



Date: December 2, 2020

To: Bill Zipse, Supervising Forester & Samantha Hensen, Asst. Regional Forester

Attn: Robin Madden, Director Division of Parks & Forestry, John Sacco, Director State Forest Service & Todd Wyckoff, Regional Forester

## **New Jersey Highlands Coalition Comments in response to the 2020 Draft New Jersey State Forest Action Plan**

The New Jersey Highlands Coalition welcomes the opportunity to comment on the 2020 Draft State Forest Action Plan for New Jersey. We applaud the New Jersey Forest Service for producing this Plan despite the unprecedented challenges presented by the year 2020.

The New Jersey Highlands Coalition is especially invested in the outcome of this Forest Action Plan because the forests in the Highlands play a critical role in maintaining the quality and quantity of drinking water for millions of New Jersey residents who reside in eleven of the State's 21 counties. In the last few years the Coalition has become involved in advocating for northern New Jersey's forests and taken a position for how they should be managed, in particular on public lands where the forests make up part of the public trust resource. This position is outlined in detail in the New Jersey Highlands Coalitions *Policy Recommendations for Forest Stewardship & Preservation of New Jersey's Public Lands* (attached to these comments).

The Coalition supports many proactive elements of the Plan, including its recognition of destructive deer herbivory crippling natural regeneration of forests, its prioritization of restoration and reforestation throughout the state, and its acknowledgment of proforestation as an innovative management strategy. We also appreciate that an underlying objective of the Plan is preventing New Jersey's forests from becoming net emitters of greenhouse gases. However, we find that in a number of instances this Plan does not go far enough in addressing the persistent and emerging threats to the state's forest resources, nor does it provide for maximizing the potential of our forested public lands to mitigate climate change, protect and enhance biodiversity and provide critical ecosystem services. This Plan comes across as rather shortsighted and fails to clearly integrate New Jersey's forest resources into the State's broader climate change mitigation initiatives such as the Protect Against Climate Threats (NJ PACT) initiative. NJ PACT recognizes the urgency for policy that enables government, business

and residents of the state to reduce emissions, respond to climatic threats and prevent future damage. This policy guidance should be much more evident in the Plan given the global recognition of forests' critical role in mitigating the worst impacts of climate change. This Plan should call on the NJ DEP to swiftly decide where to utilize proforestation and designate significant carbon reserves on public lands, which has been pointed out by NJ DEP forestry staff as a method of incentivizing the establishment of carbon reserves by private forest landowners. This action would also be in line with goals of the state's Global Warming Response Act and the NJ PACT program. The emissions reduction targets required under these initiatives rely on augmenting carbon sinks, but instead they would be reduced by harvesting and thinning areas of healthy established forest.

The Coalition finds that this Forest Action Plan misses an important opportunity to demonstrate New Jersey's leadership in tackling climate change through responsive and innovative land use policies and the implementation of emerging science. Instead it depends on pursuing traditional forestry and management practices that will not help solve our nation's most pressing problem in the coming decade, or provide for our forests' best interests. The State Forest Action Plan is the roadmap for forest policy over the next ten years, and as such, inaction - or insufficient action - now, will have far reaching consequences for the health of our natural resources in the future.

We strongly urge the New Jersey Forest Service to review and modify this State Forest Action Plan to recommend bold strategies that complement other state initiatives for mitigating climate change. Prioritizing protecting water quality and biodiversity, expanding on practical actions to address the real threats to our forests already identified, including overpopulation of deer, invasive species proliferation, impacts from increased severe storms, and increased pathogen exposure. It is imperative that this Forest Action Plan integrate protection of the most intact mature forests for their superior carbon sequestration and storage capacity. There is now substantial evidence proving the value of old and mature forests in carbon sequestration and climate mitigation (Anderson), fully justifying their protection. New Jersey has almost no true old growth forest, but we have a wealth of forest dominated by canopy trees over 100 years old in certain regions, especially in the Highlands. Nearly all of these forests should be designated as carbon reserves.

Please see below our recommended modifications and additions to the Draft New Jersey State Forest Action Plan.

