

**Rocky Mountain Restoration Initiative (RMRI)**  
**May 27, 2020, 2:00 PM - 4:30 PM**  
**RMRI Biomass Utilization Subcommittee Subgroup**  
**Meeting Summary - FINAL**

**ATTENDANCE**

*Participants:* Ken Curtis, Molly Pitts, Tim Reader, Ellen Roberts, and Mark Shea

*Facilitation:* Mike Preston and Samuel Wallace

**ACTION ITEMS**

<b>Molly Pitts</b>	<ul style="list-style-type: none"> <li>• Gather information on available biomass supply, particularly on National Forest lands.</li> <li>• Explore options for biomass markets by reaching out to existing manufacturing businesses (e.g., wood pellet manufacturers).</li> </ul>
<b>Tim Reader</b>	Begin to gather information on the amount of woody biomass supply on state and private lands from Colorado State Forest Service (CSFS) field offices in Southwest Colorado.
<b>Ellen Roberts</b>	Identify passages in the California Forest Carbon Plan that can serve as a foundation to develop language about the need for biomass utilization and forest carbon planning to incorporate into Colorado’s planning efforts.
<b>Mark Shea</b>	<ul style="list-style-type: none"> <li>• Gather information on opportunities to strengthen the biomass industry in the Upper Arkansas and Pikes Peak region.</li> <li>• Discuss with the Colorado Forest and Water Alliance (COFWA) about the need to develop consistent language about the need for biomass utilization and forest carbon planning to incorporate into Colorado’s planning efforts.</li> </ul>
<b>Mike Preston</b>	Develop a plan and sequencing of discussions for the biomass power topic.

**BIOMASS PRODUCTS DISCUSSION**

Meeting participants discussed the definition of biomass and what biomass products the Biomass Utilization Subcommittee should consider. Their comments are summarized below.

- The definition of biomass should be expansive and include both slash and small-diameter trees. Some wood products, like pallet stock, are constructed using small-diameter trees and not slash.
- Potential products for the Biomass Utilization Subcommittee to consider include:
  - Biomass power
  - Biochar
  - Pellets
  - Pallet stock
  - Cross-laminated timber (as produced by Timber Age Builders)
  - Veneer products (as produced by IronWood)
  - Firewood (for small commercial sale or for free if necessary/possible)
  - Poles and posts
- Manufactures of poles and posts are selling them to treatment facilities out of state. Most treatment facilities in Colorado are along the Front Range, and it is both expensive to treat

and ship materials to those facilities. Developing a more cost-effective production cycle in Colorado could help make biomass utilization more affordable.

- Biomass power has its own set of stakeholders separate from the other biomass products. Biomass power as an end product for biomass can be used in both a large and small capacity. Small biomass power production includes boilers for individual facilities. Large biomass power production involves utilities and energy providers.
- The Biomass Utilization Subcommittee should separate biomass power from other biomass products and address each separately. The Biomass Utilization Subcommittee should discuss the two tracks for biomass (biomass power and other biomass products). The Subcommittee needs to identify if they have the capacity and interest to pursue both tracks simultaneously and if any Subcommittee participants want to lead either discussion.

## **BIOMASS EXISTING RESOURCES AND DATA DISCUSSION**

Meeting participants discussed existing resources and data within the context of available biomass supply, market demands, industry production/capacity, the range of benefits from biomass options, and the incentivization of commercial production of low-value materials. Their comments are organized by topic and summarized below.

### *Available Biomass Supply*

- Information on biomass supply on federal, state, and private lands is needed to make the economic justification for businesses to invest in the biomass industry.
- Having information on the available biomass supply coming from treatments on National Forest lands would help inform a biomass strategy. The San Juan National Forest is currently using RMRI funding to produce 18 to 20 thousand cunits (CCF) under stewardship contracts. The Biomass Utilization Subcommittee should gather information on the volume coming from National Forest lands in Colorado.
- It is difficult to determine the biomass supply on state and private lands. Tim Reader can begin to gather information on the amount of woody biomass supply on state and private lands from Colorado State Forest Service (CSFS) field offices in Southwest Colorado. It will take some time to gather that information. Molly Pitts will also gather information on available biomass supply, particularly on National Forest lands.
- Due to the small treatment areas on private and state lands, the amount of supply coming from state and private lands is not enough for businesses to profit unless treatments are scaled up. The amount of woody biomass supply coming from private lands in the wildland-urban interface (WUI) depends on the funding available to conduct those treatments. In Southwest Colorado, they are looking to use funding from the Collaborative Forest Landscape Restoration Program, the Natural Resource Conservation Service, and CSFS to build up enough supply for biomass businesses to purchase.
- There is woody biomass in urban waste. If the woody biomass from urban waste was added to the biomass from forestry treatments, it could increase the amount of supply to make businesses more profitable.
- The USFS has organized sort yards in the past to collect woody material from WUI treatments to scale up woody biomass supply from private treatments. They were not successful because there was not enough demand for the biomass material. They are now considering setting up feedstock yards to attract gasification and biochar industries.
- The Tennessee Creek vegetation management project and Monarch Pass project are producing supply within the Upper Arkansas priority landscape boundaries.

