

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

**ATTENDANCE**

*Participants:* Jennifer Benson, Angela Boag, Cindy Dozier, Les Owen, Molly Pitts, Mike Preston, Ellen Roberts, Rebecca Samulski, Kirby Self, Mark Shea, Travis Smith, Jeremy Taylor, Tara Umphries, and Nathan Van Schaik

*Facilitation:* Tim Reader and Samuel Wallace

**ACTION ITEMS**

<b>Tim Reader</b>	<ul style="list-style-type: none"> <li>• Keep a running list of businesses that are interested in presenting at a Biomass Utilization Subcommittee meeting.</li> <li>• Reach out to Colorado State University (CSU) extension staff to see if they have factsheets on biochar.</li> <li>• Send out the date for the wood utilization seminar once the date is finalized.</li> </ul>
<b>Nathan Van Schaik</b>	<ul style="list-style-type: none"> <li>• Reformat the biomass utilization factsheet so that Subcommittee members can make comments on it.</li> <li>• Send out information about the Colorado Proud program through the RMRI social media accounts.</li> </ul>
<b>Angela Boag</b>	Bring up the idea of using biochar in the cannabis industry to Department of Natural Resources (DNR) Executive Director Dan Gibbs to introduce during a Colorado cannabis working group meeting.

**OCTOBER 23 BIOMASS UTILIZATION SUBCOMMITTEE ACTION ITEM UPDATE**

Meeting participants provided updates on their action items from the October 23 Biomass Utilization Subcommittee meeting. Their comments are summarized below.

- Tim Reader sent out examples of how to spatially characterize the forestry industry. Two examples came from Colorado, and a third example came from the Texas A&M University Forest Atlas, which has a very robust database on the forestry industry. CSU does not have the same in-depth spatial analysis of the forestry industry as Texas, but it is something that they are working towards.
- Tim Reader reached out to Dr. Kurt Mackes to ask if wildfire emissions have been a component of his research. The topic has come up in Dr. Mackes' research, and his perspective was that the wildfire emissions were not significant in the big picture climate change context and that public health considerations were a larger motivation for addressing wildfire emissions.
- Tim Reader reached out to a couple of businesses to present at a future Biomass Utilization Subcommittee meeting. If the businesses presented on their products at a future meeting, they would ask questions of the Subcommittee, so the Subcommittee should take more time to develop an agenda for the meeting. Tim Reader will keep a running list of businesses that are interested in presenting at a Biomass Utilization Subcommittee meeting.

**COLORADO WOOD PRODUCTS FOR POST-FIRE REHABILITATION DISCUSSION**

Meeting participants discussed updates for encouraging the use of Colorado wood products in post-fire rehabilitation. Their comments are summarized below.

