



Legislative Affairs

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Mr. Michael J. Fleming, Regional Planner
Department of Conservation & Recreation
Bureau of Forestry
180 Beaman Street
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and via e-mail: mike.fleming@state.ma.us

Re: Draft Landscape Assessment and Forest Management Framework for the Berkshire Ecoregions

Dear Mr. Fleming:

On behalf of Mass Audubon, I submit the following comments on the *draft Landscape Assessment and Forest Management Framework for the Berkshire Ecoregions* (Berkshire Ecoregions Assessment).

The land area encompassed by this assessment covers over one million acres of land, or 22% of the Commonwealth. This region provides some of the best opportunities to protect intact ecosystems and habitats in Massachusetts. Within the region, 285,000 acres are permanently protected from development, and the Statewide Land Conservation Plan calls for protection of another 340,500 acres of land in this region over the next twenty years. State agencies are by far the largest holder of protected land in the region, owning or holding conservation restrictions on about 200,000 acres of land. Mass Audubon appreciates the leadership exhibited by the Commonwealth in preparing comprehensive landscape-scale plans such as the Berkshire Ecoregions Assessment and the Statewide Comprehensive Wildlife Conservation Strategy that recently underwent public review. **We encourage the state to quickly designate the proposed large forest reserves, and to work aggressively toward implementing other habitat protection goals and recommendations outlined in these and other related documents.** Mass Audubon remains committed to working with the Commonwealth to integrate and implement these strategies for protection of Massachusetts' most important natural assets.

Summary Comments:

The Commonwealth's landscape-scale ecoregional planning in connection with the Forest Stewardship Council's Green Certification of forestry practices on state lands is laudable. The ecoregion assessments that are being prepared provide a broad foundation for site-specific management plans. The draft document is an impressive compilation of information from various sources and programs, weaving together what have previously been considered separate topics into a quite useful overview of regional forestland resources, conditions, issues, and management recommendations.

The final document should make stronger links between some identified issues of concern (e.g. rare species, invasive species, ATVs) and recommended forest management practices, especially for state lands.

We also note that plans and action recommendations are only useful to the extent the agencies have the resources to implement them. Adequate funding is needed for all aspects of state lands management and management planning, and we will continue to actively support funding for DCR and MassWildlife in the state budget process.

We understand that progress is being made within the Department of Conservation and Recreation (DCR) regarding how forestry related planning will be integrated with the comprehensive management plans for DCR lands required under MGL Ch. 21 S. 2F. The draft Berkshire Ecoregions Assessment is silent on this topic and does not address our previously submitted comments (attached). The final report should provide a clear description of how these processes are being coordinated. The final document should also be submitted to the DCR Stewardship Council and MassWildlife Board for endorsement.

Mass Audubon strongly supports the proposed formal designation of small and large forest reserves on state-owned properties. Six of the eight largest reserves are located within the Berkshire ecoregions. The maps depicting the proposed reserves should be incorporated into the final Berkshire Ecoregions Assessment. We support designation of all of these proposed reserves as a starting point, while noting that none of the state landholdings for these reserves presently meet the minimum size target of 15,000 acres. The state will need to undertake substantial additional land protection initiatives in coordination with nonprofit land trusts, municipalities, and landowners to achieve the full intention of the Executive Office of Environmental Affairs' (EOEA) forest reserve proposal. Mass Audubon also encourages the Commonwealth to embrace the larger, long-term vision outlined in Harvard Forest's (a research arm of Harvard University) recent report, *Wildlands and Woodlands: A Vision for the Forests of Massachusetts* (see: <http://harvardforest.fas.harvard.edu/wandw/>).

Landscape Approach to Forest Protection and Management

One of the most important aspects of this ecoregional approach is the recognition that the landscape in the Commonwealth is becoming increasingly fragmented, and that relatively few large blocks of forest remain uninterrupted by roads and development. This concern is further exacerbated by increasing parcelization of ownership. Even where large forest blocks remain functionally intact, their future is increasingly uncertain due to diverse ownership by many different parties and increasing development pressures. While much of the land in the Berkshires remains undeveloped, opportunities to protect large, functionally intact areas of forest must be pursued soon or be lost forever. The Berkshire Ecoregions Assessment recognizes these threats and describes the Statewide Land Conservation Plan, which if implemented will protect the most important lands through a combination of techniques.

