At a Glance

- Feedback can be submitted anytime by emailing, agriculture.forestry@agriculture.ny.gov.
- A public meeting to engage directly with interested members of the public on Advisory Panel recommendations will be held in January 2021.
- The Advisory Panel heard presentations on two related topics: initial analysis of carbon storage potential in harvested wood products and on developing NY’s wood-based bioeconomy project, also referred to as the Bioeconomy Roadmap.
- There was a presentation and discussion on climate change impacts to both the agriculture and forestry sectors and the considerations for adaptation and resiliency under the CLCPA.
- Information regarding meetings, presentations, and meeting notes can be found under Meetings and Materials on – www.Climate.ny.gov

Present

WebEx: (92 total attendees including panelists and agency staff)

Advisory Panel:
Commissioner Richard Ball, Chair AGM; Peter Innes, DEC; Michelle Brown, TNC; Samantha Levy, AFT; Robert Malmshheimer, SUNY ESF; Peter Woodbury, Cornell University; Tom Gerow, Wagner Lumber Co.; Elizabeth Wolters, NYFB; John Bartow, Empire State Forest Products Assoc.; Stephanie Morningstar, Northeast Farmers of Color Land Trust; John Noble, Noblehurst Farms; Amanda Barber, Cortland SWCD; Julie Suarez, Cornell University (joined after roll call); Nelson Villarrubia, Trees NY; Suzanne Hunt, HuntGreen LLC/Hunt Country Vineyards; Ned Sullivan, Scenic Hudson; Peter Lehner, Earth Justice; Donna Wadsworth, International Paper.

Absent: Rafael Aponte, Rocky Acres Community Farm.

Agency Staff:
David Valesky, Brian Steinmuller, Jennifer Clifford (meeting host), Kevin King, Lindsey McMahon, Greg Albrecht, AGM; Jeffrey Mapes, Jason Drobnick, Suzanne Hagell, Mark Lowery, Maureen Leddy, Ian Crisman, Willow Eyres, DEC; Giovanni Holmquist, ESD; Stephanie Wojtowicz, Anurupa Roy, Christopher Eastman, DOS; Lewis Payne, NYPA; Kara Allen, Stephen Hoyt, Kathleen O’Connor, Ziggy Majumdar, NYSERDA.

Welcome
Commissioner Ball, NYS Department of Agriculture and Markets

Panel Member Rolcall
Absences noted above

Public Participation
To submit feedback to Panel Members and agency staff during the meeting, members of the public can use the WebEx Chat function. Questions and comments issued by the general public during the meeting will be collected but not directly responded to during the meeting.
A public meeting to engage directly with interested members of the public on Advisory Panel recommendations will be held in January 2021. More information will be released when available.

Feedback can also be submitted anytime by emailing, agriculture.forestry@agriculture.ny.gov.

Recap of Climate Action Council 11/24/20 Meeting
Commissioner Ball, NYS Department of Agriculture and Markets

The Agriculture & Forestry Advisory Panel made a brief presentation before the Climate Action Council (CAC) during the 11/24 meeting to highlight the sub-panel work and preliminary recommendations.

Comments and questions from the CAC focused on:
- The potential for identifying and mitigating potential negative environmental consequences of the recommended strategies,
- Equity considerations within the preliminary recommendations,
- Bioeconomy work and clarifications around the scope of the bioeconomy.

An in-depth discussion on bioenergy was planned for the November 24th CAC meeting, but was tabled due to time constraints and will be raised during a future CAC meeting.

Forestry Related Recommendations
Peter Innes, NYS Department of Environmental Conservation

The Forestry sub-panels provided a readout of their latest developments including key research on forestry in the state. These points and comments on them will ultimately be translated into the recommendations for the scoping plan.

Research Review
- There are 1.7 M acres of unused agricultural land that could theoretically be planted, but much of this land will realistically not be able to be planted with forest.
- New York’s forests are dominated by hardwoods. Past afforestation efforts have concentrated on conifers and the creation of plantations. Future afforestation efforts could be a combination of conifer and hardwoods, although hardwood planting requires more effort and expensive to plant.
- An analysis of forest management scenarios found that not harvesting forests has a similar impact on carbon emissions to managed harvesting, and may contribute slightly more carbon.
  - Suggestion was made to amend forest tax law or create a new component “480C” based on carbon intensity
- Discussion of forest lands emphasized the importance of maintaining forests as forests.
  - many landowners have to sell wood to maintain their land
  - real property tax law has been a concern for landowners

Potential Policy Solutions
- Improving professional land management, while avoiding regulations was emphasized
- Providing a hotline number/singular source for professional forestry assistance
  - Programs should be as simple as possible so that landowners can make one call and get a clear response.
• Developing a program to monetize forest carbon
  o This is particularly challenging for small landowners but could be done by providing a certification process on a small scale such as a regional forest certification program
• Provide protection from deer and invasive species
  o Many deer-related strategies are designed to regenerate forests
• Work on driving workforce development for professional forestry assistance

