

SMITH & ASSOCIATES

TO: John Mann
California Department of Forestry and Fire Protection
1416 Ninth Street, Room 1516-4A
Sacramento, CA 95814

RE: Louisiana-Pacific Sustained Yield Plan for the Coastal Mendocino County (March 11, 1997 No. 95-003) Now owned by Mendocino Redwood Company (MRC)

Date: January 21, 1999

Dear Mr. Mann:

I have commented on this SYP (No. 95-003) on April 17, 1998 and again on May 14, 1998. In those letters I discussed the fact that referenced fishery data upon which important aspect of the SYP were based could not be found in the documents. This data has recently been released by MRC and provided to me for review by the Redwood Coast Watersheds Alliance (RCWA). The data includes the following: Fish Distribution for Watersheds in Louisiana-Pacific's Coastal Mendocino/Sonoma Management Unit, 1994-96; Stream Temperatures for Watersheds in Louisiana-Pacific's Coastal Mendocino/Sonoma Management Unit, 1994-96; Stream Temperatures for Watersheds in Louisiana-Pacific's Coastal Mendocino Management Unit, 1989-93. I understand that all this data was transferred to CDF by RCWA on January 20, 1999. Given the short time for review and the approaching CDF deadline for response to the SYP, I am hereby presenting some brief comments and expressing grave concerns about the SYP and the condition of North Coast Streams.

Fisheries and Monitoring

In Section 6.1.1.3 of the SYP it is stated that monitoring is the key to plan implementation. In the SYP for Coastal Mendocino County Volume 2, 1995 three types of monitoring activities that will be used are presented. These include: (1) Implementation Monitoring--to insure the BMPs are properly prescribed in THPs and implemented on the ground (not specific to fish resources), (2) Effectiveness Monitoring--to evaluate the effectiveness of prescribed BMPs on site, (3) Validation Monitoring--to test hypotheses and assumptions, and to fill critical information gaps. These are all noble monitoring goals, however, the section goes on to discuss mostly validation monitoring with little or no details about effectiveness monitoring and just a description of implementation monitoring. Later in the section the "pilot baseline studies" to quantify the spatial and temporal variability of different habitat parameters by stream type under existing conditions is discussed. This is a

very important step, perhaps the most important, to establish baseline conditions prior to continued or new timber harvest operations. At the time the SYP was presented the fish sampling methods were not discussed and the data was not available for review.

I have now had time to very briefly review the missing fish abundance and stream conditions data. I am surprised and greatly concerned at the level of the data obtained. A later unsigned addition, inserted into the Introduction of the Fish Distribution for Watersheds Section of the data states " that the conclusions that can be drawn from this study are *qualitative* " and thus, do not provide quantitative data to evaluate the spatial and temporal variability of different habitat parameters by stream type as stated in the SYP. I understand that the size of the study area and complexity of the stream systems led LP to conduct surveys to capture fish presence and absence data at a qualitative level. The fact that the reports cannot be used to assess the current condition of salmonid stocks and data describing physiographic features of the streams that influence temperature regimes were not collected greatly reduces their value. This level of field surveys cannot be used to develop the WRR algorithm and to assist in the physical and biological classification of watercourses throughout the SYP. The SYP is very misleading because it implies a much higher level of fishery data than was collected. I can now see why LP was reluctant to provide the original data in support of the SYP. This data provides some information on presence or absence of fish on a watershed by watershed basis. The author of the new addendum (MRC Important Information) states " when the fish distribution surveys did not reveal the presence of fish it cannot be said that they do not exist". This is an interesting statement, in light of the fact that the sampling sites were selected because of conditions suitable for salmonid occurrence. Many sites on small streams were electroshocked, which when done correctly, captures most of the fish population. Wider streams were sampled in deep pools by diving which has limitations for fish detection. Does this mean that the sampling was of poor quality or compromised because of sampling methods or stream conditions at each site? Or does it mean that if selected sites were sampled and no fish were found that other reaches of the stream not sampled could contain fish? If these are the only conclusions that can be drawn by the data it is inadequate to be used in the SYP as proposed.

In the original Introduction to the Fish Distribution for Watersheds data set the author(s) state that " no conclusions were drawn from the field survey results" (page 1 Introduction). In addition, the author(s) state " more rigorous sampling protocols would provide information on presence and the probability of absence of fish throughout a drainage basin". This approach would call for area-specific intensive monitoring which can elucidate positive or negative trends in populations of fishes. This original data was taken in 1994 to 1996 it is now 1999 and the coho populations are in very serious condition. Where is this quantitative study? If sampling is continuing, what methods are being used and what agencies reviewed and approved them? How is this existing data base being used? How will the salmonid population dynamics be established and when? All these questions must be addressed in the SYP.

