From: annckdeco50@aol.com [mailto:[redacted]]
Sent: Sunday, March 18, 2018 4:19 PM
To: Massini, Kris (DCR)
Subject: Re: Sykes Mountain Forestry Proposal

To Kristopher Massini (Management Forester), Field Operations Supervisor, Regional Director and Management Forestry Program Supervisor:

We have read the final plan for Sykes Mountain (north-side) State (DCR) Land of 218 acres. As an abutter to this harvest, and a long time Massachusetts Chapter 61 Forestry Program participant, we have an appreciation for harvesting timber especially for disease control. Our recent harvest of our property, approximately 6 years ago, proved to be an all around bonus for disease control, all wild life and the future of our forest for growth and value.
Taking into consideration that the Sykes Mountain property was a homestead area of dwellings and farms, it is good to know that old foundations and cellar holes will be protected for future viewing.
As we all know, the idea of erosion control holds a high value on all property today. With our own property, this was handled expertly by both the state DCR advisors and the harvest people as their experience from past projects was evident.
In closing, as an abutter, we want to say we're excited to see this timber harvest go forward as we feel this is a good thing for a healthy and valuable wooded parcel. Be it known that we are hopeful to be helpful however we are able, as a good neighbor to this parcel. Please keep us informed as time progresses.

Robert and Ann Stevens
[redacted]

Hill, William (DCR)

From: Paula Lyons [redacted]
Sent: Wednesday, February 14, 2018 2:36 PM
To: Comments, Timber (DCR)
Subject: Comments on Shutesbury State Forest North proposal

Hi. I recently reviewed the Forest Management Proposal titled "Shutesbury State Forest North". I found the proposal to be well-written and the plans and justifications to be sound and logical. However, I have two comments:

1) The webpage announcing this project lists the acreage as 133, but the proposal itself indicates that the operation will cover approximately
253 acres. This apparent discrepancy should be clarified.

2) The proposal does not specifically indicate where the access to this operation will be from. It mentions that the only access to the lot is through locked DWSP gates, but it does not indicate which gate(s) will actually be used. It would be helpful to have such information included on all lot proposals, but especially this one, which involves an isolated parcel and close proximity to the New England National Scenic Trail.

Thank you.

Paul Lyons
Shutesbury

Hill, William (DCR)

From: Sasachiminesh [redacted]
Sent: Monday, March 26, 2018 4:15 PM
To: Comments, Timber (DCR)
Cc: DiNardo, Keith (DCR); Parks, Mass (DCR)
Subject: Letter of Comment and Objection to Shutesbury State Forest Logging Plan, posted Feb. 9, 2108
Attachments: DCRObjectionSFLogging.docx

Ladies and Gentlemen:

The Commonwealth of Massachusetts is engaged in the demolition of Indigenous sacred places, Traditional Cultural Properties, and living places of worship for both Indigenous and non-Indigenous persons. In violation of UN Declaration on Universal Human Rights, UN Declaration on Rights of Indigenous People, US Federal Religious Land Use and IP Act, and the ethical standards of archaeology, Indigenous sacred places are under serial destruction with state sponsorship in absence of any consultation with or consent from Indigenous parties.

Moreover, state employees - in concert with private commercial interests - are engaged in personal attacks on Indigenous and non-Indigenous researchers and private citizens who speak out against these crimes against humanity. State employees have engaged in oppression of research and interference abusing government power to interfere in the operations of private societies and to curtail freedom of expression.

In a wholly different area of concern, the Town of Shutesbury reflects the current global status in that we are suddenly facing the loss of a major portion of our forest in the coming years - at the hands of government doing business with private profiteers. Massachusetts is engaged in careless attacks on the environmental security of our citizens, Commonwealth and nation, now, when the world is experiencing year after year of the most extreme climate destabilization on record.

We object to the planned logging cut in northeast Shutesbury as described in the proposal at https://www.mass.gov/files/documents/2018/02/09/Shutesbury%20SF%20final%20posted.pdf.

The proposal is misleading, incomplete and inaccurate on several levels. Attached is a letter of objection that details the failures of the proposal and the detrimental effects of the plan on several bases.

We are asking you to reject this proposal as we find it immediately harmful to our town, to the human rights of Indigenous People, to the biodiversity and ecological health of our town, detrimental to our quality of life, and a reckless endangerment to humankind under the present crisis of climate destabiliization.

This proposal is bad for Shutesbury in large and lasting ways. This proposal is bad for Massachusetts and bad for life on earth. This proposal violates international law, Massachusetts equal preservation policy, Dept. of the Interior Section 106 standards, and rights of religious practitioners under RLUIPA. Thus, this proposal must not proceed.

Please enter the attached letter of objection along with this cover letter into the record of comment for the above proposal.

Sincerely,

R. Pabahtanumwe Cachat-Schilling
Elder, Native American Inter-Tribal Council of Western Massachusetts; Chair, Massachusetts Ethical Archaeological Society

J. Namatassis Schilling-Cachat
Elder, NAITCWMA; Treasurer, MEAS

Miles Tardie (Muhkquashimis)
NAITCWMA, Secretary, MEAS

Mary Lou Ferro Conca
Educator and Longtime Resident of Shutesbury

Michael Suter
Resident of Shutesbury

Beth Adams
Mass Forest Rescue

Chris Matera
Mass Forest Rescue

Gian Di Donna,
Shutesbury Resident

Laurel Facey,
Millers Falls

Henry Geddes,
Shutesbury Resident

Objection for the record in re: Shutesbury State Forest & North Forest Management Proposal, December 2017

March 21, 2018

In honor of Our Mother on the advent of Spring;

After reviewing the named proposal, we object to its implementation on several bases. Note: Cosigned persons object in unison in terms of principles and basic facts, with individual additions and omissions. Personal statements in this letter pertain to the main author and family, while impersonal statements speak for the signers as a group. The facts speak for themselves.

