

**Big Creek Collaborative
Combined Aquatics Working Group**

January 12, 2005

Meeting Notes

Time:	10:00 AM to 4:00 PM	Facilitator:	Bill Pistor
Teleconference No.:	1-800-556-4976	Recorder:	Emily Armstrong
Access Code:	271911		
Participants:	Wayne Allen Emily Armstrong Jim Canaday Joanna Clines Valerie Curley Rick Hopson Mitch Katzel Wayne Lifton Julie Means Matt Myers Bill Pistor Roger Robb Katie Ross-Smith Phil Strand Wayne Thompson	SCE Kearns & West SWRCB USFS USBR USFS Entrix ENTRIX CDFG SWRCB Kearns & West FWUA Entrix USFS Fly Fishers	
Phone Participants:	Ken Voos Geoff Rabone	Entrix SCE	

Introductions and Agenda

Bill Pistor asked the group to introduce themselves and reviewed agenda.

Meeting Notes and Action Item (AI) Review

The group reviewed the November and December meeting notes and action items. The November CAWG meeting notes were approved with no edits. The group approved the December CAWG conference call notes with the edits submitted by Entrix and Valerie Curley.

Wayne Allen gave an update on the snow pack. The official snow survey will be conducted at the end of January. Current estimates show a lot of water at Huntington and Big Creek. He will provide more information to the group at the February CAWG meeting.

CAWG 5 Temperature Modeling Discussion

Wayne Lifton said the group will be discussing temperature modeling work done by Ken Voos since the December 14th conference call. Today's discussion will focus on San Joaquin Reach No. 2.

Ken Voos (Entrix) discussed the outstanding issues with reach No. 2. Entrix wanted to investigate how to get a better fit for mean daily and maximum daily temperatures for reach No. 2,

especially upstream of Camp Creek 61 and Mono Creek. A memo will be distributed based on today's discussion.

Many simulations were run to try to get improvements, but it was finally decided that the mean daily prediction model developed for the December 14th conference call was the best all-around model available. Statistics for the mean daily are the same as what was presented on December 14th. Ken said he is satisfied with those numbers.

The maximum daily predictions are a function of mean daily predictions. Simulations were run to see improvements and in the end, nothing could be done, from the constraints existing, to get a better fit for the reach to account for under predictions of the maximum daily temperatures at Camp Creek 61 and Mono Creek. The model was adjusted to over predict elsewhere so as not to under predict at these two locations.

Ken showed comparisons of the recalibrated model to the original CAWG 5 report and said, in general, we will be over-predicting with the model by about 0.4°C. He showed the recalibrated validation time series to explain what the predictions look like compared to observed values for each site.

Phil Strand asked what event on August 3 caused the lower value. Ken said it is not within a storm event, and it is not a high flow fluctuation day. He thinks it is a day with large air temperature fluctuations, but is not certain and will investigate further.

Ken said, in summary, this is a good mean daily temperature model for the second reach of South Fork. The maximum daily model is good, with a tendency to over predict and is therefore a conservative model. The simulated temperatures can be expected to be slightly higher than what would actually be observed.

Julie Tupper asked if there is a table showing observed temperature, air temperature, predicted temperature and what the flow was close to on each day. Wayne Lifton said ENTRIX will add the table requested by Julie to the memo that is distributed (See AI#1 below).

The group discussed the amount of datasets applied to this model. Wayne Lifton said one dataset is applied for calibration and one for validation. The one shown today is the validation set. He noted that this model has been run on a number of other projects and other datasets.

Phil Strand said he is not totally comfortable with everything, yet. Julie Tupper added that the modeling is fine, but her concern is that temperature data continue to be collected to determine differences between years. There is a limited amount of data to base this on and therefore she has limited confidence. The Forest Service may recommend SCE continue temperature data collection as a monitoring step in the future. She added that flow information should be included in addition to air temperature.