Recent Sub-Panel Discussion Points
• Afforestation vs reforestation and key data points to collect
• Forest tax law (480a) and various ways to address local reimbursement and tax burdens
• Wood products and whether they should be included under the bioeconomy sub-panel instead of forestry sub-panel
  o Noted the need to speak with the housing Panel about using wood in affordable housing, state buildings and other structures
  o Noted that prices continue to be a barrier to wood product use
• Discussion on urban forestry focused on the benefits to health, heat and social circumstance and how to assess costs and benefits going forward.
  o Discussion on where to focus efforts going forward concluded that urban forests and afforestation should be the focus

Discussion
• Tom Gerow: When talking about encouraging good forestry can you provide an example?
  o Peter Innes: The contrast that good forestry is using silviculture practices, rather than extractive practices such as diameter cutting and high grading.
• Is it possible to assess carbon impacts of various measures related to changing law 480a?
  o It was noted that the DEC did not complete a $/ton carbon analysis but has data on the cost of program enrollment in 2014. This analysis is available in the meeting materials. DEC is working with Tax and Finance on updating the tax shift costs to local municipalities.
• In addition to promoting beneficial practices, are we looking at regulatory or incentive processes to discourage poor practices?
  o There is ongoing discussion around eliminating incentives for harvesting more timber than the landowner wants to harvest in a given year to put it on equal footing with incentivized practices but clarified that the group is not looking to disincentivize harvesting broadly through potential changes in 480a.
• How can the state go about making sure we have “credentialed foresters” managing the land?
  o Noted that there are many underqualified service providers in the market and there is a need to help landowners understand qualifications and ensure there is a recognition of consequences
  o There is discussion of a certification program, or a requirement to hire a forester trained in carbon management to participate in select programs. Examples including the Audubon society’s “forest for the birds” programs were discussed with an emphasis on universality and simplicity for recognition. NYS Agricultural Environmental Management (AEM) program certifies Ag planners, framework could be used as basis for forestry program.
  o Discussed need to provide sufficient credentialing for forest service providers, and a separate credential for carbon management
What is the vision for the hotline discussed above?

- Reflected on the Midwest “call before you cut” hotlines, the goal would be to have a call center that would lead to someone being deployed and work to identify how best to get services to landowners.
- Emphasized the need to keep any program simple and achievable for landowners.

**Developing NY’s Wood-Based Bioeconomy Project / Carbon Storage in Harvested Wood Products**

*Bob Malmsheimer, SUNY ESF*

Bob Malmsheimer provided two presentations on the bioeconomy focusing on wood products and planning of the bioeconomy in the state. Development of the statewide bioeconomy, including the growth of wood buildings presents a significant opportunity to maximize the substitution and sequestration effects of bioproducts in the state.

**Estimates of Carbon Stored in NYS Harvested Wood Products 1990-2018**

- Provided an estimate of the carbon stored in NYS harvested wood products used between 1990 and 2018 based on timber product output data.
- Analysis is limited due to some over and under-estimation possibilities, with rough estimates suggesting that carbon sequestration is 1.5 – 2x higher than the analysis suggests.
- An overview of the methodology and modeling for this analysis included a discussion of the literature, modeling of pre-2000 carbon sequestration and conversion of wood product values into carbon sequestration values.
- This analysis was noted as being primarily a benchmark with additional improvements coming to address key limitations.

**Discussion**

- Clarified that the research was estimating the tons of carbon sequestered in lumber, such as that used in building homes, but are not including wood chips, pellets or otherwise.
- Noted that the emphasis of the analysis was the annual flow of carbon from forested lands into timber products, although the goal is to look at other flows (such as landfills and other wood products).
- Noted that the forest service, which maintains a similar dataset, does not provide annual values. The data used in this analysis comes from DEC directly and provides a more detailed, state-level estimate.

**Developing a Wood-based Bioeconomy Plan for New York State**

- Provided a brief overview on the definition and size of the bioeconomy, emphasizing its role in New York and potential as illustrated by nations such as Finland.
  - The bioeconomy describes the portion of an economy that uses renewable bio-based feedstocks, rather than fossil fuel-based feedstocks, to produce bio-based products (e.g. chemicals, pharmaceuticals, biodegradable plastics), bioenergy, food, and feed.
- Highlighted the plan to analyze other economies’ roadmaps for the bioeconomy, partnering with ESF to investigate the wood-based bioeconomy.
- Discussed the benefits of the wood-based bioeconomy in terms of substituting fossil-fuel-based products with bio-based low carbon products.
- Discussed mass timber buildings and the sequestration benefits of substituting concrete and steel for wood-based cross-laminated timbers or similar products.
Noted that even when accounting for the emissions associated with the transportation, manufacturing and processing of wood, mass timber building emissions are often as low as 10% that of traditional buildings.

- Discussed potential for biomass development opportunity zones, focusing on co-locating processes to maximize innovation and minimize emissions and costs.

