



NEW JERSEY HIGHLANDS COALITION

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NJ Department of Environmental Protection
Division of Fish & Wildlife
ATTN: Bureau of Land Management
805 Pequest Road
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*To: Miriam Dunne (Miriam.Dunne@dep.state.nj.us)
Re: Weldon Brook Wildlife Management Area Stewardship Plan*

Dear Ms. Dunne,

The New Jersey Highlands Coalition's Natural Heritage Committee has reviewed the Weldon Brook Wildlife Management Area (WMA) Stewardship Plan and submits the following comments for your consideration.

The Natural Heritage Committee would first like to say that we were heartened to see the amount of detail included in this Plan and that the many concerns raised during the discussions surrounding the Forest Stewardship Bill (S1085) have been addressed, including rare plants, invasive species, deer management, regeneration, monitoring, and landscape-scale perspective.

Overall, the Weldon Brook Wildlife Management Area Forest Stewardship Plan (FSP) is one of the more thorough and complete FSPs developed for an NJDEP holding that several members of the NJ Highlands Coalition can recall reviewing. The plan gives ample consideration to rare and declining species including Golden-winged Warbler and Indiana Bat. The plan does a good job of outlining and considering the relevant conservation actions and strategies described in the NJ State Wildlife Action Plan and Forest Action Plan. The plan appears to adhere to the inclusion of many Forest Stewardship Council (FSC) recommended management plan elements. Considering how closely the plan follows FSC guidelines, we encourage the NJDEP to get the plan FSC approved and certified.

We generally recognize that forest management in New Jersey is challenged by numerous factors, but that modern forestry can be used in certain instances to spread out the age structure of our forests. When used appropriately, New Jerseyans will see a higher diversity of both flora and fauna as a direct result of any well-thought out plans. Our comments on this Plan are intended to assist in the compliance of the goals as stated by the Plan.

FORESTRY PRACTICES for RARE and DECLINING SPECIES

The emphasis on rare and declining species, particularly Golden-winged Warbler (GWWA) is an important component of the Plan and an essential element of habitat management at Weldon Brook WMA. At the same time the Plan should, and to a degree does, recognize the benefits provided to other early successional species (e.g., Ruffed Grouse, Prairie Warbler, Yellow-breasted Chat, foraging Wood

Thrush, Wild Turkey, etc.) as well as species that benefit from the management of old growth habitat (e.g., Cerulean Warbler, Barred Owl, Northern Goshawk, etc.). The Plan includes a goal of creating early successional habitat on up to 20% of the forested area; however this percentage of early successional habitat may be too high. The Committee suggests reducing the percentage to 10-15%. Additionally, more emphasis could be placed on benefits to other species with specific connections made to the goals and objectives of the plan.

The plan rightfully tethers the Endangered and Nongame Species Act as an impetus to guide land use managers to “*accord special protection in order to maintain, and to the extent possible, enhance their numbers.*” Targeting GWWA for some enhanced management is proper for Weldon Brook WMA. However, scrutiny of the NJ Wildlife Action Plan reveals a litany of additional species that can benefit from alternative management, or no active management. These species are not subject to an equal vetting as that provided for GWWA. Thus, the consensus of the Committee was that early successional habitat development for GWWA should be restricted to the power line ROW and immediately adjacent forest, until success is demonstrated.

Creating early successional habitat where forest now exists along the ROW for GWWA is appropriate, with a diligent follow-up treatment and monitoring program to evaluate success. In these areas, an amorphous configuration that increases the surface interface with the ROW should be considered, to increase mosaic structure and ecotonal area. Per the literature and Sharon’s Petzinger’s findings, a specific method should be proposed to guide management away from “hard-edges” at the interface of the forest and the ROW or other early successional habitat.

There were general concerns among some committee members that the Plan was based on a false premise - GWWA populations are declining solely because of a lack of habitat. Committee members assert that there are plenty of potential nesting sites, and many sites had nesting GWWA populations 5-10 years ago. While the need for additional suitable habitat has been recognized, GWWA populations may be declining due to other factors such as climate change, hybridization, and competition by Blue-winged and Prairie Warblers for resources. Blue winged and Prairie Warblers are still abundant. If GWWA habitat is developed, Blue-winged Warblers and other competitors may utilize the habitat.

