

# ENGINEERED LUMBER PRODUCTS AND REQUIREMENTS FROM INLAND EMPIRE SPECIES

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Following an era of fire suppression, forests of the Inland Empire region are overstocked with small diameter conifers. Many restoration strategies dictate selective removal of the material through thinning treatments. The harvested material must find an economic use to finance the treatments. The economics of small diameter trees are dictated by adequate yields in the primary breakdown process. Efficient sawing techniques have increased yields but they continue to fall short of the 75-90% recovery realized by veneering and stranding methods.

The goal of this research is to transition modern composite technologies into sawmills and plywood plants in the Inland Empire region. The following research thrusts are formulated to develop fundamental information that can be used to guide product and process development. The research addressing material behavior will involve the production, testing, and modeling of materials. The different materials produced will include contiguous and partial veneers as well as varying sizes of strands. Strength and stiffness properties required for various structural elements in typical low-rise wood structures will be characterized. Rather than targeting particular ranges of E or Fb based on the properties of products currently in use, this approach will facilitate the efficient use of wood fiber by focusing on the material properties required for use within a structure. Market potential will be assessed for engineered lumber products manufactured from small diameter timber to provide fundamental information needed to make strategic product and manufacturing choices.

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