**Discussion**

- Clarified that developing a wood-based bioeconomy as a carbon capture and storage mechanism means looking to concentrate industry to maximize the carbon benefit.
- Noted that the new Secretary of Agriculture has an interest in mass timber buildings and will likely be supportive of this work going forward.

**Bioeconomy Subgroup Report & Recommendations**
Maureen Leddy, NYS Department of Environmental Conservation

The Bioeconomy Subgroup provided an overview of their workstream discussions and activities pursuant of providing details for the panel’s recommendations to the CAC. The discussion highlighted the narrower definition of the bioeconomy, focusing on climate and strategies to achieve climate mitigation and climate justice within the requirements of the CLCPA. The sub-group has three focus areas: Substitution, Bioenergy, and Biorefining.

**Substitution**

- Defined as the replacement of fossil fuel products with bio-based products, such as bio-plastics.
- Looking to push low-carbon building standards
- Looking to de-risk the bio-based construction sector through educational outreach and loan guarantees to local banks.
- Discussed the need to consider end-of-life issues for bioplastics to make sure they do not re-emit sequestered emissions.

**Bioenergy**

- Meeting next week to discuss feedstock potential and associated emissions alongside the Waste Advisory Panel.
- Discussed the need to understand how much biofuel NYS could produce and how best to prioritize the use of that fuel.
- Looking to have open-ended discussions on the prioritized use of bioenergy with the EITE, EE&H, Transportation & Power Generation APs in early January.
- Early policy considerations include low carbon fuel standards, tax credits for wood fuels and colocaiton of fuel production and consumption.

**Biorefining**

- Defined as replacing petrochemicals with bio-based substitutes
- Further discussions to come in January and February
- Current policy recommendations focused around R&D in this space for substitution and the potential of locating a biorefinery in state.
Discussion

• Discussed the need to highlight how biowaste ends up in landfills and how to either make use of or account for that material.
• Emphasized the need to ensure that what NYS does is based on full Lifecycle analyses, and not basic assumptions of carbon neutrality
• Noted the need to have further discussions on the intersection of bioenergy and carbon capture and storage

The group noted that members outside of each sub-panel can receive the information to listen into subgroup meetings. Details can be provided for specific sub-panels at request.

Adaptation & Resiliency in the Agriculture and Forestry Sectors
Mark Lowery, NYS Department of Environmental Conservation

An overview of the Adaptation and Resiliency discussion in partnership with the Land Use and Local Government panel was provided. The discussion focused on the impacts of climate and the potential use of agroforestry practices to both mitigate and adapt to the changes.

Research Review

• Increased temperatures may cause a need for increased cooling in spaces such as barns. Solutions such as planting shade trees near barns may help offset this.
• Longer expected growing seasons may reduce cool-season crops, increase frost/thaw damage and require diversification, New crop rotations and increased frost warnings.
• Changes to precipitation make flood events more extreme and likely and may require water management, soil improvements, and riparian buffers for farmland adaptations.
• Increased short-term drought will require use of more drought-tolerant species, employment of riparian buffers and greater outreach during drought periods to farmers.
• Sea-Level rise threatens saltwater inundation and intrusion into aquifers, requiring increased investment in irrigation and water protection systems.
• Careful consideration of reactions to new pests and weeds must be taken to not over-use pesticides.
• Forrest communities are likely to change with the climate requiring considerations around forest products.

Land Use and Local Government Adaptation & Resilience Strategies

• Looking to focus on “no regret” strategies for the state to reduce risk to communities, many of which have been identified through prior studies.
• Focusing on a recommendation of a comprehensive adaptation plan incorporating NYSERDA’s multisector adaptation assessment.
• The plan was initially to have each AP provide a liaison to the LULG group to discuss resilience on December 10th, this has been postponed to the new year.
  o Elizabeth Wolters and Michelle Brown are the liaisons to the LULG on behalf of the Agriculture and Forestry Advisory Panel
Discussion

- The group emphasized that there is an opportunity and a need to focus on those measures, practices and recommendations that hit the “sweet-spot” of both mitigation and adaptation, noting that these practices, such as soil improvement or strategic tree planting, can maximize the dual benefits.

Next Meeting

The next Agriculture & Forestry Advisory Panel meeting will be either January 14th at 1-4pm or January 22nd at 1-4pm. This will be confirmed after the CAC meeting on 12/15.

The Forestry Management subgroup will be meeting on December 14th at 2:00 and the Bioeconomy subgroup will meet on December 16th at 3:00 pm. Other subgroups will meet again soon.

The next CAC meeting is on December 15th at 2pm.

Meeting concluded at 3:20pm.

Please contact Peter Innes, NYSDEC; Deputy Commissioner David Valesky (AGM) or Brian Steinmuller, Assistant Director of the Division of Land and Water Resources (AGM), if you have questions.

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Brian Steinmuller: brian.steinmuller@agriculture.ny.gov

Questions related to the bioeconomy subgroup and discussions can be directed to maureen.leddy@dec.ny.gov.