LAFCO
Lyme Adirondack Forest Company LLC

To: APA Board of Directors

From: Lyme Adirondack Forest Company LLC

CC: Aaron Ziemann

Date: 9/14/2022

Re: Mud Lake OSR Comments

Members of the board, we would like to briefly respond to comments submitted by the Adirondack Council concerning our Mud Lake OSR Harvest Permit application. While we appreciate the council taking the time to submit comments most of what they have submitted has little to do with the specific harvest plan that is before you for review. However, we thought it would be helpful to address a couple of their concerns.

1. **"heavy clearcutting in the Adirondack Park has risen to a concerning level"** – The Mud Lake harvest does not include any acres that are being clearcut as described in the harvest plan we have submitted. Secondly Lyme's overall harvest level has remained fairly constant with a slight decrease since we purchased the property from IP in 2006. Recent forest inventory, mapping, and growth modeling work supports the fact that our harvest level is sustainable. Our implementation of even-aged harvest systems will increase species and age-class diversity, increase the quality and variety of wildlife habitat, and will make the forest more resilient to climate change.
2. **"The proposed logging operation, however, will limit much of the forest to early and mid-succession stages. Furthermore, the scale of logging will require maintenance of a dense network of roads to transport harvested lumber. This will encourage vast attendant fragmentation effects, including likely spread of invasive species, reduced habitat security for sensitive species, altered micro-climates, erosion and sedimentation of streams, and increased fire danger (from desiccation of adjacent vegetation and presence of internal combustion engines)."** This harvest is part of a 40,000 acre ownership and over that entire tract young forest accounts for around 10% of the forested acreage. Having around 10% young forest on the landscape is in line with expert recommendations (including NY Audubon) promote a diversity of wildlife habitat and forest resiliency. The transportation network has been in place for decades and Lyme will be utilizing existing roads. These roads are also open to the public and managed by NYDEC to provide public recreation opportunities under the terms of the 2006 conservation easement.

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3. **"Carbon forestry may be part of the answer here. Land-owners should be paid more for growing big old trees than they are paid for cutting them down"** The idea that we can tackle climate change by incentivizing landowners to grow trees as opposed to sustainably harvesting fails to consider the global demand for renewable products that society uses every day. If we were to drastically reduce harvest levels in New York we would simply see a shift of where wood products are harvested as demand from society will have not changed. It is likely that this shift of production will be to places that have lower environmental regulations than New York and could potentially result in an increase in environmental damage. Plus, there will be no net carbon/climate benefit because a reduction in harvesting in one region will be offset by an increase in harvesting in another region. We believe that forest products and the associated goods that are made from wood should be produced locally and in regions like the Adirondacks that have high environmental standards designed to protect our air, water, wildlife, and our people and not shifted to parts of the world with low environmental protections.

We would welcome the opportunity to provide a tour of our property to discuss our forest management and ownership objectives. Thank you for considering our comments.

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Forest Management and Wood Products Yields the Greatest Climate Benefits

The Empire State Forest Products Association (ESFPA) has responded to a Request for Information where the New York State Energy Research and Development Authority is seeking feedback for the bioeconomy and nature-based solutions to climate change. In the response, John Bartow, Executive Director of ESFPA, outlines a four-point strategy to provide opportunities to decarbonize across multiple sectors of the economy and provide the environmental, social, and resilience benefits that New York forests provide to all New Yorkers and the challenge of global climate change.

According to Bartow, *"the four-point strategy includes: (1) avoiding forest conversion; (2) increasing carbon sequestration in forests; (3) improving forest management; and (4) retaining and expanding New York's bioeconomy."*

For over 100 years, New York's forests have been expanding across the landscape. In the early 1900's, forest cover in New York was down to less than 20% of the landscape and today it encompasses 64% of the terrestrial lands of the state. The benefits have been greater forest cover providing valuable timber resources and ecosystem benefits of clean air, clean water, and biodiversity. In the past 20 years, however, we have slid backwards and are now experiencing slight losses of forest cover. These losses are the result of conversion of forests to other land uses including agriculture, renewable energy, and sprawl. To address forest conversion, we need to improve the monitoring of conversion and create market incentives for private forest landowners to keep their forests as forests. "*If we want forests that stay, we need forests that pay"*, said Bartow. We also need to identify previously forested lands (reforestation) and lands that have not but could sustain forests (afforestation) and plant more trees.

