The following are Truckee-Carson activities for March 14-26, 1996.

We started going through the subroutines of the Truckee River Negotiation Model the week of March 18, 1996. I met with Michael Ishazue and Martin Liu of Stetson Engineers, and Bill Greer of the U.S. Bureau of Reclamation (USBR), at the Stetson Offices in San Rafael, California. The others had met with Rod Hall the preceding day and had graciously agreed to go over the discussion, because I could not attend the Monday meeting. Tom Scott, USBR, and Ali Shahroody, Stetson, were also present at the Monday meeting.

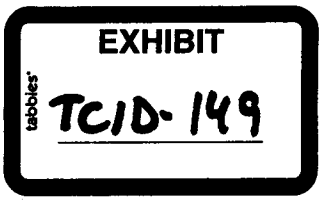
I was pleased with the way the work went on Tuesday. Clearly Rod's input on the preceding day clearly had been absolutely essential. With his explanations, though, the subroutines were much easier to follow than I had feared. I'm sure that the reformatting by the utility SPAG, which converts old-style "go-to" code into structured, top-down, "if-then-else" format, also helped immensely, as did even the sparse number of comments from earlier work.

During the Tuesday meeting, we also discussed how we would work together. From what was said, I am confident we will be able to share the work in equitable and mutually beneficial fashion, and gain much from the synergy of the whole team. We really want this to be a team effort in which we all participate completely in the actual nuts-and-bolts work of documenting and quality-assuring the model.

We discussed the order of our work, and agreed that we should be careful not to become caught up for too long on the details of any few lines of code. Therefore, we think the best way to proceed is in a two-phase approach. In the first phase—devoted more to documentation—we will concentrate on a general understanding of the logic flow and on documenting our understanding with internal comments in the code itself. Unless we identify glaring "busts" we will try to avoid getting sidetracked on questions concerning the rationale of using a particular procedure. We will instead note our questions as comments and go on to gain an overall understanding of the model's operation.

On the second pass—devoted more to quality assurance—we will come back and answer questions we had on the first pass about why things were done the way they were. We will also use our overall understanding of the model at that point to identify and answer other questions about the way the model operates. Stetson's charge from the Department of Justice (DOJ) at the moment does not include any quality assurance, and Michael and Martin were reluctant to get into it. I think quality assuring the model is essential, and equally important as documentation for questions that may arise during litigation. Attacks on the model are going to focus on areas with quality-assurance questions. Experts will try to find something that is questionable and build it into a general indictment and discrediting of the model and the people using it. We therefore must make every effort to ensure that we understand and agree with the way the model is operating. I sincerely hope that the team we have identified can continue to all work together on this quality-assurance aspect as well.

During our discussion, we also considered the type of external documentation that would be appropriate. We are now leaning toward concentrating more on internal and on-line documentation and much reduced external documentation. Whereas in the early days of computing software manufacturers sent along 30 pounds of manuals with each of their software applications, they are now sending almost nothing in hard copy. The rest is online in the form of help sessions through which users can find exactly the information they want to answer their immediate questions—no more and no less. This approach is akin to the Total Quality Management (TQM) idea of "just-in-time" training that is just enough, but not too much. External documentation will concentrate more on an overview of model operation and logic flow, its conceptual framework and the nature of the simulation, and a concise description of how a user can start working with it.



Michael and Martin also agreed to go ahead with checking data and coming up with a description of the output. I said that Bill Greer and I would like to focus on the logic of the code itself—with all other team members—and that seemed agreeable to Michael and Martin.

Stetson is using the model in a Windows personal computer (PC) environment. That's what I have with my laptop as well, and that is what most users probably will have. Thus, I believe we're set pretty well on operating environment.

In general, I was very encouraged by the Tuesday meeting and think the interaction of team members will work well. My real concern, though, is whether we will be able to obtain sufficient, regular (weekly) meetings with Rod Hall. Rod is very, very busy, and although we have heard there may be some relief after the Truckee-River Operating Agreement (TROA) negotiations on April 16-19, I will believe it when I see it. I don't think his availability is going to happen by chance. I think the response now is that the negotiations are the immediate fire, whereas litigation concerns may be a year away. Unfortunately, the work with the model documentation and quality assurance will take a year of concentrated effort—we will not be able to produce the required results instantaneously a year from now.

On Friday, March 22, I attended a meeting on Truckee River instream flows at the California Offices in downtown Sacramento. The discussion centered on operating procedures to meet California Fish and Game Department's old and new instream flow requirements. Rod Hall and Chet Buchanan presented the results of runs they had made, which showed that except for extended droughts the operating procedures could get very close to satisfying acceptable instream flows and simultaneously have little or minimal impact on other uses. The participants identified a couple of additional runs Rod will make, with slightly altered operating procedures, to get even closer. One of the concerns had to do with ensuring that the Truckee-Carson Irrigation District (TCID) was not adversely impacted by any of the procedures. I wondered if this might be an issue where it would be advantageous for all if TCID and others could discuss together a win-win resolution considering how to deal specifically with the very infrequent extended dry spells.

I continued work on my computer system and trying to recover from the near-disaster with the virus checker. The computer bugs are still hard at work. I investigated appropriate backup systems and now have an Iomega 1.6 gigabyte tape backup. The Ethernet hardware that the USBR first gave me was also incompatible with Windows 95, but I purchased a Xircom interface of my own that is compatible, and further obtained eXceed X-terminal emulation software that likewise is designed for Windows 95. My operating system is still flaky and prone to going off into the blue after the virus checker did it in, and I'm going to have to reload it from scratch and hope for the best. I have also begun to check into computer software aids for our work, including a better flowcharting program—such as software by Hindsight—than Stetson now has, software to aid putting together online help, software to help identify structure—such as Polyhedron's PlusFORT, and an appropriate Fortran compiler.

Overall, we seem to be off to an encouraging start. The big question, though, is whether we can obtain frequent, regular (weekly) meetings with Rod Hall. Without him, the team all feels that trying to proceed is a waste of time.

Best regards,
Bill Sikonia

Please let me know if you have an email address, as that is much more convenient than fax.

Also, please let me know if you do not care to receive these reports.

Best regards,
Bill Sikonia