The Plan shows certain areas are designated for Forest Stand Improvement as a treatment means to develop GWWA habitat. The committee does not support this method of management for GWWA habitat development because it does not appear to match GWWA habitat needs. We recognize its purpose in the plan and in general forest management, but want to be clear that we do not support its use for GWWA habitat development. Areas within the core of the forest may be managed with FSI methods in order to promote uneven-age stands of forest, but should not be converted to early successional habitat, especially if the attempts to establish GWWA habitat immediately adjacent to the power line prove to be unsuccessful.

The Committee strongly urges that in addition to the creation of additional early successional habitat out of the forest immediately adjacent to the power line ROW, habitat also be developed in areas that are already closely suited for GWWA habitat – notably within and along the extensive field edge of the ROW. Rather than solely cutting adjacent mature forest, the *low field edges* along the power line ROW edges should be allowed to **grow up into GWWA habitat**. This would duplicate the habitat that was previously used by GWWA until the power companies heavily cut and remove the entire small tree-shrub component from the power line ROWs. The Division of Fish and Wildlife (NJDF&WS) should be coordinating their habitat creation efforts to develop GWWA habitat with PSE&G and JCP&L, power companies that have ROWs across state land. This could be a significant component of the mitigation required by the Department of Environmental Protection (NJDEP) to compensate for the impacts of transmission lines across public preserved lands.

The public strongly supported preservation efforts in the early 1990's in the Sparta Mountain Greenway area, which includes the Sparta Mountain and Hamburg Mountain WMA's to the north, Morris County's Mahlon Dickerson Reservation to the east, and Allamuchy State Park to the south. A major, consistently-stated purpose of public acquisition was to prevent development and to protect unfragmented, contiguous forest in an area of "near wilderness," in as large blocks as possible. Much of the rationale for this was to protect interior forest species, especially forest interior bird species. The proposed management plan does not support protection of enough old-growth character forest, and the geometric shape of the "core" forest zone is too narrow. Forest does not function ecologically as interior or core habitat if the distance to maintained, early successional edge habitat is too small. The areas targeted for permanent, early successional habitat management should be shifted to the extent possible to the areas along and to the east of the power line ROW; the core forest sector where uneven-age development is promoted should be enlarged into a more functional oval, convex polygon, and areas designated as old-growth should comprise a greater percentage of the site.

Based on recent site visits, Weldon Brook WMA currently exhibits very little evidence of invasive species. We are concerned that cutting numerous areas of mature trees throughout the WMA, as proposed by the Plan, will increase the potential for invasive species. In addition, the entirely new forest roads, not even located on old forest cart ways, throughout the site will also create openings for invasive species. The Plan should reduce the number of roads through the WMA. To that end, the Committee would like to know if roads are being created to improve hunting access in the WMA. We request that the Plan include ways to avoid, minimize, and mitigate the advancement of invasive species along any roadways. The only methods noted in the Plan include mechanical mowers and herbicides. This is too limited and methods for protecting selected plants should also be included as well as a few more selective methods. Further, the Committee suggests more detail should be provided with respect to how damage causing agents (*i.e.*, pests and disease) will be addressed. For example there is no strategy identified for dealing with Hemlock Wooly Adelgid.

Unfortunately, this plan does not address the dramatic losses to rare plants and the continued problem of managing herbivory adequately. The threat to forest understory is not even included as a major problem, as noted here:

"The three greatest threats to the sustainability of the WMA are (1) the extirpation of GWWA and other early successional species from the WMA through habitat loss, (2) the gradual decline of the oak component of the forest and its replacement with less desirable black birch, red maple, and sugar maple, and (3) continued proliferation of non-native invasive plants (page 75)."