ENTRIX will finalize the temperature modeling memo (with the table Julie requested) to capture this additional work and incorporate it into the report as well as send it out to the working group (See AI #2 below). The CAWG will need to review the memo and then approve CAWG 5 after it is sent out with revisions. The revised report should be out in February. Input files will also be distributed to the group members who requested them (See AI# 3 below).

Introduction to Impact Approach Discussion

Bill said that the CAWG is transitioning into a new phase in the process. The next steps for the CAWG will be to start identifying impacts, identifying where the issues are, and then begin development of PM&Es.

The group reviewed the schedule for the upcoming months. A large portion of the February 22-24 meeting time will be spent rolling out and discussing resource issues and criteria. Group

members will be expected to provide comments on the proposed resource issues and criteria initially rolled out by Entrix.

Wayne Lifton gave a presentation on the approach to impact analysis and PM&E evaluation. He reviewed the 3 phases the group will be going through:

- 1) Identification of potential Project-related resource issues and preliminary PM&E measures,
- 2) Evaluation of preliminary PM&E measures, and
- 3) Evaluation of PM&E packages and Project alternatives.

Each working group will be working alone on Phase 1 to develop a range of PM&E options to send to the plenary. The range of PM&Es will reflect the interests of group members. The plenary will look at each working group's range of PM&Es. Phase 2 is a cross-working group phase where the working groups will work together to identify and evaluate PM&Es developed by each group to be delivered to the plenary. Phase 3 is primarily a plenary activity. The plenary will look at the package and send things back to the working groups for further analysis and development as needed. Working groups will act as resources to the plenary for additional analysis or recommendations.

Wayne distributed the tools to be used in the analysis. They include: an updated Project facility list, a revised project O&M matrix (revised in December from the version that was distributed in August), and a working group coordination slide. Wayne then discussed the resource information matrix, PRIM and the Preliminary PM&E Measures Matrix. The resource information matrix will be a good way to summarize resource information that came from the study reports. It will be distributed to the working group in the near future.

The PRIM represents a view of facilities and locations in the project area compared with resource issues and effects. It identifies where there is a potential resource impact or issue present at a certain facility. There will be a separate PRIM for geomorphology, riparian, etc. Wayne discussed the criteria used to identify resource issues. The criteria briefly describe each issue and are open for comment from the working group. After the criteria are finalized, each PRIM will be populated and sent out for comment. As the various working groups populate each PRIM, we will be able to see where there are cross-resource issues. The preliminary PM&E matrix is a very similar matrix and will also be a tool to use across the working groups.

Rick Hopson asked when the study reports will be finalized. Bill said a public meeting is scheduled for January 18 and comments on the DTSR are due on January 24. Once the comment period is over, changes will be addressed offline and there will hopefully be a set of final reports (if revisions are needed) available in February. Work on outstanding CAWG reports will continue. Wayne Lifton said CAWG 5 and 9 will go out to the working group next month for a 30 day review period before going to plenary.

Phil Strand said it is difficult to evaluate tradeoffs without the water routing model (CAWG 12). Wayne Allen said they are working on it. When it is ready for rollout to the CAWG, it will be presented to the group for use and discussion.

Wayne Lifton said the draft PRIM and criteria discussed in today's afternoon session will be emailed out to folks for comments before the next meeting and Entrix will populate the matrix based on comments received (See AI #4 below). Then, the group can move on to next resource area. A preliminary schedule for what will be discussed at each CAWG meeting will be emailed out prior to the February CAWG meeting (See AI #5 below).

Potential Resource Issue Criteria and Potential Resource Issue Matrix Discussion

Mitch Katzel said that ENTRIX is in the process of developing the resource issue matrix (RIM). Today he will describe geomorphic resource attributes and discuss how the ratings were

developed based on the draft criteria. Mitch reviewed the 9 attributes in detail. They include: width, depth, channel planform, bed particle size, sedimentation, spawning gravel, floodplain connectivity, riparian encroachment, and large woody debris.

