Agriculture and Forestry

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Scope topic/Subgroup: Livestock/Dairy Management – Manure Management	
Strategy under consideration	Alternative Manure Management
Rationale	Reduce methane emissions by implementing cover and flare systems, anaerobic digesters and other systems that abate, collect, capture and combust methane from manure storages.
Equity considerations	Increasing planning, technical services and financial assistance improves access to programs and effective practices for all farmers. These systems can improve community relations by reducing odors from the storage, and increase resilience to extreme precipitation events preventing water quality concerns by reducing the risk of overtopping.
Potential Implementation challenges	Upfront cost to farmers. Milk pricing and other economic impacts can affect a farm's ability to participate in cost-share programs. Further technical assistance and engineering required for retrofitting current storages and planning new projects. Soil and Water Conservation District (SWCD), private planner, and private engineering capacity must be addressed to increase number of systems being implemented.
Issues to explore	Increasing funding for methane reduction through the State's Climate Resilient Farming Program. Using a stepwise approach to implementation that focuses on projects that are ready for implementation while engaging in research on innovative approaches to manure management and supporting implementation of emerging technologies (such as dewatering manure) in the long term.
Additional thoughts	Develop a "Carbon" Farm Plan template through the state's Agricultural Environmental Management (AEM) Program. Explore innovative financing and private sector funding mechanisms for these projects. Work with other panels to determine if policies will be developed that create a market for manure based methane for fossil fuel displacement (heat, electricity, transport fuel). Explore developing and implementing regular, periodic surveys to benchmark and gauge management trends over time.

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Scope topic/Subgroup: Livestock/Dairy Management – Enteric Fermentation	
Strategy under consideration	Precision Feed Management
Rationale	Reduce methane emissions by increasing precision feed management (PFM) planning and implementation, conducting/reviewing research on novel approaches (e.g. feed additives), advancing information, training, outreach and technical assistance to livestock producers at various scales.
Equity considerations	Increasing planning and technical services improves access to programs and effective practices for all farmers. Small farms may need additional support with strategies tailored to their operations. Improvements in food production capacity, resiliency and diversity have a positive effect on communities.
Potential Implementation challenges	Expanding/advancing precision feed management has upfront costs to farmers. The practice demands sustained implementation for continued benefit. CH4-reducing feed additives require more applied research to gauge efficacy, and some may require FDA review/approval. Advanced digital tools may be hard to access without rural broadband capacity.
Issues to explore	PFM has largely been driven by Cornell University research/extension and market forces (feed is largest input cost to dairies) and will likely continue as such. Seek opportunities for incentives to farms with long records of PFM adoption as well as farms in early adoption stages.
Additional thoughts	Develop a "Carbon" Farm Plan template through AEM. Continue to implement PFM through private sector, extension and water quality programming. National Milk, DFA, etc. have goals for dairy farms to be net zero by 2050 regardless of state initiatives. The state should coordinate and track progress toward this goal by developing planning, implementation, and evaluation methodology. Explore developing and implementing regular, periodic surveys to benchmark and gauge management trends over time.

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Scope topic/Subgroup: Nutrient Management to reduce nitrous oxide emissions	
Strategy under consideration	Nitrogen Fertilizer Management
Rationale	Reduce N2O emissions through continued and expanded nutrient management planning and implementation.
Equity considerations	Increasing planning and technical services improves access to programs and effective practices for all farmers. Improvements in food production capacity, resiliency and diversity have a positive effect on communities.
Potential Implementation challenges	This is an active area of applied, on-farm research, which continues to advance nutrient management guidelines and tools for use by planners, the fertilizer industry, and farmers. It hinges on applied research, training, industry technical assistance, management effort, and technology. The practice demands sustained implementation for continued benefit.
Issues to explore	Crop insurance to cover risk of innovating or insurance discounts with verified N reduction practices. Explore the feasibility of establishing N efficiency crop contest to promote further adoption of N efficiency practices while maintaining/increasing crop yields. Expand this strategy to include GHG mitigation from advancements in manure application management. Ongoing surveys and research to gain a better understanding of what farms are already doing to manage use of fertilizer.
Additional thoughts	Nutrient management is a key factor in crop yield and quality, farm profitability, water quality, and GHG emission reduction, so will continue to advance via private (e.g., the 4R NY Nutrient Stewardship Certification Program) and public sector efforts. Additional focus and support will accelerate the progress. Investments may increasingly lead to 4R as standard practice and market driven. Need to make steps taken by farmers that implement nutrient management visible to consumers. Develop a "Carbon" Farm Plan template through AEM. Explore developing and implementing regular, periodic surveys to benchmark and gauge management trends over time.