The reasons DCR's logging plan is ill founded are several and will be addressed separately:

1. The planners' description of historical resources on the logging site is incomplete, inaccurate and misleading. DCR's plans constitute several violations under US Dept. of the Interior Section 106 standards, Massachusetts historical preservation equal protection statements, International Human Rights law, UN Declaration on Universal Human Rights, UN Declaration on Rights of Indigenous People, and RLUIPA.

2. The planners' description of the context of the cut is incomplete, inaccurate and misleading. The description of the forest cover is inaccurate and misleading. The description of NHES primary habitats, critical habitats, endangered habitats and vulnerable habitats are inaccurate and misleading.

3. The planners' discussion of species having rarity status on some level within Commonwealth and Federal definitions is incomplete, inaccurate and misleading.

4. The planners' description of potential downstream impacts of the logging plan is incomplete, inaccurate, and misleading.

5. Shutesbury is slated to lose huge areas of forest in the coming few years, none of which is addressed in the proposal. Hundreds of acres are being logged as we speak, which adds to thousands of acres that have recently been logged in the same small town on both private and public lands. A single landholder has taken nearly 3000 acres out of conservations status and plans, according to a 2015 statement, to log this land as "working forest" and to permanently deforest part of it as "light industrial." Forest cover is the #2 shrinking land type in Shutesbury, according to the Shutesbury Town Master Plan, which was written in advance of recent mass logging activity. Altogether, even without the logging proposal by the DCR, Shutesbury is losing a large percentage of its forest cover as we speak and in the immediate future. The last thing Shutesbury needs now is more logging, more disruption of large-range animal territories, more damage to "mature" forests, more logging trucks and noise, and more heavy machinery pumping diesel into our air every day.

Let me preface the balance of this objection by pointing out that i have visited the forests around me daily - 320-350 days each year - to practice Native religion and to enjoy the forest. I have done this for all the last 45+ years, with the exception of a few years. For the last 20 years, my husband and i have practiced traditional Indigenous ways and enjoyed our forests daily. I am formerly a member of IAPT, Plant Records Coordinator for the nation's oldest conservation organization, longtime editor of ecological and biological science research, a published researcher, and am able to identify in the field about 3,2oo floral taxa native to the Northeast, most mammals, birds, hundreds of fungi, and as many insects. My experience includes plant inventories all over this area. My husband and i have archived photos of thousands of species, including most plant species with rarity status.

We have had the opportunity to observe the occupants of the Shutesbury SF in close detail and for prolonged periods thousands of times, literally, compared to your handful

of visits. We know the trees and stones as individuals and can find our way by them alone; we have complete mental inventories.

1. Proposal description of historical resources incomplete, inaccurate and misleading:

Despite stonewalls and a "cellar hole" mentioned in the DCR proposal, the given historical context is misleading and incomplete. Oso:ah Foundation performed a 3-year study of máunumúetash (sacred stone grouping prayer sites) in Shutesbury, which initial report was published in 2016 by Massachusetts Archaeological Society (A Quantitative Assessment of Stone Relics in a Western Massachusetts Town, *Bulletin* of the MAS, fall 2016). I presented a further report from that extended study to American Society for Ethnohistory in Winnipeg at their annual conference in 2017. This research has also been presented to Massachusetts Archaeological Society Central Chapter and Western Chapter, Eastern States Archaeological Federation, Northeastern Archaeological Association, and others. Subsequent reports, Parts 2 and 3 of the named research are in editorial presently. Further research of mine on this subject is forthcoming in a text edited by a doctoral archaeologist who specializes in Native Americans of this area and who directs a research institute. My family and i are descendants of local Mahikan and Nashaway Nipemaug nations. We currently worship at our maunumuetash. This is a living practice.

My studies have documented the structure, distribution, materials selection and ceremonial use of over 60 ceremonial sites in Shutesbury. Within the boundaries of the proposed logging cut are groups of anthropogenic stone works, some of which are probable Colonial relics, and some of which are probable Traditional Cultural Properties belonging to the Algonquian nations of this region. Data recovery in this particular corner of Shutesbury is incomplete and should be thoroughly documented before any damage can occur. My studies indicate need of a thorough assessment of this area for Traditional Cultural Properties (TCPs hereafter) under Section 106 of Dept. of the

Interior standards. Massachusetts Historical Commission mission statement says that all historic properties are to be considered equally for preservation, regardless of origin.

The location and distribution of the studied maunumuetash in NE Shutesbury match the distribution pattern established in my studies and those of many others. Attached below (Table 1) is a sample distribution table for 65 sites in Shutesbury and along its border. The location of the sites in the logging plan also match patterns of maunumuetash discovered in the research of Doctors Moore and Weiss (2016), where individual relics also match those in Shutesbury structurally and in materials selection.

I have documented winohketash (stone mounds), kodtonquagkash (stone groupings of certain types) and other known classes of Ceremonial Stone Landscapes (CSLs hereafter), some of which are in the vicinity of a marked proposed landing on this logging proposal. There is also a sunsh nipamu (standing stone) incorporated into a stonewall that appears to be within the logging plan. As indicated by the DCR cutting map, skid roads appear to invade other TCPs.

As far as i can discover, no tribal entity or office has been contacted to assess TCPs/CSLs within this logging plan. Tribal entities do not appear to have been consulted regarding this plan, nor has their consent been obtained.