Rick Hopson asked about the definition of floodplain and how each floodplain was identified. Mitch explained that hydraulic modeling was used to identify historical floodplains and whether or not they are functioning today as floodplains. We only evaluated areas that were identified as potential floodplains during qualitative studies. All other areas weren't subject to this hydraulic modeling.

Mitch explained the resource assessment rating. Julie T asked where the rest of the flow issues come into play because the hydrology is what the Forest Service will key in on. The Forest Service will look at changes in peaks, timing, duration of flows and their affects on the biological community. Mitch said this is not specifically dealing with hydrology. Hydrologic elements might be embedded in certain attributes, but they might not be completely transparent. Wayne Lifton said our strategy is to use that information as underlying drivers to identify resource issues like affects of flow on habitat, spawning, etc. We are directly evaluating changes in geomorphic, aquatic, riparian and other resources and then address these resources in terms of the PM&Es. Julie said the Forest Service expects there to be many drivers. We need to address affects on resource issues that we are concerned about, which are flow dynamics. Rick Hopson asked why there can't be a separate hydrology PRIM. It seems like we are only looking at the indirect affects of hydrology and not the direct affects.

Wayne Lifton said they will give that some thought and see if they can incorporate the hydrology concerns. Some indices have not been tied to resources particularly. We need to be clear on our pathway and what we are addressing and mitigating for. We will look at it and see if we can break it out to make people feel more comfortable (See AI #6 below).

The following specific discussion was on the Geomorphology and Riparian PRIMs. ENTRIX noted comments for appropriate revisions to be made before distributing populated PRIMs (See AI #7 below).

Mitch discussed the matrices. Each geomorphic attribute is categorized by level of significance of any issue or change. A significant issue is indicated by a bold "X". A small subtle change is identified by a regular "X". No alteration is indicated as a "-". A potential alteration is indicated as a "P". The group requested that ENTRIX try to make the symbols consistent with those used in other working group PRIMs.

CAWG Geomorphology PRIM comment: All work groups should use the same PRIM symbols to reduce confusion.

Mitch reviewed the assessment criteria for each geomorphic attribute and discussed how they came up with it and what they relied on to come up with the criteria. The group raised concerns where they saw them.

Rick Hopson asked about pocket gravels. Mitch said we talked about how pocket gravels were difficult to evaluate in many past CAWG meetings. We didn't have good tools to determine if there was more or less gravel due to project operations, therefore it doesn't come out in this draft criteria. Rick thought they were trying to get at this issue quantitatively. The group discussed how the studies show that there were small amounts of gravel in the pocket gravel areas. The group asked about sediment maintenance efforts in the reservoirs and if those amounts are documented. Mitch said they don't remove sediment from the large reservoirs, but the studies did quantify gravel removal from sediment excavation activities for the Hooper, and Mono diversions. We may be able to build criteria related these sediment removal activities in these two instances. There is nothing that explicitly deals with pocket gravel though. Rick said this is the first time we

are dealing with this so he will look more closely and comment. Mitch said we might have to restructure the definition or have something separate for pocket gravel.

CAWG Geomorphology PRIM comment: Consider ways to evaluate pocket gravels.

Julie M asked if there was a basis for using 25% for riparian encroachment. Mitch said they tried to pick a number that is indicative of some natural variability. Jim Canaday and Cindy Whelan expressed concern about the use of the term significant due to NEPA/CEQA connotations. The group felt that “substantial” or “major” would be better descriptors without the potential for misinterpretation.

CAWG Geomorphology PRIM comment: Show basis for using 25% for riparian encroachment.

CAWG Geomorphology PRIM comment: Substitute another word instead of “significant,” in the criteria.

Mitch reviewed the geomorphology PRIM and explained that the columns represent the geomorphic attributes related to the channel and the rows represent the list of ALP stream reaches.

