

Management Plan for the 2022 Additions to the Kennebec Highlands Public Land

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APPENDIX A

Advisory Committee Members and Public Consultation Process

Kennebec Highlands Advisory Committee:

NAME	AFFILIATION
Brian Alexander	Central Maine Chapter - NEMBA
Roy Bouchard	Former BRCA President/7 Lakes Alliance Board Member
Sue Burns	former Vienna Comp Plan Committee
Chris Currier	Mtn View ATV Club
Julie Davenport	Maine Forest Service
Laura Rose Day/ Dan Woughter	7 Lakes Alliance
Rep. Sharon Frost	Maine House District 58
Ann Gibbs	none
John K. Jones	none
Gary Keilty	BPL Trails Advisory Committee
Keel Kemper	Department of Inland Fisheries & Wildlife (IF&W)
Dave Macleay	none
Lincoln Nye	Rome Ruff Riders Snowmobile Club
Elizabeth Payne	none
John Simoneau	New England Chapter - Backcountry Hunters & Anglers (BHA)
Bill Swan	none
Hank Washburn	none

Public Consultation Summary:

Plan Phase/Date	Action/Meeting Focus	Attendance/Responses
Preliminary Planning/Scoping		
Summer 2022 through Fall 2023	Field visits to plan area to view and discuss access and road systems, recreation facilities, forest conditions, etc.	Various Western Region and Augusta BPL staff
March 1, 2023	Advisory Committee meeting held in Belgrade Lakes, with videoconference option; discuss development of this plan and unit-wide trails plan.	10 committee members attended, plus two 7 Lakes staff members, two snowmobile club officers/members and several BPL staff

Plan Phase/Date	Action/Meeting Focus	Attendance/Responses
Fall-Spring 2023-24	Data gathering and work on initial internal drafts of Plan, including staff review. Continued field visits.	Various Western Region and Augusta BPL staff
January-May 2025	Finalization of Draft Plan	
Draft Plan		
May 15, 2025	Draft Plan made available on Plan webpage and sent via email to AC members with request for comments.	
June 13, 2025	End of comment period.	Comments received by email from five committee members (four with attached letters)
June 26, 2025	Advisory Committee meeting held in Belgrade Lakes, with videoconference option; reviewed Draft Plan and discussed comments received.	Nine committee members attended, plus four 7 Lakes staff members and associates and several BPL staff
Final Draft Plan		
Sept. 24, 2025	Final Draft Plan posted to plan webpage and emailed to AC members, with responses to comments (Appendix B).	
Oct. 9, 2025	Public meeting scheduled for Oct. 29 with option to participate via Microsoft Teams videoconference with comment period ending Nov. 26, 2025.	
Oct. 9-15, 2025	Notice of Public Meeting posted in local locations and at trailheads. Also advertised via BPL webpage and social media, and via outreach by 7 Lakes Alliance.	
Oct. 29, 2025	Public Meeting held, 5:30-7:30 pm: presented Final Draft Plans and received comments	25 members of public and committee members attended, plus BPL staff
Nov. 26, 2025	End of Comment Period.	No comments received.

APPENDIX B

PUBLIC COMMENTS AND BUREAU RESPONSES

Summary of Written Advisory Committee Comments on the Draft Management Plan for the 2022 Additions to the Kennebec Highlands (May 15, 2025)

(Comment Period: May 16, 2025 – June 13, 2025)

Some comments have been excerpted, and introductory or background statements deleted.

Comment	Response
Topic: Roads and Access	
From: John Simoneau, Backcountry Hunters & Anglers, New England Chapter	
<ul style="list-style-type: none">I support improving access by Vienna Mountain Road to allow for the multiple uses considered in the management plan update, this is a very good use of LWCF grant funds.A “winter parking area” near the snowplow turn would likely be an access used by hunters seeking the less developed areas of the property. The creation of this area could help avoid conflicts between users, abutting property owners and town road maintenance operations.While not in the area of the additional properties, the lack of access at Roxy Rand is troubling. I remain hopeful that access in some form could be restored in the future. I wanted to take this opportunity to again express that New England Backcountry Hunters and Anglers is very interested in finding a solution.	<ul style="list-style-type: none">Comment notedComment noted<ul style="list-style-type: none">The Bureau will continue to engage with the abutting landowner on Roxy Rand Road to discuss options for restoring public access; the ongoing probate process will influence the timing of any such future engagement.
From: 7 Lakes Alliance	
<ul style="list-style-type: none">7 Lakes agrees that road improvements are needed as the parcel becomes more well known to the public. We support the designation of parking areas to direct traffic, prevent damage to fields, and improve the user experience. We also recommend that BPL strategically deploy gates, permanent barriers, and signage to protect the parcel’s conservation values. We have observed damage from vehicles driving on the primary access road in the spring as well as in the blueberry fields. We recommend adding any proposed barriers [and] closures (both seasonal and permanent) to the management plan maps. Given the steep grades, effective management of stormwater run-off will also be key to reducing erosion and ensuring sustainability.	<ul style="list-style-type: none">Support for road improvements and new parking areas is noted. Bureau staff, including the ORV program, are reviewing the need for additional gates. We will consider adding proposed barriers to the management plan maps; however, barrier locations on the blueberry fields may not be determined until management of potential commercial and recreational uses and associated access needs are further developed.
Topic: Blueberry Barren Management	
From: John Simoneau, Backcountry Hunters & Anglers, New England Chapter	
<ul style="list-style-type: none">Providing recreational picking would be a great seasonal opportunity for the property.It would be beneficial if the Department could develop a public-private partnership for	<ul style="list-style-type: none">Comment notedComment noted; this approach to vegetation management is one goal of the proposed