### *Market Demand*

- One challenge for industry is identifying a market for their wood products and then making their products market competitive.
- A professor at Oregon State University has an in-depth model to evaluate the technical and economic viability of biomass facilities. This model uses local information on log costs, labor costs, supply, etc. to determine the viability and investment potential of biomass facilities. The model could be scaled to analyze commercial firewood operations, wood chipping facilities, sawlog facilities, and more. Running different scenarios through the model could help identify the market value of biomass products and profitability for biomass facilities that could in turn attract investment.
- It would be helpful to know about the needs and opportunities of biomass markets across the state. Different areas across the state have unique market opportunities and challenges. For example, the large-scale treatments in Southwest Colorado create a supply for businesses to use, but Front Range communities have a large ratepayer base that increases the value of resources. There is a large market opportunity along the Front Range.
- The Forest Utilization Network (FUN) under Colorado State Forest Service (CSFS) produces market reports for different biomass products.
- It may be more effective to expand and develop the already existing wood products industry rather than create a market for new products. There needs to be better business planning and marketing for already existing products.
- The Biomass Utilization Subcommittee could develop a survey or organize a discussion with businesses and processors to collect information on their current activities, needs, and challenges related to developing markets. Some businesses to include in that discussion are:
  - Timber Age Builders
  - Ironwood
  - Red Rocks Biofuels
  - Montrose Forest Products
  - Stonertop Lumber
- Molly Pitts can explore options for biomass markets by reaching out to existing manufacturing businesses (e.g., wood pellet manufacturers).

### *Industry Production/Capacity*

- There are opportunities to develop industry capacity in regions across Colorado, but those opportunities are dependent on supply to attract long-term investment.
- There are lessons to be learned on the opportunities and challenges for biomass utilization across the state.
- The Chaffe County Chips program processes wood supply from private treatments and sends it to the biomass facility in Gypsum, creating an effective supply chain based on already existing industry capacity.
- There are two potential biomass facilities being planned in Keenesburg and Golden. If these facilities become operational, they could take supply from and help support the Northern Front Range and Upper South Platte regions.
- There are areas in the Pikes Peak region and Northern Front Range where there are opportunities to use biomass, albeit they were not selected as RMRI priority landscapes. Additionally, facilities in the Southern Front Range, like Blanca Forestry Products and Pueblo Wood Products, can process and produce woody biomass products. Mark Shea will gather information on opportunities in the Upper Arkansas and Pikes Peak region for biomass utilization.

### *Range of Benefits from Biomass Options*

Incorporating the full range of benefits for utilizing biomass (e.g., reduced treatment costs, water quality benefits, reduced fire risk) is important to justify the building of biomass markets and industry.

### *Incentivizing Commercial Production of Low-Value Materials*

- Biomass utilization is a statewide issue, and it is important to understand the unique challenges of building a stable supply, market demand, and industry capacity across the state.
- There should be a long-term industry plan to outline the relationship between available supply from planned and permitted projects, market demands, and existing and needed industry capacity.

## **BIOMASS IN STATEWIDE PLANS DISCUSSION**

Meeting participants discussed opportunities to incorporate biomass into the Forest Action Plan, Shared Stewardship Strategy, Colorado Water Plan (CWP) and Basin Implementation Plan (BIP) update, and the Greenhouse Gas (GHG) Pollution Reduction Roadmap.

### *Colorado Energy Office (CEO) and the GHG Pollution Reduction Roadmap*

- There is an opportunity to work with the CEO to identify ways to incorporate forests into carbon planning modeling. Biomass utilization impacts carbon outputs by replacing wildfires and pile burning with the controlled release of emissions.
- There needs to be a usable collection of data on how forest management impacts carbon emissions. That data needs to be collected soon to prepare for the next cycle of carbon modeling.
- The natural working lands should take a more central role in carbon planning.