While there are very few scientific studies that establish the diversity, abundance and distribution of historical salmonid stocks, there are many articles written by historians and

fisherman about the size of salmonid runs on the North Coast. The results of even this very limited survey of 20 some basins and/or watersheds (there are various numbers stated in the report) indicate that the salmonid populations are not only stressed but may be driven to levels from which they cannot return. ←

Temperature Results

In the data section for Stream Temperatures for Watersheds an insert was placed before the original Introduction by unknown authors from MRC. In this brief statement the author(s) present data from 1989-1993 and 1994-1996. MRC states that they do not consider data collected from 1989-1993 to be comparable to data collected from 1994-1996. Monitoring sites were different, different equipment was used for collection, and there were differences in methodologies. This revelation does not bode well for future data collections without regulatory agencies and qualified scientists reviewing and approving the methods to assure that the data will be compatible and comparable. Here we have lost four years of data because the long range monitoring plan was not well designed and proper QA/QC protocols were not in place. In watersheds with endangered and threatened species we cannot afford to waste time in poorly designed monitoring programs.

A very brief review of the data indicates that elevated summer temperatures have reached extremely high levels in most of the streams in the watersheds studied. In many watersheds summer temperatures were over 18 °C and in some cases exceed 28 °C. The comment by the MRC author(s) the "at the time of data collection and continuing today there is no single, accepted standard for interpreting stream temperature data" is an attempt to avoid the fact that the data shows elevated temperatures. When cold water salmonid populations are exposed to warm water conditions for much of the summer these populations will be stressed. Temperatures above 23 °C are lethal with exposures of only a very short duration. Brett (1952) found that when given a choice of temperature, coho salmon preferred a range from 12 to 14 °C. USEPA, CAL EPA and ASTM testing protocols for salmonids and other cold water fish call for 12 °C because at this temperature the fish are not stressed. My own behavioral studies with steelhead and chinook salmon indicate that at temperatures above 14 °C response to various stressors (e.g., pesticides, petroleum hydrocarbons) are much more detrimental than at lower temperatures. Growth rates of Coho are adversely affected (growth ceases) when the water temperature reaches 18 °C (Eaton, 1995).]

With or without so called "stream temperature standards" the data indicates that the summer water temperatures in most of the watersheds are well above the temperature range that will support viable salmonid populations without undo stress. When populations are rapidly declining we do not have time to evaluate higher, more stressful temperature ranges, efforts must be made to control and reduce the temperature levels as soon as possible. While stream temperature is not the only stressor affecting salmonid abundance and distribution it can be a major player in declining fisheries levels.

Summary

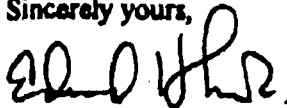
1) The data does supply some information on presence and absence but it is not the quantitative studies referenced in the SYP as being very important to carrying out the program. Poor as the data is it does show the extremely stressed condition of the salmonids populations. While the data was biased by the sampling design, the fact that sites were selected in stream reaches where salmonids were most likely to be present and no fish were found indicates the very serious condition of the watersheds. Without a sampling program with clearly stated objectives, a design to scientifically address the objectives, well documented sampling protocols, and a QA/QC program in place this SYP must not be approved. As presently written major questions remain unanswered and the level of the supporting fisheries data falls well below that required by the SYP as outlined. The salmonid fisheries are in grave trouble and require immediate help and attention. This SYP does not provide the protection needed.

2) The data indicates that the water temperature is elevated well above the levels necessary to assure a habitat suitable for not only the survival of the salmonids but to allow populations to grow and repopulate streams which historically supported viable salmonid communities. While temperature standards should be established, sufficient data exists to demonstrate that the temperatures are out of range in many watersheds.

3) As I stated in my earlier letters, the monitoring program as presented does not address the current decline of salmonid populations in L-P watersheds. If the frequency of sampling follows the SYP there is little or no hope of statistically separating the signal to background noise ratio of the data. In other words, it is not possible to separate background (natural variation) from the effects of timber operations. This approach will lead to the continuing lack of cumulative impact information that is essential to good watershed management and protection of the salmonid population. Based upon the recently released data the above statement is unfortunately strongly reinforced.

After reviewing the data I must urge CDF to reconsider the SYP, have qualified fisheries biologists review the data and make sure that future monitoring efforts will produce viable information. There is no excuse for losing four years of data for lack of long range planning.

Sincerely yours,



Edmund H. Smith, Ph.D.