Submitted via email to: Mass.Wildlife@mass.gov

TO: Massachusetts Division of Fisheries and Wildlife
DA: October 9, 2024
RE: Comments on Division of Fisheries and Wildlife FY 2025 planned forest management projects

Thank you for providing this opportunity to comment on the following FY 2025 planned forest management projects, which are listed by the Division of Fisheries and Wildlife (MassWildlife) here:

- Eugene D. Moran WMA Habitat Restoration Project
- Herman Covey WMA Pitch Pine and Oak Woodland Restoration Project
- Mashpee Pine Barrens WMA Woodland Thinning Project
- Myles Standish Complex Pine Barrens Restoration Project
- Quaboag WMA Oak Woodland Restoration Project
- William Forward WMA Red Pine Plantation Removal Project

We have a number of questions and concerns regarding these planned projects.

Our first question is: How are these six projects related to the pending draft comments by MassWildlife on Executive Order 618 (E.O. 618) issued on August 21, 2023 [1], and the subsequent implementation of those comments that we assume will be determined by the Executive Office of Energy and Environmental Affairs (EEA)? We are concerned that these project plans may be premature in light of the many public comments received by your agency, and the fact that a number of the themes repeated throughout the six summaries have been questioned by scientists and other members of the public.

Also, we note that each of the summaries of the projects refers to the report of the Climate Forestry Committee (CFC) [2], which was issued on January 3, 2024. Specifically, each of the project summaries states:

> *"This project was designed to ensure consistency with recommendations for climate-oriented forest management provided by the Climate Forestry Committee…."*

Each summary lists project activities that are claimed to be consistent with the CFC recommendations. However, there is no direct reference to the CFC report to confirm that these activities are, indeed, consistent with these recommendations.

Overall, the project summaries provide broad goals, objectives, management strategies, and rationales that are commonly accepted and used in management plans developed by our state land management agencies. However, these summaries do not provide the detail needed for the public to assess their potential benefits or effectiveness. For example, none of the summaries include a comprehensive inventory

of the species present in the areas, specific cutting plans, or timetables for follow-up assessments of the effectiveness of management strategies. These questions are important within the scientific community and among the public, and we believe they deserve more thought and consideration before a commitment is made to approve these projects.

Many of the project summaries include common claims and planned actions. They also share a lack information on some critical factors. A number of examples are discussed below.

1. Every project summary states:

> *"Biologists plan habitat projects that may include tree cutting, mowing, and mulching to strategically increase open habitats, promote patches of vigorous young forest, restore natural processes, and remove invasive plants."*

Inexplicably missing from this list is prescribed burning. All of the projects are included on the "Upcoming MassWildlife prescribed fire locations" website [8]. However, fire is only mentioned indirectly and generically in the project summaries.

For example, the Mashpee Pine Barrens WMA project summary states:

> *"To facilitate the safe application of prescribed fire for long-term habitat maintenance, this forest thinning will reduce dense pitch pine and lessen its availability as a wildfire fuel in the tree canopy while favoring woodland and shrubland plant species that are adapted to periodic prescribed fire. Trees selected for retention will be chosen based on species, size, and spacing. This project builds on previous thinning and firebreak establishment…."*

Prescribed fires are problematic for a number of reasons. First, there is no credible scientific evidence that fires played a significant role in Massachusetts before the arrival of Europeans. [4][5][6] Prescribed burning creates artificial landscapes that do not exist in natural New England forests.

Second, numerous peer-reviewed scientific studies have concluded that prescribed fires are not effective in reducing fire risk or intensity and cause significant collateral damage:

> *"A large body of scientific evidence and opinion, including from a growing group of U.S. Forest Service scientists, concludes that thinning—including thinning-plus-burning—and post-fire logging/clearcutting increase overall tree mortality and carbon emissions, make wildfires spread faster and/or burn more severely, and our current funding and management focus on tree cutting and removal in wildland forests is putting nearby communities at greater risk."* [7]

Third, beyond questions about its effectiveness, there is scientific evidence that prescribed burning makes areas more vulnerable to invasive species and usually requires constant maintenance with continued burning of these areas. Human-created forest fires are not climate friendly and create harmful air pollution for local residents. The few areas that experienced such fires in the past can be allowed to regenerate through proforestation, creating a diverse forest that will be more drought tolerant, less fire-prone, and beneficial to climate stability. [3][4]

The CFC report does not recommend prescribed burning as a forest management strategy. [2] Three of the members of the CFC reinforced this in comments they sent to Stephanie Cooper, Under Secretary for Environment, and other key officials, stating that:

> *"We are writing out of concern that the Division of Fisheries and Wildlife is continuing to clear forests and advance mechanical treatments and prescribed fire to perpetuate early successional habitat based on faulty information and under false premises."* [5]

For these reasons, we are calling on MassWildlife to end prescribed burning on state-owned lands.

