1/20/05 R.L. Harris Stakeholders Meeting

Executive Summary

At the 12/1 meeting of the Stakeholder Board a great deal of frustration and impatience with the lack of concrete progress was expressed. The lack of any data being collected for Adaptive Management modeling was high on the list. Following a review of the team charter and the "where are we" observations from team members, the Stakeholder Board made the following decisions at the 1/20/05 session:

1. There was unanimous support for continuing the process

2. A modified version of APC's "blue plan" for power operation was accepted as a basis to start adaptive management monitoring. Modified operation is expected to commence in early March 2005.

3. Approval for a Science Team to assemble the remaining details to establish starting points for each variable in the adaptive management model before implementation of any changes in power operation. These benchmarks will form the starting point for measuring adaptive management variables.

4. A 4-member Technical Advisory Group was identified to review and add specific monitoring requirements to the Adaptive Management model that will safeguard specific biological, recreational and user case sensitivities and enable improved model refinement. (Stan/USFWS/APC and Elise) This team will also establish a list of potential funding sources (in addition to APC) who will secure continuing financial support for future monitoring.

5. The Stakeholder Board endorsed getting started with Adaptive Management Monitoring this spring.

No date for a follow-up meeting was established at this time. One will be scheduled with the Stakeholder Board when there are updates/progress to report. In the interim, Katie Mickett has been asked to send monthly email updates on progress of the team.

Discussion Summary

Facilitator: Where are we right now and what do we need to move forward?

Stan: APC had a proposal on the table. I thought the Power Company was going to attempt to manipulate flow, but am not sure where we are on this.

Property owners association: It seems we had discussed changing the generators out, but not making any progress. Seems we're just making people mad.

The generators are either on or off. They can't run at half power.

Willard: We have never gone though an actual analysis to determine the cost of changing out the generators, but it did not seem to be a good place to start.

John Glasier/ Lake Watch Lake Martin: There has been no serious commitment to getting some sort of continuous flow out of the dam. We believe we need to take a longer, harder look at ways to do this. The river can't support ecosystem needs without a continuous flow.

April/ Alabama Rivers Alliance: We support proceeding in a group manner if at all possible. Like everyone else we're frustrated. I interpreted the 5-7 years as getting flow in the river and then waiting 5-7 years to see what happens. We fully support getting minimum/continuous flow in the river.

Facilitator: Are you comfortable with the science team? Could we start with something less than continuous/minimum flow?

April: Nothing is completely off the table, except the methods AL power says are not feasible structurally. AL power has put some things off the table that are not financially feasible for them.

We need to be careful in using term minimum flow vs. continuous flow. There is a difference. Consider waiver on the rule curve

Willard: APC has never said some modification of rule curve wasn't a possibility

April: We need a decision matrix; a timeline.

Patrick: USFWS is still open-minded. We still want to work through the process. Continuous flow is important to us.

Matt/ Emerald Triangle Commission: Our mission is economic development below and above the dam. Several things are in play – one thing that hasn't been talked about is that hydropower is our cleanest, cheapest power. Our position is that to put a flow right below the dam is just too hard to manage. We knew this was a long term process when I signed up for it. The purpose was to try to bring the various points of view into focus.

Ronda Walker/ Conservation Unlimited: We're not ready to throw in the towel on this process. There have been several viable solutions. I'd like minimum flows to be a goal, but they don't have to be the starting point. We would like to see a little more structure/definition to this process. Some viable alternatives seem to have been passed over. We're comfortable with the science, but want to be able to discuss it with the team.

George Traylor/ Middle Tallapoosa Conservation Association: unless we have continuous flow at the dam, we have accomplished nothing. Minimum flow means nothing to people (above the dam). We have to have continuous flow.

Willard: Since this process started we have made several changes to the operation of the dam. Among other things, we have releases during certain times of the year according to spawning. We have pledged that we would put funds into a monitoring program of aquatic life, erosion, etc. We are more than willing to continue this process. We have made it clear from the beginning that there is a certain level of energy/finance that we will not go beyond. We have done innumerable model runs and continue to do so. We have done analysis that would further modify the B plan. If the scientist can come to us and demonstrate that there is an overwhelming benefit to having continuous flow, then certainly we will entertain that, so far this hasn't happened.

Elise: I have a few comments based on your comments. We have made a lot of progress. A similar adaptive management process underway in the San Francisco Bay area has devoted the first 5 years of the process to planning. We are far ahead of that. The good news is that we have some really good decision support models to help us. My frustration is that I think we could have learned a lot more about the river if we had tweaked a few things here and there and then monitored it. We have to monitor the effect of the flows. We have only one study that documents the effects of continuous flow. I don't think you'll be surprised at what the decision support model is telling us. The model includes all of the stakeholders interests/values (erosion, water levels, etc.).

Presentation of Decision Model by Katie Mickett
The 3 important steps of adaptive management are decision-making, monitoring and assessment. These 3 steps must be done repeatedly for adaptive management to be successful.