### *Forest Action Plan*

- As a part of the Forest Action Plan, the CSFS is developing a Forest Atlas. This online tool contains a large amount of geospatial data related to forestry and natural resources. There may be information in the Forest Atlas that could help industry representatives make smart decisions about where to site facilities to grow production.
- The modeling work for the Forest Action Plan is already complete, so it will not be possible to incorporate carbon data into the Plan at this time. It may be possible to get an aspirational narrative into the Forest Action Plan to set the foundation for future studies and modeling for biomass and carbon-based forest planning.
- The Biomass Utilization Subcommittee should begin discussions around forest carbon modeling now so that they are prepared to incorporate carbon modeling when the Forest Action Plan is next updated.

### *Colorado Water Plan and Basin Implementation Plan*

- The forestry-related updates in the Colorado Water Plan will likely involve identifying where forest treatments should be located to protect priority water resources. Consistent statewide information about the location of treatments to protect priority water resources could be a helpful data point for industry decision-making.
- The Colorado Water Conservation Board's (CWCB) watershed program should apply to projects that focus on improving forest health to protect water resources. More programmatic and funding support from CWCB, coupled with technical assessments to

identify treatment areas for water resource protection, could create a more predictable source of biomass supply for businesses.

- Promoting the forest-water nexus at the BIP update level will potentially lead to the topic being emphasized more in the CWP. A stronger emphasis in the CWP could increase the amount of programmatic and funding resources for forest health projects.

#### *Shared Stewardship Strategy*

- The focus of the Shared Stewardship Strategy is on changing the culture of state agencies to improve their collaborative efforts.
- There may be an opportunity to explore and cultivate a biomass discussion within the Shared Stewardship framework. RMRI is helping to cultivate greater coordination among state agencies, federal agencies, and non-government partners.
- Some emerging tools, like potential operational delineations (PODs), should be brought into the Shared Stewardship Strategy framework to help improve cross-boundary coordination.

### **BIOMASS STRATEGY DISCUSSION**

Meeting participants discussed the strategy to improve biomass utilization in Colorado. Their comments are summarized below.

- The Biomass Utilization Subcommittee needs to gather information to build an understanding of the context within which they are operating. This foundation will inform conversations between the Biomass Utilization Subcommittee and agencies, experts, and businesspeople. These conversations would then lead to developing models, experiments, and business strategies with support from state and federal agencies.
- RMRI and the Colorado Forest and Water Alliance (COFWA) could develop consistent language around the need for biomass utilization and carbon planning for statewide planning efforts. Consistent language in each of the plans would help elevate the importance of forestry treatments and biomass utilization across the state. The statement should be non-partisan and based on science. Language from the California Forest Carbon Plan could be used as a foundation to draft this language. Ellen Roberts will identify passages in the California Forest Carbon Plan that can serve as a foundation to develop language about the need for biomass utilization and forest carbon planning to incorporate into Colorado planning efforts.
- COFWA is already working on a carbon position paper and could discuss drafting this language. During the next COFWA meeting, Mark Shea will discuss the need for consistent language for biomass utilization and forest carbon planning to incorporate into Colorado's planning efforts.
- The Biomass Utilization Subcommittee should develop a strategy that focuses on creating a policy framework for biomass utilization while focusing on how to implement biomass solutions in areas where the conditions and markets are ready. The steps to develop and implement the biomass strategy include:
  - Gathering background information on available biomass supply and industry capacity.
  - Identifying areas of opportunity for the biomass industry based on market conditions.
  - Developing questions and high-level policy frameworks for agencies to incorporate into their planning efforts.
  - Hosting webinars/forums to connect stakeholders in areas of opportunity with experts.
  - Implementing solutions on the ground.

- Any forum or webinar should have a more specific topic than biomass utilization.
- There is a need for actionable policy items to increase biomass power. Biomass power is the greatest opportunity to increase the consumption of biomass because it does not have high transportation costs. The Biomass Utilization Subcommittee should focus on the barriers and opportunities for biomass power to formulate a plan with the CEO, Public Utilities Commission, and State Legislature. Mike Preston will lay out a plan and sequencing of discussions for biomass power.
- The Biomass Utilization Subcommittee could learn lessons from the success of the wind and solar energy campaigns.

#### **NEXT STEPS**

As the subgroup participants begin to gather information, they can decide whether they want to meet again.