



Friends of Pine Hawk
% Acton Memorial Library
486 Main Street
Acton, MA 01720
www.actonmemoriallibrary.org/pinehawk

Board of Selectmen
Acton Town Hall
472 Main Street
Acton, MA 01720

September 9, 2016

RE: Comments regarding proposed water treatment plant expansion in Acton and potential impacts upon sensitive Archaeological and Natural Resources near Nagog Pond

Dear Acton Board of Selectmen:

We are writing you as members of the Friends of Pine Hawk (FoPH), an Acton-based group focused on the archeology and Native American history of our region. Since our founding in 2002, we have sponsored over 100 events (seminars, field trips, museum visits) in Acton and have also worked with Acton Town and School personnel on projects relating to our focus areas.

This past year, we have been begun following the proposed development plans for Concord's Acton-based Nagog Pond Water Treatment Plant. In this letter, we will:

- 1) detail our deep concerns about this proposal,
- 2) share some preliminary conclusions, and
- 3) offer recommendations for your consideration.

Among our recommendations, we wish to emphasize that there is an alternative site. We strongly concur with the well-stated findings of the Acton Land Stewards in their letter to their Board of Selectmen (March 15, 2016), (see Appendix A). Of particular note, is their recommendation to seek "...another location, preferably a brownfield site ...". Fortunately, [another] Concord owned CMLP parcel presents a "feasible and prudent alternative" site which already is dedicated to industrial purposes and needs. This potential alternative site needs to be fully reviewed. Usage of this site significantly removes the vast majority of impacts to the sensitive Nagog Pond Area and abutting residential neighborhood. Other alternative sites and solutions that minimize Nagog Pond Area impacts also should be identified and explored fully.

1. Concerns:

Of particular interest to Friends of Pine Hawk members are the potential injurious impacts to the a) archeological resources, b) biodiversity, and c) open space availability of Nagog Pond and beyond.

a) Native American Archaeological Presence and Resources, and Nagog Pond Area Archaeological Investigations

In 2008, Acton contracted with the Professional Archeology Laboratories (PAL) to identify town land areas of high archaeological sensitivity. Two maps were produced, indicating sites of high sensitivity for Native American archaeological resources, from both pre and post contact periods. These two maps (attached as Appendix B) and show high sensitivity in the Nagog Pond area, including the cove and environs where it is proposed to reconstruct and consolidate the new treatment plant. It should be noted that the surface water levels have risen significantly for both Fort and Nagog Ponds since their Native American occupation. There is no survey of archaeological sensitivity for now submerged lands. But it is well known that the Native Americans resided and used lands close to the water's edge and it is similarly indicated that their dead are buried in the vicinity of wetlands as a practice. It is reasonable to assume that these flooded lands are also of very high sensitivity and have not been assessed as of yet.

The Native American residents of the Nashoba Praying Indian Village selected its location between two major fresh water bodies – Fort Pond and Nagog Pond, both in Acton and Littleton. (In Algonquin, "Nashoba" translates to "between the waters" and the local Nipmuc people were sometimes referred to as the "Fresh Water Indians"). Native American artifacts and indications of their presence can be found in this immediate

area and surrounding environs. In the vicinity of the Nagog Pond pump house site was a stone turtle effigy consisting of an aggregate of rocks with additional rock appendages serving as limbs and head (identified by local historian, amateur archaeologist, and author Dan Boudillian). On a recent field trip there it was discovered that this ceremonial stone structure was permanently destroyed, probably due to lack of awareness and construction activity either by Concord for its last upgrade of its water treatment facility or perhaps by the immediately adjacent Quail Ridge development. These and other above ground Native American artifacts need to be permanently protected. Research and works of author and local historians Dan Boudillian, Peter Waksman, John Hanson Mitchell, Dr. Tim Fohl, Linda McElroy, Professor Curt Hoffman and his doctoral students, and those discussed at Acton's archaeology programs hosted by the archaeologically focused Friends of Pine Hawk organization reinforce these views.

On the other side of Nagog Hill Road on the Littleton Conservation Trust's Sarah Doublet Forest and Nature Reserve (SDFNR) land there are additional archaeological sites/ stone effigies and other purported Native American sites extending into nearby Fort Pond. It is likely these also extend on Nagog Pond lands on shore borderlands and beneath the water surface when more land was exposed before flooding due to the construction of the current Concord dam to enhance its drawing of drinking water for its town's consumption.

b) High Biodiversity in Nagog Pond Area

In recent local area presentations, Environmental Engineer/Planner Robert Pine and Professional Archaeologist Michael Roberts have presented clear evidence that due to glaciation variability and movement, an especially high level of vegetation and wildlife biodiversity thrives in the area as a result of glacially created varied land forms, diverse soil content, and numerous surface water bodies.