- Angela Boag met with Colorado Water Conservation Board (CWCB) staff to discuss incorporating the use of Colorado wood products for post-fire rehabilitation into their grant programs. On the planning side, CWCB staff work with grantees to provide funding for project planning and technical assistance to evaluate the utility, cost efficiency, and efficacy of post-fire rehabilitation strategies. In their experience, they have found that grantees needed help with procuring products for post-fire rehabilitation projects.
- Tim Reader and Molly Pitts put together a list of different companies in Colorado that are producing wood products that can be used in post-fire rehabilitation (e.g., wood straw, wood wattles, logs, and biochar). They sent this list to CWCB staff.
- CWCB staff members were excited about integrating the use of Colorado wood products into post-fire rehabilitation projects. They are interested in including the list that Tim Reader and Molly Pitts provided in grant informational material. They are also interested in creating a consultation requirement for grantees to consult with an industry expert about the use of Colorado wood products.
- Due to the scale of fires in 2020, CWCB staff are concerned that there will not be enough product supply from Colorado alone. The wood straw business out of Craig is not sure they can produce a sufficient amount of material for this year's wildfires. For these reasons, CWCB staff are hesitant to create a requirement for using Colorado wood products in post-fire rehabilitation.
- Colorado State Forest Service (CSFS) staff is working with the wood straw business in Craig to find ways to increase production through investment.
- CWCB staff noted that 9 out of 10 projects are using Colorado wood products already in their projects, such as the wood straw, because transportation costs are lower for in-state material. Grantees are also using wood that is produced directly from the site of a project for rehabilitation purposes. There is not a concern among CWCB staff that projects are sourcing wood products from out of state, but there is an interest in improving communication so grantees can learn more about different businesses across the state.
- Concerns about wood product supply are legitimate. Instead of requiring the use of Colorado wood products, one approach would be to give Colorado companies the first right of refusal. This approach would mean that grantees have to contact a Colorado business first for their wood products, and if the business does not have the necessary wood supply, grantees can move on to other sources. One benefit of this approach is that it would help Colorado businesses understand the market demand for their products so that they can make informed decisions on how to increase their production.
- Another concern among CWCB staff is that there would be an increase in the price of Colorado wood products if grantees were required to use Colorado wood products. Mandating the purchase of Colorado's product is not necessarily the best strategy and could lead to price increases. If instead, grantees were required to show they put in some effort to consider the use of Colorado products and were provided a list of Colorado businesses that are producing post-fire rehabilitation products, then that would potentially avoid price increases.
- Aspen Wall Wood in Southwest Colorado has struggled to produce wood straw that meets federal specifications. Sometimes, businesses need to go through a manufacturing process to create a product that meets federal specifications. Molly Pitts has offered help to help Aspen Wall Wood meet federal specifications, but it is not clear that additional support is needed at this time. Aspen Wall Wood was included on the list of businesses sent to the CWCB.

## **BIOMASS UTILIZATION FACTSHEET DISCUSSION**

Meeting participants discussed the biomass utilization factsheet that Nathan Van Schaik put together. Their comments are summarized below.

- The purpose of the biomass utilization factsheet is to outline what the Biomass Utilization Subcommittee is trying to accomplish. The factsheet is meant to help the Biomass Utilization Subcommittee achieve their objectives and anticipate changes, including the upcoming changes in the presidential administration.
- The biomass factsheet could be helpful, but the Subcommittee has not yet agreed that they need it yet. Nathan Van Schaik needs input from the experts of the Subcommittee to develop the mission and objectives of the Subcommittee and to continue to refine the document if the Subcommittee decides they want to pursue developing this factsheet. The factsheet is not yet ready to be published on the RMRI website.
- Social license is an obstacle to increasing industry capacity and biomass utilization. The biomass factsheet could be simplified so that it is written in clear and comprehensible terms for the public. This simplification would include removing terms like “biomass” or “biochar.” A simplified biomass utilization factsheet for the public could help the general public understand the benefits of biomass utilization and RMRI as a whole. Cindy Dozier could work on editing and reducing the biomass utilization factsheet to a more basic level.
- There could be two biomass utilization factsheets: one with more complex information for use by the Biomass Utilization Subcommittee and another with more basic information for the public.
- Other groups around the state, like the Forest Health Advisory Council (FHAC), have created factsheets with basic definitions, opportunities, obstacles, and challenges. Additionally, there are factsheets that describe each of the priority landscapes on the RMRI website. Existing factsheets could serve as models for a biomass utilization factsheet.
- Nathan Van Schaik will reformat the biomass utilization factsheet so that Subcommittee members can make comments on it.

## **COLORADO DEPARTMENT OF AGRICULTURE (CDA) OVERVIEW**

Les Owen and Jennifer Benson from the CDA shared information about CDA programs that might be of interest to the Biomass Utilization Subcommittee. Their comments are summarized below.

