

Mill Improvements Recommended for Maximum Returns

by Cynthia Stowell

The Tribes can realize the optimum value of its timber over the next ten years by investing \$6 million into improving Warm Springs Forest Products Industries facilities, wood products consultant Ed Williston told the Tribal Council Monday.

Williston was presenting Council with the findings of his nine-month study, requested by the Tribes and financed by the Economic Development Administration. The purpose of the \$55,000 study was to determine the optimum products that W.S.F.P.I. should manufacture and the optimum conversion facilities (processing plant) needed to maximize returns on the available raw materials.

The study found no justification for the building of a new sawmill and recommended no major shift in product line.

Instead, modernization will be the key to maximizing profit, Williston said, noting that the W.S.F.P.I. mills need to be brought up to "state of the art" industry standards. Improvements would result in immediate annual savings, paying for themselves within three or four years, he said.

Williston stressed that in making necessary improvements it must be remembered that lumber has five times the market value of chips and ten times the value of sawdust. Whenever a log can convert to lumber, it should, he said.

While the bulk of Williston's recommendations were specific to improvements in the sawmill, studmill, veneer plant and plywood lay-up plant, he also offered observations on the preparation and transfer of the raw material.

He was "disappointed" to find that the B.I.A. does not have a "complete forest inventory," making long range management and planning difficult if not impossible. However, he noted that the inventory statistics and projection supplied to him were adequate for his study.

The consultant also noted that logs are being transferred from the woods to manufacturing operations at a price far below true market value. This makes it appear that the mill's profit picture is rosier than it is, when in reality manufacturing inefficiencies are being masked by the exceptional savings in raw material purchase.

Logging practices also need to be sharpened, Williston suggested, thereby eliminating waste at the earliest point.

Why a study?

The need for a study such as Williston's became apparent to the Council when discussion about the future of the W.S.F.P.I. facility reached an impasse. There were many unknown factors, among them market outlooks, the condition and potential of existing conversion facilities, and the availability of the resource.

There has also been concern about the unprofitability of the plywood lay-up plant in Madras.

In order to address these concerns, Williston identified and carried out five tasks which were:

1. Examination of timber resource data.
2. Evaluation of the mills.
3. Identification of optimum product lines.
4. Development plan for optimum conversion facilities.

5. Evaluation of expected return on investments.

Williston used a number of methods in his study, including on-site observation, running tests on processing efficiency, and simulating mill operations by computer.

In addition to his own years

of experience in wood products manufacture, Williston utilized the talents of subcontractors, the Bureau of Indian Affairs, U.S. Forest Service, and W.S.F.P.I. management.

Williston's findings appear to contradict former W.S.F.P.I. manager Persh Andrews'

thoughts about converting the mill for small log handling and whole log chipping. The raw material picture for the next ten years does not justify such modifications at this point, said Williston, although he noted that at the rate forestry practices and conversion techniques are

changing, further facility changes will undoubtedly be required after that ten year period.

It makes more sense dollar-wise to seek short-term pay-offs on investments rather than to convert the operations based on a change in the available resource that may be decades away, he said.

A total capital cost of \$6,008,646 should result in annual savings of \$3,804,573 after a pay-out time of 3-4 years. The return on investment should be slightly better than 80 percent.

What next?

With the study results digested, W.S.F.P.I. management is preparing recommendations to the Board for capital investments to be made in the coming year, said manager Ralph DeMoisy.

These recommendations, which will be presented to the Board on Monday, are accompanied by a sense of urgency, he noted. Since it takes six to eight months to acquire some of the needed equipment, a decision must be made very soon, said DeMoisy.

The manager went on to say, "1979 is the big construction year, with refinements and shaking down in the year 1980." Improvements will be made with the least interruption in production possible, he said. After such major changes it takes a facility a year or so to "smooth out" the rough spots.



HARD HEADS - Members of the Tribal Council were taken through the WSFPI mills by Manager Ralph DeMoisy Tuesday before hearing the final report on the mill study they requested last year. Rita Squiemphen, Larry Calica, Karen Wallulatum, Elmer Quinn, and Delbert Frank were among those council members concerned enough about the future of the mill to hire consultant Ed Williston to take a good hard look at the operation. CDS Photo

A Closer Look At The Mill Study

In his evaluation of the Warm Springs Forest Products mills and their potential in the manufacture of marketable products, Ed Williston covered a wide spectrum of concerns, from management of the resource to market outlooks. His observations and recommendations, which were often quite specific, are summarized here by area of inquiry.

Raw Materials

--The B.I.A.'s forestry inventory is inadequate, as it does not include grade along with size and species. The current inventory design being created by Paul Sanders and Wes Rickard should prove to be valuable.

