

Agriculture & Forestry Advisory Panel Meeting

Meeting Teleconference - WebEx

1 October 2020

1:00 pm

At a Glance

- The Advisory Panel were presented with the findings of the Carbon Farming Study
- The Advisory Panel reviewed and discussed draft goals and scope of work for the workplan.
- Each sector's workplan will be brought to the Climate Action Council for review and approval at their October meeting.
- Bi-weekly meetings were discussed by the panel in order to allow for enough time to discuss and develop recommendations.
- Information regarding meetings and materials can be found on – www.Climate.ny.gov

Present

WebEx: (74 total attendees including panelists and agency staff)

Advisory Panel:

Commissioner Richard Ball, Chair AGM; Peter Innes, DEC; Michelle Brown, TNC; Samantha Levy, AFT; Robert Malmshamer, SUNY ESF; Peter Woodbury, Cornell University; Tom Gerow, Wagner Lumber Co.; Elizabeth Wolters, NYFB; John Bartow, Empire State Forest Products Assoc.; John Noble, Noblehurst Farms; Amanda Barber, Cortland SWCD; Julie Suarez, Cornell University; Nelson Villarrubia, Trees NY; Suzanne Hunt, HuntGreen LLC/Hunt Country Vineyards; Rafael Aponte, Rocky Acres Community Farm; Ned Sullivan, Scenic Hudson; Peter Lehner, Earth Justice; Donna Wadsworth, International Paper.

Absent: Stephanie Morningstar, Northeast Farmers of Color Land Trust

Agency Staff:

David Valesky, Brian Steinmuller, (Presenter), Jennifer Clifford (meeting host), Lindsey McMahon, AGM; Maureen Leddy, Suzanne Hagell, Willow Eyres, Jeffrey Mapes, Jason Drobnack, Gregory Mumby, DEC; Stephanie Wojtowicz, Christopher Eastman, DOS; Ziggy Majumdar, NYSERDA; Lewis Payne, NYPA.

Introductions

Commissioner Ball, NYS Department of Agriculture and Markets

Panel Member Role Call

All panel members were present except for one absence noted above.

NY Agriculture & Climate Change: Key Opportunities for Mitigation, Resilience, and Adaptation

Peter Woodbury, Cornell University

GOAL: Understand existing research and literature related to agricultural emissions, reduction and sequestration potential in NYS.

- Recommendations follow the SMART evaluation criteria (services, measurable, cost to achieve, realistic, and timeframe) to ensure most effective mitigation opportunities.

- o Table 3 on page 16, is where the SMART matrix of each of the 13 Best Management practices is located.
- Agriculture's main emissions are nitrous oxide and methane compared to other industries that primarily emit carbon dioxide, however when coming up with recommendations these three gases must be holistically targeted as one
- Potential solutions for agriculture include methane management through covering and destroying emitted methane from manure storages, afforestation, woodlot management, cover crops, and nutrient management, to name a few.
- AGM's Nonpoint Source Abatement and Control Program (AgNPS) and Climate Resilient Farming Program (CRF) are existing initiatives that can be amplified to achieve goals
- DISCUSSION:
 - o Rafael Aponte - Can we get a breakdown on data for benefits of feed efficacy/practices for different animal operations throughout the state? (Dairy, Beef, poultry, small ruminant)
 - Jenifer Wightman – The feed efficiency numbers are based upon Veltman et al 2018. In brief, 4-8% of dry matter intake is lost as CH₄ from the gut. The feed then also has consequence on CH₄ and N₂O emissions from the 'wasted food' in the manure.
 - o Peter Lehner asked if the panel could be provided a summary of AGM funded programs and evaluation of these programs as it relates to climate
 - Brian Steinmuller – CRF Program summaries are readily available from Rounds 1-4. AgNPS program data goes back 25 years, so a recent subset of that information can be put together as well. This information will be posted to the Panel SharePoint site as soon as it is put together by AGM staff.

