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Testimony re: Forest Fragmentation Bill H.789 of 2016

Comments are keyed to "Draft No. 2.1 — H.789"

Background to understand key terms "Forest Fragmentation" and "Connectivity."

The term "Forest Fragmentation" derives from biological studies of Harvard entomologist Edwin O. Wilson. His doctoral dissertation (1955) on ant populations on the Dry Tortugas in the Gulf of Mexico observed that larger islands had more species of ant than smaller ones. Prof. Wilson extrapolated very expansive biological, ethical and political conclusions from his statistical studies — a very recent book is titled The Future Of Life (2002). He hypothesized that the diversity of species everywhere is inherently governed by what he called the "island effect," which is that species diversity degrades when populations are confined to small areas. During the 1990's, he argued that for proper biological diversity, human activity must be excluded from "core areas" comprising at least 25% of the gross area of "landscape scale" regions. This is not arcane information: the requirement for 25% core area generated almost all the controversy in 2000 regarding Vermont's acquisition of the former Champion Lands.

Prof. Wilson also proposed that lacking large core areas, the wild parts of the landscape must present "wildlife connectivity," in the form of wild corridors through which breeding populations of wildlife may move, as a practical way of avoiding the island effect. I will note that technical study can confirm the island effect, and has partially confirmed it for certain species such as Spruce Grouse in the Boreal Forest region to which Northern Vermont belongs. However, the proposition that non-specific Biological Diversity should be the paramount goal of all forest management in the State of Vermont is not testable. It is not even a finite proposition, and therefore no one can know whether the goal is being attained.

Specific Comments.

Page 1, line 12-13 [existing language] mis-statementes Vermont's historical development — "... *the historic settlement pattern of compact village and urban centers separated by rural countryside.*" Vermont geographer Hal Meeks [1986] in his review of settlement patterns, Time and Change in Vermont, notes that for the first 100 years, settlement in Vermont was totally dispersed because each person required a certain number of acres to survive. Only a little over 100 years ago with the coming of the industrial revolution, railroads, and most especially fossil fuels creating highly concentrated power sources, could compact settlements arise,. So it is fascinating that the people purporting to plan Vermont's landscape prefer an industrial to an agrarian Vermont.

Page 3 line 14-15. New (C) inserted to read "*Vermont's forestlands should be managed so as to preserve and improve forest blocks and habitat connectivity corridors.*" Those terms are pure gibberish without definition, which the new draft supplies as a subset of existing (10), "Land Development.

Page 5, inserts new Definitions (34), (35), (36) These definitions are troubling to any forest landowner, because they appear to subordinate a landowner's interest to some nebulous and arbitrarily determined goal of "connectivity" and "integrity." A strategy of forest landowners for centuries has been to sell non-strategic but marketable small tracts in order to accumulate funds to acquire large tracts. This new language would on the face of it prevent implementation of that strategy — thus preventing large scale land conservation by banning small scale or localized development. Worse, not one single element of those definitions can easily be

quantified, meaning that any landowner must depend on upon arbitrary opinions of a Zoning Review Board, and thus cannot predict in advance what will for instance determine “a smaller area of forestland that varies in size and isolation from other forestlands.”

Page 7, lines 7-11 inserts a new “(F) into guidelines for Regional Plans, “*Indicating those areas that are forest blocks and habitat connectivity corridors and recommending specific policies to encourage active management of those areas for wildlife habitat and timber production, and to control development in those areas to prevent forest fragmentation and promote the health, viability, and ecological function of forests.*” This reinforces the sense that a landowner’s plans and goals are to be terminated in favor of the ill-defined goals of the planners. I would suggest that if this language be retained, that planners also be reminded of the Vermont Constitution, Article 2d, “*Whenever any person’s property is taken for the use of the public, the owner ought to receive an equivalent in money.*” The Vermont Land Trust scrupulously observes that provision: when a Conservation Easement with language resembling this proposed statute is placed on a property, the owner is paid for the loss of those rights. This bill proposes simply to extinguish without compensation — and so far as I can tell, even without due notification — many important uses of land.

The freestanding bylaw provision for municipalities with its truly dreadful requirement for an utterly undefinable “forest integrity permit” is mercifully gone. It was simply an open warrant to harass and humiliate any forest landowner so unfortunate as to have property within the bounds of that town. I also see no provision to coordinate these forest integrity permits with the requirements of Vermont’s forestry laws, and the Use Value Appraisal laws. The Study Committee needs to have at least one person who is an owner of actively managed timberland — planners tend to be very contemptuous of the intelligence and ethics of landowners.

A deeper problem with this entire concept is that this law substitutes the whim and prejudice of a small group of planners for the planning and foresight of individuals. Sometimes planners do good things: sometimes they do awful things. One Zoning board that I know of rejected the application of an herb farmer to conduct retail operations from his farm in an “Agricultural Zone.” The farmer went to Ohio, where her operation contracts with dozens of landowners who raise herbs for an extensive retail and web-based mail order business. Having that profitable agricultural market for farm goods would have kept dozens of small farms in production in an area which now does not have one single working farm. You can mandate page after page of impediments to doing business, but you cannot legislate vision. Every forestry operation I know of has been harassed by angry neighbors who do not like noise, dust, traffic, &c from a commercial operation. The general drift of this proposal simply increases that potential harassment. Fragmentation is far more driven by tax policy than by careless or greedy landowners.

Finally, regarding connectivity. Each species requires different conditions, and I can’t conceive how any generalized connectivity principle can be derived. How far will a tree’s wind-blown pollen drift? What is the dispersal mechanism for lichens? What conditions allow regeneration of softwoods? Will the plan for one species potentially impede the requirements for another species? If connectivity works for Moose, will it work for Leopard Frogs? I see in this proposal some group’s political talking points, but very poor potential for implementation.