

On the Value of the Areas of Proposed Development to Wildlife and the overall Pine Bush Ecosystem, By Grace Nichols, Save the Pine Bush.

I. Periphery acreage is essential as a reservoir for species.

I read with interest the 1991 Fire Management Report by Zaremba, Hunt and Lester (attached), in part because it provided a wonderful description of how species utilize the periphery of the managed pine bush. They use it to flee to when a disturbance, namely a wildfire or controlled burn, or other disturbance, impacts their habitat. They have adapted over thousands of years of evolution to do just this. They hide elsewhere as the fire passes over or the threat dissipates and then they return to the pine bush.

On page 41, the report states:

Many Pine Bush animals have adaptations to periodic fires. Some such as hog-nosed snake, worm snake, Fowler's toad, and spadefoot toad, escape the heat of fires by burrowing underground (Benton, 1975; Cryan, 1980). Others such as butterflies, birds, and large mammals, move to adjacent areas of similar vegetation that are unaffected by fire (Bristol et al., 1978; Cryan, 1980). Insects and small vertebrates are usually killed by fires, but quickly recolonize from adjacent unburned sites (Cryan 1980; Schweitzer, 1985). Fires often improve habitat for these species, resulting in increases in population size despite some mortality during the fire. Many animals characteristic of the Pine Bush, such as Karner Blue Butterflies and Inland Barrens Buckmoths, are dependent on the specialized pitch pine -scrub oak barrens vegetation, and are consequently indirectly dependent on fire (Bristol et al., 1978; Forman and Boerner, 1981; Schweitzer, 1985)

Interestingly, a more recent report, attached, backs up these assertions with camera trapping data. From 2014-2017, Cameras were placed throughout the pine bush to monitor wildlife. See Amanda Dillon's Camera Trapping report, (attached). It was found that after a management event, all the wildlife except white tailed deer disappeared for awhile. You might ask, where did they go? All the data states they fled to the periphery of the pine bush to wait out the disturbing event. After that they return to the Pine Bush, to the area burned or otherwise disturbed. Now, wouldn't it be a pity if they had nowhere, unpaved, to move to!?

We believe that may be what happened to the sad but very rare worm snake (See Natural Heritage Program report page 40 of Appendix G to the DEIS-- this species is "of special concern" and almost never seen in New York State) who ended up dead on the footpath adjacent to the 20 acre site located next to the buffer of Butterfly Hill. This would suggest, the species would prefer that there were less, not more, cement in the area.

The presence of the worm snake suggests the area proposed for three 5 story apartment buildings, townhouses and parking lots, may just be a very important piece of these animals' survival strategy. The Albany Pine Bush Preserve Commission has, in its 2018 Fire

Management report, declared their intention to conduct controlled burns near Crossgates, and this plan has been approved. When this happens, where will the species go? We suggest that the areas surrounding the Butterfly Hill and the Utility Lines' Right of Way strip currently colonized by pine bush species, are important habitat for them when either the Pine Bush Commission burns their habitat (to restore it) or nature does it. Other disturbances in the area are likely to trigger these flight behaviors as well, as the species are well-adapted to remove themselves from hazardous situations or any possible threat. Please take care to identify the important uses of this land to wildlife.

The DEIS reports a wood thrush, considered a rare species, was found on the proposed development sites. In Appendix B to Appendix G, there is a list generated by the US Fish and Wildlife Service called an IPaC list. It lists the migratory birds with special conservation status which may be found in the proposed sites slated for development. The *Hylochicla Mustelina*, Wood Thrush, is on the list. Of course, it's presence makes us wonder about the possibility that other rare species which may be present there. Unfortunately, we have no camera trapping data for these sites. However, the real test of the land's worth to species is the behavior of the species during a disruption. While this is hard to monitor in the surveys the DEIS relies on, and it is absent from their report totally, it is an important reason to allow this piece of land to remain undeveloped and remain as adjacent habitat for pine bush species.

II. Peripheral acreage is important as a buffer.

When a person stands on Rapp Rd, near the Right of Way, they can imagine how their houses will be impacted by the disappearance of the twenty acre woodlot between Crossgates Mall Rd and Gipp Rd. No longer will the trees block the light from thousands of cars in the Crossgates' Mall Parking lot. No longer will the permeable ground absorb rain and provide a humid, cool microclimate. If this project goes through, that area will bake in the sun, The houses and residences behind it will have bright lights shining in their windows at night. In addition, the five story apartment buildings will add shade in the sunny times of day. No longer will the birds wander amongst the trees and sing in the morning. This part of the project will utterly change life for all those around it, humans and species alike.

We are concerned about the stormwater, of course. We are concerned about the invasive species on the site and how, with development, they will be eliminated without exposing the pine bush to herbicides. We are concerned about the pesticides and salts which are likely to contaminate the stormwater. We are concerned about both light pollution and shade patterns which can impact butterflies, moths, humans and other species. We are concerned about the changes in climate. We are concerned about pets on the loose and the inevitable feral cats which can be destructive to avian life.

We believe this buffer ground at the Wildlife-Urban-Interface (WUI) is important in many different ways. Not least amongst these is as a buffer between controlled burns and the community.

