

Sandoval County Regional Biomass Working Group

Friday, April 13th 2018

Action Items:

- Next RBWG Meeting Friday, May 25th (Sandoval County Complex)
- Develop peer review protocol and identify reviewing organizations
- Look into carbon cycle perspective for using forest residues as a soil amendment
- Analyze feasibility of Renewable Chemicals as a biomass process/product

Status of Action Items from March 16th Meeting

- Met with Sandoval Economic Alliance to discuss expanding the market for various biomass products
- Anderson School of Management contacted concerning product marketing and fiscal analysis process, no response as of date

Summary and Discussion of Information gathered to date

- Currently finalizing BUFS report representing 40% of progress towards the goals of the study
- In order to provide clarity, the 40% report provides an overview of findings with a more detailed analysis included as appendixes to the report.
- 40% report includes: TNC Feedstock Analysis, Transportation Cost Analysis, Biomass Process/Product Feasibility Analysis, Facility Siting Analysis
- TNC Feedstock Analysis
 - o 80% difference in feedstock availability between top and bottom scenarios
 - o Estimates a supply in excess of 30,000 tons/year of biomass
- Transportation Cost Analysis
 - o Differing distance and cost estimations due to potential facility site location and analysis year
 - o Average of \$55 per bone dry ton
- Process/Product Feasibility Analysis
 - o Fuel bricks and Wood Plastic Composites were identified as the most viable processes/products
 - o Need for additional input around renewable chemicals and Nanotech products.
- Facility Siting Analysis
 - o Summarized available feedstock resources, access to utility hookups, workforce capacity and potential public opposition.
 - o 5 Sites were selected Cuba Fair Grounds, Sandoval County Landfill, San Pedro, Jemez Pueblo, Santa Clara Pueblo
 - o San Pedro site is likely not viable due to public opposition and distance from utilities

Next Steps: Information needed to Finalize Short-List of Potential Products

- Renewable Chemicals
 - o 22 Possible Chemicals, Acetic Acid, Phthalates, Industrial Lubricants

- Bio Fuel Costs are highly contingent on facility scale, 25-30-million-dollar facility likely needed to keep costs low
- Production currently exceeds demand by 1/3
- Most consumption is in China
- Activated Carbon
 - Analyzed alongside Biochar as it uses a similar process
 - Producing activated carbon from Biochar can increase value from \$1000/ton to \$3-6000/ ton
- Biochar
 - Biochar is used to coat steel
 - Viable market, used to create diamond coating on steel, Friction proofing materials
 - Possibility of creating a soil amendment in combination of humate.
 - Most of the consumption of this product is in the mid-west
 - Has been produced for decades in NM (Lindrith and Cuba)
 - Is there a way we can use this project for soil sequestration and carbon generation through plant growth?
 - May be able to find grants to fund projects to purchase raw materials (mulch and humates)
 - It is necessary to keep carbon generated here to return it to the soil here
 - Revegetating and building carbon in soils can be an economic investment by stopping erosion and creating fire prevention
- Decorative bark
 - Has the potential to be a viable product, little competition from regional manufacturers
 - Bark is being brought in from Arizona
- Fuel Bricks
 - Currently Manufacturer by Mt Taylor Manufacturing and A JR Ford in Pagosa Springs
 - Clients are big box stores
 - Potential to oversaturate the market leading to a race to the bottom in pricing for large contracts
- Can tires be used to supplemental feedstock?
 - Could be used to supplement feedstocks in a biofuel or alternative chemical facility
 - Company in Albuquerque builds tire pyrolysis plants
 - When bio-supplements are used in fuels it creates higher combustion than diesel
 - Sulfur must be removed
 - If built on a reservation, state environmental regulations do not apply
 - Tires are currently being shipped to Texas
 - East Mountain cement plant has permits to burn 2 million tires/year
 - Using whole tires create hot spots in kiln and refractory
- Items to Consider
 - Need to identify manufacturers who could potentially buy biomass products
 - Use manufacturer feedback to inform product/process decisions
 - Need to not rely on subsidies to sustain operations

Taking It Public: Presenting the Approach and Outcomes of Site Selection and the Selection of a Wood Products Manufacturing Process for Sandoval County

- Guidelines for upcoming public meeting
 - o Need to tell complex story of threat of catastrophic wildfire necessitating increased forest management, necessitating biomass utilization
 - o Focus on how individuals will benefit (jobs, reduced risk of wildfire)
 - o Need for transparency in public communications
 - o Emphasize public, private, government partnership
 - o Need to contact and partner with existing public organizations to ensure cooperation (AMAFCA, ECT)
 - o Need to narrow down to one process/product and one site location to reduce confusion
- Site Selection Guidelines
 - o Will there be public opposition?
 - o Focusing on Jemez site
 - o Treasury Department has a funding program to fund site development
 - o Tribal public comment should be limited to tribe
 - o Permitting may limit feasibility
 - o Jemez and Cuba sites can receive economic sustainability funding from state