<p>blueberry production that would incorporate vegetation management of the noncommercial fields.</p> <ul style="list-style-type: none"> Prescribed burning of the fields for training and habitat management would allow staff and fire departments to refine wildland fire fighting skills, while also benefiting the habitat. Having an option for mechanical means may be necessary because weather doesn't always align with staff, firefighter and volunteer availability for prescribed burns. I support the consideration that some of the barrens could be managed as a mosaic of young forest habitat for woodcock and other birds. I would like to request that this language from the narrative be included in the bulleted list of Management Recommendations. 	<p>lease or other arrangement for resumed blueberry production.</p> <ul style="list-style-type: none"> Comment noted; both prescribed burning and mechanical means of vegetation management remain options. Comment noted; the management recommendations have been revised as requested.
<p>From: Roy Bouchard</p>	
<ul style="list-style-type: none"> With respect to Management Recommendations (pages 18 and 19), I see a high priority for brush management of the blueberry fields. There is a need to clearly define the areas of the fields to be kept clear for viewshed maintenance, wildlife enhancement and berry production so brush control can begin, preferably this season. The brush has gotten extensive in some areas and threatens to get rapidly worse making future control more difficult and expensive. This is one of the most frequent comments I hear about the Highlands from users I encounter. Allowance should be made for volunteer work on some of the areas to help in this but near term (2025-26) action using mechanical or other suppression is needed. Plans for management of the blueberry fields should prohibit most vehicular traffic onto the heights and manage foot powered access due to the fragile nature of the soils and vegetation. Over the last several seasons I noted that snowmobiles have been operating on the top of Vienna Mtn and such use disrupts vegetation and soils, particularly in light of the meager snow cover prevalent there. I have also noted occasional truck tracks over sensitive areas. Defining foot/bike and accessible trials along with proper messaging will be needed. 	<ul style="list-style-type: none"> The Bureau is taking steps to conduct initial brush removal, potentially with the help of volunteers and in consultation with IF&W regarding areas where the brush will not be removed to provide early successional habitat. The Bureau intends to prohibit all or most vehicular traffic on the blueberry fields, except for access that may be needed for commercial production and to the proposed improved access trail. Snowmobile use will be discussed with the ORV program and steps taken to discourage this use. Trail planning will incorporate necessary trail marking, signage and messaging.
<p>From: 7 Lakes Alliance</p>	
<ul style="list-style-type: none"> We share BPL's vision for a mix of commercial and recreational blueberry management along with maintaining early successional forest for wildlife habitat. Given it has been over five years since the fields were last managed, we urge BPL to place a high priority on near term management actions to keep blueberry fields 	<ul style="list-style-type: none"> As stated above, the Bureau is making plans for initial vegetation management work. It is not the Bureau's practice to include task implementation timelines in our management plans. The scheduling of specific tasks is the responsibility of the Regional Manager, who takes into account region-wide needs and

<p>from becoming entirely overgrown and harder to reclaim. We recommend that the plan includes a specific timeline for implementation of tasks identified in this plan. BPL should ensure that several local growers are advised of this leasing opportunity as soon as possible. 7 Lakes is willing to assist with outreach and near-term management, including organizing volunteers to complete vegetation management.</p>	<p>priorities, staff and funding availability, among other factors. The Bureau has been in contact with a number of growers over the past couple of years regarding the leasing opportunity. We appreciate the offer of assistance with vegetation management, including organizing volunteers.</p>
<ul style="list-style-type: none"> 7 Lakes appreciates BPL's emphasis on recreational blueberry picking, which is a highly valued community activity at the site. Even without promotion, the fields have become a popular destination. Public use appears to be increasing but remains manageable. BPL should develop plans to monitor visitor use and associated impacts to sustain the site's multiple values, including its remote character. 	<ul style="list-style-type: none"> Resources are very limited for formal visitor use monitoring. However, Bureau staff are at the Highlands relatively frequently, given its relatively accessible location near Augusta, and will track use levels more informally. We are also interested in any observations 7 Lakes may wish to share.
<ul style="list-style-type: none"> 7 Lakes strongly recommends an emphasis on organic methods, especially in light of the key goals of public berry-picking and wildlife management. We also appreciate the value of prescribed burns on the Vienna Mountain site. During 7 Lakes' discussions with both the towns of Vienna and New Sharon, fire department officials indicated interest in providing assistance and training opportunities. We recommend direct outreach to them. 	<ul style="list-style-type: none"> Whether any future lease for commercial production emphasizes or requires organic methods will depend in part on the ability and interest of potential lessees to use those methods, as one element in constructing a viable lease arrangement. We will contact the local fire departments regarding any potential prescribed burns.
<ul style="list-style-type: none"> Finally, with regard to New Sharon fields, while it would be desirable to maintain the view and some open habitat, we suggest BPL assess the resources required versus the benefits of retaining the remote character. 	<ul style="list-style-type: none"> The larger and more accessible Vienna Mountain fields will be prioritized; however, we will also consider options to maintain the views on the New Sharon fields, using hand tools.
Topic: Trails	
From: John Simoneau, Backcountry Hunters & Anglers, New England Chapter	
<ul style="list-style-type: none"> I support the delineation of "areas where additional non-motorized trail will be avoided to preserve largely trailless areas for dispersed recreation and wildlife benefits." 	<ul style="list-style-type: none"> Comment noted (the quoted statement is from a summary of the Kennebec Highlands Trails Plan contained in the 2022 Parcels Management Plan).
<ul style="list-style-type: none"> Studies show that trails are not ecologically neutral, even seemingly innocuous activities can have impacts on wildlife including reduced abundance, reproduction, and survival. 	<ul style="list-style-type: none"> Comment noted
<ul style="list-style-type: none"> The Backcountry Hunters & Anglers community values wild places and unfragmented landscapes, which are becoming rare in the Northeast, for wildlife and dispersed recreation. 	<ul style="list-style-type: none"> Comment noted
<ul style="list-style-type: none"> We prepared the attached map studying the existing mapped trails and web sourced tracking data for winter fat biking and shared it with the Department. This map overlayed trails and boundary roads with zones of influence recommended in various wildlife studies, we are sharing it again with our comments on the draft. 	<ul style="list-style-type: none"> We appreciate the data provided by the map. The "zones of influence" around roads and trails is one factor in the trails vision for the Highlands that delineates areas where there will be no additional trail development.