This unique combination of characteristics made the Fort Pond and Nagog Pond Area very attractive to the Nipmuc tribe that was allowed to select the location for their Praying Indian settlement. The sites of the expansive Nipmuc Nashoba Praying Indian Plantation and the follow-on New Town Indian Village (the Nashoba Reservation later reduced in size to 500 acres by the Mass Bay Colony) were selected by the Nipmucs, in part, because the area best met their needs. The area provided both shelter and protection by the water's edge (water levels then much lower than today) and fertile hunting and gathering grounds.

The current 98 acre Sarah Doublet Forest and Nature Reserve, which abuts Nagog Pond and Fort Pond is at the core of these two Native American reservations, exhibits this high degree of biodiversity. The Reserve is now owned, protected, and maintained by the nonprofit Littleton Conservation Trust (LCT). As part of the MA Executive Office of Environmental Affairs' Biodiversity Project, SDFNR was surveyed by wildlife biologist and noted conservation educator Charles Roth. Over 500 local species were identified and recorded into the state's MA GIS system. Recently, bald eagles, a keystone species, have been observed to frequent Nagog Pond.

Charles Roth, then Director of Education at Mass Audubon Society, was the prime mover to permanently protect the SDFNR land for conservation purposes because of this high biodiversity and strong archaeological history, complete with onsite Native American stone effigies, and other stone works. This same high biodiversity and Native American presence extends throughout the Nagog Pond Area.

c) Open Space and Connectivity Concerns in Nagog Pond Area – Need for Permanent Protection and Low Impact Public Access

Nagog Pond is designated and reaffirmed as a Great Pond and Outstanding Resource Water. As a Great Pond, Nagog Pond is owned by the people of the Commonwealth of Massachusetts. The Nagog Pond watershed is centrally located as an open space link to permanently protected surrounding conservation lands, thereby creating a critical corridor for both wildlife and humans.

Concord has acquired land surrounding portions of Nagog Pond to protect the natural resources therein and to enhance water quality as its source of drinking water. For the purpose of protecting water quality, Concord has denied public access to these watershed lands in both Acton and Littleton. Once water filtration is implemented on the water stream drawn from Nagog Pond, there is no longer a need to prohibit low impact public access on these surrounding lands (other than possibly at the very immediate vicinity of a treatment facility itself). Restrictions via fencing should be eliminated entirely or minimized as best possible.

Good models of combined public access and permanent environmental protection of watershed lands used to protect drinking water sources are the state's watershed lands at Quabbin and Wachusett Reservoirs. The project applicant should consider the use of conservation easements on its pond side lands for providing

permanent land protection and public access, granted at no cost, and in collaboration with the host communities of Acton and Littleton, for regional benefit.

The desire for public access to these lands is evident by the pre-existing well-worn trail systems surrounding the pond and the expressed desire of the Acton and Littleton communities to provide open space connectivity, amongst Littleton's nearby open space lands, including the historic Sarah Doublet Forest and Nature Reserve (former Nashoba Praying Indian Plantation and New Town Indian Village), Littleton's Morrison Farm/ Nagog Hill Orchard, and Cobb Memorial Reservation, and along with Acton's extensive conservation network of lands and trails.

Acton's Trail Through Time (TTT) also needs to pass through this now prohibited area. The emergent TTT project connects restored archaeological sites in North Acton with the former Nashoba Praying Indian Plantation/ New Town Indian Reservation land, which not only abutted Nagog Pond but extended to lands now submerged by that same water body. The communities' desire to permanently protect these watershed lands and to provide public access to them is also expressed in both the Acton and Littleton Open Space and Recreation Plan Reports, which have been approved in each municipality and by the state.

The Open Space aspect of this project and its potential impacts need to be more thoroughly explored, especially with regard for Acton and Littleton's long stated open space goals and performed in collaboration with their respective citizen organizations focused on conservation/ natural resources, open spaces, local history, and archaeology.

2. Conclusions:

a) Current archaeological studies of these lands are limited in current day knowledge as well as in scope. While test pits and other sources of information has been provided it totally ignores writings and knowledge about nearby identified ceremonial stone works and structures. Additionally, the archaeological survey needs to be updated and conducted in collaboration with Native American representatives from those tribes who have historically occupied these lands and have direct knowledge (i.e., in particular the Nipmuc and Narragansett Nations) and incorporate knowledge from the considerable local group of historians, archaeologists, and authors who have studied and written about the Native American presence in the Nagog Pond Area. Previous communications with MEPA contain names of some individuals and organizations who should be contacted in Acton, Littleton, and Concord. FoPH has hosted public lectures over the years by these same individuals who know and have led walks over these lands. This missing knowledge is glaring and needs to be gathered, documented, and submitted.

