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TO: Massachusetts Department of Conservation and Recreation
DA: October 31, 2024
RE: Comments on the proposed Watershed Forestry Project Proposals for Fiscal Year 2025

Thank you for providing this opportunity to comment on the Massachusetts Department of Conservation and Recreation (DCR) proposed Watershed Forestry Project Proposals for Fiscal Year 2025 (2025 Forestry Proposals). [https://www.mass.gov/info-details/dcr-watershed-forestry-projects]

We strongly oppose all of these projects because DCR has not provided any credible scientific evidence that they are necessary or beneficial and there is ample evidence that logging has negative impacts, which include worsening climate change, fragmenting wildlife habitats, increasing soil erosion, degrading wetlands, releasing air and water pollution, and displacing nature-based recreation.

The three watersheds, Quabbin, Ware and Wachusett comprise 95,781 acres of land administered by the Department of Conservation and Recreation's Division of Water Supply Protection (DWSP). The proposed logging projects would affect approximately 1,500 acres of forest.

The history of the watershed lands is typical of many forested areas in Massachusetts. Approximately 85% of forests were cleared for agriculture by 1850, and as farms were abandoned, large areas of forest grew back. The public watersheds have the unique history of being acquired through eminent domain in the early 1900s to allow the creation of water supply reservoirs. Since then, the forests surrounding these reservoirs have been growing back — some for 100 years or more.

The management of Massachusetts public watersheds closely matches that of state forests. These forests have been managed according to the demands of competing interests — logging for timber and forest products, public recreation, conservation to maintain forested areas and, in rare cases, preservation as wildlands. This "multiple-use" management has been actively for many decades by state agencies, educational institutions, large land trusts, the timber and wood products industries, and their political allies.

In June 2023, the Healy Administration launched the Forests as Climate Solutions Initiative to assess role of forests in addressing climate change and achieving net zero greenhouse gas emissions. As a part of this initiative, Governor Healey instituted a moratorium on logging on all state-owned lands — including public watershed forests. The purpose was to provide a pause in forest management to evaluate the role of forests in mitigating climate change and the climate impacts of current logging and other forest management practices.

The Governor also convened a 12-member Climate Forestry Committee (CFC) of experts to recommend new climate-oriented forest management guidelines. The report of this committee was issued in January 2024. [https://www.mass.gov/doc/forests-as-climate-solutions-climate-forestry-committee-report-final/download]

The 2025 Forestry Proposals include identical or similar claims regarding the need for, and benefits of, logging in public watersheds. All of the proposals contend the following:

"Climate Change Considerations: DWSP has determined that the decision to implement this project is consistent with EEA climate goals and guidelines and agency land management objectives. Carbon and climate change considerations specific to the activities proposed for this project are discussed below."

However, the claims made for these projects are largely inconsistent with the findings and conclusions in the CFC report as well as with credible peer-reviewed science. The following provides a sample of these inconsistencies.

DCR STATEMENTS, CFC REPORT RECOMMENDATIONS, OUR COMMENTS

1. Forest Resistance and Resilience to Disturbance

DCR Statements:

"DCR-DWSP conducts timber harvests on less than 1% of the forest per year in order to achieve that objective, which is accomplished by fostering forest health and diversity at all levels, resulting in communities of vigorous, healthy trees of multiple species and at various stages of development (seedlings through large legacy trees). Species diversity improves resistance by reducing canopy loss in the event of major disease or insect outbreaks, because most such forest health issues target a limited selection of species. Age diversity ensures that even if the taller trees are blown over by high force winds, younger trees will be present to continue to hold the soil. [https://www.mass.gov/doc/dcr-dwsp-forestry-proposal-pt-25-09/download]

"DWSP's working hypothesis is that the new makeup of the forest will help ease the damage caused by inevitable future severe weather events, outbreaks of disease, and insect infestations." [https://www.mass.gov/info-details/dcr-watershed-forestry-program]

CFC Report:

"The [DCR] Division [of Water Supply Protection] acknowledged to the Committee that active forest management is not necessary to maintain an abundant and clean water supply." [p.42]

"Some [on the CFC] 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." [p.35]

Our Comments:

DCR refers to the idea that logging in watersheds is beneficial as a "working hypothesis." However, there is no equivalent unlogged watershed to compare whether this hypothesis valid or erroneous. This is an uncontrolled experiment that is causing major impacts on watersheds with no credible scientific evidence that it is necessary or beneficial. Indeed, the CFC reports that DCR staff admitted that "active forest management is not necessary to maintain an abundant and clean water supply." It is time to end this unnecessary and harmful experiment and protect all watershed forests as reserves that have the resistance and resiliency provided by natural forests.

2. Protecting Water Quality

DCR Statements:

"The primary goal for this harvest is to improve forest health, resilience, and structural diversity of the forest for the continued provision of outstanding quality drinking water." [https://www.mass.gov/doc/dcr-dwsp-forestry-proposal-pt-25-09/download]

"The Division of Water Supply Protection (DWSP) is determined to protect our water resources for future generations. Forest cover provides unparalleled water quality….