<ul style="list-style-type: none"> • New England BHA is hopeful that in the future we can collaborate with the DACF, IFW, conservation & trails advocates in Maine to develop a guide for planning trails in Maine like this one from New Hampshire (Trails for people and wildlife) [link to document provided]. 	<ul style="list-style-type: none"> • Although no project is currently in the works, the Bureau appreciates the offer for New England BHA to contribute to any future work on a guide for trail planning.
From: Roy Bouchard	
<ul style="list-style-type: none"> • The proposed Improved Access Trail is a good idea but before going ahead with planning serious consideration is needed for long term maintenance. The particular needs for maintaining an improved trail surface in such an exposed area requires identification of how this ongoing work would be done, especially how it is to be financed. 	<ul style="list-style-type: none"> • The plan for an improved access trail, to be developed with the assistance of a consultant, will address maintenance concerns and costs. Details of how particular management needs will be financed are determined by the Regional Manager with the oversight of supervisory staff in Augusta.
From: 7 Lakes Alliance	
<ul style="list-style-type: none"> • We share BPL's vision for accessible access at the site. With the Travis Mills Foundation and Pine Tree Camp facilities nearby, the Highlands are a logical location for accommodating users with disabilities. 7 Lakes has visited the site with representatives of Travis Mills Foundation staff who expressed interest in accessibility features in a still remote setting. Their staff indicated that the long-established unpaved road system on the mountain could also serve users with mobility challenges. We also recommend that BPL incorporating [an] accessible recreational blueberry field as a complement to BPL's vision for an accessible trail on the property. 	<ul style="list-style-type: none"> • Support for an improved access trail is noted. The objective is to establish the trail on the Vienna Mountain blueberry fields (with the actual location to be determined with the assistance of the contracted expert); accessible access to a recreational blueberry field is certainly a compatible outcome and is likely feasible.
<ul style="list-style-type: none"> • We have some concerns that the hilly, exposed topography on Vienna Mountain will make this work a challenge and ask BPL to carefully evaluate site conditions to minimize the need for extensive earth work. We caution that without any canopy cover, the trail will be fully exposed to the elements and will be subject to erosion during heavy rain events, which would impact the ability of users with disabilities to access the site. As such BPL should work with the trail builder to create a plan and budget for annual maintenance. 	<ul style="list-style-type: none"> • As noted above, the location of the proposed improved access trail will be determined with the assistance of a contractor, with due consideration of a variety of site factors. Annual maintenance needs will be addressed as part of the planning for this trail.
<ul style="list-style-type: none"> • We also appreciate BPL's vision to link existing trails to Vienna Mountain. 7 Lakes is happy to assist with trail scoping, planning, and development. A spur trail connecting from Sanders Hill is a logical one. We suggest that it may be more logical and less impactful to construct a trail that joins the Sanders trail closer to the ridgeline. The current plan also connects the field to the ATV trail, which is very seldom used by pedestrians. It may also be worth exploring options to connect the Round Top trail as well. 	<ul style="list-style-type: none"> • We look forward to working with 7 Lakes on the proposed trail linking the Sanders Hill Loop trail to Vienna Mountain. The trail concept presented in the Trails Plan represents just one potential conceptual trail route, which minimizes new trail construction by using the road/ATV trail for the middle part of the route. However, we are open to consideration of different routes. It is the Bureau's preference to construct just one trail connecting the east side of the unit to Vienna Mountain; the Sanders Hill connection appears easier to accomplish.

Topic: Hunting	
From: John Simoneau, Backcountry Hunters & Anglers, New England Chapter	
<ul style="list-style-type: none"> BHA would be supportive unit-wide review aimed at establishing Public Land bear bait sites in the Kennebec Highlands. We believe there are opportunities that would not have negative implications on other recreational uses. We would be willing to work with the department to identify these locations. 	<ul style="list-style-type: none"> The unit-wide review is under way, in collaboration with IF&W. Consideration of other recreational uses is a key factor in determining the location of bear bait sites.
From: 7 Lakes Alliance	
<ul style="list-style-type: none"> 7 Lakes suggests that BPL consider broader public input before the establishment of bearbaiting sites on the Allen's sites. Numerous members of the public have expressed concern about expanded bear baiting here. As such, we recommend including in the plan the specific considerations and parameters BPL will deploy to minimize conflicts with users and reduce odds of nuisance bear issues, as well as any adaptative management strategies BPL will deploy to resolve conflicts. 	<ul style="list-style-type: none"> As noted in the preceding response, the work to identify bear bait sites on the Kennebec Highlands is underway. However, as indicated by the text of the management recommendation, it is not yet determined if any sites will be established on the new parcels, and recreation concerns are acknowledged. The thoughtful siting of bait sites is one factor in minimizing conflicts with users. BPL will consider moving or removing sites if conflicts arise, in collaboration with IF&W. Note that an opportunity for broader public input will be provided at a public meeting to present the Final Draft Plan.
<ul style="list-style-type: none"> 7 Lakes questions the compatibility of bait sites on much of these new lands given its wide-ranging multiple uses, including extensive hiking trails, commercial and community blueberry picking sites, as well as the department's desire to limit motor vehicle access. We stress the importance of locating any bear baiting sites well away from planned commercial and recreational uses. 	<ul style="list-style-type: none"> See preceding response. Note also that the Bureau will not expand motor vehicle access in connection with bear bait sites; rather, the sites will provide a more remote experience.
From: Elizabeth Payne, York Hill Property Owner	
<ul style="list-style-type: none"> While I am not opposed to hunting and fishing in the Highlands, I am opposed to trapping, including the trapping of foxes and other furbearing animals. I oppose bear baiting. 	<ul style="list-style-type: none"> Comment noted. Trapping is generally allowed on the BPL public reserved lands; written permission is required in organized towns, with exceptions for certain types of trapping. Note also that the Allen parcels (and much of the rest of the Highlands) were purchased with LMF funds, which carries a requirement (with limited exceptions) that the land must be open to fishing, hunting and trapping.
Topic: Resource Allocations	
From: Roy Bouchard	
<ul style="list-style-type: none"> On the Resource Allocations (pages 16 and 17) it was not clear what the difference was between Developed\Recreation Access Class 1 and 2. Also, though non-motorized trails are marked the location of motorized trails need to be made clearer. 	<ul style="list-style-type: none"> As described in the Resource Allocations text, Developed Recreation Class 1 covers only small areas, which admittedly are not easily visible on the maps at the scale used in the plan document. There are no areas allocated to Dev. Recreation Class 2; the category is used only as a temporary expedient for mapping the "Other"