Questions:
Is any empirical data being collected now? NO

Elise: There must be some kind of change in how the releases are conducted. Then this group must come to consensus on how and what to monitor and who's going to do it. We have to collect *useful* data – i.e., something that will allow us to detect change.

Do we even have baseline data to start with now?
Elise: Yes, what's in the model is what we know about the river right now. There is about 6 years of pretty good data. However, we do not have data on erosion. We need a geologist for this analysis. We have to monitor things that we can measure well and measure change.

If we agree to something today on a flow regime, how do we come back in two years and know if it is improvement?
We haven't accepted as a group that there has been no degradation at all in the system.

Willard: No one has said that there has been no degradation. That there has been degradation is indisputable. But the gov't considered this when they granted us permission to build the dam. There is data out there on a lot of the parameters we are discussing. There isn't much data on erosion. There is a way to establish a baseline fairly quickly without going through a long drawn out process.

John Glasier: There is data out there. I'm involved in a project right now where we are monitoring right below Harris Dam.

Elise: We don't have to collect a lot more data for the baseline, before we can begin monitoring change. But we need to talk about monitoring if there is going to be some change (i.e., blue plan, etc.). The only thing I would suggest is that before any changes in flow occur, that we monitor

once, for the sake of consistency (in March, so that we can compare future March monitors to year zero).

April: Can you do a brief summary of what's behind each box in the model? Also, river stage be added to the model?

How do you measure failure?
Katie/Elise: If fish populations go down, erosion gets worse, you have fewer boatable days, etc., that is a measure of failure. Stakeholders have to decide what is an acceptable level of increase for these variables.

Willard: We need science committee to establish parameters of what is a significant increase/change

What is a boatable day?
Katie: Between 450-2000cfs; consecutive weekend days (at least 2 in a row)

Is one turbine still too dangerous to boat on? Is this what your defining as boatable day?
Delivery method for defining boatable days is short pulses (20mins - 1 hour).

Do we have any data on the river before the dam was built?
Yes, date goes back to 1922.

In regard to the fish?
No. Dr. Homer Swingle did a study of fish community at Horseshoe Bend in 1951. Elise did another study in 1996 at Horseshoe Bend, so there are those 2 snapshots.

April: How is you data broken down?
Katie: Daily. We don't have data for shorter intervals than this.
April: This wont show spikes then (you can have high and low in one day). This seems pretty important.

Facilitator: We need to determine a starting point. We had a proposal from AL Power last meeting (Blue Plan) as a starting point. Is this an okay starting point to <u>begin</u> monitoring for the group?

Patrick: Is there any idea on how long you would need to monitor the plan to determine if its working?

Elise: The time it will take will depend on what's being monitored. Results will be shorter for some parameters; longer for others. Biological data is more difficult and may take more time. Yearly time step to evaluate this may be what it takes. This is the thing: the whole change in flows and monitoring is about learning. We need to do something, so that we can learn and adjust.

Katie: One year seems like a good time interval

On issues like erosion, it may take much longer. This is a difficult area where we will need help.

April: The Corps of Engineers does a lot of work around erosion and sediment transfer.

How are we going to measure the effects of continuous flow if we aren't doing it?

Elise: you set the goals for each parameter. If you reach them, then continuous flow is not an issue; its not needed. If you <u>don't</u> reach them, then you have to consider what the next step/plan needs to be.

Willard: if it looks as if we cannot reach goals without continuous flow, then of course it is something we would have to look at.
April: Can we discuss the pros and cons of the blue plan?

I thought the Red plan was a decent starting point. But it did incorporate some continuous and minimum flow.

Is the blue plan an acceptable point to start? I don't know I'm just a fisherman.

Willard: The red plan would result in a very significant capital expense, etc. that is beyond what we would be willing to do at this time, based on the possible benefits it might yield. No one has presented any information that if we implement the red plan that it will address the concerns expressed here. The costs don't balance with the benefit, based on what we know now.

Facilitator: If we start the monitoring now and we come back in a year and say we have the evidence, what are the things that would enable you to say to your guys at APC we have to make the investment here?

Willard: the biological improvement and improvement in the ability of people to use the river for recreational interest. And, are the people going to use it?

Stan: The model is used to give a guideline on how a complex system is behaving. As more data gets added to it, it will get better and better. The decision making process is going to be based on goals set by the scientific group. The biological parameters outside the model will have to be looked at as well. We may pay more attention to this, at least until we see how well the model works. The decision process is a little more complex than just the model up there. What we have now is a degraded system…that is more degraded directly below the dam and becomes less so as you move further down. If you take the AL power plan, you will see that above Wadley, there will still be degradation. As you move further down you will see more of a positive response. Our plan, we think, will provide more of a positive response above Wadley. Whether or not it is a significant change, will need to be determined. We need some assurance that this process will allow this change to occur. I think I heard Willard say that this may be possible. Its going to be a sensitive zone from Malone up. We have to decide how much we are willing to compromise. We are not saying that the power company's plan is not an OK starting point (though we prefer our plan), but we would like some assurance that we can make adjustments to the monitoring plan as we get more date/information.