2. Some of the projects are described as pine barrens "restoration." The Mashpee Pine Barrens WMA project summary states that it:

> *"aims to restore pitch pine-scrub oak barrens and improve habitat for numerous rare and declining species of wildlife and plants, including highly specialized butterflies and moths that rely on barrens and cedar swamps…."*

The Herman Covey WMA project summary contends that:

> ***"****Targeted tree removal will create conditions that promote vigorous growth of blueberry heathlands, scrub oak thickets, and grasslands, as well as oak regeneration to provide cover for declining wildlife including ruffed grouse, Eastern whip-poor-will, prairie warblers, and grasshopper sparrows."*
>
> *"This project will also benefit state-listed insects which require pitch pine to complete their lifecycle. Dead oak trees will be removed as a safety precaution to reduce wildfire risk and to protect prescribed fire crew members and MassWildlife staff who occasionally work in the area."*

The summary for the Myles Standish Complex states that it:

> *"contains one of the largest remaining pine barrens in the world. The health of these ecosystems is crucial, as they provide homes for many highly-specialized and declining plants and animals**,** including over 40 species listed under MESA, which are often found only in pine barrens."*

There is no credible evidence that there are any species that need pine barrens restoration in Massachusetts to survive and thrive in their natural range. [4][5] Beyond that, the concept of pine barrens "restoration" is open to question. It has been used to justify logging, burning, mowing, and herbicide use where there is no credible scientific evidence that pine barrens existed before European settlement. For example, a scientific survey of the Myles Standish Complex concluded that this is the case:

> *"In 1984 the Massachusetts Department of Environmental Management asked us to study the vegetation and fire history of Myles Standish State Forest…..*
>
> *"Analysis of pollen preserved in sediments of the two ponds shows that boreal vegetation consisting of jack pine and spruce was present in the area about 10,000 years ago, but the area was covered by white pine and oak forests when the Pilgrims arrived in the early l7th century….*
>
> *"Our results suggest that the present vegetation of Myles Standish State Forest is quite different from the white pine-hardwood forests of pre-colonial times. Land-clearing associated with settlement and extensive fires that have burned during the past two centuries have produced the pine-oak barrens that cover much of the landscape today."* [9]

The pine barrens restorations being done in Massachusetts are uncontrolled experiments. If we are to conduct such experiments, they should be in very limited areas, preceded by comprehensive biological surveys, and then followed by decades of monitoring and assessment to determine whether they are successful. None of the current MassWildlife pine barrens restorations involve this level of evaluation.

For these reasons, we are calling on MassWildlife to end pine barrens restorations.

3. Most of the projects are focused on expanding early successional habit. For example, the Eugene D. Moran WMA summary contends that:

> *"Overstory tree removal will stimulate the growth of dense ground vegetation and hardwood tree saplings that will create high-quality nesting, foraging, and migratory habitat for numerous species, including ruffed grouse, moose, white-throated sparrow, and bobcat. Trees reserved on the site will produce important mast, like fruit and nuts, and nesting cavities for wildlife.*
>
> *"Hand felling of select overstory hardwoods in certain areas will prevent the shading out of important shrub species and will add coarse woody debris habitat on the ground. This will benefit species such as the American woodcock and Canada warbler along with numerous pollinators like native bees. In other areas, hand felling will promote pockets of forest regeneration, which will create a complex and resilient ecosystem that will better support declining forest songbirds like the wood thrush and black throated blue warblers."*

The William Forward WMA summary states that:

> *“These habitats provide cover, food, and nesting sites for declining wildlife including ruffed grouse, Eastern whip-poor-will, Eastern towhee, and black ducks.”*

These species are all common throughout their natural ranges and do not need thinning, forest-clearing, or burning of forests to survive and thrive. A number of the species, such as American woodcock, ruffed grouse, black duck, and bobcat, are clearly not endangered because they are actively hunted.

In their letter to Under Secretary Cooper, the three members of the CFC confirmed that this creation of artificial early-successional habitats is not supported by credible scientific evidence:

> *"As you may recall, the Committee on Forests and Climate (CFC) raised strong concerns in its report and in discussions with agency heads over the practice of creating early successional habitat through artificial means that reduce forest area and prevent natural forest regrowth. The arguments behind this opposition are based on extensive peer-reviewed literature that shows that (1) early successional habitat of grasslands, shrublands, and young forests is an artifact of Colonial deforestation and environmental degradation; (2) the practices employed by DFW are completely inconsistent with the historical (colonial) practices that created extensive open lands and thus are creating a novel form of artificial habitat; and (3) the creation and maintenance of these habitats decreases the extent of natural forest cover thus harming native biodiversity and reducing the carbon storage and climate mitigation potential of the state.”*[5]