	allocations, until that category is available in GIS. The non-motorized trails are included on the maps for reference; the motorized trails were intentionally not included to avoid cluttering the maps.
<ul style="list-style-type: none"> In this vein, I'm not clear as to what the "Backcountry Motorized" zones entail other than allowing timber management access and the existence of motorized trails currently. Are these areas where significant increases in snowmobile/ATV trails are also anticipated? If so, this would go against the wishes of a large number of users and donors who expressed their interests since the beginning of the project. The current trails including the recent extensions and relocation of snowmobile trails seem adequate given the extensive snowmobile trail access in the region. 	<ul style="list-style-type: none"> Appendix C of the 2011 Kennebec Highlands Management Plan provides descriptions of the allocation categories (taken from the Bureau's Integrated Resource Policy). As described in the Resource Allocations text, the Backcountry Recreation – Motorized allocation is generally applied so as to be consistent with the allocations on the abutting lands of the unit, which are generally associated with motorized trails. Although the allocation allows for motorized trails on the new parcels, no expansion of those trails is proposed.

Topic: Barriers/Signage to Control Unauthorized Motorized Use

From: Roy Bouchard

<ul style="list-style-type: none"> Signage and temporary lane blockage is definitely needed along the blueberry fields to reduce unauthorized snowmobile, ATV and other vehicle access which I and others have witnessed of the last few years. This problem is not yet extensive but is likely to increase through time. 	<ul style="list-style-type: none"> A management recommendation has been added under which the Bureau will consider installation of barriers to prevent unauthorized motorized access to the blueberry fields.
<ul style="list-style-type: none"> Additional signage on access areas to the Highlands is needed, in particular to reduce motorized activity in areas not outlined in the Plan. In addition, seasonal gating locations should be identified in the Plan document to reduce vehicle access during certain times of the year, particularly mud season. For example, without this the road access improvements on the Vienna Mountain Road will be jeopardized. Seasonal gating on the Welch Road access should also be considered in consultation with 7 Lakes Alliance. 	<ul style="list-style-type: none"> The above management recommendation will also address potential new gates and/or signage on or in the vicinity of the new parcels, and at other locations on the unit, to control motorized use and prevent unauthorized motorized use. The Bureau will need to consult with inholding landowners and others with access rights across these roads prior to any gate/barrier installation. The Bureau will discuss seasonal gating of Welch Road with 7 Lakes.
<ul style="list-style-type: none"> Seasonal gating and signage are needed in a few places, especially at the end of the town-maintained section of the Vienna Mtn. Road and in the west (Welch Road) as identified during previous discussions. I would also support a review of where signage should be augmented in the entire unit with respect to ATV and four-wheel drive access, especially seasonally. 	<ul style="list-style-type: none"> See preceding responses.

Topic: Wildlife and Fisheries

From: 7 Lakes Alliance

<ul style="list-style-type: none"> We suggest the plan includes a discussion of wildlife and habitat management strategies. For example, Vesper Sparrows have been identified on Vienna Mountain by 7 Lakes staff. They 	<ul style="list-style-type: none"> The Wildlife and Fisheries resource discussion (p. 8) stresses the importance of the blueberry barrens as habitat for grassland and shrubland birds, which
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<p>were identified as a biological resource in the LMF application. Their presence may merit management attention, such as maintaining early successional habitat.</p>	<p>includes the vesper sparrow and many other Species of Greatest Conservation Need (SGCN). The discussion instead focuses on two bird species listed as Threatened in Maine. In the Blueberry Barren Management discussion (p.10-11), it is stated that the Bureau intends to maintain some portion of the non-commercial fields in blueberries to preserve the unique habitat, and also that IF&W advises that some area be allowed to grow up and be maintained as young forest habitat. However, we have added a Wildlife and Fisheries issues discussion to emphasize these intentions.</p>
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Topic: Hydrology and Wetlands

From: 7 Lakes Alliance

<ul style="list-style-type: none"> 7 Lakes urges BPL to indicate steps the Bureau will take to protect the Highland's waterways, due to their aesthetic, wildlife and other ecological values. We suggest incorporating language spelling out the best management practices (such as vegetative buffers) that will be followed during trail development, road maintenance, and timber management. 	<ul style="list-style-type: none"> We do not typically describe best management practices (BMPs) in detail within our management plans, but reference to BMPs has been added to this plan in relation to trail development. Additional details on BMPs are available from the Western Region office. Note also that the plan describes the Wildlife allocation to be applied along streams and on wetlands, as a riparian buffer; any timber harvesting that occurs in these areas is conducted with the goal of promoting or maintaining vegetative diversity, continuity of wildlife travel corridors, and to protect the aquatic environment from degradation. Regarding road maintenance and timber management BMPs -- as described in the IRP, Timber and Renewable Resources, policy 3.E. Environmental Safeguards: "All timber harvesting and road construction, including the layout of skid trails, will be conducted in conformance with all regulations and the appropriate water quality Best Management Practices..." Also, regarding roads, skid trails and yards, the Bureau adheres to the Maine Forest Service guidelines in "Best Management Practices for Forestry: Protecting Maine's Water Quality". Similar BMPs are applied during trail development.
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Topic: Education