Draft Work Plan: Goals and Scope of Work

Brian Steinmuller, NYS Department of Agriculture and Markets

GOAL: Provide overview of the drafted goals and scope of work to begin discussion and receive feedback from the panel.

Section 3 – Goals

- **Goal 1: Carbon Sequestration**
 - o 2030: Return to 1990 levels approx. 30mmt of net CO₂e sequestered on forested lands annually. This is a 5mmt increase from current levels.
 - o 2050: Enhance sequestration across all land use types to achieve net zero goal, approx. 60mmt of CO₂e sequestered.
 - o DISCUSSION:
 - Can the 2030 goal be expanded beyond just forestry to include other land types and harvested wood products?
 - Yes, harvested wood products can be included.
 - Can a point be added that we need to increase sequestration without reducing the current stock?

- Regarding rate and the stock: should we set a goal for maintaining or increasing total forest carbon stocks in addition to setting these targets for sequestration rates, since our goal is not only to offset short-term emissions but ensure that we are protecting large carbon stocks for the long-term?
 - Can the sequestration through wetlands be included?
 - Can we add a farm and forestland protection to the goals?
- **Goal 2: Agricultural GHG Emission Reduction (*note this is not net values*)**
 - o 2030: Reduce emissions from livestock and cropland by 15%, or 3mmt CO₂e, from current levels
 - o 2050: Reduce emissions from livestock and cropland soil management 30%, or 7mmt CO₂e, to reach the equivalent of 1990 levels
 - o DISCUSSION:
 - Are these reduction figures ambitious enough?
 - It was noted that these figures reflect only the methane and nitrous oxide emissions from agriculture. Energy emission reductions and sequestration capacity through soil health, woodland management and afforestation/reforestation on agricultural lands are key to meeting the sequestration and net zero goals.
 - Julie Suarez noted that Cornell Faculty were presented with these goals and noted that they appear to be both feasible and attainable.
- **Goal 3: Cross Sectoral GHG Emission Reduction Goals**
 - o Reduce energy (electricity and fuel combustion) emissions for agriculture and forestry operations
 - o Increase tree canopy of urban areas for reduced heat island effect
 - o DISCUSSION:
 - Can the language be adjusted? As it is written it implies that emissions are derived from the tree canopies in urban areas.
- **Goal 4: Other Goals**
 - o Avoid leakage of GHG emissions into other jurisdictions and ensure resiliency of food and forest products systems.
 - o Ensure resiliency and resource conservation by maintaining ecosystem services provided by natural and working lands.
 - o DISCUSSION:
 - Is there a place where affirmable goals can be included such as enhancing the resiliency of local food systems or- for example- targeting a certain percentage of food grown to remain in the state?
 - Can a point be included that emphasizes the protection of land for future generations of farmers?
 - Is it possible to not only include reduction goals, but also mitigation goals that will provide protection for inevitable situations in the future such as flooding?

- Can a goal be added that emphasizes the importance of reinforcing research and development for field scale work that supports the development of these goals?
- Can we add a goal for avoided conversion/avoided emissions from farm and forestland protection? Keeping land in farming and forest retains the carbon sink to reliably meet carbon sequestration goals. Developed land uses are more emissions intensive than farms/forests. There is also overlap with the land use advisory panel, we can look to the California farmland protection program (Sustainable Agricultural Lands Conservation [SALC] Program). They are using carbon market funding to invest in both farmland protection easements and municipal smart growth planning. CARB uses models to quantify the emissions reduction from these investments as “avoided emissions” from vehicle miles traveled. This is a way to limit sprawled development while also protecting farmland on the urban fringe, and it could be an instructive strategy for investments into farmland protection in peri-urban areas in New York.