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Scope topic/Subgroup: Soil Health and Regenerative Agricultural Practices	
Strategy under consideration	Soil Health to increase sequestration and resiliency
Rationale	Increase carbon sequestration with the adoption of soil health management practices.
Equity considerations	Increasing planning, technical services and financial assistance improves access to programs and effective practices for all farmers. Increase adoption of practices on rented land. Improvements in food production capacity, resiliency and diversity have a positive effect on communities. These practices have the potential to elevate local food production, water quality, air quality, storm/flood mitigation, public infrastructure protection, drought resiliency, habitat, scenic vistas/tourism, economic development and jobs.
Potential Implementation challenges	Uncertainty in potential mitigation and impermanence of increasing soil carbon. Difficulty in verification. Equipment affordability and access. Planting windows for cover crops – highly dependent on weather and soil conditions throughout the growing season. Practices require sustained adoption to realize benefit.
Issues to explore	Explore the possibility of establishing a Payment for Practice mechanism that will provide incentives to farmers for verified outcomes rather than focusing only on cost share for implementation of specific practices.
Additional thoughts	Create incentives to keep perennial vegetation from converting to annual cropping or other systems with higher GHGs. Provide additional points through competitive programs and higher incentives for stacking practices (e.g. cover crops with conservation tillage, rolling/crimping cover crop). Develop a "Carbon" Farm Plan template through AEM. Explore developing and implementing regular, periodic surveys to benchmark and gauge management trends over time.

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Scope topic/Subgroup: Agroforestry	
Strategy under consideration	Silvopasture, Alley Cropping, Riparian Forest Buffers
Rationale	Incorporating trees into areas of agricultural production (agroforestry) have the potential to reliably increase carbon sequestration and have numerous other environmental benefits.
Equity considerations	Increasing planning, technical services and financial assistance improves access to programs and effective practices for all farmers. Improvements in food production capacity, resiliency and diversity have a positive effect on communities. These practices have the potential to elevate local food production, water quality, air quality, storm/flood mitigation, public infrastructure protection, drought resiliency, habitat, scenic vistas/tourism, economic development and jobs.
Potential Implementation challenges	Upfront costs and learning curve due to rarity in adopting certain agroforestry practices in New York State. Potential for loss income with practices such as riparian forest buffers. Cultural shifts and more research needed into combinations of species, effective management, pilot projects, field trials, market analysis needed before a farm is likely to adopt agroforestry practices.
Issues to explore	Explore the possibility of establishing a Payment for Practice mechanism.
Additional thoughts	Establish more applied research, field trials, and education on agroforestry practices and techniques. Create a funding track for agroforestry through CRF that provides both technical design services and implementation cost-share. Continue to emphasize riparian forest buffers as an important water quality practice. Develop a "Carbon" Farm Plan template through AEM. Explore developing and implementing regular, periodic surveys to benchmark and gauge management trends over time.

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Scope topic/Subgroup: Land Use Conversions	
Strategy under consideration	Agricultural Protection and Access
Rationale	Maintain land base for food production, reduce sprawl development, sequester and store carbon, and avoid vehicle travel emissions associated with development.
Equity considerations	Farmland access and affordability to beginning farmers, farmers identifying as black, indigenous, and/or as people of color (BIPOC), and otherwise socially disadvantaged farmers.
Potential Implementation challenges	Expanding funding for farmland protection programming, assisting municipalities to plan for farmland protection efforts.
Issues to explore	Intergenerational transfer and farmland access. Leasing state land to new farmers. Incentives for farmers to lease or sell land to qualified farmers. Comprehensive plans that include conservation of farmland. Farm succession and farmland access planning and programs to address challenges.
Additional thoughts	Targeting programs for highest impact.

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Scope topic/Subgroup: Land Use Conversions	
Strategy under consideration	Keep Forests as Forests
Rationale	Maintaining the land base of forestland will help ensure that NY's forests continue to sequester and store carbon for the long-term.
Equity considerations	Opportunities for increasing diversity in job recruitment and training, Land availability and access, Additional benefits to communities of smaller forested parcels beyond carbon sequestration.
Potential Implementation challenges	Funding. State and local legislation. Local government implementation. Expanding reach to a large number of landowners.
Issues to explore	Expanding land conservation efforts through conservation easements and fee acquisition by government or non-profit entities. Setting a land conservation goal, that evaluates a no net forest loss policy for NYS. Forest tax law changes. Supporting forest landowners in keeping their forests as forests and managing them to remain healthy. Forestland to be considered in local comprehensive plans. Potential for a Statewide Community Preservation/Conservation Act.
Additional thoughts	Targeting programs for highest impact and additional benefits including human health

