CINTRAFOR

FACT SHEET

Resource Inventory, Market Assessment and Analysis for Forest Products in Clallam and Jefferson Counties

The study updated existing and future harvest level projections in Clallam and Jefferson counties highlighting the potential new supplies. It also examined precommercial thinning volumes on state and federal lands. The harvest level findings are used to complete an analysis including the flow, species and size of the raw material supply required to manufacture value-added products. Three opportunities are explored: Oriented strand board production utilizing harvest and current manufacturing waste material, biomass-based energy production, and second tier value-added products from production of random length alder.

We projected harvest levels using timber harvest data by grade and species provided by the Department of Revenue Timber Tax Division and the Department of Natural Resources Marketing Division. These data provided a breakout of average volumes per acre by species and grade observed for timber sales in 2004. We applied the average volumes per acre to a projection of harvest acres constructed by Atterbury Consultants and published in their report for the council dated 2000. The analysis of the sales data indicated an average volume of nearly 40 thousand board feet (mbf) per acre. The majority of this volume is in #2 and #3 sawmill logs; over 15 mbf in each log class. The next highest volume is in the #4 sawmill log with 7.5 mbf. The greatest volume per acre is in western hemlock with over 15 mbf, followed by Douglas fir with 8.8 mbf. An estimated 8,070 acres are harvested annually during the projection period 2000 to 2004. Using the per acre averages calculated above we determined annual harvest levels to reach 322,265 mbf during this period. For the period 2015 to 2020, harvest acres are projected to reach 8,618 with an estimated annual harvest level of 344,148 mbf.

The majority of the annual harvest level during the period 2000-2004 is in #2 and #3 sawmill logs, over 300,000 mbf equally distributed. Western hemlock annual harvest levels are 124,236 mbf, followed by Douglas fir with 71,293 mbf. Red alder annual harvests are estimated at 22,849 mbf during the period 2000 to 2004.

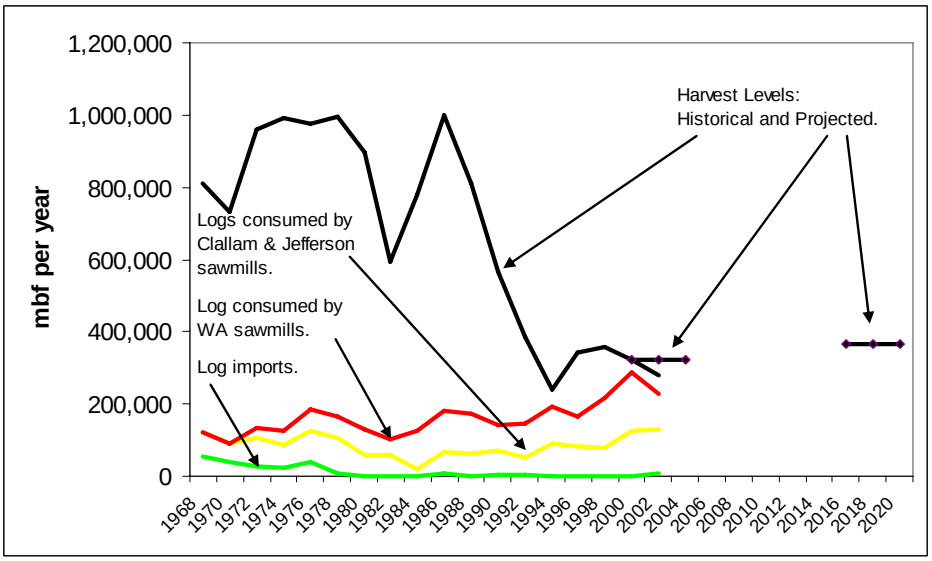

Figure 1. Jefferson log harvest levels and amounts consumed by various sawmills

Timber consumed by local mills amounted to 122,033 mbf for 2002, with an estimated slightly higher consumption for 2004. Total consumption of Clallam and Jefferson county timber by Washington sawmills reached nearly 230,000 mbf in 2002. Over 90,000 mbf of timber is exported to mills located in other Washington counties. The majority of this timber flow, about 77,000 mbf went across the Puget Sound to Whatcom, Skagit, Snohomish, King and Pierce county mills.