Over that past couple of decades, scientists have also calculated that our forests have declined in their ability to store and sequester carbon on an annual basis, (i.e., carbon flux). The factors driving this loss in storage and sequestration, in addition to

forest conversion, are a decline in forest health due to insects and diseases and an aging forest. We need to create market and financial incentives to help private forest landowners improve the ability of their forests to sequester and store carbon. Tax incentives, payment for carbon services, and research on measuring and monitoring both carbon stocks and annual sequestration are solutions outlined in the recommendations.

Active and sustainable forest management on private forest lands is essential to achieving the carbon benefits of our forests. Some have suggested that leaving our forests alone and allowing them to grow and mature is the best solution for forests and a nature-based solution. However, watching our trees grow does not provide the additionality (i.e., annual sequestration) necessary to achieve the goals of net-zero carbon emissions. The science supports active sustainably managed forests which yield the greatest carbon storage and sequestration benefits over the long-term. While there is value in carbon stored in mature, older forests (such as New York's constitutionally protected Forest Preserve), forest management through silviculture (the science of growing and cultivating forest crops) is necessary to ensure carbon yield management of forest resources.

Finally, to maximize the climate solutions of our forests, we must retain and expand New York's bioeconomy. The bioeconomy is that portion of the economy that produces renewable bio-based feedstocks, rather than fossil fuel-based feedstocks, to produce wood products of today such as paper, lumber, packaging and biomass energy and products in the future, such as sustainable aviation fuel, renewable diesel, bio-chemicals, bioplastics, and biopharmaceuticals. New York's forests and wood products economy is responsible for nearly 100,000 direct and indirect jobs and a $23 billion economy. Strengthening our existing bioeconomy for the future and ensuring a supply chain of feedstock, workers, and innovation to unleash new biobased products, is beneficial not only for the substitution benefits of wood products, but for the above-mentioned forest health, carbon sequestration, and the needs of society as a whole.

According to Bartow, *the scientist of the Intergovernmental Panel on Climate Change had it right in the fifth Climate Assessment: "In the long term, a sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fibre, or energy from the forest, will generate the largest sustained mitigation benefit."*

Some recent popular press articles and scientific publications have suggested that prioritization on forest preservation and a shift to wild and wilderness forest is our best solution benefiting climate change. *"While older mature wild forests do store a substantial amount of carbon, they do not sequester as much carbon, they do not offer the management options for improved forests or the substitution benefits of harvested wood products. The best solution is balance between sustainably managed forests that yield tremendous carbon and economic benefits and wilderness carbon storage benefits",* Bartow noted.

A comparison of these two scenarios, our wild versus managed forests, is important to consider. Commercial timber harvest is conducted in response to market demand. If a scenario including harvest is compared to a scenario without (or with lower) harvest, it must be recognized that the demand for wood products does not simply vanish. A number of outcomes will occur. First, wood products will be harvested and acquired from some other locations (state, region, or country) and likely leave a greater environmental and carbon footprint than would occur in New York. This is a concept known as leakage, where we are sending our environmental liabilities somewhere else.

Second, if wood products are not acquired from somewhere else, then some other product will be used in place of wood products, such as cement, concrete, or plastics, all of which are mineral and fossil fuel consuming products. We lose climate substitution benefits of wood products. We are increasing emissions and embodied carbon in in our products, buildings, and infrastructure.

Third, if we are sourcing our wood from somewhere else or other products besides wood manufactured elsewhere, we are risking ourselves to volatile global supply chains which are rapidly impacting our daily lives. One only needs to look to Europe or the collapsing economy of China to see our vulnerabilities.

“Forests and wood products offer the most significant and cost-effective opportunity to mitigate climate change within our natural and working landscapes across New York. Yet we must have a balance between carbon stocks in older mature forests and in sequestration and substitution benefits of sustainable forest management. Expanding the area and quality of our forests through increased investments in real, additional, measurable, verifiable, and permanent climate smart forestry that includes mature forests and sustainably managed forests is necessary if we are to achieve the CLCPA greenhouse gas reduction goals of 40% by 2030, 85% by 2050, and Net Carbon Zero by 2050”, says Bartow.