Together, DCR and MassWildlife own over 500,000 acres of land across the Commonwealth that is protected from most forms of development. In the five Berkshire ecoregions, these agencies own or hold Conservation Restrictions on over 200,000 acres of land. Clearly the Commonwealth's decisions about how it manages this land will have an important bearing on a host of public benefits that flow from forestland including: wildlife habitat, water quality, air quality, fishing and hunting, other forms of recreation, quality of life, tourism and associated economic benefits, sustainable forest products, etc. By setting a good example of sustainable forestry integrated with other public uses, the Commonwealth can help encourage other landowners and municipalities to follow the lead and undertake similar land protection and management efforts. We also support efforts by the state to directly protect land, increase participation in and improve Chapter 61/61A, and take other measures to maintain a working forest landscape surrounding large forest reserves and other state-owned forestlands.

Forest Reserves

Mass Audubon applauds EOE and DCR for proposing the designation of large forest reserves. We strongly encourage the state to include the maps for the six proposed Berkshire reserves in the final Berkshire Ecoregions Assessment, and to quickly make official administrative designations of all eight of the proposed reserves statewide. We also understand that numerous smaller reserves will also be designated within individual properties to protect special features such as old-growth forests, wetlands and streams, steep slopes, and rare and sensitive habitats. Within the reserves, forests will be allowed to mature naturally and new roads and motorized vehicles will be excluded. These reserves will provide a variety of benefits including:

- development of structurally complex forest areas containing late successional and old growth characteristics habitat for species that thrive in large areas undisturbed by human activities;
- reference areas for scientific comparison to actively managed forests; and
- recreational and scenic values.

Furthermore, while the eight proposed forest reserves and accompanying management planning process represent a significant achievement for our public lands, Mass Audubon encourages EOE, DCR, and MassWildlife to think and act even more boldly. Harvard Forest's *Wildlands and Woodlands...report* makes a compelling case for substantial additional forest reserves on state lands, as well as an aggressive program to protect half of the forestland in the state from development by the year 2050.

The Harvard Forest report also calls for the establishment of 15-20 large wildland reserves that would encompass 250,000 acres, predominately on existing state forestland. Managed woodlands would compromise the remaining state-owned forests and an additional 1.5 million of privately-owned forestland, totaling 2.25 million acres. As documented in Mass Audubon's award-winning report *Losing Ground: At What Cost?* (see <http://www.massaudubon.org/advocacy/news.php?id=19&type=news>), Massachusetts is losing nearly 40 acres of forestland per day to development, and remaining forests are being fragmented into smaller pieces. Both wildlife habitat and opportunities for local production of wood products are threatened by these trends. Mass Audubon strongly supports this ambitious vision of Harvard Forest. We encourage the Commonwealth to go above and beyond their current plans for forest reserves and forestland protection efforts, in a manner consistent with the Harvard Forest proposal.

In addition to the proposed large reserves, substantial additional state-owned forestlands deserve to be designated as reserves. Old-growth forest stands, continuously forested areas that have never been clearcut, steep slopes, areas adjacent to wetlands and ponds, rare and fragile habitat types, and sites of special scenic or recreational significance are some of the areas that should be excluded from timber cutting. Some of the sites on state lands deserving recognition as forest reserves are small, while others are substantial.

We think it is premature for the state to set a target such as 20% of the lands to be reserves and 80% for active management, prior to evaluation of all of the relevant lands. Areas that have characteristics deserving of full protection as small reserves should be protected regardless of whether the 20% target is ultimately exceeded. The Commonwealth owns virtually all of the old growth in the state, many of the largest remaining blocks of unfragmented forest and pre-1830s forests, and the largest number of occurrences of rare species of any single landowner. Protection of these and other sensitive resources, combined with needs to accommodate a range of recreational uses and scenic values should supercede any desire to meet an arbitrary target for percentage of lands to be actively managed. Three-quarters of the forestland in the Commonwealth is in private ownership. The majority of timber harvesting should occur there. This comment should not in any way be taken to mean that Mass Audubon opposes the application of good sustainable forestry on state lands. We strongly support active, sustainable management where appropriate. We question as to whether or not 80% is the appropriate target for active management of state-owned lands. The site-specific planning process should be carried out and the final acreages determined based on all resource values not predetermined percentages.