.

The annual volume of precommercial thinning is estimated at 125,000 to 180,000 green tons from federal and state lands. The majority of this thinned material is on State lands involving 4,000 to 6,000 acres annually for the next decade. The majority of the thinning volume is not commercial due to restrictions imposed by terrain conditions that lead to prohibitive harvesting and extraction costs.

Oriented Strand Board (OSB) represents a product that utilizes low grade materials to produce a substitute for plywood. First generation OSB manufacturing plants were about 50 million square feet 3/8 inch basis in size. Newer generation plants (continuous flow) are much larger in size; the latest plant capable of producing 800 million square feet 3/8 inch basis. The majority of new plants have a capacity of 500 million square feet 3/8 inch basis. Resource availability converting the volume of #4 sawmill and utility grade logs into chip materials was estimated at 492,000 green tons, or about enough material to produce 313 million square feet 3/8 inch basis of OSB. At most the projections reached 335 million square feet by 2020. Since the volume of required materials is much smaller than what a competitive new facility would consume, the potential for a new OSB plant in the region was determined early on during the study to be non-existent. Other limitations were also evident including the lack of sufficient hardwood resources, and the fact that current uses of chip materials and lower-sized saw logs would decrease the availability of raw materials to the new plant.

Biomass-based energy can be produced by burning wood waste. To evaluate this option we first determined the fuel value of materials in the region. If a sufficient fuel value was present, we then estimated the competitiveness of the material for use in energy production. To determine the fuel value of the materials in the region we estimated the size of a potential power plant by converting the volume of #4 saw mill and utility logs into green tons. This conversion indicated that the power plant sizes could ranged from 37 to 45 megawatts, representing substantial amounts of energy production. We then calculated the competitiveness aspects of the material if it were used to produce energy. Plants of these sizes in Vermont purchased chips at a price that ranges from $12 to $21 per green ton, a price that is substantially lower than current chip prices paid by local pulp mills, and lower than estimated harvesting and delivery costs (about $35 per dry ton). In addition the low price per kilowatt hour (about $0.03) acts as a disincentive to utilize woody biomass as an energy source. These calculations indicate that wood as an energy source is uncompetitive with current energy pricing. Also, harvesting and delivery costs are still too high for woody biomass to be viable, even if supply is not a constraining factor.

The utilization of red alder has increased dramatically, and the projected start of a new alder mill in 2006 suggested analyzing potential value-added products such as cabinetry, furniture and door manufacturing. We conducted interviews with the new mill manager and regional end-users of alder and determined constraints associated with attracting a value-added facility to the region. The constraints identified during these interviews included the inability to diversify products should a new manufacturing plant focus exclusively on alder. Various wood species are used in cabinetry, door and furniture manufacture. Currently alder is well received, but demand is highly responsive to changes in consumer preferences. Diversification of various species is perceived to be an important aspect of a successful end-user. The success of a value-added manufacturer will depend on its ability to utilize various sources of lumber and other materials.

Our study findings included the following. The two county region is a net exporter of wood fiber. The recent announcement of plans for a new sawmill in the Everett area suggests that wood fiber from the area will continue to have demand outside of the region. Less than half of the volume harvested is utilized locally by saw mills, even with the projected new mill in Port Angeles. Biomass-based energy has the potential supply, but costs for woody biomass as an energy alternative are too high and energy prices are too low for it to be competitive. Other fiber using industries, such as OSB, would require more fiber than is available. Finally, an alder value-added manufacturing plant would require diversification for it to be successful. We recommend that future work analyze the potential for expanding the existing softwood lumber sawmill capacity within the region. The region should promote its position in order to attract potentially new manufacturing that can consume underutilized resources and compliment the existing milling infrastructure in the area.