



Montana Invasive Species Council

Key Findings of the Firewood Science Advisory Panel: A review of firewood management and communicating risk with partners and the public.

A six-person panel including industry, tourism, researchers, and managers met on May 3-4, 2022, in Missoula, MT to evaluate opportunities for managing out-of-state transport of firewood; to optimize the current external quarantine on ash material and understand enforcement or outreach options; to explore opportunities to promote in-state firewood production and commercial distribution while managing forest conditions; and to optimize public outreach by pooling resources amongst diverse stakeholders.

Challenges

- Firewood transported from long distances poses a risk of spreading non-native insects and diseases to Montana's forests.
- Out-of-state firewood can be brought in by visitors or returning residents for use at campsites or homes throughout the state.
- Montana hosts about 12.5 million visitors per year who bring about \$5.15 billion in revenue and support 47,800 jobs. About 24% of visitors noted that they would camp using a car or recreational vehicle and many would use more than one campsite.
- Introduced insects and diseases are difficult to control and have ongoing impacts.
- New pests arrive in North America every year through many different pathways. The international movement of firewood into North America poses a limited risk due to existing treatment requirements, but intrastate movement is largely unregulated.
- Pests are moved between states in many ways although several pathways are dominant. For instance, Oregon has documented 16 new established wood boring pests since 2007, and most of the newly established woodborers in Oregon came with firewood. Solid wood packing material seems to be second. Other types of pests (such as defoliators) are more commonly transported by different pathways, such as infested nursery stock.
- Ongoing communication about the risks of moving firewood results in about an 85% awareness of the issue among visitors surveyed in the Great Smokey Mountains National Park. Bringing firewood when camping is a common occurrence.
- There are many messages provided to visitors and residents. Messages about firewood compete with other priority messages for visitors.
- Firewood regulations are not currently harmonized across the west.
- If the USDA Plant Protection Act has a federal rule for a pest or disease, states are not allowed to have more strict rules in place. Rules must not preempt interstate commerce.
- The Montana Quarantine and Pest Management Act 80-7-401 MCA authorizes quarantines but is typically pest by pest and not used for recreation or a pathway (like firewood at campgrounds). No constituents are currently asking for assistance in developing firewood regulations.
- Providing infrastructure to treat firewood to reduce the risk from insect and disease spread is resource intensive. One option is to incentivize kilns for treatment and improving firewood quality.

Challenges continued...

- Forest health and wildfire hazards are being actively managed through forest thinning operations.
- Harvesting small diameter wood for firewood is an option but improving availability of local labor and reducing barriers to markets is necessary for increased utilization of the resource.
- The Montana market for most small firewood producers falls in two areas (1) local businesses selling to customers using firewood nearby at their home or camping area, and (2) intra-state firewood movement to meet market demand across Montana, which does not necessitate risk reduction via heat treatment at this time. Certified heat-treated firewood could increase opportunities for Montana wood product to be sold to states with heat treatment requirements.
- The State Park Enterprise system is not centralized so while recommended practices can be promoted, procurement decisions about firewood offered for sale at state parks are made locally.

Recommendations

Markets:

- Explore [Firewood Scout](#) or [Stacked.camp](#) to determine whether either website could effectively promote local businesses selling firewood.
- The Department of Commerce has offered to sponsor and pay for the Firewood Scout registration fee. Firewood Scout requires a list of vendors thus, a partner agency or funding source will need to be identified to compile the initial list and then maintain verification of the status of the vendors. Suggestions for partners include an intern through the arborists' association or other related group.
- Promote access to the "[Made in Montana](#)" and "[Grown in Montana](#)" labels for local firewood producers to increase appeal, boost sales, and provide consistency in messaging.
- Align labeling for firewood in Montana with recommended standards found on [National Plant Board Firewood Guidelines](#) site to improve access to out-of-state markets and ease of understanding by the public.
- Support firewood as a market for small diameter biomass generated from forest management projects. [Montana's Forest Action Plan](#) recommends thinning forests to reduce hazard fuels and promote forest vigor. This approach achieves the Plan's intent to manage invasive species while managing forest conditions.
- Promote local forestry businesses as partners in managing forest health and invasive species.
- Address scale/weight requirements for USFS sales that generate firewood. Currently, driving to distant facilities is cost prohibitive given the firewood profit margin.

Coordination:

- Partner with [visitMT.com](#), [Recreate Responsibly](#), and other tourism sites to include firewood messaging.
- Update outreach to campgrounds (federal, state, local and private) and distribute consistent firewood messaging.
- Commit to maintaining the message and keeping materials current.
- Encourage the Western Plant Board to make recommendations for regional firewood policies.
- Emphasize firewood in discussions through the [Western Governors Association](#) and [Pacific NorthWest Economic Region](#) relevant committees.
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Coordination continued...

- Maintain consistent and timely communications and notifications of new pests and range maps of infestations in the region. Encourage communication about areas of high risk between states' regulatory authorities.