In light of these factors, we recognize that it is reasonable to conduct comprehensive, controlled research experiments related to early-successional habitats and species. However, they should be limited in scope and focused on lands that have existing open habitats. [2][4]

4. MassWildlife contends that its forest management projects are “carefully planned and implemented to create, restore, and maintain healthy habitats to increase biodiversity and climate resilience.” [8]

There may be many historical reasons for MassWildlife’s current land management strategies in the WMAs, which is heavily focused on creating early-successional habitat that expands populations of game and other favored wildlife species. But we request that the agency acknowledge and incorporate this conclusion of the Climate Forestry Committee:

> *“Unsurprisingly, disturbing the forests of Massachusetts as little as possible and allowing forests to grow and age through passive management is generally the best approach for maximizing carbon, ecological integrity, and soil health.”* [2]

5. As noted above, each of the summaries of the projects includes a section titled "Climate Considerations," which states:

> *"This project was designed to ensure consistency with recommendations for climate-oriented forest management provided by the Climate Forestry Committee…."*

For each of the listed considerations that are claimed to be consistent with the CFC report, we contend that they are either inconsistent with the conclusions of the CFC report, or are scientifically controversial and were strongly argued against by members of the Committee. For example:

> A. Eugene D. Moran WMA project summary: "select removal of overstory trees to promote a forest with diverse age classes, species composition, and structure that enhances overall forest resiliency"
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> The CFC report does not support this: "Some argued vociferously that the long history of forest change and recovery from historic changes in climate and natural and human disturbances indicate that little or nothing needs to be done to make forests more resilient." [2, page 35]
>
> B. Eugene D. Moran WMA project summary: "retention of specific trees that support biodiversity (e.g. large dead trees, cavity trees, diverse tree species mix)"
>
> As noted above, the CFC report found that: "Unsurprisingly, disturbing the forests of Massachusetts as little as possible and allowing forests to grow and age through passive management is generally the best approach for maximizing carbon, ecological integrity, and soil health." [2, page 4]
>
> C. Eugene D. Moran WMA project summary: "partial cutting via small group selection that will store carbon on the landscape for extended periods and improve growth and carbon sequestration rates on remaining trees"
>
> The CFC report states that **"**The Committee generally agreed that passive management confers greater increases in carbon stocks than active, and that allowing forests to grow and age is typically best to maximize carbon storage." [2, page 6]
>
> D. Herman Covey WMA project summary: "tree thinning that will restore open woodland conditions and promote growth of native herbs, shrubs, and trees that are more resilient to drought and harmful insects"
>
> Again, from the CFC report: "Some argued vociferously that the long history of forest change and recovery from historic changes in climate and natural and

human disturbances indicate that little or nothing needs to be done to make forests more resilient." [2, page 35]

E. Quaboag WMA project summary: "prioritizing and maintaining at-risk species and habitats that are under pressure from climate change"

From the CFC report: "Unsurprisingly, disturbing the forests of Massachusetts as little as possible and allowing forests to grow and age through passive management is generally the best approach for maximizing carbon, ecological integrity, and soil health." [2, page 4]

F. Herman Covey WMA project summary: "restoring fire-influenced ecosystems that provide reliable carbon stocks currently and into the future as compared to fire-excluded forests vulnerable to severe and intense wildfires."

The CFC report does not recommend "restoration" of "fire-influenced ecosystems," nor does it conclude that prescribed fires are a net positive carbon advantage.

G. Mashpee Pine Barrens WMA project summary: "reintroducing low-intensity prescribed fire to promote resilient native vegetation"

The CFC report does not recommend the use of prescribed fire.

H. Myles Standish Complex project summary: "thinning to decrease tree density reducing vulnerability to wildfire, harmful insects, like the southern pine beetle, (and drought)"

The CFC did not make recommendations regarding thinning to reduce wildfire.

I. Myles Standish Complex project summary: "restoring native species that are best adapted to the site promoting resilience to future drought, wildfire, and harmful insects"

The CFC report did not refer to management to promote resilience to wildfire.

J. Myles Standish Complex project summary: "thinning to prepare the site for the reintroduction of low-intensity fire to promote resilient native vegetation"

The CFC did not refer to the "reintroduction of fire. Reference to the "reintroduction of low-intensity fires" suggests that these fires were historically common. There is little to no evidence that this was the case on any substantial scale. In fact, there is significant evidence to the contrary. [4][6]. As the CFC report states:

> *"The history of the Massachusetts landscape should be considered when establishing land management goals, because current forest cover is*

> *significantly altered and very different from that found centuries ago."* [2, page 26]

Accordingly, if we seek to restore a natural fire regime in Massachusetts, prescribed burning is not appropriate and should be discontinued on public lands.