Massachusetts has been cited as having "the most extreme policy" of all 50 states when it comes to disrespecting and attempting to invalidate Indigenous Sacred Places. This evaluation was performed by two doctoral, gold-medal-award-winning archaeologists (Oil and Gas Industry Archaeology Award - not exactly 'tree-huggers') in their survey of all 50 states and their policy on this matter (Moore and Weiss, Ohio Journal of Archaeology, 2016).

MHC and its head, Simon, have been overruled by the National Registry of Historic Places ***twice***, where MHC declared no sacred site, but NRHP ruled that tribes and others demonstrated the validity of maunumuetash in Montague above the CT River at Sacred

Hill Ceremonial Site (2012) and in Buzzard's Bay (2014) on post-glacially inundated savannah plains.

Dr. Curtiss Hoffman performed a six-year study of sacred stone prayer sites across the Eastern Seaboard, which is due for publication this May. His findings about distribution of sacred stone prayer sites matches my findings, as well as those of Moore and Weiss, Strezewski, Harris and Robinson, Gage and Gage, and so many others.

Furthermore, Narragansett Preservationist for Ceremonial Stone Landscapes, Mr. Harris, and Mr. Robinson published a study of Nipsachuck historic landscape in which Mr. Harris states that these places have a ceremonial status (Northeast Anthropology, 2015).

The 26 member nations of United Tribes of South and East have published a declaration that stone groupings, a.k.a. Ceremonial Stone Landscapes, are of ceremonial nature and have been part of our sacred ritual life for thousands of years. That declaration is readily available from USET (2007).

"In regard to stone features including 'massive or small structures, stacked, stone rows or effigies,' the USET states, "for thousands of years before the immigration of Europeans, the medicine people of the USET tribal ancestors used these sacred landscapes to sustain the people's reliance on Mother Earth and the spirit energies of balance and harmony (USET 2007)."

An excerpt from one of my studies on this matter:

Case Studies and Cartographic Data on Sacred Lands

Moore and Weiss present the basis for the archaeological assignation of stone prayer sites to Indigenous Americans:

"In an insightful and still relevant chapter titled 'The Stone Mound Problem,' Kellar discusses the often poor excavation techniques and reporting, the various attempts to categorize and date rock features, and the widely differing interpretations of their meanings, most of which he describes as being based in 'folklore, and gross analogy'

(Kellar 1960:401-412). In retrospect, this era of prolific excavation of rock feature sites and Native American ethnography, as ill-informed as much of it may have been, did provide proof that rock features, including small, amorphous, and attritional piles, were being constructed by Native Americans throughout the eastern United States in both the pre- and proto-historic periods (Kellar 1960:402-403, 449, 460 as cited in Moore and Weiss 2016:42)."

Deter-Wolf reports similar findings in the Southeast: "Stone features similar to those at Indian Mountain, 40RD222, and 40RD281 have been documented throughout the Southeastern United States, often associated with ridge line or elevated terrain and in many cases lacking associated artifacts (e.g. Deter-Wolf 2007; Holstein 2006; Holstein et al. 1989; Loubser 2002; Noel et al. 2004; Oakley and Futato1976)" (Deter-Wolf and Hockersmith 2007:3)....

It is not terrain type, but comparative elevation, relationship to water and specific open vista that are selected with prejudice. Deter-Wolf and Hockersmith found a distinct upper elevation and water-associated distribution pattern for stone groupings in the Southeast (2007:3). Holstein found a similar distribution of sacred stone works, also in the Southeast (2010:73-74), while a succeeding study found structural similarities between sacred stone groups in the Southeast and those of a site in Vermont (2012:4-33). Strezewski found that small stone groupings occupied a consistent upland zone and associate with water in Indiana (2004:38) . . . .

Moore and Weiss note that stone features concentrate within a narrow elevation range in their studies on distribution in West Virginia: "All of the rock piles are located among steep upper hillslopes with 18 occurring between 1,500 to 1,800 feet of elevation (2016:55)." In Moore and Weiss (2016), 22 sites are shown as divided in two basic clusters on opposing sides of a valley, near the same level, essentially looking southwest (but also south) and northeast at one another. . . .

"With the exception of [a] clearance cairn, the remaining 22 rock piles were deemed to be of possible prehistoric origin and the site was therefore regarded as a potential TCP (Moore, Weiss, and Collins 2015:106-107). This interpretation was further supported by

the site's morphological and locational similarities to known prehistoric rock piles throughout the Upper Ohio Valley region, which are also constructed of native tabular sandstone, have a range of sizes and shapes, and seem to be most commonly found in upland settings such a ridge tops and upper hillsides, often overlooking aquatic features or other prominent natural features. Similar patterns are also found throughout the eastern United States (citations in the original; Moore and Weiss 2016:57)."