From: 7 Lakes Alliance

<ul style="list-style-type: none"> We suggest education and outreach be included as a management goal on the property. There is value in bringing people from state agencies, blueberry harvesting operators, and local historians together to raise awareness and appreciation of Vienna Mountain's historical, natural science, commercial and 	<ul style="list-style-type: none"> A management recommendation has been added to the plan addressing education and outreach. This builds on the acknowledgement in the Disposition of Structures discussion of the potential of the house and barn as a "location for educational events and temporary or permanent
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<p>recreational values. For example, in 2024, 7 Lakes hosted a walking tour of Vienna Mtn which incorporated elements of natural science, the blueberry harvesting business, and the artistic history associated with the farmhouse. We believe the property is well suited for educational efforts like this and are happy to partner with the state on future educational efforts.</p>	<p>interpretive displays, or compatible community events." We appreciate the offer to partner with the Bureau on future educational efforts.</p>
Topic: Disposition of Structures	
<ul style="list-style-type: none"> Having conducted the due diligence for the acquisition of the Allen's property, we agree that a structural assessment, as well as a discussion of potential uses, has merit, especially due to a lack of significant maintenance in recent years. We recommend immediate steps are taken (including the boarding up of broken windows) to stabilize the structure, reduce vandalism, and prevent further weather damage. Future uses, such as improvements to create seasonal housing for conservation and science personnel, should be carefully considered. 	<ul style="list-style-type: none"> Comment noted. The Bureau has taken steps to protect the house from weather damage and will consider additional immediate efforts that may be needed. No decisions have been made on future uses, but it is the Bureau's belief that lack of running water and sanitation limit the potential for use as seasonal housing.
<ul style="list-style-type: none"> Finally, the current description of the red farmhouse does not adequately describe this site's important and unique history – suggested by the survey not referencing "the Shakespeare House -- in the community and region. We recommend BPL include some additional detailed historical description of the site. 	<ul style="list-style-type: none"> We will add further description of the history of the house based on our limited knowledge of the women's theater group that we understand to be the basis of the "Shakespeare house" moniker. We welcome any additional historical information or documentation that 7 Lakes may provide.
<ul style="list-style-type: none"> 7 Lakes is willing to help facilitate conversations around the future of the house and explore community interest in a "Friends of Vienna Mountain" to support maintenance. 	<ul style="list-style-type: none"> We appreciate the offer to facilitate conversations. As discussed in the Plan, financial prudence requires the Bureau to take into consideration the magnitude of both short-term and long-term costs to restore and maintain the structures, among other considerations. Substantial public benefits are required to justify these expenses, even given potential community support.

APPENDIX C

KENNEBEC HIGHLANDS WILD BLUEBERRY MANAGEMENT PLAN

Kennebec Highlands Wild Blueberry Management Plan

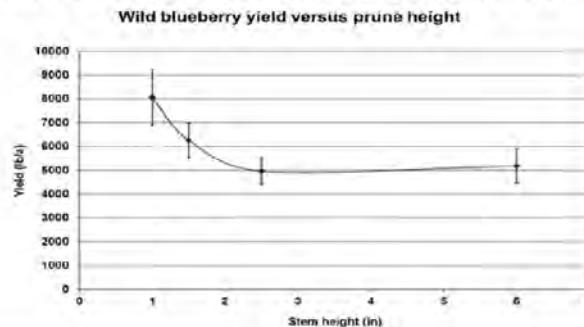
David Yarborough, Emeritus Wild Blueberry Specialist, University of Maine

The purpose of this report is to assess the potential of blueberry fields on the Kennebec Highlands for wild blueberry production and to provide planning options related to potential productivity, profitability and long-term management. Specifically to:

1. Define areas in the fields that are most productive and delineate them on a map.
2. Evaluate the potential productivity from past field records and develop partial budgets for both organic and IPM management.
3. Provide field management options to discuss with the project planning group.
4. Connect BPL with potential growers to solicit proposals to manage the fields.

Wild Blueberry Management Overview

Wild blueberries need to be pruned on a two year cycle to keep them productive. This can be achieved by burning, with an oil burner, by spreading straw to carry the fire, or a flail mower that can prune the plants to within one inch of the ground which requires rock free level ground to achieve the desired effect. Yields will decrease as the height of pruning increases.



This will result in a year of vegetative growth and a crop the following year. In addition honey bees or bumble bees are needed to increase productivity. Monitoring for weeds, insects and diseases and treating these pests are also necessary to maintain productivity.

<https://extension.umaine.edu/blueberries/factsheets/production/wild-blueberry-2-year-production-cycle/>

Vienna Mountain

The 642 acre parcel on Vienna Mountain has 160 acres of wild blueberries which were managed on a two year prune cycle, with the even year harvested fields at 82 acres and the odd year harvested fields at 78 acres ([Map1](#)). All fields are accessed off the Vienna Mountain road and I will use Allen's Blueberry field descriptions. I received production records and costs from Allen's in Ellsworth and Union and walked the fields with Gordon Colby who had managed the fields, but is now retired. The production records are not for individual fields but just for a given year which has both the costs for the prune year fields and harvest fields and so costs can't be isolated for each cycle, but since the fields are nearly evenly split it gives a good assessment of the cost of production.

The Eaton field is 26 acres and it is the first field on the left is bordered by a smaller neighboring field to the south that is owned by Kotahla ([Map 2](#)). Eaton has been de-rocked and leveled and with the exception of the small part of the field to the north, so 25 acres can be flail mowed and mechanically harvested ([Photo 1](#)). This field is not as productive as other fields to the north and has less potential winter injury but is more subject to drought. This field would have the potential to be leased out for commercial production and could yield 3,000 lb/a every other year.

The next two smaller fields are on the left proceeding up the hill ([Map 3](#)). Spring Lot has 11 acres and is level ([Photo 2](#)) and the Little field with 3 acres ([Photo 3](#)) that has rocks and uneven terrain and so can't be flail mowed. The Spring lot field was very productive and may be flail mowed and is part of the area that could be leased. Little field will need to be bush-hog mowed or burned every 2 to 4 years to keep them from growing to brush to maintain these fields.

The next field on the right is the 67 acre Clubhouse field ([Map 4](#)). This field has been fairly productive yielding up to 4,000 lb/a. There is a section of 14 acres of the field bordering the road that can be flail mowed and mechanically harvested and would be suitable for lease ([Map 5](#), [Photo 5](#)). The field was not mowed in 2020 so it should be combined with the Eaton field so that the combined 50 acres would be harvested every other year.

The remainder of the field is too rocky and uneven for flail mowing ([Photo 6](#)) but it has a high value for recreational use and so will need to be bush-hog mowed or burned every 2 to 4 years to keep it from growing to brush. The terrain is quite steep falling away precipitously to the west and is rocky and so would be difficult to mow ([Photo 7](#)).

