

DRAFT MEETING MINUTES

INSTREAM FLOW TEAM

Blue Lake Hydroelectric Project (FERC No. 2230) Relicensing

March 4, 2004

The meeting convened in the City and Borough of Sitka (CBS) Electric Department conference room at about 2:15 pm. In attendance were:

Name	Affiliation	Email
Joe Klein	ADF&G-RTS	joe_klein@fishgame.state.ak.us
Jim Ferguson	ADF&G-RTS	jim_ferguson@fishgame.state.ak.us
Katherine Miller	NMFS	katharine.miller@noaa.gov
Ken Coffin	USFS-SRD	kcoffin@fs.fed.us
Dean Orbison	CBS	dean@cityofsitka.com
Karl Wolfe	CBS*	wildernesswolfe@alaska.net
Mike Prewitt	CBS*	cmikeprewitt@aol.com

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Mike opened by thanking the attendees for participating in the site visit earlier that day, and said the purpose of the meeting was to work out the details of the Sawmill Creek instream flow studies. Dean passed out copies of the Draft Instream Flow Study Plan prepared by the CBS. Mike said that CBS needed to do the instream flow field work as soon as possible because this was the last opportunity prior to the Draft License Application on which it could be done.

Mike said that the draft plan proposed two efforts, one a hydraulic measurement component to be used in conjunction with the extensive fish surveys conducted by Karl, and 2) the Expert Habitat Mapping (EHM) procedure done on the Lower Oak Grove River in Oregon by USFS. Mike said that CBS was ready to propose a plan for the hydraulic based component, but that he had not had sufficient input to do the same for the EHM.

After some discussion, it was decided that the bulk of the discussion at this meeting would be to settle on details of the hydraulic measurements, and that the agencies would confer to decide on whether or not the EHM would be necessary in addition to the hydraulic program proposed by CBS.

Joe asked how the cross-section data might be used. Mike said that CBS would focus the measurements in areas known to support steelhead spawning. He added that CBS would place cross-sections in such a way as to provide spawning HSI curve data either through

direct measurement of physical habitat conditions at fish locations, or through modeling of conditions at flows known to be present during spawning.

Joe asked if this might lead to development of “PHABSIM” curves.

Mike said that there were too few fish, either steelhead or coho, to assure high quality curves. He said that we would do the best we could with the data we could gather.

Joe handed out a compilation of information on Alaska HSI curves. He said he had collected information from several studies done in Alaska, and encouraged CBS to use the information as needed.

Mike explained that, once cross-section data were collected, they could be used in a variety of ways, including a PHABSIM analysis.

Mike said that CBS wished to focus on the spawning areas in reaches 2 and 3, to take advantage of the detailed data on fish locations. He said that cross-sections would be measured as groups so that habitat could be expressed as surface area.

Mike said that, under CBS’s proposal, there would be less dependence on representing the whole stream than in the typical IFIM study, because we knew so much about the exact sites used for spawning.

Ken asked about resident rainbow.

Karl described places in which he had observed and captured both adult and juvenile resident rainbow.

Ken asked about measurements above the Falls, and Mike said that cross-sections could be measured above the Falls to represent the overall habitat there.

Ken asked if we could analyze the area above the Falls for salmon species, and Mike said yes, we could simply plug in curves for whichever species we wished to evaluate. He added that such an analysis would not have the precision of the one downstream where spawning had been observed.

There was some discussion of how we might evaluate rearing, given that so little rearing had been observed.

Karl explained that, in his reports, he had described resident rainbow as those between 250 and 490mm in length. He said he had seen very few small rainbow, and that it was difficult to distinguish between steelhead and rainbow juveniles.

Further discussion led to the following proposals for the hydraulic measurement component of the study:

CBS would measure several cross-sections in each reach selected primarily to represent spawning habitat for steelhead, coho and resident rainbow trout (above the Falls). The cross-sections would be selected by a CBS-interagency team in the near future, in the following areas:

- At the tailout of the Falls Pool. This area has supported the most consistent spawning for the two species. Within this limited area, we can also measure depths and velocities at spawning locations for use in curve development or verification. Three to five cross-sections would be placed in the lower end of the Falls pool in areas which exactly correspond to known spawning concentrations. Analysis at these sites would be focused on effects of flow change on specific spawning sites.
- At two additional sites representing the “next-best” spawning areas below the Falls. These would probably be in tailouts or bars in Reaches 2 and 3 and would be selected based on Karl’s knowledge of the most-utilized spawning areas. Two or three cross-sections would be measured in each of these sites to cover known spawning areas as precisely as possible. Analysis again would focus on specific spawning sites.
- In expected steelhead and/or coho rearing areas downstream of the falls. These cross-sections would be more “representative” in nature because of the limited number of rearing observations. Analysis would be along PHABSIM lines, to generally determine flow effects on juvenile salmonid rearing.
- At one site each in reaches 4 and 5 selected to represent overall habitat in those reaches. Since there have been no anadromous fish observations in these sites, the objective would be to place and weight cross-sections to represent all habitats. Analysis of these sites would be along traditional PHABSIM lines, and could include any species for which approved HSI curves were available.

All cross-sections would be measured at three different flows, ranging between 50 and 120 cfs. Exact flow levels would be controlled by CBS during the measurements, and would be approved by the Instream Flow Study Team.

Joe said that ADF&G would like to have the field data and be able to run any computer analyses independently.

Mike said that his should be OK.

Mike stressed the need to complete hydraulic measurements prior to the spill period which might arrive as early as late June. He said this would require one more field trip by the Study Team to select cross-section locations, and said that such a trip should take place in the next three weeks. He said that measurements should be completed by the

end of April. After that, he said that work on HSI curves and analytic techniques could continue through the summer, with an objective of completing the instream flow analysis and early flow recommendation process by mid-fall, 2004.

The agencies agreed to discuss the proceedings of this meeting, in terms of how EHM might be incorporated, and get back with CBS. The meeting topic then turned to a demonstration of the Blue Lake/Green Lake reservoir operations model presented by Dean. Dean passed out example output sheets and demonstrated running the model under different input scenarios. Dean explained that it CBS's intends to use the model to evaluate operational scenarios which might arise during instream flow negotiations.