**1. Expand proforestation stewardship in northern New Jersey and the Highlands Region.**

We strongly urge that proforestation as a management strategy be recommended in the Plan for the Highlands and throughout northern New Jersey, and not limited to the Sourlands region. We understand that the Forest Action Plan is intended to be a strategic guide for forestry in the State and not a set of prescriptions, but as such, it must recognize that the Highlands also have important tracts of healthy maturing and biodiverse forest. There are widespread opportunities to grow young forest throughout New Jersey, through reforestation and afforestation of previously disturbed or post-agricultural lands, including preserved farmlands and non-forested preserved open space.

The fundamental principle of proforestation is to allow trees that are already planted, that are already growing, to continue growing to reach their **full** ecological potential to store carbon, and to develop a forest that has its full complement of environmental services (Moomaw). It is also now widely acknowledged in the scientific community that established natural forests sequester and store far more carbon than young forests and are our best defense against climate change. Given the myriad of interests in and uses for forests, we understand it is unrealistic to propose a single strategy for an entire region of New Jersey. However, explicitly including proforestation as a stewardship practice, or at the least recommending that there are locations in northern New Jersey and the Highlands that are not suitable for management, and instead should be set aside for observation and monitoring. This is a reasonable modification to the Plan, with the additional assurance that this approach to stewardship would not prevent intervention if a serious threat such as a pathogen emerged. Moreover, the recommendation would signal to stakeholders in the region and the entire state that the Forest Service recognizes how important the forested resources of the Highlands and northern New Jersey are for their contribution to the state's climate change mitigation goals, as well as ensuring the quality and quantity of water supplied to its residents.

Finally, the recommendation that proforestation, or a "no management" stewardship strategy be implemented in the Highlands would afford important protection to some of the most intact, biodiverse, and healthy mature forests in the state - allowing them to someday become genuine "old-growth" forests. *Importantly, it would severely limit controversial stand improvement projects in high conservation value forest tracts on public lands*, for example, the aggressive thinning proposed for Sparta Mountain WMA and Mahlon Dickerson Reservation. Over the last decade we have witnessed these projects frequently causing severe and

unnecessary damage to the surrounding environment, heavy machinery has destroyed fragile ecosystems such as vernal pools, and undermined the habitat objectives the Plans set out to achieve.

## **2. Identify planning and implementation of different strategies for different regions and environments in the state.**

This Plan could be greatly improved through clearer distinction of which strategies should be applied to which regions of the State. For example, management strategies for fire adapted ecosystems in the Pinelands have minimal application in mature Highlands forests. The most important difference is in the Plan's discussion of thinning and density management, which is inappropriate, and in fact ill-advised for northern New Jersey forests, though it may be appropriate in some of southern New Jersey's forests. We recognize that the Department understands this difference, but qualifying management strategies with geographical references and clearly explaining the differing objectives for forests in specific regions, supported by local evidence, would go a long way towards avoiding misinterpretation. (See also the recommendation below regarding the use of FIA Data).

## **3. Thinning and Stand Improvement Practices**

The necessity and urgency to grow young forest in New Jersey is being misrepresented to the public and does not justify replacing established healthy mature and old forests in northern New Jersey. While Forest Stewardship Plans routinely claim the age of stands is stuck in middle age between 60-99 years old, after cutting occurs, we have been able to count tree rings at these same stands and have proven that some of these areas were comprised of trees in the 120-175 year age range. These maturing, carbon-rich forest stands must be protected, not sought after to finance the cost of a management project.

Thinning and other similar management interventions in New Jersey's oldest, most-intact, diverse, and uninvaded forests runs counter to a basic underlying objective of this Plan; to protect the carbon stored in these forests. Instead, these forested areas should be declared permanent carbon sinks or be managed as natural forests for their carbon sequestration value and ecosystem services, and should be off-limits to young forest or early successional habitat rotation management.