K. William Forward WMA product summary: "removal of conifer plantations and restoration actions designed to promote growth of native plants that are less vulnerable to pests, pathogens, invasive plants, and risks associated with drought, catastrophic wildfire, and other severe disturbances"

To reiterate this point from the CFC report:

> *"Unsurprisingly, disturbing the forests of Massachusetts as little as possible and allowing forests to grow and age through passive management is generally the best approach for maximizing carbon, ecological integrity, and soil health."* [2, page 4]

Active management to restore native plants is usually not necessary or beneficial. It should be done on a very limited basis, if at all. Allowing forests to recover naturally through proforestation is the best way for native species to adapt and proliferate. The removal of conifer plantations is not necessary, or beneficial, because natural succession leads to the recovery of native forest species, whereas removal through active management releases large amounts of carbon and results in significant damage due to heavy equipment and logging operations.

In conclusion, we urge MassWildlife to adopt a policy of protecting all mature forests and allowing them to grow back and recover old-growth forest characteristics through proforestation. [3][4] There is no credible scientific evidence that any species requires the clearing of standing forests in Massachusetts to survive or thrive in its natural range, but ample evidence that such forest-clearing reduces long-term carbon sequestration and storage. [4]

Additionally, we recommend that MassWildlife extend the comment period on these projects. There was little public notice and most concerned citizens are unaware of the projects. Moreover, the project summaries do not provide enough detail for the public to comment from a full understanding of the potential benefits and costs of each project.

We look forward to the agency's response to our questions, concerns, and recommendations.

References

[1] Governor Maura Healey (August 21, 2023). Executive Order No. 618: Biodiversity Conservation in Massachusetts. https://www.mass.gov/executive-orders/no-618-biodiversity-conservation-in-massachusetts

On September 21, 2023, Governor Maura Healey issued Executive Order No. 618: Biodiversity Conservation in Massachusetts (E.O. 618).[1] E.O. 618 declares that "biodiversity conservation is a priority for the Healey-Driscoll Administration." The order directs the Department of Fish and Game (DFG) to "conduct a comprehensive review of the existing efforts of all executive department offices and agencies to support biodiversity conservation in Massachusetts" and to "recommend biodiversity conservation goals for 2030, 2040, and 2050 and strategies to meet those goals."

[2] Executive Office of Energy and Environmental Affairs (January 3, 2024). Report of the Climate Forestry Committee: Recommendations for Climate-Oriented Forest Management Guidelines. https://www.mass.gov/doc/forests-as-climate-solutions-climate-forestry-committee-report-final/download

[3] Moomaw et al, (2019). Intact Forests in the United States: Proforestation Mitigates Climate Change and Serves the Greatest Good. https://www.frontiersin.org/articles/10.3389/ffgc.2019.00027/full

[4] Kellett et al. (2023). Forest-clearing to create early-successional habitats: Questionable benefits, significant costs. https://www.frontiersin.org/journals/forests-and-global-change/articles/10.3389/ffgc.2022.1073677/full

[5] Foster et al. (2024). Clearing forests by DFW for early successional habitat is not appropriate for protecting biodiversity and is detrimental for meeting climate carbon net zero goals. https://tinyurl.com/yc33xxbf

[6] Oswald et al. (2020). Native people did not use fire to shape New England's landscape. https://theconversation.com/native-people-did-not-use-fire-to-shape-new-englands-landscape-129429

[7] John Muir Project. (2024) "Fuel Reduction" Logging Increases Wildfire Intensity and Puts Communities at Greater Risk. https://johnmuirproject.org/wp-content/uploads/2024/07/JMP-fact-sheet-thinning-and-fire-15July24.pdf

[8] Division of Fisheries and Wildlife (2024). Upcoming MassWildlife prescribed fire locations (website) https://www.mass.gov/info-details/upcoming-masswildlife-prescribed-fire-locations

[9] William A. Patterson III and Andrew E. Backman (1984?) Myles Standish State Forest - From the Ice Age to the Present. Department of Forestry and Wildlife Management University of Massachusetts, Amherst. https://www.umass.edu/nebarrensfuels/publications/pdfs/Miles_Standish_paleo.pdf

Sincerely,

Michael Kellett
RESTORE: The North Woods
Lincoln, Massachusetts

Janet Sinclair
Save Massachusetts Forests
Shelburne Falls, Massachusetts

Jason Kahn
Board President
The Rewilding Institute
Amherst, MA

Lynne Man
Lunenburg, MA

Chris Matera
Founder
Massachusetts Forest Watch
Statewide

Don Ogden
The Enviro Show
Statewide

Zack Porter
Executive Director
Standing Trees
New England-wide