The pattern of distribution seen in West Virginia and *Sanàkkômuk*, in terms of relative elevation, relationship with water, and types of stone groupings that predominate, matches the same elements at Sacred Hill Ceremonial Site (SHCS) in Montague, MA, Pound Ridge Reservation, in Pound Ridge, NY, and Mount Holly Preserve, in Golden's Bridge and Bedford, NY. Actual elevation of sacred stone sites is a factor of total elevation (consistent concentration at elevation capturing overview of terrain, minimal outliers near top and bottom), and also a factor of relative elevation of villages and planting lands. At SHCS, the National Register of Historic Places recognized ceremonial stone landscape (NRHP 2008) lies just below an intermittent spring that erupts near the top of a promontory over *Mantahelas* (Barton Cove) on the Connecticut River. In this *máunumúetash*, stone prayer relics occupy a space above the nearby historic village of Peskeompscut, to the west, but below the highest surrounding elevations. Segregation of stone grouping types is consistent with those at *Sanàkkômuk*. The same pattern holds on the granite highlands of Pound Ridge, near a kill site used from Archaic through Woodland periods, sitting above an extensive wetland to the north and east, plus a small river to the south, where sacred stone groupings are located high on the terrain, but below the highest points (Cachat-Schilling 1984). A single stone grouping can be found at one of the highest points. On Mount Holly, tall hill of smaller overall scale, sacred sites also cluster in a zone about 25 m below the highest elevation, are found near headwaters, and alongside a waterway near a cascade. Though both Pound Ridge and Mount Holly fail to reach the heights given in West Virginia and Massachusetts cases cited here, the relative placement of sites within the range of elevation is consistent, which pattern likely prevails elsewhere.

MHC and DCR have already failed to fulfill their duties in enforcing "no tampering" laws regarding minerals and enforcing preservation statutes of Massachusetts in a reported case of intentional vandalism of an ***actively used sacred stone prayer site,*** a maunumuetash. In that case, before and after photos of desecrated ceremonial stone groupings were provided to Ellen Berkland and Patrice Kish, MHC reps listed as persons of responsibility within the DCR on this matter. The name of the perpetrator was given, along with his probable address, to Berkland and Kish. Berkland at first promised to meet with me to investigate, then never showed up, then ceased to respond. I confronted and informed the family of the vandal that this is a place of living worship. There is no evidence that Berkland did anything to engage pertinent laws in this reported crime. The perpetrator later returned to more thoroughly demolish the sacred site, while Berkland, Kish, and the Commonwealth did nothing to curtail this assault on our religion. The perpetrator was named by his own mother. This attack on Native religion took place in full informed state on the attacker's part.

Berkland did not stop there, but went on to launch a vengeful campaign of defamation against me for reporting the crime and reporting MHC/DCR's failure to perform their duties in respect to protecting minerals from tampering and to protect historically significant sites. Berkland was reported calling me "the Antichrist" at MAS Board of Trustee meetings. "Antichrist' in reference to a Medicine Person and Native Religion practitioner is a racist and historically-loaded attack. Berkland joined the MAS Board just after publication of my research, and has used her official status to ransom a private society to suppress research and attack Indigenous researchers. Berkland employed her government status to wield power in a racist attack, while recruiting other members of MAS Trustees who have ties to or are employed to MA government. Her actions, those of the MHC, and the DCR constitute crimes against humanity under international law regarding ceremonial sites, under UNDUHR, and UNDRIP. Berkland's actions also violate MAS bylaws and the professional standards of archaeological ethics to which Berkland is signed. Berkland's actions also constitute an abuse of power and governmental repression of free speech, as well as open scientific discourse. MAS violated its own bylaws two publication cycles in a row to prevent the *Bulletin* Editor

from publishing significant research that MAS had already accepted. MAS refused to take any responsibility for the actions of its agents. MA Ethics Committee has not responded to the complaint filed in this matter.

The United Nations Declaration on Universal Human Rights (UNDUHR) guarantees all people the right to practice their religion and to access their places of worship. The USA is a signatory nation to that declaration. The United Nations Declaration on Rights of Indigenous Peoples guarantees Indigenous people authority over their intellectual and cultural property, and right of both prior consultation and consent regarding actions impacting sacred places. No consultation or consent has been performed or given in the proposal to log and desecrate our sacred maunumuetash by DCR.

The USA has been sharply criticized in successive reports by the assigned UN Rapporteur on Rights of Indigenous People, after researching practices across the USA. In 2014 and 2015, Hon. Mr. Alaya, and again in 2016 his successor, Hon. Ms. Tauli-Corpuz, filed scathing reports of human rights abuses specifically against Native Americans in regard to abuse of our sacred places without consultation or consent, and disruption of access to our sacred places. In all 3 reports, it was found that state and federal entities were habitually violating international law and both UNDUHR and UNDRIP.

RLUIPA guarantees "marginalized" and "start-up" religions access to their places of worship, and bars governmental bodies from acting in concert to deprive anyone of access to their place of worship. Our places of worship are our maunumuetash, against which DCR and MHC are engaged in serial destruction, thus violating RLUIPA, UNDUHR, and UNDRIP.

Given the denialist, unethical and extreme position of MHC, as cited above, it cannot be entrusted to the MHC or its employees, like Berkland and Kish, to oversee compliance with Human Rights, Indigenous Rights, International Law, federal law or state law, or even the MHC mission statement, in regard to Indigenous sacred places.

2. The True Ecological Context of the Shutesbury SF Logging Plan:

Notwithstanding notes within the plan, the context of the proposed logging cut is misleadingly depicted in the proposal.

One note: the responsible department is called Conservation and Recreation. Yet, the proposal notes only a "recreation district" and a "forest management district." Conservation comes first in name, but is not represented in the responsible parties and departments for the proposal, which, upon examination, is indicative of the content of the proposal.

Page 1: rationale for logging this forest -

Described as "evenly aged" and lacking "structural complexity," the map provided (fuzzy image) indicates that the DCR description is untrue to reality. In the logging plan are indicated several forest types, multiple streams - including a major branch of Swift River and critical that is misrepresented in the proposal as being a mile away - and hardwood swamps. That is fairly diverse on the face of it for the total area in question.