--Logs should be sold to the mill at true market value, not the B.I.A.'s appraised value which is much lower. No. 3 fir sawlogs selling for \$250 per thousand board feet in the outside market are being transferred to the veneer plant at \$150. This savings in raw materials acts as a smoke screen for manufacturing inefficiencies.

--Felling and bucking practices could be improved to lessen waste and increase earnings. For instance, notches should be in the stump, not the log butt, and logs should be bucked more accurately to avoid short and long logs.

--Culls, or old trees with weak cores, often have marketable outer layers and should be utilized more frequently in the sawmill.

--Safer access to the mill from the highway for log delivery would lessen the likelihood of injury, death and-or costly lawsuit.

Sawmill

--Only larger logs (11 inches and up) should go to the sawmill to

best fit the equipment. Small logs should go to the studmill.

--Continue the current pine product line (shop lumber and finished boards).

--Replace, repair or otherwise update equipment to maximize efficiency, increasing lumber recovery by 7-9 percent or 880,000 a year.

Studmill

--More logs (11" maximum diameter) are needed to supply the studmill. Possible sources are thinned trees, diversion of more small logs from the sawmill and veneer plant, or retaining veneer cores now being sold.

--Replace, repair or otherwise update equipment including the addition of two saws to better utilize each log.

--Studs (2"x4"x8' lumber for house framing) will continue to be a "bread and butter" product for W.S.F.P.I.

Veneer Plant

--Because of the reduced volume of logs available (down 28 percent from 1977) and the inefficiency of the conversion operation, a hard look was taken at whether the fir logs would be better used for lumber or veneer. It was concluded that veneer would be more profitable.

--The green veneer market looks very favorable but the direct sale of veneer must be weighed against the potential profitability of maintaining the plywood operation (by which dried veneer is glued together to make plywood).

--The veneer plant needs to be improved. Some deficiencies have been corrected already, such as leaking steam vat doors and the need for moisture control devices, but new peeling equipment is still needed.

Plywood Plant

The plywood lay-up plant in Madras lost money in 1977 and faced either a shutdown or drastic changes. These improvements were suggested:

--Veneer should be transferred at market price and the plywood plant should have first refusal with the option of later selling, swapping or buying materials. Right now 30 percent of the veneer is being sold green to outside markets.

--Move the plywood plant down to the Warm Springs site. This would eliminate much of the breakage that is occurring in the transporting of dried veneer to Madras. It would also eliminate hauling costs, make maintenance more convenient, expedite control and supervision, and cut down on handling.

--Driers should be repaired to ensure better quality veneer and

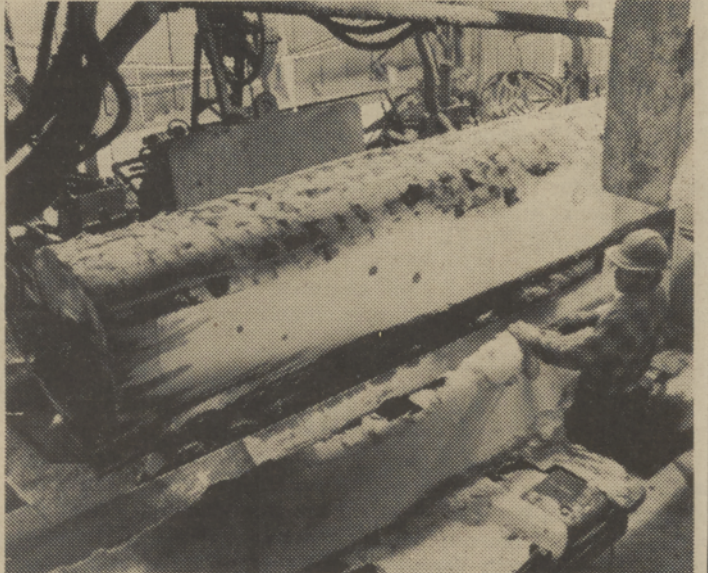
lay-up might be automated to increase efficiency.

--The plywood market looks favorable for the short and midterm and even though the longterm may favor such competitive products as wafer board, investment into the plywood plant would mean quick pay-out and high profit.

Residuals

--Never make chips instead of lumber or plywood. They are far less profitable.

--Make as little hog fuel as possible. (Hog fuel is sawdust, bark, and non-chippable scraps). This will mean less fuel for the powerhouse but Williston's advice was "Don't feed the monster." Williston feels the three generators were a good investment despite the shortage of fuel and says they will pay for themselves.



AGING HEADRIG - Built in 1901, the headrig in the sawmill is obsolete, said Williston who conducted the mill study. The carriage needs to be rebuilt, a thinner saw would reduce sawdust and the sawyer could use digital networks to saw more precisely. Many such improvements were recommended by Williston. CDS Photo