b) The centrally located open space provided by Nagog Pond with its connectivity to surrounding conservation lands and environs is a connected corridor. Hopefully, it can be fully opened and permanently protected for benefit of all. With the addition of water filtration, there is no need to restrict public access for low impact use (e.g., current hiking trails in the Nagog Pond Area should be publicly accessible). Good models for this are the permanently protected lands that comprise the state's drinking watershed at Quabbin and Wachusett Reservoirs and which explicitly allow low impact public access and connectivity with other abutting open space lands. The project applicant should consider the use of conservation easements on its lands (for permanent land protection and low impact public access, granted at no cost) and collaboration with the host communities of Acton and Littleton for mutual benefit. Restrictions via fencing should be eliminated entirely or minimized as best possible. Current host town Open Space and Recreation Plan Reports have expressed interest in either acquiring these open space lands as conservation lands and have public access to them. Well-worn trails over these lands are currently in place. Acton's Trail Through Time (TTT) project connects restored archaeological sites in North Acton with the former Nashoba Praying Indian Plantation/ New Town Indian Village Reservation land (which both abuts Nagog Pond and extends on lands now submerged by that water body) needs passage through the Nagog Pond Area. The Open Space aspect of this project and its potential impacts need to be more thoroughly explored, especially with regard for the host communities' long stated goals for either acquiring these lands for conservation purposes or alternatively, acquiring low impact public access to them. This additional study must include these host communities and their respective citizen organizations focused on conservation/ natural resources, open spaces, local history, and archaeology.

3) Recommendations:

a) The missing information and deficiencies in this application and associated assessment (e.g.the Draft Environmental Impact Report) documents should be addressed so that a fair evaluation of the request for

permits can be rendered. The project proponent neither fully acknowledges any negative impacts to their proposed action nor provides any real alternative to concentrating the newly consolidated and expanded treatment plant operation on site at Nagog Pond's current pump house site. Land use permit granting authorities, when faced with missing information, typically either deny permission for the applicant to proceed due to lack of needed information, or with the applicant's consensus, continue the current public hearing to a future date so that missing or needed supplemental information can be gathered and submitted in a timely fashion to allow adequate public review and comment, and then at that later continued public hearing, that granting authority can make fully informed final deliberations and decisions.

Missing and supplemental information that should be requested from the applicant to fully assess the development proposal includes that which:

- (1) Confirms and acknowledges Nagog Pond's ownership by the Commonwealth of Massachusetts;
- (2) Supplements the current archaeological study with yet-to-be-gathered information from local historians, amateur archaeologists, and authors and from additional tribal representatives with a historical connection to the Nagog pond Area, as recommended above and in previous communications with the state MEPA office.
- (3) More fully explores the permanent protection of the applicant's open space lands for conservation purposes and public accessibility to those lands via established and emergent TTT trails for benefit of wildlife and low impact human use, perhaps as a mitigating measure;
- (4) Explores and assesses alternative remote sites for locating some components of the proposed plant operation to eliminate or minimize associated negative impacts to the sensitive Nagog Pond Area site, such as consideration of the above CMLP possible as an alternate site.
- (5) Explores more alternative solutions to the massive water intake system which as proposed is maximally disruptive to a highly sensitive archaeological resource area that is not yet fully explored for negative impacts; and
- (6) Provides mitigating measures to protect and monitor Nagog Pond and environs during the proposed reconstruction effort with qualified archaeological personnel able to recognize and identify sensitive Native American artifacts and structures, and if items of interest are found or uncovered, to temporarily halt work for necessary better investigation and reporting to respective host communities and state agencies.

b) Others have noted that the proposed Water Treatment Plant could be sited at the Concord Municipal Light Plant industrial site directly accessible by state highways Routes 2A/119 (and additional bordering MA Routes 111/2). Raw water currently pumped from Nagog Pond and partially disinfected before being sent to the satellite facility at 300 Great Road could be pumped a bit further down Great Road to the Concord Municipal Light Plant site for full treatment before being distributed in the Concord Water Distribution System. This alternative needs to be fully assessed for both current and future use. Furthermore any treatment facility at this Concord industrial site can be securely protected far better than at any other site and without negatively impacting other towns, residential neighborhoods, and natural and archaeological resources.

c) A few years ago a Town Bylaw that was developed for the preservation of archaeological resources but never brought to Town Meeting. This is attached as Appendix C and might serve as a good guideline for the Board of Selectmen to consider in these deliberations.

Thank you for the opportunity to comment. If there are any questions or clarifications desired please do not hesitate to contact any one of us.

Respectfully yours,

Robert Ferrara	Founder, Friends of Pine Hawk
Linda McElroy	Member, Friends of Pine Hawk and Founder, Acton Land Stewards
Don Maciver	Member, Friends of Pine Hawk and President, Littleton Conservation Trust
Denise LeBlanc	President, Friends of Pine Hawk
Nan Towle Millet	Member, Friends of Pine Hawk
Charley Mayhew	Member, Friends of Pine Hawk

Appendices: Appendix A: Acton Land Stewards letter to their Board of Selectmen (March 15, 2016).

Appendix B. Professional Archeology Laboratories (PAL) 2008 maps of Acton identifying areas of archaeological sensitivity

Appendix C: Draft of Proposed Town Bylaw for the Preservation of Archeologically Significant Resources.