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Certification of Dimensional Lumber for Local Use

Division of Forestry & Fire Protection

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Issue: Despite high demand for locally-sourced dimensional lumber, Alaskan sawmills often cannot sell construction materials for housing. Building codes require lumber to be quality graded and stamped, and Alaska sawmill operators often do not have the financial resources to pay for lumber grading. Most of the wood used for construction in Alaska is sourced from the Lower 48 or Canada. This proposal will increase the use of Alaskan lumber in Alaskan markets by allowing local sawmill operators to self-certify their lumber.

The Tongass National Forest's transition to a young growth program has expedited the need to increase marketability of second-growth forest products produced in Southeast Alaska to preserve industry jobs and infrastructure. Building markets and improving opportunities for small mill operators in Southcentral and Interior Alaska will increase the commercial use of forest products. This increase will improve milling capacity, create family wage jobs in rural communities, and increase economic activity in rural parts of the state.

Graded and stamped lumber is required in all load-bearing construction applications by building codes. Lumber grades determine the quality category of a piece of lumber. This grading process ensures that dimensional lumber can withstand the stresses of loadbearing parts of a structure. A building can be rejected by building code inspectors if the lumber is not grade stamped. Also, lenders require buildings to be constructed to meet code requirements. Currently, conventional lending is not available for residential structures built with lumber that has not been graded. This proposal would allow rural Alaskan communities in particular to move from a cash only economy to financing quality, reliable housing.

Inspectors are trained to visually grade lumber, looking at knots and grain characteristics in the wood to characterize pieces of lumber into #1, 2 or 3 grades, or the highest grade, Select Structural. Implementation of grading rules occurs through quality control of individual mills by certifying agencies such as the Western Wood Products Association. The agencies train graders at sawmills, regularly visiting mills for quality control to ensure the grade stamp applied by the mill's grader to their lumber is accurate.

The grade stamp is required by all building codes. When the lumber is subsequently used in construction, the building is inspected by local city, county, and/or state building code inspectors, who will look for a grade stamp on the lumber. This grade stamp is the only way for the inspector to determine if the lumber used in the structure is of acceptable quality. The building code is often enforced at the county level, where a building permit is required before any construction can begin. Alaska does not have a statewide building code; rather it is city- or municipality-based.

Solution: Create a Local Use Lumber Program to allow expansion of the current lumber market in Alaska. Small sawmill operators would be allowed to independently inspect their product to determine whether it meets the necessary specifications for construction, and effectively self-certify their lumber and apply their own grade stamp. This would eliminate the problem of cost-prohibitive membership fees for certifying agencies. The program would allow small Alaskan sawmill owners to access a larger market for the rough-cut dimensional lumber that they produce.

This voluntary program would allow self-certified lumber to be used in projects like one- and two-family residential construction, as well as non-dwelling outbuildings. Sawmill owner certification would indicate completion of training offered by DOF or University of Alaska Cooperative Extension Program. Similar programs

in other states have created a demand for the products and opened options for financing and insuring structures built with local materials.

Phase 1: Similar to Wisconsin legislation, the Alaska Legislature could enact a voluntary program to allow the use of locally harvested and milled lumber in some construction applications. This voluntary program would allow non-graded and stamped lumber to be used in projects like one- and two-family residential construction, as well as non-dwelling outbuildings, based on building code enforcement approval. Similar programs in other states¹ have created a demand for the products and opened options for financing and insuring structures built with local materials.

Phase 2: Build a training program for sawmill owners to independently inspect their product to determine whether it meets the necessary specifications for construction. Grading parameters and requirements would be developed. Sawmill owner certification would indicate completion of training offered by the Division of Forestry & Fire Protection or the University of Alaska Cooperative Extension Program.

Support necessary

- Statute changes: Legislation or regulation to create the training program and allow the locally-graded lumber to be sold in Alaska, to end users (as in Wisconsin), and perhaps to commercial outlets.
- Endorsement by construction code enforcement agencies.
- Buy-in from stakeholders: architects, building inspectors, construction companies and contractors.

Questions & Answers from Priscilla Morris, USFS Wood Utilization & Forest Stewardship Coordinator

- Who will perform quality control, visiting the mills to make sure standards remain high after inspectors are trained?
 - This could potentially be a joint effort across the State. State and Cooperative Extension and USFS folks could check up on mills. Since Priscilla does the Southeast Alaska Mill Survey already, it would be easy for her to check on the mills she annually surveys, but she does not survey Interior mills.
- If we are going to train mill operators to visually inspect lumber, do we need to perform mechanical testing?
 - Mechanical testing has already been done in past research studies. Also, Western Wood Products has already completed mechanical testing on Alaska Species to develop their grade stamp and visual grading standards.
- Would we consider asking the legislature to fund a mechanical testing facility?
 - Not yet, but it would be a great idea for the future as the industry expands. We hope that we can introduce more advanced processing in the state, which would require testing.
- Who will mills be able to sell lumber to? Could they sell to Spenard Building Supply, for example?
 - That is up to the state. Wisconsin set it up so the mill had to sell to the end user and provide verification of the visual grading. The end user then could contract out the construction.

¹ States currently participating in or working on a Local Dimensional Lumber Use Program

- Wisconsin: <https://dnr.wisconsin.gov/topic/forestbusinesses/wludl>
- New York: <https://www.nyfb.org/resources/policy-development/nyfb-praises-rough-cut-lumber-decision>
- New Hampshire: <https://extension.unh.edu/resource/new-hampshire-native-lumber-law>
- Louisiana, North Carolina, Tennessee