The forest of concern is very structurally complex, in complete contradiction to the claim of the proposal. By contrast, newly cut sapling thickets are not structurally complex at all, nor are young secondary growth plots. Plots already cut by the DCR nearby completely lack structural complexity or dynamic variation in age, which are overwhelmingly of uniform age and monoculturistic structure post-logging. The forest fictionalized by the DCR as lacking complexity is actually quite complex, with a well-developed understory and a diverse ground-level floral community. Every age from seedling to about a century of growth is abundantly present on the very lands the DCR plans to cut. The *Prokonta* kingdom diversity level present within the proposed logging plan is exceptional partly due to terrain and exposure factors, but also due to the superior

age of this forest, its low level of "infrastructure development," and relative lack of human disturbance of all kinds. There are locations in the planned cut that support uncommon species of *Fomitopsis, Morella, Omphalotus*, along with slow-growing and medically valuable *Ganoderma tsugae, Pitoporus betulina.* The genera listed by no means exhaust the valuable and uncommon *Prokonta/Heterokonta* (for prokonta and heterokonta phyla, see https://www.sciencedirect.com/science/article/pii/0303264781900502, T. Cavalier-Smith, Eukaryote Kingdoms: Seven or Nine? in *Biosystems* 14, 3-4:461-481 1981) present on the logging cut, and no responsible survey of that kingdom has been performed that is in the public record. Massachusetts does not even track or list rare *Prokonta* or bacteria species, even though *Prokonta* and bacteria are responsible for enabling trees to fix nitrogen.

I, and some of my family, know the land in the proposal quite well. There happens to be a very large bear that has in recent years denned near the east edge of the proposed logging cut. The proposed cut will directly impact feeding areas where that bear frequents, as evidenced by spore, tracks and signs of feeding. There is a very large bull moose that frequents, as well as the bear, the swamps and river in the proposed cut. There are ravens nesting near the south boundary of the proposed cut, though it's not clear on the fuzzy image which side of the boundary their nest sits. There are a number of species on the planned logging site with rarity status that will be addressed below. Areas in the NE and S of the logging plan provide major winter habitat for moose and deer.

It is partly the comparatively mature age of many parts of this forest, and partly its lack of "developed infrastructure" that provides safe refuge for deer, moose, bear, ravens and other species, particularly in winter. The oak forests, having reached a good size, provide critical mast for turkey, bear, deer and a host of other species. Beech, hazelnut, hemlock, and a host of other species common to this logging plan site also provide major winter staples for a host of species.

The forest is described as "uniform" in age, which is utterly untrue. The older sections of forest within contain abundant saplings of diverse species, and far superior diversity of forbs and shrubs when compared to recently-cut forests. As well, there are many logging roads, trails - both foot and vehicle - that are in varied stages of reforestation. The ages of these swaths are much younger than the surrounding forest. There are additionally a number of blow-down areas from historic storms, some of them recent. Together, these variations actually produce a forest mosaic that contradicts the misleading DCR description. There is one age group that is missing from almost all of Shutesbury forests: there are no ancient forests and almost no ancient trees within the logging plan or nearby. By its own statement, the forest is under 150 years old, and trees exceeding 200 years in age are quite uncommon. Such a scenario gives no habitat at all for species that require aged forests. By not allowing a forest of superior age to continue its undisturbed cultivation of biodiversity, the ancient forest species that have not yet succumbed to extinction are fated to certain extinction.

Trees described as ill or diseased are being perverted through the device of misnaming. What DCR is calling undesirable biomass to remove is actually the habitat and nursery of an enormously long list of vertebrate, invertebrate, plant and *Prokonta* species. Many species that live in "diseased" and "damaged" trees are important beneficial insects, as well as birds that help trees by feeding on carpenter ants, termites, various bark beetles, moths, and other "pests." The term "pest" is entirely ignorant of forest ecology and represents the commercial anthropomorphosis of what should be an ecological discourse. Trees "compartmentalize" overactive symbionts. Symbiont is the only term appropriate to species that live on and around trees. Tree-symbiont interactions are complex and dynamic, while the nature of tree-symbiont interactions often change dramatically across life stages of interacting species (*Trees, a Challenge of Perspective,* Cachat-Schilling, 2008 ELA journal). Trees are by nature communal, sharing defense chemicals and nutrients through their root network on interspecies and intergeneric bases through the medium of fungal mycelia. Species termed "pests" and "disease" by DCR planners are actually part of the interdependency web of forest biodiversity and health. Symbionts,

beneficial parasitoids, microbiota (many with great medical value), mammals, reptiles and birds count on "pests and diseases" for their critical food resources.

The plan notes that there is a low burden of invasive species in this forest, which relative freedom from invasive species is the result of low disturbance and the retirement of logging roads and recreational roads. Incursion of skid roads and opening of the canopy will introduce a rapid increase of invasive plants, a pattern that has been studied and noted by New England Wild Flower Society, the nation's oldest conservation society, and many others.

Growth is not "stagnated" as claimed by the planners. Growth does not really "stagnate" in trees. Trees do not stop growing, nor do they experience true senescence. Vertical trunk growth may be somewhat more rapid per annum in younger trees, but horizontal spread of canopy and mass of non-leaf tree materials are greater in older trees than younger trees. Overall, older trees put on more total biomass per year than younger trees due to their far greater total growth surface. Carbon has been locked up in large volumes of biomass in older forests, both above and below the soil. New carbon is being locked up in saplings, understory flora, fauna, and the older trees - all.

We have to preface any regional discussion on biodiversity with the fact that a mass extinction occurred in Northeast North America from 1513-today. There have been estimates as high as 35+% loss of total species diversity. Some species lost to Colonization include major keystone species, like American chestnut (persisting only as root sprouts that almost all die before fruiting), slippery elm, Eastern Timber Wolf, passenger pigeon, and dozens more. Our healthiest forests represent an attenuated version of former forests.