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Scope topic/Subgroup: Forestry	
Strategy under consideration	Urban Forestry
Rationale	Increase percentage of tree canopy in urban and settlement areas to provide substantial carbon benefits. Utilize urban wood created from construction, deconstruction, regular maintenance and events (weather and forest health) to reduce waste and costs while storing carbon.
Equity considerations	Opportunities for increasing diversity in job recruitment and training. Targeting efforts to climate vulnerable communities. Ensuring BIPOC communities receive the environmental and economic benefits of enhancing urban forestry.
Potential Implementation challenges	Funding for planting and maintenance activities. Coordination of effort. Local government implementation.
Issues to explore	Increase planting and maintenance efforts. Planting on public land as well as private lands. Invasive species impacts. Coordination role for local governments. Communication and education. Reuse programs – building supplies, business development opportunities for use of urban wood. Community benefit from greening vacant land. Increase community forest management plan adoption, Community of practice, coordinating efforts on a regional scale.
Additional thoughts	Targeting programs for highest impact, additional benefits including human health

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Scope topic/Subgroup: Forestry	
Strategy under consideration	Increase statewide afforestation/reforestation efforts
Rationale	Increasing the afforestation and reforestation efforts statewide will increase carbon sequestration and provide numerous co benefits.
Equity considerations	Workforce development and training opportunities. Increasing forestry sector workforce to meet demand for services.
Potential Implementation challenges	Implementation at the appropriate scale, land availability, and costs. Short and long term maintenance needs. Herbivore (mainly deer) and invasive species pressure. Statewide nursery capacity, and workforce availability.
Issues to explore	Potential to create a NY Tree Corp. Increasing statewide nursery capacity and developing financial incentives for landowners. Expanding current programs while exploring creative financing to reach maximum implementation at the scale needed to meet goals.
Additional thoughts	Make it easier for landowners to establish and maintain forests, Need to identify available acres while recognizing competing land use objectives. Importance of site specific species selection needs.

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Scope topic/Subgroup: Forestry	
Strategy under consideration	Improved forest management
Rationale	Improved forest management to maintain and increase carbon sequestration will help New York' forest land sequester more carbon than the current baseline. Scaling up and delivering these practices to provide forest landowners is critical. A base level of training, certification or licensing should be established for forestry professionals as well.
Equity considerations	Supporting the economy through forest sector job creation
Potential Implementation challenges	Potential legislative needs. Scale and delivery of programs for maximum benefit. Workforce availability. Budget impacts for local municipalities and state. Ease of use for landowners, including a lack of professional forestry services. Lack of public knowledge of forestry and forest carbon.
Issues to explore	Incentives to increase forest carbon through improved management. Increase forestry technical/stewardship services. Integrating forest carbon management into existing programs. Reforms to the 480a forest tax law and/or development of new incentive programs. Enhancing/protecting regeneration through herbivore and invasive species management. Role of forest product markets and private forestry services. Improve public outreach and knowledge of forestry to public. Ensure professional forest management is enhanced: Requiring certification/licensing for loggers and foresters who work under state programs/contracts, incentives/regulation for using a certified or licensed professional during a harvest, carbon certification, requiring a timber sale contract on harvest.
Additional thoughts	More boots on the ground, matching landowner values with program needs. Recognizing that co-benefits can outweigh carbon benefit. Potential NY Green Bank involvement. Fostering a Family Forest Carbon Program. Fully counting and recognizing the role of urban forest management in building carbon sequestration.

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Scope topic/Subgroup: Forestry	
Strategy under consideration	Increase the manufacture and use of NY grown forest products
Rationale	Retaining and expanding local forest products markets provide forest landowners with the financial tools to keep and manage their lands and a carbon substitution benefit.
Equity considerations	Workforce development and training opportunities. Increasing forestry sector workforce to meet demand for services.
Potential Implementation challenges	Legislative needs. Price of wood over other products, developing a business climate in NYS that would incentivize the manufacture and sale of NY grown forest products. Perception of forestry and forest related activities.
Issues to explore	Creation of incentives through both public and private investment. Reform Right to Practice Forestry Law and building codes. Outreach to builders, planners and architects. State procurement preferences, using more wood generally and explore various financing options. More robust reporting systems to track efforts, connecting reporting to the harvest of wood products
Additional thoughts	Define and prove sustainability for the public. People generally like wood products. Tell the story to the public to better inform choices that will grow the use of NY grown forest products.

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Scope topic/Subgroup: Bioeconomy	
Strategy under consideration	Expanding markets for renewable bio-based feedstocks which create products that replace fossil fuels
Rationale	Enhancing the markets for sustainably-harvested, NY-grown products can provide direct benefits in the State, such as through carbon sequestration, as well as indirect benefits through the substitution bio-based products for fossil fuels based products.
Equity considerations	Workforce development opportunities, rural economic development potential.
Potential Implementation challenges	Existing economic challenges, a lack of commercial viability, feedstock availability/potential in NYS needs study, supply chain needs to be evaluated.
Issues to explore	How to maintain current industries while reducing emissions and facilitating growth in new areas, including through State procurement policies, incentives for buildings [discuss with Housing Panel], exploring specific sources of demand (such as RNG production co-located with industrial users) [discuss with Waste Panel and EITE].
Additional thoughts	How to lay the groundwork today to have a viable bioeconomy in the future