"More than 1,000 timber harvests have been conducted over the last 50 years on DWSP lands, and our monitoring has shown no decreases in water quality related to these harvests. The DWSP water supply remains among the cleanest and purest in the world."
[https://www.mass.gov/info-details/dcr-watershed-forestry-program]

CFC Report:

"[Some] Committee members argued that abundant ecosystem science shows that there is no reason for the Division [of Water Supply Protection] to actively manage forest land to produce clean water. 66 They argue that forest development and natural disturbances will lead to increasingly diverse structure to these forests and that the benefit of future old-growth forests is great. While agreeing that limited wood production can occur without adverse impact on the provision of abundant clean water, they prefer that this, rather than "resilience" be the stated management objective. A few also argued that active management should not occur at all given the carbon density of land managed by Watershed Division around the Quabbin Reservoir (see Figure 2) and the need to sequester and store more carbon to address climate change….

"The Committee recommends that the Commonwealth articulate its rationale for active forest management, particularly regarding the Quabbin Watershed, given perceived

lack of clarity over time and in representations by different responsible entities. The Division [of Water Supply Protection] acknowledged to the Committee that active forest management is not necessary to maintain an abundant and clean water supply."

Our Comments:

DCR states that "Forest cover provides unparalleled water quality." The agency claims that their watershed logging projects ensure "continued provision of outstanding quality drinking water." However, DWSP admitted to the CFC that "active forest management is not necessary to maintain an abundant and clean water supply." Indeed, because the logging program is an uncontrolled experiment, DCR has no way to know if water quality would be higher if the forest were protected instead of logged. The agency should protect all watershed forests as reserves that are off-limits to logging and ensure the critical forest cover needed to provide "unparalleled water quality."

3. Carbon and Climate Considerations

DCR Statements:

"The primary purpose of forest management by the DCR Division of Water Supply Protection is to maintain and improve the watershed forest resilience, i.e. the ability to resist and recover quickly from major disturbances, including climactic events such as hurricanes, tornados, microbursts, prolonged drought or excessive rainfall, as well as severe disease or insect infestations.

"DCR-DWSP conducts timber harvests on less than 1% of the forest per year in order to achieve that objective, which is accomplished by fostering forest health and diversity at all levels, resulting in communities of vigorous, healthy trees of multiple species and at various stages of development (seedlings through large legacy trees). Species diversity improves resistance by reducing canopy loss in the event of major disease or insect outbreaks, because most such forest health issues target a limited selection of species. Age diversity ensures that even if the taller trees are blown over by high force winds, younger trees will be present to continue to hold the soil.

"These measures, taken for the purpose of maintaining high quality drinking water in perpetuity, are also highly adaptive for climate change in that they increase forest carbon resilience, the maintenance of both carbon sequestration and carbon storage over time, and climate resilience, the ability of a forested ecosystem to survive and thrive despite major disturbances.

"Specifically, this harvest will improve carbon and climate resilience by:

"Enhancing carbon sequestration:

- *o Initiating regeneration (fast-growing young trees) by increasing sunlight to the forest floor*

o Thinning to increase growth rates of mature trees.

"Protecting forest carbon:

o Retaining large legacy trees for their full lifespan

o Retaining the healthiest, most vigorous (fastest growing) trees.

o Installing water bars to prevent loss of soil carbon to erosion.

[https://www.mass.gov/doc/dcr-dwsp-forestry-proposal-pt-25-09/download]

"Through the application of sound, sustainable, watershed forest management techniques, DWSP-owned forested lands are deliberately managed to promote age, size, and species diversity – all key features that make up a climate-resilient forest.

"DWSP's forest management provides these forest types:…

"Rapidly growing forest. Trees in their actively growing prime accumulate biomass faster than older trees, pulling carbon dioxide from our atmosphere and locking it into wood." [https://www.mass.gov/info-details/dcr-watershed-forestry-climate-resiliency-and-carbon]

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." [p.4]

"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." [p.6]

"They concluded that the most important way to preserve soil carbon is to allow forests to mature naturally...." [p.6]

Our Comments:

The claim that logging maintains and increases forest resilience and carbon sequestration and storage is not based on credible science. Instead, there is ample evidence that logging releases most of the carbon in trees that are cut, fragments habitats, spreads invasive species, erodes soils, degrades wetlands, and releases air and water pollution. As the CFC concludes, the best way to "maximize carbon, ecological integrity, and soil health" is to leave the forest alone. DCR should follow the committee's guidance and allow watershed forests to "mature naturally."

4. Reserves

DCR Statements:

"More than 20,000 acres (20%) of the DWSP watershed holdings have been set aside in large and small Reserves. DWSP has worked closely with Natural Heritage and Endangered Species Program staff to develop Wildlife Conservation Management Practices for the protection of habitats and rare species during land management operations." [https://www.mass.gov/info-details/dcr-watershed-forestry-program.]

