

Groton Conservation



June 11, 2014

Maeve Vallely Bartlett
Secretary of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: Environmental Issues including Critical Protected Habitat
Proposed Tennessee Gas Pipeline Route

Dear Secretary Bartlett;

The Groton Conservation Trust is a non-profit land trust that has been protecting and managing conservation properties in Groton MA for the past 50 years. We are writing to express deep concerns about significant environmental impacts that will occur if construction of the currently-proposed Tennessee Gas Pipeline route through north-central Massachusetts is approved.

The current route crosses large segments of the Squannassit and Petapawag Areas of Critical Environmental Concern, two of the largest state-designated ACECs, as well as BioMap Core Habitat and Supporting Natural Landscape which contain a high density of state-listed rare species. The current route will specifically affect our Wattles Pond Property which, although not mapped as a Priority Habitat Area, serves as a critical protected stepping stone between two large areas important to the preservation of regional diversity. Proposed use of this property is symptomatic of the problem: on this parcel the pipeline would replace second growth forest and wetland, reducing the cover necessary for successful migration, with an open corridor free of trees. This open area will increase mortality of reptiles and amphibians during dispersal, significantly reducing the level of connectivity critical to the persistence of the affected populations.

The Nashua River Watershed Association has analyzed the impacts of the currently proposed route within the towns in the watershed. That analysis indicates that within Groton and the nearby towns of Dunstable, Pepperell, Townsend and Ashby, the pipeline will affect the following:

1. 10.78 miles of land within the Squannassit and Petapawag ACECs
2. 8.31 miles of land within BioMap Core Habitat and Critical Natural Landscape
3. 30 stream crossings
4. 40 wetland crossings

Maps showing currently available information for the route of the proposed pipeline in relationship to the ACECs and to the BioMap Zones are attached.

The extraordinary and sensitive natural resources in this area are the result of unique geology, hydrology and geography. Understanding these underlying natural relationships is essential to understanding the fundamental issues raised by this proposed pipeline route. The following information, taken from the introductions to the Squannassit and Petapawag ACEC Nominations, describes the reasons for the unusual and sensitive environmental conditions in this region.

"The Squannassit and Petapawag Areas of Critical Environmental Concern define interconnected lands from Groton to Ashby and from Ayer to New Hampshire that contain extraordinary landscape, ecology, and history. These lands are essential to the basic ecological structure in this region and contain its highest concentrations of natural resources.

The Squannassit / Petapawag area contains one of the most remarkable arrays of glacial landforms in New England: a multiple-form drumlin swarm; extensive areas of eskers, kames and kettles; broad ground moraines; areas scraped bare by the glacier; and the remnants of an enormous glacial lake, with hanging deltas where streams flowed in and valleys where great, but short-lived, rivers flowed out. The drumlin swarm is one of the most sculptural topographic forms that can be found anywhere.

This set of landforms has created complexity in both topography and soils. The intricate scale of the landforms results in rapid changes in degree and orientation of slope across the landscape. The types of soils in the various landforms also vary rapidly from place to place.

These glacial landforms also caused complex hydrologic systems across the Squannassit / Petapawag region. Natural drainageways were, in many places, blocked by the landforms, resulting either in torturous flow paths for streams, or in swamps.

The Squannassit / Petapawag area also lies at the transition between two major forest biomes, the northern hardwood-hemlock-white pine forests, which extend to Canada, and the central hardwood-oak-hickory forests which extend to Georgia. Both forest biomes exist together in varying combinations throughout this area, resulting in an unusually diverse combination of vegetative species. In many areas, the vegetation on north-facing slopes is different from the vegetation on south-facing slopes, and complex combinations of varied vegetation are found in more level areas.

The ecology of the Squannassit / Petapawag area reflects the unusual diversity of these landscape elements. The swamps and intricate systems of streams lie in combination with diversity of soils and topography. Overlaid on this is a unique diversity of vegetation which has, in turn, been amplified by the topography and soils. This confluence of diversity has resulted in a great variety of habitat types and consequent richness of wildlife, including major concentrations of rare and endangered species. The diverse ecology of this region is the product of these special landforms, water systems, and

vegetation, combined with a human history which has left the integrity of this landscape still intact."

The character of this entire region derives from these remarkable natural resources and the human development which has been built in ways that have preserved them. A pipeline through these areas will diminish this character, but of even more significance, it will have devastating effects on the state listed species that are concentrated and thrive in this area due to its unique resources. Twenty-three state listed species have been identified within the Squannassit ACEC and sixteen within the Petapawag ACEC.

Several of these species depend on reliable dispersal of individuals for the persistence of their populations and the creation of a significant barrier transecting the habitat will jeopardize the viability of several populations. Furthermore, the extensive disturbance created by the clearing will create a significant increase in ecotone, or edge. This will almost inevitably lead to the spread of invasive shrubs into areas that are now protected by their isolation. These species frequently come to dominate the open lands adjacent to wetlands which are critical nesting habitats for the species of concern. It is also likely that the open spaces created by the clearing may provide nesting sites that result in low recruitment rates among some of the species of concern.