- CDA has an agricultural workforce development program. The application period for the next program cycle will close on December 18. The CDA workforce development program is a cost-share program that provides funding to agricultural businesses to hire an intern for up to ½ of the intern’s cost. The workforce development program specifically recognizes that timber businesses qualify for the program.
- The CDA has the Acre3 Program, which is a program that promotes renewable energy and energy efficiency projects for Colorado’s agricultural industry. The program provides funding for feasibility studies and technical assessments for agricultural operations for a variety of energy needs, including hydromechanical turbines and heat-exchangers. The Acre3 program administrator is interested in connecting with the Biomass Utilization Subcommittee to identify opportunities in the program to promote renewable energy from biomass. Currently, the program does not include biomass energy, but it potentially could in the future. The legislative appropriation for Acre3 will end in 2 years, but there may be an opportunity to identify another funding source for the program.
- The Colorado Forest Products program is under the CDA’s Colorado Proud program. There is an opportunity to integrate the Colorado Proud Program with the Colorado Forest Products program more strongly to promote Colorado wood products. Nathan Van Schaik

will send out information about the Colorado Proud program through the RMRI social media accounts.

### ***Clarifying Questions***

Meeting participants asked several clarifying questions about the role of the CDA. Questions are indicated in italics with corresponding answers in plain text.

*Is there anything that the Biomass Utilization Subcommittee can do to advocate for more funding for the CDA workforce development program?*

The annual appropriation for the CDA workforce development program is \$50,000. There is an interest in increasing the appropriation to fund more internships, but that will likely not happen during this upcoming legislative session. If there is a push to increase the appropriation for the program, the CDA would reach out to the Biomass Utilization Subcommittee for support.

*Can the CDA accept outside grant funding to support the workforce development program?*

The CDA is also exploring options to use external grant funding to support the program, but they are uncertain whether they can legally apply for an external grant for the program at this time.

*Is the support for interns in cash or in tax credits to the businesses?*

It is a cash reimbursement. The business will submit an invoice to the CDA at the end of the internship and will receive a check or direct deposit for half the amount, up to \$5000.

*What opportunities exist at the CDA to increase the use and production of biochar?*

Biochar represents an opportunity for the Biomass Utilization Subcommittee and CDA to partner. One legislative priority for the CDA is the creation of the CDA climate resiliency office. If the climate resiliency office is established, the CDA soil health and renewable energy program would be under the purview of that office, and there would be an opportunity to explore the use of biochar. There are several challenges related to the wide-scale use of biochar, including competition from traditional fertilizers, transportation costs, and low supply. However, biochar represents an opportunity to find a market for small-diameter timber, increase carbon sequestration, and improve soil health. The CDA is interested in biochar and learning more about it in the future.

*Does the marijuana industry fall under the purview of the CDA?*

The production of hemp is under the purview of the CDA, but the marijuana industry exists in a grey area. For example, the CDA regulates the use of pesticides on marijuana crops but does not regulate the growing of marijuana.

### ***Group Discussion***

Meeting participants discussed with Les Owen and Jennifer Benson from the CDA about opportunities for the Biomass Utilization Subcommittee and CDA to partner moving forward. Their comments are summarized below.

- The discussion about biochar is at the heart of the RMRI concept, identifying new and innovative opportunities for the benefit of multiple interests. In the San Luis Valley and Rio Grande River Basin, production agriculture and soil health is being driven by groundwater challenges. RMRI provides opportunities to test new techniques and pilot projects. With biochar, it would be beneficial to have a couple of producers demonstrate its use and to have the CDA to promote it. Having producers, especially young producers, pilot biochar in the San Luis Valley would help to reduce skepticism and create opportunities that benefit soil health, water retention, and reduce fuels.