A. Biodiversity is a function of time, space, and disruption. A great body of population biology, evolutionary biology, and conversation studies on the ground demonstrate that biodiversity has as its basic substrate two factors: variability of terrain as a cause of speciation and fertility as support of populations overall. Biodiversity as a result has

three overarching factors: time, space, and disruption. The greater the length of time an ecosystem continues under low levels of disruption, and the greater the space that endures without significant disruption over time, the greater the resulting biodiversity.

B. Forests managed under harvesting system lose their variability of age. Time is an important factor in diversity, and age of stands is one manifestation of that factor. Absence of ancient, "virgin," or even "mature" forests under current management regimes necessarily impacts diversity in a negative manner. This is because habitat for species dependent on "mature" and ancient forests are left with no habitat, and therefore crash. Unlike animal forms of life, trees do not "mature" or endure "senescence," in the sense of fundamental change, so both terms are not valid in reference to trees. Loss of ancient forests and even well-aged forests has resulted already in a mass extinction, and continues to threaten a long list of species. Despite claims of diverse forests, my personal studies of forest cover in several Franklin towns shows that the managed forests are remarkably uniform in age. For instance, almost all forest in Shutesbury is between 0-130 years old, while 20-80 years old takes in a heavy majority of forests here. Trees over 150 years old are almost absent from this town. Ancient forests are extirpated in Massachusetts landscape.

Furthermore, logging methods remove hardwoods, while in every way intentionally encouraging *Pinus strobus* for commercial reasons. This practice creates quasi-monocultures that are diversity deserts.

C. Forest management models completely neglect microbial biodiversity, breeding and living habitat for invertebrates, and impacts of microbes and invertebrates on forest diversity. Microbes evolved to live under a forest canopy experience mass die-off when exposed by logging operations to sunlight. Microbial die-off post-logging causes a mass exhalation of sulfides, nitrites, methane and other gaseous hydrocarbons, and polycyclic aromatic hydrocarbons, many of which are carcinogens. Methane is many times more heat-trapping than CO2. More importantly, microbes and minute invertebrates are responsible for close to 100% of forest fertility, which directly impacts diversity as one of

two basic supports of diversity. "Dead and diseased trees" are other words for "invertebrate, mammalian, and avian nesting, growing, and living habitat." Removing "undesirable" trees is the same as levelling neighborhoods and demolishing nurseries.

D. Logging with heavy machinery requires drastic destruction of the understory and saplings in logged areas. Most of the surface flora are destroyed. Logging operations leave the creatures in those forests homeless. Forests do not have empty niches, so there is nowhere for them to go. Isolated trees do not serve well as habitat because they are exposed to predators on all sides. Also, isolated trees are more likely to be taken down by wind/lightning. Species are very non-uniformly mobile. Only birds, winged insects and larger mammals are likely to escape a forest cut. Rodents, invertebrates, turtles, snakes, salamanders, and all the plants are unlikely to escape. The nature of rare and endangered species is that they do not enjoy abundant habitat and/or they do not establish/re-establish populations readily. Thus, the model of rotational "harvest" on a repeated cycle every 70-100 or so years is a total disaster for rare and endangered species.

DCR cuts do not respect Rare and Endangered Species Primary Habitat delineations, which i can show as evidenced by the DCR's own cutting plan maps, for instance, in the case of a cut for 2017 across from DCR subHQ in New Salem, where the planned logging boundaries liberally invade RESPH areas as marked by the DCR.

E. Forest disruption encourages opportunistic diseases, invasive plants, and the over-growth of "pioneering," successionally aggressive, and "weedy" species, all 3 of which have the result of suppressing all diversity, at least during periods of growth lasting some decades.

In addition to the large carbon footprint of logging logistics (trucking, road building, running heavy machinery, processing and burning), cutting the trees leads to release of sequestered carbon. This is something we should avoid in the present times of global greenhouse gas climate crisis.

Exposing the understory microbiota results in massive release of not only carbon, but also methane, many times more heat-trapping than CO2, plus species of nitrogen and sulfur compounds that are precursors to acid rain. Acid rain releases mercury from the soil, and death of microbial communities also releases heavy metals into the water column. Microbial biomass of a "mature" forest can equal or exceed the above-ground biomass, and so should be a primary consideration. Nowhere is this matter given consideration in the proposal.

Downstream of these released heavy metals is the Quabbin Aquifer. This logging plan is in the Quabbin watershed and includes a large section a major tributary. There are 3 other watercourses that are included in this logging plan, and the planners admit that there will be downstream impacts from the logging cut..

Planners claim there were few animals encountered on their survey. Maybe they are not good at seeing the presence of animals. We noted quite an abundance of animals in the great deal of time we have been in this forest. We have also noted presence of species with conservation status within the proposed logging cut.

The primary habitats mapped along the Quabbin mentioned in the report are misleadingly described as being almost a mile south. It is not made clear in the proposal that all the streams to be impacted by the logging plan drain into this primary habitat. There are many nearby vernal pools and important habitats that are ignored in the proposal.

3. Proposal description of Species Having Rarity Status Incomplete, Inaccurate and Misleading

We have seen spotted salamander plenty in several places SE and West on the proposed logging cut. Though they are not rare, they are suffering from development already. Blue spotted salamander (*Abystoma laterale*) is common in the SE part, and we have seen *A. jeffersonianum* and *A. opacum* in the SE sector also. Both just-named species require mature forests, a probable reason for their presence in this case. We have seen *Gleptemys insculpta* along the west area of the proposed cut, and along the road downstream where

the Swift River tributary passes along and under the road. *Terrapene carolina* is also present. *Pantherophis alleghaniensis* did have a den in an outcrop on the south face of the central ridge, though the map is too poor for me to be clear what side of the border and it hasn't been checked in several years.