Willard: We need someone to define and we need to agree upon some sort of yardstick that says what criteria by which we will judge results. This will enable us to be better able to move in a logical direction.

Basically we are saying that the river from Malone bridge up is a dead river?

Stan: I'm talking specifically about aquatic resources. Our plan has flow built in to allow the river to respond to flow at all times. There should be some positive response, because when the turbines are off you have natural flow. With the power company plan, there may be some positive responses. It won't be a dead river. It might not be what I think I would want, but need to see the data to know this.

We need to come up with some criteria for measuring improvement before we put it out there.

I think some of it goes back to what Stan said; I want some reassurance that if the turquoise (blue plan with modification) plan fails, that AL power will step up to the plate to do more.

Should we get the monitoring plan together so that folks have an opportunity to digest this?

I'm willing to proceed with the turquoise plan for a year or so; but I don't want lose control over this, so that we're not still doing this in five years if it doesn't work.

John Glasier: How are we going to get a preponderance of data that continuous flow is best if we're not doing it?

Willard: I cannot implement the red plan. I think its time we said we are going to start at some point, or we're not going to start. Let's define what the significant criteria are. We either need to do those things or not.

What about everyone agreeing that we will implement some sort of pulse plan, while we wait for the elements of the monitoring plan?

Willard: Give everyone 45 days and come back and make a decision

Stan: This will be a long process, if we are looking for ultimate sensitivity, in the monitoring plan. It could take a year or more. Perhaps we should just implement the power company's plan this spring and as the monitoring plan begins to fall in place, we can get started on those. It could be a seasonal thing. I don't know how we can get the monitoring plan put together in a couple of months. There are only a couple of us from DCNR who can do this and we are overloaded now. I would take this proposal to my Commissioner for his approval.

John: I can go along with what Stan says, though I still have some concerns about being able to meet AL power's threshold.

Citizen: I'm not a stakeholder, but anything is better than the way it is now. There is too much vacillation/unpredictability in the river now. The green plan could be a start. I thing AL Power is operating in good faith and trying to be a good corporate citizen. I think there has to be a starting point and it should be now.

Facilitator: What should our sequence of events be if we decided to go with turquoise plan?
Elise: Stan's right in the big picture of things. There are a lot of other things that we do not have a plan for how to do the monitoring and who is going to do it. So it could take us a year to come up with the final set of criteria that we are going to model/monitor, but in the meantime we could begin implementing the blue/green plan. We also need to figure out how to fund this. Also, can I sample during high flows, where can I wade in the river, etc.?

Patrick: How long will it take to get the baseline you need on the vertebrates?

To do's:
1. For monitoring little fishes it would take 4-5 days to get baseline data
2. Invertebrates baseline data

Willard: there are some things we have to do in order to be able to implement the plan. These can be done in the next 30-45 days. APC could start green plan operation in March (30-45 days); it may not be as perfect this March as it will be expected to be <u>next</u> March.
APC will fund *equitably* a monitoring plan. We're willing to step up this first year for funding but would expect some assistance from other stakeholders in upcoming years.

Stan: Let's start with the green plan, implementing it in spring, implement the elements of the monitoring plan that we are satisfied with. Allow the monitoring plan to be updated throughout the year. If the plan is agreed to, will be implemented; if not, the adaptive management plan falls apart.

Willard: We need to understand that there will be a need for flexibility in the amount of time and spacing that pulsing occurs. Goal is to have the maximum number of daylight boatable hours among other goals.

Members of the scientific committee:

- Elise Irwin (Auburn University)
- Stan Cook, or rep (Alabama DCNR)
- Malcolm (APC)
- Jeff (USFWS)
- Steve (APC)
- Erosion rep
- Other AU rep

Scientific comm. will define monitoring plan and its criteria. Will identify potential funding sources in a funding proposal.

Next meeting: to be determined
Katie will send emails regularly to update progress (1st and 15th of each month)

Stan: AL power will begin to implement the turquoise plan and will tweak it (the pulse) to determine what works best. Assuming you will go through a testing period in which you will determine what works best in the pulses.

Attendees:
Katie Mickett, ALCFWRU
Elise Irwin, USGS
Stan Cook, ADCNR
Nick Nichols, ADCNR
Dan Catchings, ADCNR
Gleason Pool, UTWC
George Traylor, MTRCA
Jimmy Traylor, MTRCA
Ray Mansfield, LWPOA
John & Sharon Glasier, Lake Watch of Lake Martin
April Hall, Alabama Rivers Alliance
Patric Harper, USFWS
Jeff Powell, USFWS
Marty Schwartz
Matt Hooton, Emerald Triangle Commission
John Cleveland
Dale McKay
Ronda Walker, Conservation Unlimited
Alan Peeples, APC
David Waites, APC
Willard Bowers, APC
Tom Hoggle, APC
Bill Dykes, APC
Bill Sim, APC
Jim Crew, APC
Mike Akridge, APC
David McGill
Randy Howell