Section 4 – Scope of Work

- **Scope of Work – The scope of work should define the topics and issues the panel will consider in developing recommendations. The scope of work also identifies cross sector issues that require collaboration with other panels.**
 - o Land Use Conversions (avoid carbon intensive land uses, promote conversions to less carbon intensive land uses)
 - Farmland Protection
 - Buffers
 - Private, public, urban forests
 - o Forestry and Forest Management
 - Climate adaptive forest management
 - Forest regeneration
 - Harvested Wood Products
 - o Livestock Management
 - Enteric Fermentation (Animal Feeding)
 - Manure Management (manure storage)
 - o Agricultural Soil Management
 - Nitrogen fertilizer/manure use
 - Soil carbon management (regenerative agriculture)
 - o Cross Cutting Issues
 - Financing
 - Bioeconomy
 - o Cross Sector Issues
 - Energy emissions & production
 - Renewable energy siting
 - Food Waste
 - Net emission reduction

- Land use
- Adaptation & resilience
- o DISCUSSION:
 - Separate private and public forests
 - Include energy crops specifically
 - Include food and fiber which can have a role in reducing emissions through food miles
 - Must keep in mind the labor involved for these recommendations to be successful
 - Include biomass and biofuels
 - Add language to enhance existing ecosystem services of natural working lands
 - Consider including the development of a region-dependent soil health standard as there is for water and air quality (link to Cornell Soil Health Characterization Report below)
 - Ensure that there is connection with agricultural and forestry trade groups
 - A barrier to farmers managing their wooded lots (or planting idle lands) are tax implications
 - Beneficial electrification in farm and forest businesses. Utilizing beneficial electrification strategies for CO2 avoidance
 - Grid modernization to access idle or underutilized lands to avoid conversion of current ag land.
 - Afforestation on underutilized ag land

The inter-agency support staff will revise the draft to incorporate as many of these suggestions as possible. The revised draft will be sent to the panel members by close of business, Friday October 2nd for further panel review and a final draft will be developed no later than Monday, October 5th.

Links and reference to studies mentioned by panelists:

- [New York Agriculture and Climate Change: Key Opportunities for Mitigation, Resilience, and Adaptation](#) (Carbon Farm Study), Peter Woodbury & Jenifer Wightman, Cornell University
- Cornell Biochar and Compost Facilities
<https://www.climatehubs.usda.gov/hubs/northeast/project/cornell-biochar-and-compost-facilities> (shared by Julie Suarez)
- Leading the Soil Carbon Revolution <https://research.cornell.edu/news-features/leading-soil-carbon-revolution> (shared by Julie Suarez)
- Domke, G., B. Walters, D. Nowak, J. Smith, S. Ogle, J. Coulston, et al. 2020. Greenhouse Gas Emissions and Removals from Forest Land, Woodlands, and Urban Trees in the United States, 1990-2018. U.S. Department of Agriculture, Forest Service, Northern Research Station, Madison, WI. p. 5. (shared by Peter Woodbury)
- For the E3, go to: <https://climate.ny.gov/Meetings-and-Materials> and scroll down to "additional resources" and look for *Pathways to Deep Decarbonization in NYS*
- Cornell Soil Health Characterization Report

- o *Characterization of Soil Health in New York State* Summary Report: <http://bit.ly/NYSoilHealthCharacterizationSummary>
- o *Characterization of Soil Health in New York State* Technical Report: <http://bit.ly/NYSoilHealthCharacterizationReport>
- o Recorded webinar presentation on report: <https://www.youtube.com/watch?v=raGsdYZhjkE&t=16s>
- AFT's 2017 [Greener Fields report](#), using NYSEDA's emissions data, found that on average an acre of farmland in NY emits 66x's fewer emissions than an acre of developed land. Therefore, the conversion of farm and forestland to development increases emissions. (shared by Samantha Levy)

Next Meeting

The next meeting is tentatively scheduled for the end of October or early November. However, the group may meet before then if necessary. Bi-weekly meetings were entertained by the group to allow for discussion and presentations necessary to develop recommendations.

Meeting concluded at 3:40pm

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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