Table: Elevation Distribution of Maunumuetash Sanakkomukit (Shutesbury CSLs)

Figure 8
Elevations of Studied Sites - Sanàkkômuk, N. Kinkgiyungkômuk and Quaquatchu

Figures given accurate to within +/- 3 m unless marked with "~" or "()." Figures marked () are to within +/- 5 m.

Quaquatchu (Kwâkwâciw)
1. (360 m) - 375 m
2. 360 m - 365 m

Wunnatohkekomet
1. (300 m) - 310 m
2. (290 m) - 295 m
3. (315 m)
4. (280 m)

Waabemiskig
1. (315 m) - 330 m
2. (3) 315 m
3. 320 m
4. 315 m
5. (61) 330 m - 335 m

Tohkekomuash
1. (11A) 315 m - 300 m
2. (11) 315 m - 300 m
3. (7) 300 m - 310 m
4. 300 m - 330 m
5. 320 m

Pashpishont
1. (18) 310 m - 345 m
2. (18A) 285 m - 290 m
3. 290 m
4. (18B) 285 m - 270 m
5. (18C) 300 m - 305 m
6. (18D) 306 m - 309 m
7. (18E) ~300 m
8. (18F) 285 m - 300 m

Wuttahmineshket
1. 224 m

Yawsipuwisset
1. 315 m
2. 300 m - 310 m
3. 300 m - 315 m
4. 303 m - 306 m
5. 309 m - 312 m

Mukkoshqut
1. 318 m
2. 330 m - 333 m
3. 324 m - 327 m

Woscheke Winohket
1. 321 m - 300 m
2. 307 m - 315 m
3. 327 m - 333 m

Mishsephausuonket
1. 300 m - 306 m
2. 303 m
3. 309 m

Monasipogquash
1. 270 m - 273 m
2. 265 m - 270 m
3. 260 m
4. 255 m - 258 m
5. 253 m
6. 228 m - 240 m

Hassanapawtuckquash
1. 150 m

Sirius
1 - 5: 260 m- 381 m

Showaniyeut
1. 345 m - 351 m
2. 315 m - 318 m
3. 364 m
4. 345 m

South Brook
1-5 285 m - 300 m

South Brook North
1-3 315 m - 345 m

Morse Hill
1-3 300 m - 315 m

4. Downstream Effects of Proposal Incomplete and Misleading

The proposal cuts across the headwaters of 3 streams feeding the nearby Swift River, which are uphill of often steep slopes of a rich wetland area surrounded (so far) by forest, providing safe, sheltered breeding and habitat for stressed riparian and riverine species. As well, the area by Cooleyville Road includes locally uncommon sandy creek habitat, which is essential for a number of species. This area stands to be impacted with silt from logging operations, especially under an increasingly storm-driven precipitation pattern that dominates our climate. Noise disruption is another factor that does not receive appropriate consideration in terms of impact on wildlife.

The last thing the world needs right now is more deforestation. We are in the midst of a mass extinction event, which has been written about by many. Shutesbury is facing massive deforestation and this proposal is a nail in the ecological coffin of the town, as well as another nail in the quality of life in the town.

Aside from ecological and quality of life considerations, this proposal is part and parcel of a pattern of misconduct that violates human rights, state and federal equal protection and rights to practice religion, federal acts, preservation ethics, and international law.

We demand a proper tribal assessment of any anthropogenic features before they are placed at risk by the actions of logging. We also demand that this project be suspended in view of the large-scale deforestation already planned and in action for Shutesbury, the failure of DCR to perform detailed ecological assessments, and the presence of at-risk species. We demand this proposal be rejected for each and every reason encompassed in this comment and objection.

Sincerely,

R. Cachat-Schilling, Shutesbury
J. Schilling-Cachat, Shutesbury
Miles Tardie, Shutesbury
Mary Lou Ferro Conca, Shutesbury
Beth Adams, Leverett
Chris Matera, Northampton
Michael Suter, Shutesbury
Gian Di Donna, Shutesbury
Laurel Facey, Millers Falls
Henry Geddes, Shutesbury

From: Contact Me <[redacted]
Sent: Friday, March 23, 2018 4:23 PM
To: DiNardo, Keith (DCR)
Subject: Objection to FMP - Shutesbury State Forest

Keith di Nardo
40 Cold Storage Drive
PO Box 484
Amherst, MA

I want to register my objection to the Forest Management Proposal posted Feb. 9, 2018 (planned logging in the NE corner of the Shutesbury State Forest.)

The state forest is an asset that provides innumerable economic benefits to Shutesbury, including opportunities for businesses supporting outdoor recreation, cultural and historic tourism, and relocation for outdoor-minded professionals. Please consider the ways in which this proposal negatively affects the forest and therefore the health of the town:

- Selection criteria listed in the plan notes the minimal presence of invasive species. This indicates a healthy forest that will be degraded by logging since adding sunlight to a forest floor promotes the growth of invasives.

- The Forest Composition section states that this is a healthy forest with primarily native hardwoods and almost 100% canopy cover. This is something worth visiting. A 50' buffer area between the cut and the New England Trail is not the same. While the AT can weather a few ugly areas, it will dissuade hiking on the newly created NET.

- The plan lists numerous opportunities to violate the MA Wetlands Protection act. It seems unwise to pick a location with so many "water hazards".

