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 appendices 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
- 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