Finally, a buffer allows native species such as grey fox, which is abundant in the pine bush, and which is a reservoir for rabies -- a very common zoonoses illness (meaning it jumps from other species to humans) -- to exist without coming into close contact with humans. This is good! Grey fox are wonderful mammals which do very well in the Albany Pine Bush. But, close contact with dogs may increase their chance of becoming infected with rabies; approaching humans would increase their chance of transmitting it. Isn't it better to have some extra land where species can exist away from the shoppers?

III. Pitch Pine.

As is noted in Dr. Curt Stager's report and Dr. Erik Kiviat's reports which have been submitted by our attorneys, Christopher Walker and Todd Oomen, there is no doubt that all three sites of proposed development are Inland Pine Barrens, a rare habitat required by the federally endangered Karner Blue Butterfly and other rare pine bush species. (See list of 73 Species of Greatest Conservation Need in the Pine Bush.) In our walks through Site 2 and 3, we observed several specimens of living healthy pitch pine, a hallmark of pine barrens; there were copious oak varieties, both shrubs and tree species throughout Site 1.

The pitch pine is an interesting tree. Dependent on fire, it has thrived in the pine bush region for thousands of years, maintained by wildfire or by the controlled burns of native peoples. Native peoples, including the Mohawk, whose wampum has been found in the pine bush, nurtured pitch pine because of its pitch. Pitch can be used for many things, including constructing boats.

The pitch pine of the Albany Pine Bush is a beautiful unique tree. It's needles sprout not just from its branches but from the cobble-stone textured bark, directly. It has a striking silhouette and a fascinating life history. It loves acidic soil and needs burns to allow it's pine cones to open and release its seeds.

Pitch pine is a cultural resource as well as a biological resource. It's presence is key to the historical role of the Pine Bush. Though seen as a wildland, ungovernable and desolate, by the Europeans, the Pine Bush was a fertile land full of useful trees and herbs to Native People. The Pine Bush was seen as a place of safety by Native peoples and also political minority groups. The value of the land is in the eye of the beholder; Pine Bush non-human species also perceive this land as a refuge.

IV. The Karner Blue Butterfly, a Symbol of the Pine Bush Ecosystem, is losing range.

Karner blue butterfly, federally listed as an endangered species in both the United States and Canada, has been extirpated from huge swathes of its terrain. It has not been observed in Minnesota for the last five years. The last population of Karner Blues has now been extirpated from Indiana.

Most disturbing. is the [disappearance](#) of 21 populations of Karner blue in disparate regions of Ontario, Canada. In 1971, there were 21 populations; in 1986, some had been extirpated. In 2008, the Karner blue butterfly was listed as endangered by the Canadian government. At this writing, they no longer live in the entire province of Ontario.

The Ontario, Canada extirpation is very disheartening because the climate is remaining hospitable to the species. As native lupine yet blooms there, there are hopes the species can be reestablished in Canada.

Karner blue butterflies are extremely sensitive to any disturbance. The Crossgates Hill population has been described as the most stable breeding population of Karner blues in Albany. We would hate to see their numbers decrease.

At this writing, absence of snowpack (Winter of 2019-2020) is endangering the health of the Karner Blue Butterflies in the Albany Pine Bush. We all have our fingers crossed that there will be a healthy-sized first brood this year. Can we afford to disturb more pine bush at this time? Habitat loss, absence of fire management, climate change and disturbance to remaining habitat, has been very effective at eliminating the species throughout much of its remaining range.

According to the United State Fish and Wildlife Service in the last Five Year Review, the Saratoga West population is declining and it is difficult to find the butterflies there although there were over 10,000 there in 1989. However, the Albany and Saratoga Sandplains populations have stabilized, exceeding the federal target of 3,000.

The KBB should continue to remain listed as endangered because, since the species was listed, it has been extirpated from recovery units in Minnesota and Indiana. Additionally, although some populations have demonstrated some improvement, others have remained low or are demonstrating a decline. In addition, the KBB has been found to be highly sensitive to both direct and indirect climate change impacts. Other threats present at the time of listing, such as loss of habitat due to natural succession, lack of management, invasive species **and commercial, industrial and residential development, also continue to persist for the species.** [emphasis added]

V. Inadequacy of Review

So the periphery of the Albany Pine Bush is important to species and to the continuance of the habitat they need. Determining what exactly is on these sites has yet to happen, as the developer submitted through B. Laing a deficient series of species surveys. These surveys did not establish if there were or weren't snakes on the land; since they could not find any snake or even an earthworm, it is clear they weren't looking for snakes at all.

They did not adequately survey amphibians, insects, or moths; their species identifications are in serious doubt. They did not assess the land for pollution. They did not survey the land for invasive species. They did not file an invasive species plan at all.

The Planning Board must consider that this land is clearly Albany Pine Bush, and was left behind after the Glacial Lake Albany receded just as all Pine Bush was. They must consider that the habitat is globally rare and some of the species contain within this habitat remain federally endangered, state threatened or have other designations. They must consider whether any public good that might arise from this plan is truly worth decimating rare habitat and further endangering populations of organisms which may well disappear without our consideration.

This is part one of my public comments on the proposed developments at Site 1, 2 and 3.

Thank you.

Grace Nichols, 3/25/2020

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