

**Rocky Mountain Restoration Initiative (RMRI)
 October 23, 2020, 9:00 AM - 11:00 AM
 RMRI Biomass Utilization Subcommittee
 Meeting Summary - FINAL**

ATTENDANCE

Participants: Angela Boag, Mo Bookwalter, Ken Curtis, Cindy Dozier, Molly Pitts, Mike Preston, Ellen Roberts, Mark Shea, Jeremy Taylor, Nathan Van Schaik, and Bill Yemma

Facilitation: Tim Reader and Samuel Wallace

ACTION ITEMS

Tim Reader	<ul style="list-style-type: none"> • Send a link that leads to the Colorado State Forest Service (CSFS) story map with information on statewide industry capacity to the Biomass Utilization Subcommittee. • Send a link to the Texas A&M Forest Service's forest atlas section on wood industry capacity. • Contact Dr. Kurt Mackes to determine if he has data on emissions related to wildfires. • Begin to reach out to wood businesses, including the Front Range contractor interested in establishing a forestry division, to gauge their interest in participating in a Biomass Utilization Subcommittee meeting. • Send a link that leads to the Wood Innovations Grant program to Nathan Van Schaik to put on the RMRI Biomass Utilization Subcommittee's webpage; distribute it to the priority area landscapes.
Angela Boag	Reach out to Chris Sturm at the Colorado Water Conservation Board (CWCB) and her superiors at the Colorado Department of Natural Resources (DNR) to begin organizing government representatives to participate in a webinar with post-fire wood product manufacturers.

SEPTEMBER 11 BIOMASS UTILIZATION SUBCOMMITTEE ACTION ITEM UPDATE

Meeting participants provided updates on their action items from the September 11 Biomass Utilization Subcommittee meeting. Their comments are summarized below.

Updates on Finding White Papers with Information on the Carbon Impacts of Biomass Energy

- Tim Reader reached out to Dr. Kurt Mackes of Colorado State University about the carbon impacts of biomass energy. There will be an opportunity in the future to use his expertise as the Biomass Utilization Subcommittee continues to discuss the carbon impacts of biomass energy.
- Tim Reader searched the Society of American Foresters website for white papers or policy statements on the carbon impacts of biomass energy. He could not find a white paper on this topic, but the Society of American Foresters does have many interesting white papers that Biomass Utilization Subcommittee members may be interested in.

Updates on Creating an Informational Framework on Industry Capacity in Priority Landscapes

- Tim Reader is working with Dr. Kurt Mackes to create maps with information on the wood utilization industry capacity in the priority landscapes. The CSFS geographic information

system (GIS) staff members are working on those maps but have other priorities, so it will take some time to conduct that spatial analysis.

- Mo Bookwalter met with a US Forest Service (USFS) GIS staff member to discuss creating a story map for RMRI. The spatial analysis of the wood industry could be included in the RMRI story map. The CSFS also has a story map with industry information on a statewide level, so it should not be difficult to integrate the wood utilization information into an RMRI story map. Tim Reader will send a link that leads to the CSFS story map with information on statewide industry capacity to the Biomass Utilization Subcommittee.
- Mapping wood industry capacity in the priority landscapes has many potential applications. The map with information on the wood utilization industry capacity will only display the location of mills in the priority landscapes, but it is possible to add information on the size of the mill and products being produced. Researchers at CSU are also using spatial analyses to identify industry clusters and determine what factors are leading businesses to cluster. The analysis will also provide insight into the impact of haul distances on wood utilization businesses. Researchers at the Texas A&M Forest Service have also used spatial analyses to determine the economic impact of wood businesses by county, which they included in their forest atlas. Tim Reader will send a link to the Texas A&M Forest Service's forest atlas section on wood industry capacity.