- Colorado Parks and Wildlife (CPW) has applied for funding for mitigation projects, and they included in their program equipment to produce biochar. CPW could be another opportunity to highlight an example of biochar use.
- A couple of years ago, cannabis industry proponents were talking about the benefits of biochar on their crops. The cannabis industry may be a potential market for biochar use. Angela Boag will bring up the idea of using biochar in the cannabis industry to DNR Executive Director Dan Gibbs to introduce during a Colorado cannabis working group meeting.
- There are multiple ways to produce biochar. JR Ford in Southwest Colorado is producing high-grade biochar through a gasification process and is considering developing a second biochar production facility in Southwest Colorado. JR Ford is a good source of information on use. He could use help with marketing and developing a supply chain for biochar. Out of Southwest Colorado, partners are having to consider trucking and transportation costs; biochar is lighter than wood pellets, so the transportation costs for biochar are lower than transportation costs for wood pellets. It would be helpful if the CDA could assist in marketing and supply chain challenges.
- Technical assessments about the benefits of biochar to agricultural production and soil health in Colorado, potentially from CSU or the Rocky Mountain Research Station (RMRS), would help promote biochar. The technical studies could be translated into simplified factsheets to distribute to the general public. There is an opportunity for Colorado to be on the leading edge of biochar production. Tim Reader will reach out to CSU extension staff to see if they have factsheets on biochar.
- Jennifer Benson manages the federal Specialty Crop Block Grant program. There may be an opportunity for pilot plots to test the use of biochar in the specialty crop industry (e.g., fruits and vegetables). The application period for the Specialty Crop Block Grant program will be opening soon, so now is an appropriate time to think of potential projects for that program. Biomass Utilization Subcommittee members can reach out to Jennifer Benson if they have additional thoughts on this opportunity.
- The CSFS worked with a CSU graduate student to conduct some pilot programs to monitor the benefits of biochar on tree seedlings. They did not find much of an impact. Beyond that study, the CSFS is not conducting formal studies on the impacts of biochar in a forested environment.
- At the federal level, the new presidential administration has made high-level comments about working with farmers on carbon sequestration. At a federal level, there may be new opportunities arising for exploring the use of biochar.

## **OTHER UPDATES**

Meeting participants discussed other updates. Their comments are summarized below.

- Tim Reader will be meeting with Colorado Department of Public Health and Environment staff who have become interested in the subcommittee. They may be another potential partner in the future.
- The Southwest Ecological Restoration Institutes (SWERI) Wood Utilization Team used funding from the Northern Arizona University's (NAU) Wood Innovations grant to distribute a survey to forestry businesses. The survey asks many in-depth questions, and the responses so far have been comprehensive.
- The SWERI Wood Utilization Team will be hosting a wood utilization seminar, likely on March 2 and 3. Tim Reader will send out the date for the wood utilization seminar once the date is finalized.

- NAU is establishing a workforce training center for forestry equipment operations. Additionally, the RMRI Workforce Capacity Subcommittee is working on acquiring a simulator to increase opportunities for forestry equipment training in Colorado.
- A couple of businesses have approached the CSFS about applying for a Wood Innovations grant. One of the businesses is located in the Upper Arkansas priority landscape. The other potential applicant is in the Front Range and wants to convert boilers in their facility to biomass.
- The CSFS released the Forest Action Plan, and there is a section specifically on carbon and woody biomass.
- Tim Reader shared a policy brief from CalFire via email. The brief outlines how CalFire is integrating wood products and forest management into California's emission reduction plan, which may be of interest to the Subcommittee.
- The RMRI social media pages have been sharing information on biochar because it is national biochar week. Subcommittee members are welcome to distribute the RMRI website and social media pages to staff to increase engagement.
- The Southwest Wildfire Impact Fund, formerly the Southwest Colorado Environmental Impact Fund, has a new website: <https://www.swifproject.org/>. Subcommittee members are welcome to provide feedback by contacting Ellen Roberts. The website is intended for a general audience.
- The Intermountain Forest Association met with the Region 2 Office and forest supervisors recently. The US Forest Service (USFS) is going through a budget modernization process. The modernization went into effect on October 1. As a part of the modernization, the USFS is now required to pay for employees upfront, which may result in less money for projects. The USFS is still working through the complications of the budget modernization.
- Colorado Public Radio (CPR) is writing an article on the 2020 fire season in Colorado. Tim Reader and Molly Pitts provided information on biomass utilization, industry, and the importance of having infrastructure in place to move forestry objectives forward. The article should be a valuable communication tool once it comes out.

#### **NEXT STEPS**

Samuel Wallace will create a Doodle to distribute to the Biomass Utilization Subcommittee to schedule the next Biomass Utilization Subcommittee meeting.