CFC Report:

"Expand the number and size of reserves, potentially to 10% of Massachusetts forests conserved and managed as reserves, a level consistent with the Wildlands, Woodlands, Farmlands, and Communities goal. o Some Committee members suggested 30%, citing IPCC recommendations regarding climate and biodiversity.

"Codify reserves on state land to provide a higher level of protection than the administrative designation that currently applies." [p.48]

"As before, designate and manage some of the most biologically productive forests as reserves to prioritize carbon accumulation (and realize other important objectives like the provision of mature forest habitat) and others as parklands and woodlands.

"Consider the existing density of carbon on the landscape as part of an effort to designate reserves that will 'maintain the ecological integrity and biodiversity that will accumulate and store the most carbon.'

"The CFC recognizes that establishing reserves advances multiple land management objectives including carbon sequestration and provision of old growth forest habitat." [p. 49]

Our Comments:

DCR claims that more than 20,000 acres of DWSP watershed lands are reserves. However, the agency has not provided a list of these areas, a map to locate them, or guidelines to ensure their protection and management. There is no assurance that these areas are protected from logging or other harmful activities. This is especially concerning, in light of the intensive and widespread logging happening on watershed lands. The public has no know way to know if proposed logging projects are adjacent to reserves and could potentially undermine their protection. This lack of transparency is unacceptable and the agency needs to immediately provide full and accurate information on the location, management, and long-term integrity of all reserves.

5. Wildlife Habitat and Biodiversity

DCR Statements:

"Through the application of sound, sustainable, watershed forest management techniques, DWSP-owned forested lands are deliberately managed to promote age, size, and species diversity – all key features that make up a climate-resilient forest.

"DWSP's forest management provides these forest types:

"Young forest. Patches of seedlings and saplings, often more diverse than the surrounding mature forests, are less susceptible to large wind events. Providing a continuous, rotating mosaic of these patches plays an important role in diversifying available wildlife habitat while establishing the next forest.
[https://www.mass.gov/info-details/dcr-watershed-forestry-climate-resiliency-and-carbon]

CFC Report:

"The CFC recommends establishing habitat goals that place less emphasis on early successional [i.e., young forest] habitat and more emphasis on late successional habitat and the development of old-growth forest characteristics.

"Increase the goal for late successional and old-growth habitat, which is associated with carbon storage and is greatly underrepresented on the landscape compared to the historic amount.

"Reduce the goal for early successional habitat (e.g., grasslands, shrublands, young forests) given the current goal's carbon implications, which include foregoing the climate benefit of sequestration by continually maintaining land as grassland or another early successional habitat." [p. 28]

Our Comments:

DCR presents the creation of "young forest" (i.e., early-successional forest) as a result of past logging as if this is a net benefit to biodiversity. However, as the CFC report notes, there is no shortage of such habitats in Massachusetts, while there is a shortage of mature and old-growth forest habitats. The logging being done on watershed forests is removing mature forests that would become old-growth habitats if left to grow and achieve their full ecological potential. DCR should follow the CFC recommendations and increase the goal for late-successional and old-growth habitat. The best way to do this is to halt the logging program and protect these forests as reserves.

6. Cumulative Impacts of Logging in Watersheds

DCR Statements:

"DCR-DWSP conducts timber harvests on less than 1% of the forest per year…. [https://www.mass.gov/doc/dcr-dwsp-forestry-proposal-pt-25-09/download]

"More than 1,000 timber harvests have been conducted over the last 50 years on DWSP lands…." [https://www.mass.gov/info-details/dcr-watershed-forestry-program]

CFC Report:

"DCR DWSP holds over 96,000 acres of forest land and has harvested an average of 524 acres annually (0.54%) since 2006. Within the Quabbin and Ware River watersheds harvesting removed the equivalent of approximately 24% of growth from 2001 to 2020." [p. 19]

Our Comments:

DCR gives the public the impression that only a small amount of watershed forests is logged by failing to mention or assess the major cumulative impacts of ongoing annual logging. At least 10% of the Quabbin and Ware River watersheds have been logged since 2006 and at least 24% of timber volume has been removed since 2001, much of this through "patch" clearcutting. This no doubt has significant impacts, such as carbon release, forest fragmentation, spread of invasive species, and other damage. At the current rate of logging, the vast majority of these watersheds could be logged over the next 100 years or less, leaving virtually no trees older than 100 years of age. Yet individual logging projects are planned without consideration of their cumulative impacts. Considering the intense and widespread damage already caused by watershed logging over many decades and a lack of a credible scientific basis for such logging, DCR should halt this program immediately and protect all public watersheds as reserves.

CONCLUSION

For all the reasons cited above, we are calling on DCR/DWSP, EEA and the Healy Administration to end the watershed logging program and declare the Quabbin, Ware, and Wachusett watersheds as permanently protected reserves, with protection standards similar to our National Parks and Adirondack Park in upstate New York — which is the watershed area for New York City.

References

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

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