

SUMMARY OF ISSUES CONCERNING BIOMASS IN THE SAN LUIS VALLEY
SAN LUIS VALLEY ECOSYSTEM COUNCIL
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Proposals have surfaced regarding the removal of standing dead spruce trees on the Rio Grande National Forest (RGNF) to produce energy. Below, we address issues and concerns with this concept. Please refer to our full position paper for more details.

FIRE RISK WILL NOT BE SIGNIFICANTLY REDUCED BY REMOVAL OF DEAD TREES: Natural wildfires in Colorado spruce-fir forests are infrequent and occur at long time intervals. They are primarily associated with climate and weather events such as drought and high winds rather than fuels, stand age, or insects and diseases. They tend to be high-intensity, stand replacement events when they do occur, regardless of the presence of dead trees. The greatest fire hazard exists during the first few years after beetle activity when dead needles remain on the trees. These conditions have passed on the RGNF. There is no clear evidence that dead trees influence the frequency or severity of fire events in spruce-fir forests. It is possible that there is a negative relationship between severity of bark beetle outbreaks and post-fire recovery in localized areas, however removal of standing dead trees would not likely alleviate this. Tree removal also poses a risk toward altering forest recovery dynamics.

THE RGNF IS IN RECOVERY AND VULNERABLE TO ADDITIONAL DISTURBANCE: The spruce beetle outbreak on the RGNF has killed most of the Engelmann spruce trees. There is little spruce beetle activity remaining, and the forest is in the initial stages of ecological recovery. The primary response after beetle outbreaks is the release and accelerated growth of understory vegetation, such as small spruce and fir trees. Aspen is featured prominently in understory recovery in many areas. Groundcover of grasses, forbs, and other vegetation is robust.

A more variable recovery response is expected in post-fire landscapes. Negative impacts to post-fire vegetation may occur in the short-term. New seedling establishment can take time. In many burned areas, however, aspen is growing rapidly and recovery is pronounced.

Dead tree removal poses a risk of altering forest recovery by damaging understory and green tree residuals. Soil displacement and/or compaction can occur from use of logging equipment. Reforestation can be an issue in created openings. Thistles and other noxious weeds can be introduced and persist along roadways that become conduits for further spread.

DEAD TREES ARE VALUABLE TO ECOLOGICAL PROCESSES AND WILDLIFE: Dead trees add ecological value when they are standing and after they fall. They are beneficial to understory growth which supports species such as snowshoe hare. Areas with large dead trees are preferred by Canada lynx. The retention of green trees mixed within the standing dead trees is important to habitat recovery for several species of conservation concern.

Dead spruce trees can remain standing for decades. Fall rates of beetle-killed spruce will vary over time and contribute to ecosystem function. Decomposing logs add to the renewal of soils and provide habitat for a variety of plant and animal species such as lynx and American marten.

CURRENT AND FUTURE SUPPLIES FOR BIOMASS ON THE RGNF ARE LIMITED: There are about 472,000 acres on the RGNF that are suitable for timber production and potential biomass output. This

equates to approximately 26% of the forest land base. Tree removal would be limited or prohibited in roadless areas and locations with steep ground, erosive soils, or difficult access. Specifics are unknown, but availability is much less than the total suitable timber base.

Lynx habitat closely overlaps spruce-fir forest and potential biomass areas. Currently, 38% of the lynx analysis units (LAUs) exceed the 30% unsuitable habitat threshold in the Forest Plan. In these areas, no further conversion of habitat from suitable to unsuitable may occur. Several other LAUs are close to this threshold. Removal would be restricted to the unsuitable habitat areas only. It is important that all suitable lynx habitat remain relatively unaltered.

CONCERNS EXIST REGARDING THE RGNF FOREST PLAN AND STAFFING LEVELS: A biomass plant requires a long-term commitment for wood supplies. It would require close involvement and oversight from key resource specialists. The absence of a wildlife program on the RGNF is a concern, as are inadequacies in the new Forest Plan. The need for monitoring and tracking of changes to lynx habitat alone would be extensive. A biomass proposal should not be approved without the appropriate type of forest-level staffing to ensure forest plan compliance. Appropriate NEPA and public involvement would be essential.

THERE IS UNCERTAINTY ASSOCIATED WITH CLIMATE CHANGE: Climate change is likely already influencing our local ecosystems. It is possible that the frequency and extent of fires in the spruce-fir zone will increase. We also recognize that there are uncertainties associated with climate change trajectories and outcomes.

Dead tree removal may hinder ecological recovery while doing little to prevent or alter potential wildfire starts or severity in spruce-fir forests. Additional considerations such as climate-change refugia for vulnerable wildlife species should be part of any strategy for biomass removal.

A LARGE-SCALE MANUFACTURING FACILITY IS INAPPROPRIATE FOR THE AREA: A large wood-processing facility would demand a guaranteed, consistent supply of wood. Available supplies of dead trees would eventually end, and demand for access to other areas where environmental concerns are high may occur. Many acres would need to be entered each year, and availability and impacts are unclear. Demands for wood could eventually include green trees that are essential to ecological recovery. Biomass removal would likely have negative effects on wildlife habitat, scenery, recreational activity, and other local values.

CONCLUSION: A large-scale biomass facility is not appropriate for the San Luis Valley. Impacts on understory vegetation and soils may occur when the forest is in recovery. Impacts to federally listed and vulnerable wildlife are likely and would occur without appropriate oversight.

It is possible that biomass removal might reduce some potential impacts related to post-wildfire recovery in localized areas, should another fire occur. However, it is unlikely that dead tree removal could occur at a rate or scale that would make any measurable difference in regards to wildfire risk or potential post-fire effects.

The SLVEC supports fuel removal close to communities. A focus on the wildland-urban interface (WUIs) and along open roads and trailheads may be warranted given the need to address public safety. Additional information about use of biomass is needed.