Update on Creating a Fact Sheet on Biomass Utilization in Colorado

- Nathan Van Schaik developed a draft factsheet to create a shared vision and common language around biomass utilization in Colorado for both RMRI partners and the general public. Nathan Van Schaik reached out to multiple people to provide feedback on the factsheet because it such a complex issue, including Tim Reader and USFS staff.
- The factsheet outlines the state of biomass utilization in Colorado, the opportunities for biomass utilization, and why biomass utilization is important. The factsheet is supposed to serve as a framework to help create a shared understanding on how to increase biomass utilization. The factsheet attempts to break down the complexities of biomass utilization to make it as simple as possible.
- The Biomass Utilization Subcommittee could use the factsheet to answer "what is biomass" and "why is it important" and develop a shared understanding on the current state of biomass utilization, the problem, and the desired state for biomass utilization. If the Subcommittee can answer these questions, they will be in a better position to influence policy. In the future, there may be an opportunity to host a workshop with Biomass Utilization Subcommittee members to more clearly define the problem, current state, and desired end state for biomass utilization.
- One of the talking points in the factsheet is from Dr. Kurt Mackes research that indicates 90% of wood for commercial use in Colorado is imported; it is important to note that the research is 20 years old.
- One way to further outline biomass utilization in Colorado is by conducting a PESTLE (political, economic, social, technological, legal, and environmental) analysis. The PESTLE analysis can identify opportunities and challenges in promoting biomass utilization in Colorado.
- Nathan Van Schaik will share the draft factsheet with the Biomass Utilization Subcommittee.

Update on the Biomass Utilization Subcommittee Work Plan

- The Biomass Utilization Subcommittee work plan was distributed to Subcommittee members. There was no feedback on the work plan. The work plan has been posted on the

subcommittee page on the RMRI website along with the meeting summaries from previous Biomass Utilization Subcommittee meetings.

- The Biomass Utilization Subcommittee can decide what documents to post on their page on the RMRI website.

COLORADO WOOD PRODUCTS FOR POST-FIRE REHABILITATION DISCUSSION

Meeting participants discussed opportunities to use Colorado wood products for post-fire rehabilitation. Their comments are summarized below.

- Angela Boag reached out to several people at the Natural Resources Conservation Service (NRCS), Colorado Department of Transportation (CDOT), and the USFS Arapahoe and Roosevelt National Forests and Pawnee National Grassland (ARP) Burn Area Emergency Response (BAER) team. The USFS ARP BAER team already uses Colorado wood products for post-fire rehabilitation; they use wood straw out of Steamboat Springs and logs from local areas. More technical products, like hydromulch, come from the South or the Northeast United States because the timber there is fast-growing and because there are paper plants in those regions.
- The Steamboat Springs wood straw producer is working on 30 acres in the Grizzly Peak Fire burn scar under a CDOT contract, but their production level is not very large.
- One of the challenges with promoting Colorado wood products for post-fire rehabilitation is that the use of Colorado wood products varies from region to region in Colorado. One region may be aware of a wood product manufacturer while the adjacent region is not aware. It would be beneficial to begin at the top of the agencies, like CDOT, to discuss how they can facilitate the use of Colorado products across the entire state. There may also be an opportunity to identify other state agencies that could be using wood products but may not be sure where they are sourcing their wood, like Colorado Parks and Wildlife (CPW).
- Some wood product businesses are unfamiliar with how to introduce their products to government agencies and the purchasing protocols for CDOT, BAER teams, Denver Water, and other local, state, and federal agencies. It is unclear to wood product businesses whether they need to get approval for their product by each state agency or if their current approvals with one state agency extends to all state agencies.
- The Biomass Utilization Subcommittee should consider bringing together Colorado businesses that produce wood-based erosion control products with government agency representatives. This effort would help make government representatives more aware of the products being manufactured in Colorado and help make businesses more familiar with the government contracting process. Non-profits and community organizations working in the post-fire restoration environment could be invited to this meeting.
- There was a question about whether the Biomass Utilization Subcommittee should be careful not to bring together private businesses with government personnel in any way that indicates any preferences. Other government representatives have often brought together businesses and government personnel without issue.
- Chris Sturm of the CWCB will be releasing a grant request for watershed restoration and could serve as a co-convenor for this meeting. The CWCB is concerned about sediment and flooding in a post-fire environment. Engaging with both the USFS hydrologists and CWCB to encourage the use of Colorado wood products in post-fire rehabilitation efforts would create both economic and restoration benefits. Angela Boag will reach out to Chris Sturm and her superiors at DNR to begin organizing government representatives to participate in a webinar with post-fire wood product manufacturers.
- It may help to develop a two-pager with information on companies and the products they manufacture. That two-pager could be sent out with grant requests and calls for proposals.

- If certain grant proposals required grantees to use Colorado wood products in post-fire rehabilitation, that would be beneficial. The CSFS has a requirement in one of their grants for applicants to have a biomass utilization strategy or approach.
- DNR and the Colorado Governor's Office recognize the importance of post-fire rehabilitation and are discussing how they can support communities following this season's wildfires. The proposals are not very detailed yet and depend on the results of the BAER analysis and severity of the fires. As BAER information comes out and the state firms up their budget for the upcoming legislative session, there will be more discussion on the specific details to support communities impacted by wildfires.
- There are opportunities to promote industry growth in the post-fire rehabilitation products business and through the utilization of burned timber. RMRI could play a role in connecting large contractors with communities to treat burned forests.
- The next step for promoting the use of Colorado wood products in post-fire rehabilitation is to plan a webinar that brings together government agency representatives and others involved in post-fire rehabilitation, such as non-profits, with manufacturers.