Your office's ACEC regulations (301 CMR 12.12) require that:


- (1) All EOEA agencies shall take action, administer programs, and revise regulations in order to:
 - (a) acquire useful scientific data on the ACEC,
 - (b) preserve, restore, or enhance the resources of the ACEC, and
 - (c) ensure that activities in or impacting on the area are carried out so as to minimize adverse effects on:
 1. marine and aquatic productivity,
 2. surface and groundwater quality,
 3. habitat values,
 4. storm damage prevention or flood control,
 5. historic and archeological resources,
 6. scenic and recreational resources, and
 7. other natural resource values of the area.

- (2) All EOEA agencies shall subject the projects of federal, state, and local agencies and private parties to the closest scrutiny to assure that the above standards are met for any action subject to their jurisdiction.

The appropriate priority that the State of Massachusetts places on the ACECs and associated natural resources is illustrated by the recent and on-going efforts by the Massachusetts Division of Fisheries and Wildlife to acquire, protect, and appropriately manage lands within a large contiguous block of land in northeast Groton and southern Dunstable. This contiguous block would be essentially bisected by a pipeline in the proposed route.

We do not believe that any project that causes the types of impacts that will result from constructing a pipeline along this proposed route could be approved under Massachusetts' regulations. We feel that the enormity of these impacts can not be ignored by regulators. Assuming that additional natural gas supplies are needed, we believe it is incumbent upon your office to require that all alternative supply strategies be investigated. If a new gas pipeline is required, we believe that alternative routes through other areas of the state, such as the existing right of way in southern Massachusetts, that can reduce environmental impacts be identified, surveyed and utilized in preference to the currently-proposed route. We ask that you take all possible actions now to ensure the integrity of the unique ACECs designated by your office is maintained and to prevent the loss of habitat critical to, and the taking of, state listed species under your protection.

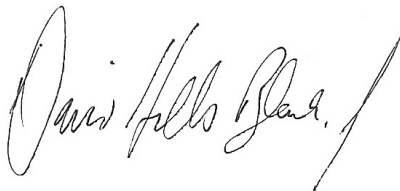
Sincerely,
For the Trustees of the Groton Conservation Trust



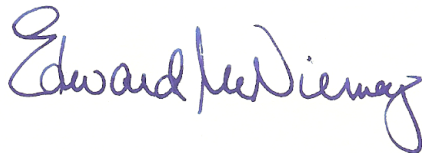
Daniel Wolfe, PE,
President, Groton Conservation Trust



Robert Pine, PE, FASLA
Trustee, Groton Conservation Trust
Former Chair of the Nominating Committee
Squannassit and Petapawag Areas of Critical Environmental Concern



David Black, Ph.D Ecology
Trustee, Groton Conservation Trust



Edward McNierney
Trustee, Groton Conservation Trust
Former Vice-Chair of the Nominating Committee
Squannassit and Petapawag Areas of Critical Environmental Concern

Maeve Vallely Bartlett, Secretary of Energy and Environmental Affairs
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Tennessee Gas Pipeline Proposed Route
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cc

Groton Board of Selectmen

Groton Conservation Commission

Groton Planning Board

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Governor Deval Patrick

US Senator Warren

US Senator Markey US Representative McGovern

US Representative Tsongas

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MA State Senator Brewer

MA State Senator Flanagan

MA State Representative Harrington

MA State Representative Zlotnik

MA Senator Benjamin Downing, Joint Committee on Telecommunications, Utilities and Energy

MA Representative John Keenan, Joint Committee on Telecommunications, Utilities and Energy

Nancy Putnam, Director of Ecology & ACEC Programs

Robert O'Connor, MA Director of Land and Forest Policy

Ann Berwick, Chair, MA Department of Public Utilities

Mark Sylvia, Commissioner, MA Department of Energy Resources

David Cash, Commissioner, MA Department of Environmental Protection

Jack Murray, Commissioner, MA Department of Conservation and Recreation

Mary Griffin, Commissioner, MA Department of Fish and Game

Susan Reid, Director Massachusetts Conservation Law Foundation

Henry Tepper, President, Massachusetts Audubon Society

Charles Knox, Executive Director, Massachusetts Land Trust Coalition

Eugene Benson, Executive Director, Massachusetts Association of Conservation Commissions

Robert Durand, former MA Secretary of Exec. Office of Environmental Affairs

Town Administrator (Ashburnham, Ashby, Dunstable, Groton, Pepperell, Townsend)

Conservation Agent (Ashburnham, Ashby, Dunstable, Groton, Pepperell, Townsend)

Kinder Morgan