The 53 acre Stewart Pasture field is accessible from the Clubhouse field or from an access road through the woods on the North end. It is the only field that does not border on the Vienna Mountain road ([Map 6](#)). Gordon Colby indicated that it had the best yields but was also the most prone to winter injury. The entire field was burned because of the uneven terrain and rocks ([Photo 8](#)). The narrow section that connects it to the Clubhouse field has not been maintained and is grown over ([Photo 9](#)).

It does have a high value for recreational use as it has spectacular views to the North and West ([Photo 10](#)). As with the other unmanaged fields it will need to be bush-hog mowed every 2 to 4 years or burned to keep it from growing to brush. Much of this field and parts of the other fields not suitable for commercial management may not be able to be mowed at all due to excess rocks or uneven ground and steep terrain, this will have to be determined by the person contacted just to mow or to manage it. Bush-hog mowing will suppress the brush and partially prune the blueberry plants but is not sufficient to properly prune the plants to achieve good productivity as they can't be pruned low enough to the ground.

York Hill

The 148 acre parcel on York hill has 47 acres of blueberries ([Map 8](#)), two small parcels by the road (5 and 7 acres) with the remaining 35 acre larger piece accessed by a road through the woods to the larger summit field ([Map 9](#)). Management was abandoned about 15 years ago due to poor production as most of the plants were the less productive sour top blueberry (*Vaccinium*

myrtilloides) vs the more productive sweet lowbush (*V. angustifolium*) found in most fields. The small fields are overgrown with brush ([Photo 11](#)) but the summit field is much more open and has good views that could be improved by cutting the brush. ([Photo 12](#)). This field also has approximately 15 acres that could be mowed for wild blueberry production. The access road off York hill is badly rutted and has two wet areas that would require a 4-wheel drive for access so the road would need to be improved or access would have to be on foot. There are not enough blueberries there to be viable for commercial management. The field would need to be mowed or burned and have brush cut to keep it open, which should be done on just the larger summit field.

Field Management

[Table 1](#) below gives the management costs for the past four production cycles for the Vienna Mountain fields. From 2012 through 2016 the fields were burned and used 240 hives (3 hives per acre at \$100/hive) and all of the fields that could not be flail mowed were burned with oil burners. The cost of burning varied over the years from 29 to 45 thousand dollars and varied with the price of oil and weather conditions, with cold temperatures and wet fields requiring more oil. From 2017 to 2020 only the fields that could be flail mowed were managed and the number of hives was reduced to 120 and then to 48 in 2019. The cost of oil burning and bees represented the highest input costs. Bees are necessary for good production and in general each hive can increase the yield by 1,000 lb/a. The actual harvest costs were not available so I used Allen's figure of \$0.23/lb which covered harvest and transport to Union. I also used a figure of 80 acres to determine the cost per acre.

Table 1 Allen's Management of Vienna Mountain

Year	Yield	Pounds	InputCos	HarvestCos	TotalCost	Cost/A	Cost/Pound	NASSfieldprice/lb/a	bee hives	
2020	18856	8924	4337	13261	530	0.70	0.68	754	50	Harvest 25 Acres
2019	45028	23231	10356	33587	1343	0.75	0.49	1801	48	Harvest 25 Acres
2018	163404	20055	37583	57638	720	0.35	0.46	2043	54	
2017	229846	18042	52865	70907	886	0.31	0.25	2873	120	
2016	450217	97166	103550	200716	2509	0.45	0.27	5628	204	
2015	157746	97292	36282	133574	1670	0.85	0.46	1972	240	
2014	379172	115013	87210	202223	2528	0.53	0.60	4740	240	
2013	190347	88670	43780	132450	1656	0.70	0.75	2379	240	
2012	262585	101180	60395	161575	2020	0.62	0.76	3282	198	
Average	234793					0.58	0.52	2830		

In 2016 Maine, Canada and cultivated blueberries all had a large crop which resulted in a record drop in the field price to the grower to below production costs according to the official National Agricultural Statistics Service prices in Table 1. I compared the costs of the Vienna Mountain fields to these field prices to determine their profitability. The fields were profitable up to 2015 but in 2017 burning was discontinued and the investment in hives was drastically reduced as just the flail mowed areas were managed. In 2019 fungicides and insecticides were applied to the odd cycle Clubhouse field so this field would not be able to be organic until 2023. In 2020 fungicides and insecticides were applied and the even year Eaton and Spring lot field were harvested and so this fields would not be able to be organic until 2024.

Organic vs Conventional Management

I developed two partial budgets using information obtained from Allen's field records and information obtained from organic operations. For the conventional management I assumed it would only be on the land which was flail mowed and there would be 50 acres harvested every other year.

Allen's previous costs averaged \$0.58/lb with burning, see Table 1. The proposed conventional budget with mowing cost \$0.46/lb which could produce \$0.06/lb or \$9,120 profit every other year ([Excel 1](#)).

The organic budget ([Excel 2](#)) is for the 80 acres each year and uses current prices for processed organic blueberries, it does have a loss of \$0.04/lb or - \$6975/yr but keeps all of the land open. These budgets are average estimates, weather conditions can result in highly variable crops and the grower price may also vary significantly from year to year. Most organic growers have developed a local market for fresh fruit and also sell to wineries and other outlets. No pesticides or fertilizers may be applied for three years in order for fields to get an organic certification. Since pesticides have been applied to the odd cycle fields in 2019 and even cycle fields in 2020 these fields would not be able to be certified organic together to be managed on one cycle until 2024.

In my conversations with organic growers, organic production costs varied from \$0.81 to \$3.00 per pound with expected yields from 1,000 to 2,000 lb/a. Research at the University of Maine has shown the use of sulfur to reduce the pH combined with burning can increase the yield three fold over mowing without pH modification, this also assumes additional mechanical cutting of the weeds has also been done.

(https://digitalcommons.library.umaine.edu/cgi/viewcontent.cgi?article=1002&context=aes_bulletin)

PH samples have the fields at 4.3 to 4.4 so 300 to 400 lb/a sulfur would be needed if these fields are maintained for organic culture. The cost of burning by oil or straw exceeds \$600 an acre and would require maintained firebreaks. In addition, burning with straw requires a large crew to contain the fire.