The draft Berkshires Ecoregions Assessment has a placeholder for inserting information regarding old growth forests. A well-researched inventory is available from Robert Leverett, who has consulted extensively with scientists at Harvard Forest and other universities. This information should be included in the final report, and all old-growth forests as well as substantial areas of surrounding forest should be protected as reserves. We also note that the 1830's maps which Harvard Forest has compiled are acknowledged in the draft Berkshires Ecoregions Assessment (Figure 19) as another good source of information on older, less disturbed forests. Most of these sites on state lands should also be treated as reserves except in locations where it is obvious that the old intact forests are no longer present. No maps from the 1830s are available for some two dozen communities in the Berkshires, some of which clearly have large areas that were never developed or utilized in any intensive manner. Therefore, while the 1830s maps should be used where they are available, DCR and MassWildlife should find other ways to protect forests of similar age in the other communities. Generally, forests on state lands over 150 years in age with well developed structure and little or no signs of invasive species should not be subjected to forest management unless there is some compelling reason to undertake very selective management on a specific site.

The forests of Mohawk, Savoy, and Monroe State Forests are some of the most exemplary in the state, yet are not mentioned in the draft Berkshire Ecoregions Assessment as they should be. Species like white ash, white pine, sugar maple, and northern red oak exhibit extraordinary height and growth performance in these forests. The largest individuals in the state of 15 or more species of trees grow in these forests, including white pines more than 160 feet tall. These trees would be impressive in any woodland, but they are even more extraordinary as they are often found on steep slopes. Mohawk Trail and adjacent Savoy Mountain State Forests should incorporate at least a 5,000-acre reserve including 800 acres of old-growth forest. Monroe State Forest has about 2,500 acres deserving reserve designation, of which about 250 acres is old-growth.

With less than 3,000 acres of old-growth forest in Massachusetts, existing stands are small, scattered, and highly susceptible to destruction by catastrophic storms or other disturbances - unless they are protected along with adjacent forests that have the capacity to become future old-growth, and surrounding buffer area that is of the size, character, and configuration to protect the old-growth stands. Protecting these old-growth forests is essential and would provide ecological benchmarks or scientific reference for assessing the effects of active management on the biological diversity of other Commonwealth forests.

Forestland Values and Economics

While sustainable forestry practices are an important part of an overall program designed to protect the public benefits associated with public and private forestlands, economic calculations should consider more than the direct harvest value of trees. The very small quantities of revenue that will be lost to municipalities from designation of forest reserves on state-owned lands is more than offset by the ecosystem service values provided by those forests. Local economies could also benefit directly if the state works with municipalities to make the forest reserves ecotourism destinations, with associated businesses located on nearby private properties to serve visitors. Bed and breakfast and other accommodations, and small businesses that support a wide range of compatible outdoor activities such as hunting, fishing, hiking, birdwatching, cross-country skiing, and kayaking could generate tax income far in excess of the few thousand dollars that would be generated by stumpage fees from tree harvesting. Furthermore, a comprehensive approach to landscape level forestland protection should incorporate these and other possibilities for enhancing rural economic benefits associated with working forests on private lands. If the forests' only values are considered to be logs or development sites, highgrading and land development will continue to threaten the resource. If the full range of forestland benefits can be better understood and utilized, then more landowners will be interested in maintaining their land in forest use over the long term.

Forest Issues and Management Recommendations (Section VIII)

Overall, the draft report does a good job of linking important forest issues with land protection and management recommendations. However, we do recommend some clarification in certain respects. The final document should make stronger links between some identified issues of concern (e.g. rare species, invasive species, ATVs) and recommended forest management practices, especially for state lands.

