and survey on all holidays. Even though this is not a variance from the calendar of survey day that was submitted, Labor Day was overlooked at a survey day.

If an additional field season were deemed necessary, I would propose we reduce the number of survey days and gather the traffic counter data for the areas that the information is lacking.

Study Plan 6: Assess Traditional Cultural Properties

For the implementation of this study plan Baker County decided to contract with the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). This study was to be conducted in the 2007 field season. However, with changes being made to the contract, legal council from both sides worked on the contract, which delayed the start time. An extension was asked for and approved by the Commission to execute the study plan during the 2008 field season.

Study Plan 7: Assess Archaeological and Historic-Era Properties

To implement this study, a RFP was used to hire a consultant to perform the study. There was a delay in signing the contract and I felt that the time left was not sufficient enough to conduct the study. An extension was asked for and approved to conduct this study during the 2008 field season.

Study Plan 8: Bull Trout and Redband Trout at upper confluence of Phillips Reservoir.

Instead of implementing the study plan as outlined in section 8.5 Baker County proposed to mitigate in lieu of the study by screening the intake for Mason Dam.

Study Plan 9: Hydrology and Stream Flow Analysis

The Commission found that Baker County provided adequate information regarding streamflow releases below Mason Dam to satisfy this study.

Study Plan 10: Salmonid Spawning and Juvenile Density Study

The Commission found that screening the intake would negate the need for the requested studies.