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# **Program & Abstracts**

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**(3) INCREASED LOGGING FOR WOOD ENERGY IN BOREAL FOREST OF ALASKA:  
IMPLICATIONS FOR MOOSE AND REFORESTATION**

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*Abstract:* Rising cost of heat and electricity in central Alaska is prompting feasibility projects with wood biomass as a commercial fuel source. Increased wood harvesting, even if only during a transition period until other energy sources are developed, would require new forest roads and produce landscape habitat legacies near communities. Logging is unlikely to approach the scale of wildland fire, but an increase in early seral vegetation can influence moose vital rates, risk of moose collision with trains or vehicles, and hunter access. Food security in our relatively isolated state includes discussion of intensive game management, but public disagreement on moose population and harvest objectives complicates planning, particularly on time scales of forest rotation periods. If moose are maintained at high density where large predators are harvest limited, herbivory on birch, aspen, and poplar can hasten transition of post-disturbance regeneration to canopy dominated by black spruce and white spruce. This effect could be at odds with climatic trends (deciduous trees favored in warmer drier environments), desired production of deciduous woody biomass on shorter rotations, and management of hazardous coniferous fuels near communities. Salvage logging from wildland fires or other natural disturbance events near the road system, if designed to ensure retention of late seral legacies for other ecosystem features and processes, may be a complementary balance to harvesting live trees. Strong public values on forests, moose, and road access will require careful coordination between land and wildlife managers and effective public engagement when seeking to define and achieve multiple desired outcomes.