Issue #1: Conservation of Biological Diversity

Sub-issue 1.1 *Rare Species*: Proposed forest cutting operations on mapped habitat of state-listed rare species are subject to review and conditioning by the Natural Heritage and Endangered Species Program (NHESP). DCR, MassWildlife, and NHESP are also developing Conservation Management Practices for the listed species that are most frequently involved with these reviews. These are beneficial steps, which Mass Audubon supports. However, it should be noted that not all actual rare species habitat has in fact been mapped by the NHESP. The Berkshire ecoregion contains very high densities and numbers of rare species occurrences. Given the presence of calcareous soils and other special features supporting rare natural community types in this region, it is likely that many unmapped rare species sites actually exist. In planning for forestry and other active uses of DCR and MassWildlife lands, procedures are needed to identify probable rare species habitats. The development of the site-specific management plans should be coordinated with NHESP. Unmapped probable rare species habitats should then be protected either through designation as a small reserve or through special conditions for forestry operations. Particular care should be exercised before altering any of the community types in **Appendix VI. *Listed species and natural communities known to occur in the Berkshire Ecoregions***. We also encourage DCR and MassWildlife to go above and beyond the minimum Forest Cutting Program regulatory requirements for wetlands and associated filter strips. Vernal pools should be protected on state lands regardless of whether or not they are certified.

Sub-issue 1.3: *Late Successional Habitat (Forest Reserves and Extended Rotations)* The assessment notes that there is a lower than desired amount of late-successional forest and old/large trees across the landscape. Mass Audubon supports actions proposed in the assessment which will help address this issue, including the establishment of both large and small reserves and the application of selective cutting methods and retention of individual large trees. We also suggest that to the extent feasible the final assessment present data on existing and desired targets for age/tree size class distribution. Figure 15 *Age class distribution of forestland in the Berkshire Ecoregions and statewide* and Table 10 *Timberland area by forest-type group and size class* break provide a breakdown into only three categories. The sawtimber category encompasses all trees/forest stands of sawtimber size or greater. This tends to mask the low abundance of trees in the very largest/oldest size categories. A more fine-tuned breakdown such as that presented in Figure 20 *Growing stock volumes by diameter class...* should be used to describe existing and proposed size/age distribution.

Sub issues 1.4 and 4.1: *Invasive species and forest health*. Forest management activities can sometimes create conditions favorable to invasive species and/or directly introduce invasives onto a site. The final report needs to provide more specific information on how this risk will be managed and minimized, especially for forestry practices on state lands. Also, the Department of Agricultural Resources is presently accepting comments on its proposal to ban/phase-out the importation and sale of more than 140 plants identified as either noxious and/or invasive in the Commonwealth. The final version of the Berkshire Ecoregions Assessment should mention and support implementation of this initiative.

Issue #6: Socio-Economic Factors

The issues and potential solutions identified in comments above under the heading of Forestland Values and Economics should be addressed in this section.

Sub-issue 6.2 *Unregulated access affecting forestlands (ORVs/ATVs)*. The draft report correctly identifies illegal ORV/ATV activity as a problem causing serious damage to soils and vegetation. The final report should specifically address the concern that forest management activities open up new or expanded logging roads that may be subject to abuse by ORVs/ATVs, further exacerbating an already out of control problem. The final report should identify specific measures to minimize this risk especially on public lands (e.g. SOP/BMPs for forestry practices to block new access points and monitor sites in the first year after cutting, apply intensive enforcement if necessary before unauthorized use becomes entrenched.)

Sub-issue 6.3 *Promotion of Biomass for Bioenergy*. Some state officials and others are promoting the development of biomass facilities for multiple reasons, including as a way to increase the market for low-value wood. The presumption seems to be that this will help reverse high-grading and encourage private landowners to undertake more sustainable practices on their forestlands. However, no economic analysis has been presented to indicate what prices would be generated for low value logs compared to what would be needed to create such landowner incentives. If the effort is successful, there is a risk of creating too much demand and creating a new set of unsustainable forestry practices. The state needs to develop recommendations for ensuring the goal of long-term sustainability of forest biomass for bioenergy is met (e.g. evaluate available biomass and set targets for harvesting and harvest methods based on good sustainable management goals for public and private lands). Furthermore, it should not be assumed that all net growth of forest biomass should be harvested for bioenergy. Net growth also sequesters carbon, which is a benefit that should be acknowledged and rewarded through state policy. It would be beneficial if the state develops a regional/international carbon trading system with other New England states and eastern Canada (as presently under study). Such a program should include funding for protection of forests from development in order to maintain the growth and carbon sequestration that occurs in these forests.