Communication:

- Visitors to Montana reached prior to departure (from their home state) during their trip planning stage (includes ORV pass purchases, hunting tags, campground reservations, RV publications).
- Use partners to distribute uniform information about firewood. Commit to educating front line partners (people who interact with out of state visitors) about threats posed by out-of-state firewood so they communicate the consistent message.
- Consider contacting organizers for events that draw out-of-state attendees who may be arriving with firewood. Examples include Red Ants Pants music festival and the Crow Fair.
- Consider including firewood messages in the larger "[Recreate Responsibly](#)" bundle as developed for Montana.
- Recognize that we ask a lot of visitors and consider how to consolidate the messages.
- Attend Tourism Advisory Council to understand how MISC's interests intersects with this council.
- Utilize Montana's [Institute for Tourism and Recreation Research](#) (ITRR) data to target outreach and messaging.

Positive Messages:

- Local firewood supports both local forest products industry partners and invasive species mitigation as a forest health goal. Promoting the use of local firewood therefore has two aligned positive outcomes.
- Provide a pilot grant to supply firewood at high risk or high visibility sites as a demonstration to encourage a shift towards purchasing firewood locally.
- Work with Region 1 USFS staff to run a pilot program of providing, and communicating, free firewood at established National Forest campsites.
- The goal of reducing untreated firewood importation is to reduce harm to natural ecosystems and urban forests. Promote the messages through "Managing forests" and "Protect Montana".

Next Steps

MISC has identified the following steps to utilize the information from the panel:

- Research the volume, origins, and species of firewood being moved into and through Montana.
- Determine where visitors are buying the highest volumes of firewood and for what intent (home heating, personal heating of unhoused persons, outside recreational fire pits in residential areas, campfires, other).
- Review and share models for regionally comparable requirements for entrance of out-of-state firewood into neighboring states.
- Identify what is needed to support local industry in certification and compliance with export requirements and growing the local capacity.

Outcomes

The panel responded to a list of specific questions provided by the Council on managing firewood.

- Provide examples from other states that have used external quarantines to prevent the entry of pest-infested wood.

Species-based approaches: Similar to Montana’s current list of five quarantines related to tree pests and diseases, California has adopted an approach in which pests that threaten economically significant tree crops or forests are covered by individual pest-specific quarantines. Proactive inclusion of pests not known to occur in the state under quarantine rules allows for broad protections by a relatively comprehensive list of pest specific quarantines. This effectively requires that most firewood imports to California are heat treated.

Treatment required: Tennessee’s approach is to require a heat treatment at the broadly effective level of 160 F for 75 minutes for all firewood imported into the state or moved from a quarantined area within Tennessee. This applies to any wood four (4) feet or less in length, split or not split, offered for sale, or sold as fuel, including but not limited to kindling, logs, boards, or timbers. The [rule](#), updated in June 2021 excludes all chipped wood and any wood products intended for further processing.

A national map of the approaches currently taken by each state has been developed by the Don’t Move Firewood coalition and is available on the [web](#).

- Determine whether our current restrictions on EAB-contaminated materials sufficiently protect Montana trees and forests.

The quarantine for Emerald Ash Borer reduces the risk to Montana from this pest and may be effective across a somewhat broader range of hardwood species found in central and eastern US forests. It does not proactively address the introduction of pests more likely to be found in other species of trees, other regions, or pests of conifers.

- Identify opportunities to improve production and markets for locally produced firewood.

The Montana Logging Association has approximately 500 members with an average operation size of 5 to 7 staff each. Small operations are limited in the range of their distribution and scale of production as the shift to automated firewood treatment and packaging requires a substantial change in equipment. Adding the “Grown in Montana” and “Made in Montana” labeling would support local business as would investing in a directory like Firewood Scout that identifies places to purchase firewood locally. A uniform label for firewood bundles that includes the origin will make it easier for retailers to identify firewood that is low risk to their customers and would align with labeling standards in use in other Western states (e.g., required in Utah, proposed in Nevada).

Outcomes continued...

- Determine whether a firewood exchange program at interception points could be effective or feasible in Montana.

No. This model has been tried in both Maine and Prince Edward Island (PEI). Due to the geographically restricted nature of the entrances into PEI the exchange is able to function during their relatively short tourist season. Maine's firewood exchanges have occurred intermittently during high visibility weekend travel events (e.g. Memorial Day Weekend) as part of a larger educational campaign. This has not been used as a sustained program or direct management tool. Firewood exchanges are time and labor intensive as surrendered firewood must be moved into a containment unit and adequate supplies of replacement wood must be maintained and stored. Containment for surrendered wood until disposal can be problematic logistically, physically, and legally.

- Identify opportunities to increase efficiency and efficacy in outreach efforts amongst diverse agencies and stakeholders.

There is good will and a high motivation to continue to provide and improve a consistent message to the public. The guidelines from the national Don't Move Firewood campaign include a concise statement about firewood and a link to more information. The panel encourages partners to develop joint plans for coordinated material in both online formats, and for printing and distribution, so that federal, state, local, and private campgrounds are providing a consistent message to visitors that buying firewood locally protects Montana's forests. Areas for improvement include identifying the most effective ways to reach visitors to Montana before they depart and ensuring a message about firewood is kept current and present in front of visitors by reviewing and maintaining relevant materials.