WILDFIRES AND BIOMASS ENERGY CARBON IMPACT DISCUSSION

Meeting participants discussed the carbon impact of biomass energy. Their comments are summarized below.

- Governor Polis was recently quoted speaking about climate change and the climate action plan for Colorado. His remarks did not mention the greenhouse gas (GHG) emissions of the current fires and the opportunity to proactively manage and restore forests to reduce these GHGs. The Governor's Office staff and leadership at DNR are aware that active forest management and climate change action are both needed, and it is not an either/or situation.
- The Biomass Utilization Subcommittee should help move the discussion forward by gathering data on the GHG emissions of wildfires and the opportunities to develop an alternative path through forest management that protects watersheds, reduces GHG emissions, and creates a strong economy.
- The Colorado Energy Office (CEO) is aware of the potential of biomass energy, but they are focused on renewable energies to achieve net-zero emissions. If the Biomass Utilization Subcommittee could provide research that confirms biomass energy is carbon neutral or less impactful, that information would open up the conversation with the CEO. There is still a need to mitigate wildfire risk in communities, and there is a possibility for increased funding for active forest management depending on the state budget.
- The Biomass Utilization Subcommittee should become familiar with the science on the GHG emissions from wildfires in Colorado. Once the Biomass Utilization Subcommittee has a better understanding of the GHG emissions from wildfires, they can relate it to other types of GHG emitters, like vehicles. There is a choice on whether the release of carbon from wildfires will happen on the landscape or be used to generate electricity.
- There is an interagency task force looking at natural climate solutions. The Nature Conservancy (TNC) is also developing wildfire emission estimates based on California's research on wildfire emissions. The emissions from Colorado's wildfires this year are not finalized because fires are still burning.
- The GHG accounting community is wrestling with how to account for the carbon cycle on natural lands. In the past, fires frequently burned due to lightning and Native American tribes starting fires on the land. The fires that did burn were less severe. The GHG accounting community is discussing whether wildfire emissions should be considered a part of the carbon cycle and how to account for the carbon sequestration that occurs as forests regenerate. However, in Colorado, forests are not regenerating in the same way as

they did in the past due to warming. Forests in Colorado are also overstocked, and fires are returning them to less dense structures, which means less carbon-dense structures as well. There is a lot of complexity around accounting for wildfire GHG emissions, so it is not as simple to say that less catastrophic wildfires mean a reduction in carbon emissions. California has separated anthropogenic GHG from natural lands GHG emissions for these reasons.

- It is good to recognize the many perspectives on the carbon impacts of wildfires. The carbon emissions from wildfires is an important data point for RMRI partners and forest collaboratives across the state to better understand. It would be important for the Biomass Utilization Subcommittee to be aware of that data to better inform discussions about preparing the landscape for fire.
- The complete exclusion of wildfires from the state's carbon plan is an omission. As data is released about the GHG emissions from this year's wildfires, it should be shared with the Biomass Utilization Subcommittee.
- Dr. Kurt Mackes has conducted studies on the cost of wildfires, but he has not published any research on avoided emissions. However, he may have emissions data related to wildfires. Tim Reader will contact Dr. Kurt Mackes to determine if he has data emissions related to wildfires.
- The state of Michigan recently announced they will include forest management in their carbon credit protocols. The state of Colorado is interested in looking at more opportunities for carbon crediting related to forest management. One challenge with carbon crediting in Colorado is that Colorado's forests are slower growing, so it is less suitable to qualify for carbon credits.

BIOMASS UTILIZATION POTENTIAL SOLUTIONS DISCUSSION

Meeting participants discussed potential solutions to increase biomass utilization. Their comments are summarized below.