Issue #7: State, regional and global issues:

Sub-issue 7.1 *Chapter 61 and 61A* should be broadened to address the larger issue of conversion of forestlands to development, and the range of options available to keep land in forest use (not just Ch. 61 and 61A). It should probably be combined with Issue 2 (the Working Forest) and 3 (Fragmentation) into one topic dedicated to the issues associated with land ownership and development patterns. The full range of options to address this complex issue should be briefly listed with details addressed in other state agency programs. The issues and recommendations identified in the section of comments above labeled Forestland Values and Economics should be integrated into this section of the final Berkshires Ecoregions Assessment.

The issue-related comments listed above should be addressed in the final version of Section IX A Forest Management Framework for Massachusetts.

Ecoregional Considerations for Wind Energy Siting:

In addition to the landscape level forestland assessment and planning process that EOEa is presently conducting under Green Certification, EOEa is also engaged in two other landscape level planning initiatives: 1. statewide guidance for siting of wind energy facilities, potentially including guidelines for siting such projects on state lands and 2. a Statewide Comprehensive Wildlife Conservation Strategy (see http://www.mass.gov/dfwele/dfw/cwcs/dfw_cwcs.htm). We recommend that these three planning processes be coordinated to ensure consistency in their recommendations. Mass Audubon supports efforts to address climate change, including energy efficiency and conservation as well as the development of renewable energy sources such as wind turbines. A key question is what are the most

appropriate locations for wind energy facilities. Issues of forest fragmentation and landscape level ecosystem and habitat protection should be addressed in the EOEAs wind siting guidance as they are identified as major issues of concern in both the Berkshire Ecoregions Assessment and the Statewide Comprehensive Wildlife Conservation Strategy.

Green Certification Planning and DCR Management Planning

As noted in our previous comments (attached), state-owned forestland management planning under Green Certification needs to be clearly and transparently integrated with management plans required under MGL Ch. 21 S. 2F. Much progress appears to have been made internally at DCR on this over the past several months, with a new proposal submitted recently to the Stewardship Council by DCR/EOEA staff for development of management plans for all DCR lands within the next two years. However, this proposed approach is not explained in the draft Berkshire Ecoregions Assessment. This comment on the omission is not intended as a criticism, as we understand that the proposed new management planning initiative was being developed just as the draft assessment was going out for public review. Nevertheless, it is important that the final version of this report address this topic.

The section of the Berkshires Ecoregions Assessment describing *Massachusetts' Land Management Agencies* (in Section VIII. Issues, Goals and Recommendations), does not describe the DCR management planning process established under Ch. 21 S. 2F. It does mention older legislation that created the Bureau of Forestry, describing that the Bureau is charged with generating income from the state forests and "improving" the forests. MGL Ch. 21 S. 2F is more recent and comprehensive, addressing all lands under DCR ownership, all of the multiple interests associated with these state lands, and establishing clear parameters for the development and approval of management plans for DCR lands.

We support the management planning approach described at the June 2005 meeting of the Stewardship Council. We strongly urge that the final Berkshires Ecoregions Assessment describe the state's commitment and approach to integrating the Green Certification planning with the statutorily mandated provisions for management planning for state owned forestlands. The final Berkshire Ecoregions Assessment should also be submitted to the DCR Stewardship Council and MassWildlife Board for endorsement.

Conclusion:

Mass Audubon applauds the state's Green Certification and associated planning effort. We strongly endorse the immediate designation of all eight of the proposed large forest reserves and request that the maps for the six reserves in the Berkshires be included in the final Berkshire Ecoregions Assessment. The draft document overall is excellent, and we request that our recommendations for further refinement be incorporated in the final report. We specifically request clarification regarding the relationship of Green Certification planning to general DCR property management planning, and that potential problems with invasive species and ATVs/ORVs in active forest management areas be minimized with specific management actions.

Sincerely,



John J. Clarke
Director of Advocacy

Cc: Senator Andrea Nuciforo
Senator Michael Knapik
Senator Stanley Rosenberg
Representative Daniel Bosley
Representative Denis Guyer
Representative Christopher Speranzo
Representative William Pignatelli
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Richard Cross, DCR Stewardship Council
Tad Ames, BNRC
Forests and Parks Partnership
David Foster, Harvard Forest
David Wager, Scientific Certification Systems
Andy Finton, TNC
Robert Leverett

Attachment: December 9, 2004 letter from Mass Audubon to Michael Fleming re: Berkshire Ecoregions Assessment