Finding management

There are very few options for management as only two receiving stations are near in Union (55 mi. or 1hr 15 min): Allen's blueberries and Coastal blueberry, which receives fruit for both Allen's and Merrill's who also is certified to process organic fruit. Nash Farms manages 1000 acres of organic blueberries in the Union area but he will be retiring soon. Gordon Colby also provided the names of two individuals that did flail mowing, bush-hog mowing, burning and harvesting on the fields, Peter Bachelor (207) 446-3784 and Ramone Baldemar (207) 592-5162.

Beech Hill Preserve in Rockport is managed by Coastal Mountain Land Trust. They flail mow about 15 acres of blueberry fields on a two year cycle and have a fresh pack line to pack boxes for their members but with the drought in the past few years have had a difficult time getting the

3,000 pounds they usually pack. They also allow members and the public to hand pick blueberries on specified days. They have also leased out one of their fields to Ewing fruit Company, a local organic grower in Warren. They use string trimmer mowers on the fields twice a year and have a DR mower for more woody weeds. They hire a bush-hog mowing at \$85/hr (3-4" high) but restrict mowing from May 15 to October 15 so as not to disturb bird habitat. In areas that were overgrown they have used a forestry drum mower to take out trees 25' tall to reclaim the fields, but this leaves a lot of slash. Ryan Gates is the director in Camden and oversees the management of the fields. He has indicated he can be reached at (207) 236-7091.

The Davidson Nature Preserve, managed by the Kennebec land trust is located in Vassalboro has 97 acres with winding paths that feature ten acres of blueberry fields, the remainder in wetlands, and woodlands <https://www.tklt.org/davidson>. They have staff mow the fields on a three year cycle and cut brush to keep it open. I recommended an application of sulfur in 2016 to reduce grasses but they were not able to obtain funding to follow through with my recommendation.

Bog Brook Cove Preserve is part of the Maine Coast Heritage Trust in Trescott Township has 70 acres of organic blueberries. It is managed by Mark Jacoby & Lisa Mushrall of Cherryfield (<https://www.mcht.org/wp-content/uploads/2019/04/organic-wild-blueberry-booklet.pdf>). They have both fresh and processed production. They lease the land from the Trust and pay them a percentage of their net profit, 7.5% for fresh and 15% for processed fruit. Yields have varied from the 35 harvested acres from 650 lb/a (second crop) to 3,600 lb/a. It does provide a source of income for the trust and keeps the land open. This would be ideal, but I do not know of anyone in the area that could do it. Perhaps MOFGA would have contacts of individuals looking for a lease.

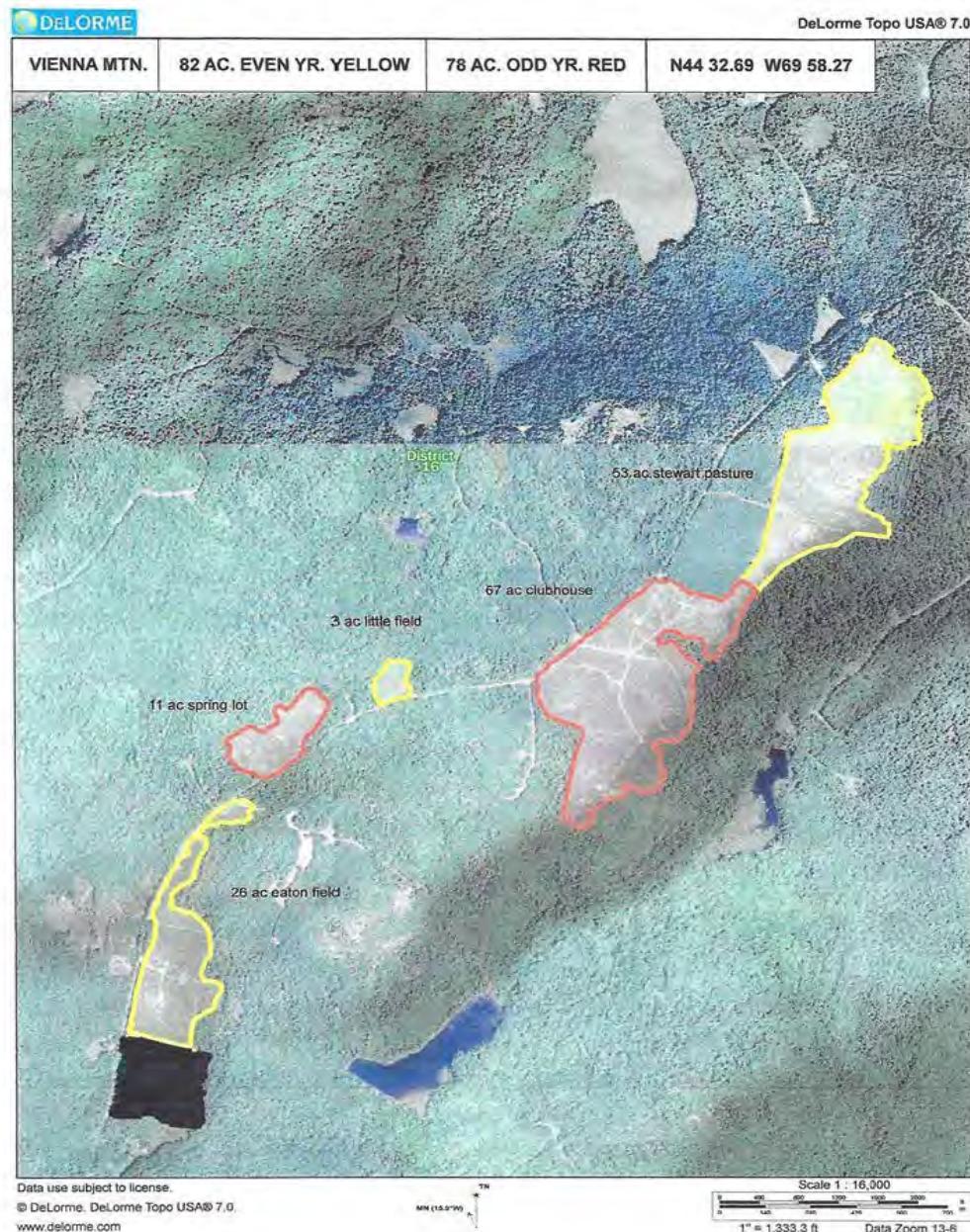
The Nature Conservancy manages their blueberry barrens in Kennebunk and Wells with prescribed burns, this may also be a model that could be used to maintain the fields that need to be burned, but fire lanes would have to be maintained as well.