- Experts have spoken about the possible presence of historic and sacred sites within this forest. Research could further the benefit of this forest as a place for cultural and environmental discovery.

Although we chose to relocate to Shelburne Falls, Shutesbury was high on our list because of its proximity to forest and urban areas. That's a rare combination. I hope the Forest Service will appreciate the value of the Shutesbury State Forest to the area's economic wellbeing and show greater prudence in their desire to log it.

Sincerely,
Clarissa Spawn
[redacted]

BRIDGEWATER
STATE UNIVERSITY

03-27-18A08:03 RCVD

March 22, 2018

Keith DiNardo
40 Cold Storage Drive
P.O. Box 484
Amherst MA 01004

Dear Mr. DiNardo:

Local residents have informed me of DCR's Forest Management Proposal for Shutesbury State Forest North. For the past six years, I have been compiling an inventory of stone structure sites throughout the eastern seaboard of the U.S. and Canada. These are sites which are identified by indigenous tribes throughout the region as their ceremonial sites. Despite the persistence of these traditional claims, and despite ample historical and archaeological evidence in support of them, the Massachusetts Historical Commission maintains the unscientific and dogmatic position that all stone structures in the Commonwealth are the result of EuroAmerican farming activities. A 2015 survey of state historic preservation offices across the U.S. published in *The Ohio Archaeologist* found this position on the part of MHC to be "most extreme" and distinctly out of step with all other states. This is particularly unfortunate, because Massachusetts contains approximately three times as many sites of this sort as any other state in the region. Since MHC refuses to list these sites on its own inventory, they are vulnerable to casual destruction by any development and management projects which disturb the soil surface.

I currently do not have any sites listed in my inventory within the project area in question, but the adjacent towns of Shutesbury, Leverett, Wendell, and New Salem have over 130 documented stone structure sites, arrayed in a coherent and statistically verifiable cluster, and comprising over 1,500 individual structures. Many of these sites have been reported to me by local residents, but I have also visited several of them to confirm their accounts. Many of them are located on steep slopes, very similar to what is found in the project area. These slopes are utterly unsuited for agricultural activities, so I conclude that any stone structures which may be present are most likely the work of indigenous people, both before and after European contact. Based on what I have documented so far in the area, I would not be surprised if additional sites of this kind were present in considerable numbers in the project area.

I would urge DCR to undertake a thorough walk-over survey of the property <u>prior to any cutting</u>, to document all stone structures, using GPS as indicated in the Cultural Resources section of the proposal; and furthermore, as indicated, to avoid the disturbance of any such structures. It would be advisable to include representatives of local indigenous nations in the survey, since they are most familiar with the nature and significance of sites of this category.

Very truly yours,

Dr. Curtiss Hoffman
Anthropology Department
Bridgewater State University
Bridgewater MA 02325

Town of CONWAY, Massachusetts

P.O. Box 240 - Conway, MA - (413) 369-4235 fax: (413) 369-4237
Town Office @32 Main Street, Town Hall @ 5 Academy Hill Road
www.townofconway.com

March 14, 2018

MAR 21 2018 PM 2:26

Massachusetts Department of Conservation and Recreation (DCR)
Bureau of Forest Fire Control and Forestry
c/o Nicholas Anzuoni
PO Box 1433
Pittsfield, MA 01202

Re: Conway State Forest (CSF) Forest Management Proposal ("Cricket Hill 2018"), as posted 2/9/2018

Dear Mr. Anzuoni:

It has recently come to our attention that the state DCR is planning a multi-year harvest of timber on land in the Conway State Forest (CSF), which comprises more than a thousand acres of the southern half of Conway. We have obtained and reviewed the DCR's 9-page "Forest Management Proposal," which remains open for public comment until March 26th.

We appreciate and would like to underscore the DCR's welcome acknowledgement that this portion of Conway "has a rich history of colonial settlement followed by farm abandonment in the late 1880s," and that "there are abundant stonewalls and cellar holes scattered throughout the project area and the entire state forest."

That rich history is something that we are in the midst of trying to document, with deed research, field work, and mapping, using modern digital tools. To date we have documented most of the old roads in the CSF, and many of the cellar holes, but we have more work to do, and have yet to do a careful off-road search for any pre-colonial ceremonial stone landscapes that may be located within the Conway State Forest. (Because DCR's proposal mapping is poor, we're not certain of the areas of first priority for DCR, nor can we easily point out errors, or areas of historical concern, using DCR's map.)

We are glad to see that the DCR proposal pays attention to protecting stonewalls, cellar holes, and other cultural sites, but are concerned about the dramatic effect that years of timber harvesting will have on both the CSF landscape that's most frequently visited, and on the old roads that access the CSF. We understand the need to thin or clear the overcrowded, monocultural spruce plantations, which effectively obliterated the features of the old farm fields that predated them (though such cutting will itself have dramatic effects), but see less need for a large-scale, wide-spread harvest of native hardwoods, which have finally regained a size of some significance - thereby helping to reduce understory growth that impedes public use of the land (particularly in today's tick-infested environment).

In short, there may well be historical cultural sites within the planned area of cutting in the Conway State Forest that neither we nor DCR have yet identified, that should be marked for protection before cutting commences. Volunteered time and weather conditions will dictate when a thorough CSF survey will be complete, but, meanwhile, please note our concerns for the record. Thank you.

Sincerely,

Cynthia Bluh

Willis Burnett

Malcolm Corse

Carl Darrow

Laura Nicholls-Shaw

Yulia Stone

Sarah Williams, Chair

CONWAY HISTORICAL COMMISSION