## **4. Inappropriate Use of Forest Inventory and Analysis (FIA) Data and the need to accurately depict forest age in different regions of New Jersey**

Too often we find that Forest Stewardship Plans inappropriately use FIA Data to assess and represent the condition of specific forest stands. We appreciate the Forest Service acknowledging in our meeting that FIA Data is a useful tool, but *only* for determining long-term trends at the landscape level. Therefore, it is important that the Plan make explicit that this data is not applicable for characterizing particular forest stands, or prescribing specific stewardship projects.

The Forest Action Plan displays a histogram of “2015 Forest Land Age Class” on page 25. We understand that a wealth of metrics from permanent FIA data plots throughout New Jersey are used to generate this histogram, and that it has always been a standard forestry procedure. However, given the overriding immediate concern for maximizing the carbon being sequestered in our forest lands, this method of presenting one graph for the entire state is both confusing and misleading. Both ecological trajectory and carbon sequestration potential in any forest is most strongly influenced by the dominant and co-dominant species in the canopy, not by a combined, obscure FIA measure of all species and sizes of canopy and understory trees from young to old in a stand. We need to know the age and ecological trajectories of our forest canopies, not simply a crude amalgam of the age of all the young and old trees in the forest.

In order to confront climate change, we urgently need to accurately predict events in our forest canopies over the next thirty years, especially in our maturing forests.

- Which species dominate the canopy and what are their growth rates?
- For how many years will certain forest types be accumulating carbon at high rates?
- What is the expected rate of gap formation and what species are expected to fill the gaps as they form (obviously the data on saplings, regeneration, deer pressure, and invasive species is crucial to this question).

To be useful in understanding forest trajectories in different regions and landscape types, the FIA data must be segregated based on physiographic provinces, uplands versus wetlands, and forest soils versus post-agricultural soil.

It may not be possible to accomplish this task in time for the submission of this Action Plan, but at the very least, separate histograms should be made for a meaningful division of northern, central, and southern counties. New Jersey’s physiographic provinces are so ecologically distinct that the entire state should not be combined into one histogram.

We understand that New Jersey has been collecting a different data set, called “Site Index” data, which may be much more useful in detailing the age of the canopy trees in different forests throughout the state. It is imperative that this data be made public as soon as possible, in a graphical way, so that accurate policy on carbon sequestration can be developed. If more Site Index data on the age of dominant and co-dominant canopy trees is required to generate the needed metrics regarding carbon sequestration and carbon markets, then collection and dissemination of this data should be the highest priority in the Forest Action Plan.

**5. Greater emphasis and clearer strategy to combat overabundant deer in New Jersey’s forests**

This Forest Action Plan should state that any management prescription that depends on regeneration to achieve its goal must explicitly account for deer herbivory in the plan. This could include the establishment of a deer exclosure, which should include some type of bond to ensure the fencing is maintained and removed when appropriate. Further, the Plan should address the need for a study of local deer density in order to manage and plan regeneration expectations. Stewardship plans that suggest deer will not be a problem, misrepresent the impact of deer in a forest anywhere in the state because of anecdotal evidence, or claim that recreational hunting will reduce densities should no longer be acceptable.

Finally, we appreciate the New Jersey Forest Service and the Department considering our comments and recommendations on the State Forest Action Plan. On behalf of the New Jersey Highlands Coalition and the Highlands Natural Heritage Committee we look forward to building our partnership and working in the best interest of the state’s natural resources and public lands.

Sincerely,

**Julia Somers**, Executive Director, New Jersey Highlands Coalition

**Zachary Cole**, New Jersey Highlands Coalition

On behalf of the New Jersey Highlands Coalition Natural Heritage Committee

**Attached supporting materials and references:**

- *Carbon & Forests: Key Research Papers Bibliography*, NJ Highlands Coalition (2020)
- *Intact Forests in the United States: Proforestation Mitigates Climate Change and Serves the Greatest Good*, Moomaw, W., et al. (2019)
- *Policy Recommendations for Forest Stewardship & Preservation of New Jersey's Public Lands*, NJ Highlands Coalition (2018)
- *Wild Carbon: A Synthesis of findings*, Anderson, M., (2019)