<https://www.nature.org/en-us/get-involved/how-to-help/places-we-protect/kennebunk-plains/>

Wild Maine Blueberry Budget Vienna Mt Conventional			
Average			
Number of Acres (Crop every other year)	50.00		
Yield (Lbs./Acre)	3,000.00		
Price/Lb. (\$)	0.52		
REVENUE/ACRE (\$)	1,560.00		
 VARIABLE COSTS:	 (\$/Acre)	 (# Acres)	 (\$/Pound)
 Pruning:			
Burning			0.00
Mowing	75.00	50.00	0.03
Average Pruning	75.00		0.03
Weed Control	75.00		0.03
Fertilization	40.00		0.01
Pollination	330.00		0.11
Pest Monitoring	10.00		0.00
Insect Control	40.00		0.01
Disease Control	30.00		0.01
Irrigation	0.00		0.00
Sulfur (pH)	0.00		0.00
Harvest:			
Raking			0.00
Mechanical	690.00	25.00	0.23
Average Harvest	690.00		0.23
	0.00		0.00
Interest on Capital	42.60		0.01
Blueberry Tax	45.00		0.0150
TOT. VARIABLE COSTS (\$)	1,377.60		0.46
 FIXED COSTS:			
Machinery & Equipment			0.00
Land Cost			0.00
Land Taxes			0.00
 TOTAL FIXED COSTS (\$)	 0.00		 0.00
 TOTAL COSTS (\$/ACRE)	 1,377.60		 0.46
 RETURNS ABOVE COSTS SHOWN (\$/ACRE)	 182.40		 0.06
 AVERAGE TOTAL ANNUAL RETURN TO MANAGEMENT (\$/FARM)	 9,120.00		

Wild Maine Blueberry Budget			
Vienna Mt Organic			
Average			
Number of Acres (Crop)	80.00		
Yield (Lbs./Acre)	2,000.00		
Price/Lb. (\$)	1.00		
REVENUE/ACRE (\$)	2,000.00		
 VARIABLE COSTS:	(\$/Acre)	(# Acres)	(\$/Pound)
Pruning:			
Burning	660.00	55.00	0.33
Mowing	75.00	25.00	0.04
Average Pruning	477.19		0.24
Weed Control cut 4h/wk 8wk \$20/hr	640.00		0.32
Fertilization		80.00	0.00
Pollination	220.00		0.11
Pest Monitoring			0.00
Insect Control			0.00
Disease Control			0.00
Irrigation	0.00		0.00
Sulfur (pH)	0.00		0.00
Harvest:			
Raking	700.00	80.00	0.35
Mechanical			0.00
Average Harvest	700.00		0.35
Fireline maintence	20.00		0.25
Interest on Capital			0.00
Blueberry Tax	30.00		0.0150
TOT. VARIABLE COSTS (\$)	2,087.19		1.04
 FIXED COSTS:			
Machinery & Equipment			0.00
Land Cost			0.00
Land Taxes			0.00
 TOTAL FIXED COSTS (\$)	0.00		0.00
 TOTAL COSTS (\$/ACRE)	2,087.19		1.04
 RETURNS ABOVE COSTS SHOWN (\$/ACRE)	(87.19)		(0.04)
 AVERAGE TOTAL ANNUAL RETURN TO MANAGEMENT (\$/FARM)	(6,975.00)		

MAP1



MAP2



PHOTO1



PHOTO2



PHOTO3



MAP4



MAP5



PHOTO5



PHOTO6



PHOTO7



MAP6



PHOTO8



PHOTO9



PHOTO10



MAP8



MAP9



PHOTO11



PHOTO12



APPENDIX D – SITE PHOTOS

VIENNA PARCELS



View from lower Vienna Mtn blueberry barren



View from upper Vienna Mtn blueberry barren



Encroaching trees on upper Vienna Mtn blueberry barren



Blueberry field west of Vienna Mtn Road



“Shakespeare house” on Vienna Mtn



Barn adjacent to house



Snowplow turnaround on Vienna Mtn Road



Eroded slope on Vienna Mtn Road (prior to recent BPL work)

NEW SHARON PARCEL



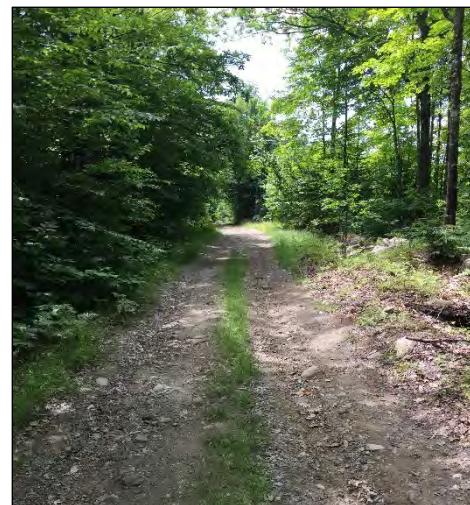
View to west from summit blueberry field on New Sharon parcel



Encroaching pine saplings on summit blueberry field on New Sharon parcel



Existing track on summit blueberry field on New Sharon parcel



York Hill Road adjacent to New Sharon parcel

APPENDIX E

Sources

Resource Information

Maine Department of Agriculture, Conservation and Forestry, Bureau of Parks and Lands. 2019. *Land and Water Conservation Fund (LWCF) Grant Application – Kennebec Highlands, Vienna Mountain Project.* 18 pages.

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Historical Information on “Shakespeare house”

Lewiston Sun Journal. 1962. *Brunswick Ladies Had Unique Shakespeares Retreat in Vienna.* By Clement F. Robinson; published March 10, 1962, Magazine section, pages 1, 6A, 7A.