While there is much said about protecting vernal pools, the need for a shrub and understory layer in the surrounding forest is not mentioned at all. This concern is compounded by the persistent assumption that more light on the forest floor is beneficial to all plants - period. There is no acknowledgement at all of shade-loving plants that fail to compete in more open conditions.

We recognize that deer management is necessary under certain conditions. Our concern is that the assumptions about deer management appear too optimistic. The limited ground layer vegetation described in the actual plant lists suggests long term excess herbivory on all three sites referenced. It would be useful to include a test enclosure during the first few years to assess recovery potential with greater protection, at least during the reestablishment phases.

Therefore, the Committee requests a complete baseline be conducted that includes all plant species present as well as continued monitoring of all species. It is clear that restricting plant concerns to rare, threatened, and endangered species that are already documented is not sufficient to assess the impact of forestry activities, herbivory, or anything else. The plant monitoring should, like the baseline, be done

by a professional botanist and should include all species present. And while it cannot be required, it would be nice if they would record the plant lists on the PSI website to provide optimal comparability with land trusts and a number of enclosure studies in this State. New Jersey is updating the Coefficients of Conservatism and the Floristic Quality Assessment model is being increasingly used by New Jersey and other states to assess naturalness and quality of the habitat. The Committee can offer to assist with an effort during the upcoming growing season to search for plant species of concern throughout the WMA, in order to reduce the chance for unintended consequences of implementation of the various management strategies.

This plan specifically raises concerns that “*the regional change from oak- to maple-dominated forests may strongly affect avian community structure and populations of some common bird species associated with eastern deciduous forests*”. However the plan does not appear to take any measures to ensure oak regeneration. Fire is mentioned but little effort seems to be going into evaluating the use of fire which has been demonstrated elsewhere both to favor oak and to discourage maple.

The effects of naturally occurring disturbances that cause gaps in the canopy (*i.e.* Superstorm Sandy) should be considered before plans to create uneven age structure in the core forest areas are implemented via FSI. A number of large trees have, in fact, been blown down in the recent storms, and treatments may no longer be necessary. The plan emphasizes creation of early successional habitat and while natural disturbance is mentioned, the plan does not address how treatments will change in light of natural disturbances. Given the likelihood of future storms on the scale of Superstorm Sandy it would be good for the plan to include a provision for adjustment of treatment activities given significant natural disturbance.

The Plan repeatedly refers to “poor” or “inferior” tree species; however, ecologically speaking, there is no such thing as a poor or inferior tree species. Species considered “inferior” by board-foot measures, such as birches, poplar, cherry, elm, and willow, provide habitat and food for insect larvae, including butterflies and moths, birds and other wildlife. Such ecological diversity within a forest should be promoted. Language such as this could give the impression that this Plan is being driven by economics and not ecology. Where FSI practices are proposed to promote uneven age structure through the creation of gaps, it should be clear that the focus is not on leaving predominantly only economically valuable species.

CULTURAL RESOURCES

This Plan should include more effort for identifying and documenting the existing cultural resources on site, which include at least three abandoned iron mines (as indicated by NJDEP’s GeoWeb data), as well as the features that would have been associated with these mines: houses, transportation facilities, as well as the stone rows mentioned in the report. We strongly suggest that the Division, in the preparation of its management plan has an affirmative duty to identify and protect cultural resources prior to conducting forestry activities or contracting with others to do so. A qualified cultural resources expert or experts, with particular knowledge of prehistoric occupation of the Highlands and industrial archaeology should be consulted to evaluate the significance of any cultural resources present.

With regard to possible prehistoric sites, many references exist to the presence of rock shelters used intermittently, but over long periods of time, by native peoples in the NJ Highlands. Human occupation is far older than the contact period discussed in the report and important research questions still remain unanswered or unasked about this c.12,000 year time span. Although the woodland native Americans, mentioned in the report as the Lenni Lenape, are without a doubt important, the prehistoric occupancy of New Jersey stretched much farther back in time to include cultures associated with the Paleo-Indian Cultural Period (10,000 B.C to 6,000 B.C.), the Archaic Period (8,000 B.C. to 1,000 BC), the Early /Middle Woodland Period (1,000 B.C. to 1,000 A.D. in addition to the Late Woodland and

Contact Periods (A.D. 1,000 to the Colonial Era). Importantly, vegetation can provide important clues to archaeological investigations. Potential archeological resources are an important part of New Jersey's heritage, particularly when sites are in public ownership.