- The Social License Subcommittee could help produce messages related to the carbon impacts of wildfires. Some researchers have said the forests' current condition is related to both climate change and past management methods; it is not either past management or climate change that influences the current forest conditions but both. The Social License Subcommittee could produce messages related to this concept.
- The Biomass Utilization Subcommittee should focus on messages related to solutions. Changing strategies from wildfire suppression to prescribed burning and increasing cross-boundary work are both solutions that can be highlighted. The Biomass Utilization Subcommittee could focus on messages related to the idea that the choice is either "big smoke" or "small smoke" – large impacts from catastrophic fires or smaller impacts from less severe wildfires.
- Biomass energy is dismissed because wind and solar are cheaper, but wind and solar are cheaper because they were incentivized over time. Wind and solar are intermittent energy sources, and biomass power could be the energy source that fills in the energy production gaps. The Biomass Utilization Subcommittee should think about how to subsidize and incentivize biomass power as a non-intermittent energy source. There are also auxiliary benefits from biomass power, including forest fuel reduction.
- The Biomass Utilization Subcommittee should look for win-win opportunities to help further climate goals while actively managing forests. The RMRI Biomass Utilization should help gather data and develop messages that move the state closer to win-win solutions.
- The Biomass Utilization Subcommittee could conduct a high-level analysis to look at the treatment plans for the RMRI landscapes, calculate how much biomass will be produced

from those treatments, and determine how large a gap there is between the biomass produced and the biomass going to sawmills. Where there is a gap, the Biomass Utilization Subcommittee could identify concrete utilization options for that biomass and how the state could help increase biomass utilization. If each landscape had a concrete proposal on how to use unused biomass from community treatments, state agencies could then potentially provide funding or other resources.

- There are opportunities to develop longer-term stewardship contracts to increase financial security for biomass utilization businesses.
- The Biomass Utilization Subcommittee could act as a think tank to generate information and data on biomass utilization to influence state policy and programs.
- There is a Front Range contractor interested in establishing a forestry division, and they are interested in talking with the Biomass Utilization Subcommittee about who they are and what they can offer. Another project is occurring on Monarch Pass, where a contractor, the Miller Timber Industry, is treating forests on steep slopes. They are using cut-to-length technology and equipment, which allows the contractor to cut trees to length for hauling and generate data on the log diameter for the sawmill. The Biomass Utilization Subcommittee could hear about these projects at a future meeting.
- There is an opportunity to host a meeting and invite people from the priority area landscapes and wood businesses to learn more about their projects and program. The businesses that are willing to share information will self-select if an invitation is developed and distributed. Wood product consumers could be invited, as well. Bringing together the priority area landscapes and wood product businesses would help develop a realistic view of the opportunities for biomass utilization and potential innovations. Tim Reader will begin to reach out to wood businesses, including the Front Range contractor interested in establishing a forestry division, to gauge their interest in participating in a Biomass Utilization Subcommittee meeting.

USFS WOOD INNOVATIONS GRANT DISCUSSION

Meeting participants discussed the USFS Wood Innovations Grant request for proposals. Their comments are summarized below.

- The USFS has recently released a request for proposals for their Wood Innovations Grant. The Wood Innovations Grant is an opportunity to assist businesses and potentially the RMRI Biomass Utilization Subcommittee. The grant applications will be due in 2021.
- The Wood Innovations Grant has been around for many years and is released on an annual basis. There are two grant programs: one that is energy-related and another that is related to product market and development. Tim Reader will send a link to the Wood Innovations Grant program to put on the RMRI Biomass Utilization Subcommittee's webpage.
- The Wood Innovations Grant can fund discrete projects, but it will not fund the purchasing of equipment. The USFS is normally interested in funding projects in their end stages rather than feasibility analyses; they prefer to see businesses that have already invested in feasibility analyses.
- There may be an advantage for grant proposals from priority landscapes to mention their involvement in RMRI.

OTHER UPDATES

Meeting participants provided other updates relevant to the Biomass Utilization Subcommittee. Their comments are summarized below.

- Tim Reader has been meeting with students from the American University graduate film school who are producing a documentary on bark beetles in Colorado. Over the past three

days, the students have visited with small businesses using wood from bark beetle-infested trees. The information from the documentary could serve as a powerful communication tool for the Biomass Utilization Subcommittee. They do not have a release date for the documentary yet.

- The RMRI Workforce Capacity Subcommittee is exploring options to add the forest restoration industry into the *Colorado Talent Pipeline Report*, which would create opportunities for businesses to apply for funding to compensate interns.
- The Communications Subcommittee will be meeting during the first week of November. If Biomass Utilization Subcommittee members have a communication person in their organization who wants to join the Communications Subcommittee, they should send their contact to Nathan Van Schaik.

NEXT STEPS

Samuel Wallace will create a Doodle to distribute to the Biomass Utilization Subcommittee to schedule a meeting during the last week of November or the first week of December.