Phil asked about the Big Creek reach below Huntington Lake and the floodplain connectivity issue. Julie T added that if this reach did not get identified as a floodplain, then we are going to miss it and that is a potential issue. Mitch explained that this reach was evaluated, and because it did not have an identifiable adjacent flat, but rather a U-shaped channel with sloping banks, that it was concluded a floodplain does not exist here. However, the hydraulic analyses were performed in this reach (as presented in the 2004 Technical Study Report) and stage-discharge relationships and channel top width at different flows are identified for present-day channel conditions. Historic stage-discharge relationships would not be accurate because the channel has changed so much due to sediment deposition.

Mitch showed a specific example of one reach on Big Creek below Huntington Lake and how the criterion was determined for each attribute. Bill mentioned the PRIM back-up and how the information Mitch is currently reviewing is information that would be available in the PRIM back-up.

Jim Canaday suggested that as each PRIM comes together, a schematic of the Project or a map be overlaid with the affects of each PRIM to identify where there are issues. Wayne Lifton said there is a GIS tool that is part of this process and there are a couple of maps being put together that could spatially shows where the issues are for each resource area. Entrix will consider a way to do this (see AI #8 below).

Katie Ross-Smith presented the criteria and PRIM materials for riparian resources. She reviewed the riparian resource issues matrix example and the main attributes of the PRIM. She reviewed the description of attributes for riparian and meadows. They include: age class structure, riparian community composition, difference in riparian coverage, channel encroachment, upland species encroachment, herbaceous community composition, unusual stress or mortality, and hydrology. She said that hydrology is inherent in most of the attributes. Katie explained what was used to evaluate each attribute and the criteria for identifying a potential resource issue as she reviewed the resource assessment ratings.

Joanna Clines asked if the next steps are to review and agree to the information that was presented today. Wayne said we will ask for comments from the working group by January 27th. Entrix will address the comments and begin to populate the PRIM for review by the working group at the next CAWG meeting. Joanna asked how the PRIM will be populated if there are varying ideas for what the criteria should be. Wayne said he hopes that prompts discussion within the working group.

Jim Canaday asked if there is a certain date for agreement on substantive changes to the criteria. Bill said it would be great to set a goal of having the criteria approved by the February 22-24 meeting. Joanna asked that discussion on riparian occur on February 9 or the February 22 or 24 so that she can participate.

The group agreed to notify Kearns & West if certain resource area discussions are scheduled for days they are not available (See AI #9 below).

The meeting adjourned.

January 12, 2005 Action Items

AI #1: Ken Voos (Entrix) will add a table to the temperature modeling memo that includes observed temperature, air temperature, predicted temperature, and flow for the day.

AI #2: Ken Voos (Entrix) will finalize the temperature modeling memo to capture the additional work on San Joaquin reach No. 2 and incorporate it into the report.

AI#3: Emily Armstrong (Kearns & West) will send the memo out to the CAWG for review and comment. Emily Armstrong (Kearns & West) will distribute input files to those group members who requested them.

AI #4: Emily Armstrong (Kearns & West) will distribute the proposed geomorphology and riparian criteria to the CAWG. CAWG members will provide comments on the criteria back to Emily Armstrong (Kearns & West) by January 27th.

AI #5: Kearns & West will send out preliminary schedule for what will be discussed at each CAWG prior to the February CAWG meeting.

AI#6: ENTRIX will consider the creation of a separate Hydrology PRIM and provide an answer to the CAWG at the February meeting.

AI #7: ENTRIX will revise the Geomorphology and Riparian PRIMs based on oral comments at the CAWG meeting and written comments received by (Jan. 27) and distribute revised populated PRIMs.

AI #8: Entrix will look into developing a GIS or a schematic visual as a tool for identifying resource issues geographically in the Project Area.

AI #9: The CAWG members will notify Kearns & West in advance if certain resource area discussions are scheduled for days they are not available.