Thus, the plan should entail a consideration of prehistoric sites and be modified to respect their potential on-site. An evaluation should be made of potential rock shelters present in the WMA and forestry operations, particularly those involving mechanized equipment should be prohibited from these areas. Results of such an evaluation should be kept confidential from the general public to avoid looting of sites. The cultural and historic resources are part of the public's experience of the property and should be recognized accordingly.

In 1982, the Office of New Jersey Heritage identified research into iron mines as an important need (*New Jersey's Archeological Resources From the Paleo-Indian Period to the Present: A Review of Research Problems and Survey Priorities*, Office of New Jersey Heritage, 1982., p. 7). Iron mining is a highly significant subject in the NJ Highlands having been practiced at an early date and continuing until the 1940's. The remains of this activity should be considered of heightened significance to the Highlands region. Mines were sometimes small in scope and operated intermittently. However, in some locations mines were large scale operations (Mt. Hope). Mines may also be associated with illegal dumping and toxic contamination. Subsidence may also be an issue as old workings collapse, especially in response to vegetation removal, increased run-off and redirected drainage. As such, iron mining has played a crucial role in the history of the Highlands and the evolution of the forests. Narrating the impact of these facilities should be an important objective on State owned properties in the Highlands, enhancing the visitor experience. The nature, location and history of the three mines known to be present on the site should be developed by a cultural resource expert in industrial archaeology prior to making a finding of "no significance."

As correctly mapped, the Ogden Mine Railroad forms the eastern boundary of the property. This railroad has considerable historic significance. The former right of way, largely State-owned, contains several cuts and fills, and at least one remaining bridge, carrying the railroad over Milton Rd. The right of way currently provides trail access, a valued recreational component of the WMA's inventory. The right of way of the Odgen Mine Railroad on the site should be surveyed by a qualified cultural resources expert and the historic, recreational and scenic qualities should be preserved by avoiding cutting near or use of the right of way for forestry activity access. Historic narration should be produced as part of plan execution. The Department should pursue listing of the Right of Way and its remaining features on the State and National Registers of Historic Places.

LOGISTICAL ASPECTS OF THE PLAN

We request to see a budget of incomes and expenses for the life of the project to ensure that funds will be allocated to monitor the site. The Plan should provide some clarity regarding how the activities will be paid for, including forest treatments, monitoring or other activities. The expected results are not quantified.

The Stakeholder process should have begun sooner and should have followed the Forest Stewardship Council's guidelines. A number of interested parties would have appreciated more time to go over all the details of the Plan. The plan should more clearly detail the process for stakeholder input, defining timeframes for input and methods used for outreach to the public.

The Plan lacks (or does not clearly state) any information about the individuals that prepared the document. The Plan also lacks clear dates for when studies were conducted. Some dates may be found in the Appendix, but should also be stated in the main text.

This plan also relies heavily on the use of the forest and wetland Best Management Practice Manual which is not adequate, nor appropriate, for public lands. The existing BMPs include no mention of protection from herbivory, no monitoring, no discussion of invasives and the E&S requirements are suitable for temporary stabilization only. Additional BMPs are needed to meet the stated goals of this plan.

The Natural Heritage Committee appreciates the opportunity to submit these comments on the Weldon Brook Wildlife Management Forest Stewardship Plan and would like to arrange a follow-up meeting with members of the Division of Fish & Wildlife and perhaps the authors of this Plan. Representatives of the Committee will contact Ms. Dunne to arrange for a meeting or further discussion. Thank you for this opportunity to strengthen this thorough management plan.

Sincerely,

Cinny MacGonagle
Chair, Natural Heritage Committee
Trustee, New Jersey Highlands Coalition

Emile DeVito
Co-Chair, Natural Heritage Committee