



Town of Randolph
OFFICE OF
THE CONSERVATION COMMISSION

28 November 2007

Ian A. Bowles, Secretary
Executive Office of Environmental Affairs
Attention: MEPA Office
Anne Canaday, EOE No. 14115
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

RE: Article 97 Land Swap for Lantana Parking Lot, Randolph, MA

Dear Secretary Bowles,

The Randolph Conservation Commission has reviewed the Environmental Notification Form (ENF) for the above listed project. At a regular meeting of the Randolph Conservation Commission on October 17, 2007, a motion was made to continue to oppose the above listed project due to its adverse environmental impacts on the Blue Hills Reservation. The motion was seconded and passed by a majority of the members. After also reviewing the "Additional Information" packet submitted by the proponent on November 11, 2007, the Randolph Conservation Commission would like you to consider the following comments on the Notification Form and the environmental impacts of this proposed project.

Within the ENF, the section titled "Roadways and Other Transportation Facilities Section" (no page number) is incomplete. Part "A" of section "I" has been answered in the affirmative. Part "C" indicates that "if either A or B" has been answered in the affirmative then the applicant must proceed to completed the questions within section "II" and section "III". The applicant has failed to do this. This information should be provided as it could raise additional environmental concerns.

Increased "edge effect" is among the Commission's highest environmental concerns. As you know, this is the effect of a juxtaposition of contrasting environments on an ecosystem. The proposed project would increase the current edge of the "DCR Parcel" by nearly one third (according to the plans provided and satellite photos of the area). The increase of a forest edge not only affects the immediate area, but goes well beyond the

impacted area. Not only is the increase in linear edge concerning, the new proximity of that edge to the area abutting a certified vernal pool, and the possible effects it could have on this important habitat, is cause for even greater concern.

Past surveys of the certified vernal pool adjacent to the “DCR Parcel” have documented that there is a large breeding population of Spotted Salamanders (*Ambystoma maculatum*). Far beyond the outer limits of that wetland stretches the “life zone” or the “critical habitat vital for feeding, growth, maturation, and maintenance of the entire juvenile and breeding population” (Semlitsch, 1998). Research shows that this area of upland is used by the salamander throughout the majority of the year (Semlitsch, 1998). The proposed parking lot’s effects on this important habitat will reach far beyond its boundaries as shown on the plan due to edge effect. The Semlitsch study suggests a conservative number of one hundred and sixty four meters (164m) or five hundred and thirty eight feet (538ft) be preserved around ponds and vernal pools where salamanders are known to breed in order to provide this critical habitat (1998). As depicted on the plan, the distance between the edge of the proposed parking lot and the certified vernal pool edge is eighty eight feet (88ft) leaving much to be desired in terms of critical habitat for pond breeding salamanders. Once the impact of edge effect is factored into these numbers, the line of disturbance widens, and moves even closer to the edge of the wetland.

Exotic disturbance, such as the proposed project, can cause loss of soil nutrients, microflora, native seed banks, as well as increasing tree and plant desiccation resulting in death, all giving rise to the invasion of exotic weedy plant species (Stylinski and Allen, 1999). If a disturbance this large is introduced into this area there is a good chance that many native plant communities, essential to the survival of native wildlife, will be choked out as the seed rain shifts from native to exotic (Stylinski and Allen, 1999). The Stylinski & Allen study suggests that once these exotic communities get established, the results are permanent since the native flora can not compete with it during the critical time of succession (1999). The resulting edge is one that is made up of exotic annuals creating a thin and vulnerable edge.

Edge effect has also been shown to scavenge and concentrate air pollution. A study conducted by Weathers et al. showed how thin, disturbed edges act as “hot spots” for deposition of airborne nutrients and pollutants when compared to inland areas with thick, native, forest canopy (2001). The results suggest that not only do freshly disturbed edges attract and concentrate pollutants but they also can greatly change the soil chemistry with the influx of high amounts of atmospheric nitrogen. High nitrogen in the soil, combined with a seed rain of invasive plants, almost ensures that there will be no chance for native flora to struggle to survive along the edge of this project.

These are just three examples cited in current scientific literature addressing the negative effects of edge effect. Together, they compound the negative effects that this proposed project will have on the current fragile ecosystem of the “DCR Parcel”. With so much at stake, it begs one to ask if such an invasion is truly necessary. Alternatives have been suggested, studied, and deemed incomplete in their results or not practical by the

applicant. To further comment on this project the Randolph Conservation Commission would like to offer another suggestion as an alternative.

The proponent has stated that their driving concern for this project is that of patron safety. Randolph town officials have also echoed this concern and that of the speed of the traffic on Scanlon Drive. If this is the case, an alternative to the proposed plan could involve a different swap. One that would move Scanlon Drive's turn off of High Street to the southern edge of Lantana's current overflow parking before traveling north (see enclosed map). This alternative has advantages. First, it eliminates the need to develop within the Blue Hills Reservation allowing it to maintain its current, fragile ecosystem. Second, the six acre overflow lot would provide the proponent with even more parking than the proposed project. Third, moving the street in this manner would add a second ninety degree turn in the street forcing more drivers to slow down thus meeting the needs of both the proponent and town officials. Finally, it would enable the town to give the unused portion of High Street to the proponent replacing the land that was given up to move Scanlon Drive.

This alternative that the Randolph Conservation Commission is proposing involves additional work for both the proponent and the town. It would however allow for this community to do what is necessary to preserve the part of the Blue Hills Reservation that we, as a town, are the stewards of. August 9, 2002 was a very sad day for the town of Randolph. Despite opposition from the Randolph Conservation Commission, a board that is meant to be heard on matters involving protection of open space, legislation was passed allowing for this land swap to occur. This was unfortunate. It is the hope of the Commission that the Executive Office of Environmental affairs will recognize the adverse environmental impacts that the proposed Article 97 land swap off of High Street and continue to work with the proponent on an alternative plan that does not compromise any of the existing Blue Hills Reservation.

The Randolph Conservation Commission is willing to assist the MEPA process in any way it can to achieve a resolution to this environmental dilemma. If you have any questions about this letter please call us at 877-214-5709 or email us at randolphconcom@gmail.com. We appreciate the opportunity to comment on this project.

Sincerely,

Stephen Schneider
Chairman

cc: Randolph Board of Selectmen

Governor Deval Patrick
Senator Brian A. Joyce
Randolph Planning Board
Department of Environmental Protection
The Lantana
Andrea Guillot, Coler & Colantonio, Inc.
Commissioner's Office, DCR
Division of Fisheries and Wildlife (NHESP program)
Massachusetts Historical Commission
Friends of the Blue Hills

Enc: map depicting alternative suggestion
cited references

References:

Semlitsch, R.D. (October, 1998). Biological Delineation of Terrestrial Buffer Zones for Pond-breeding Salamanders. *Conservation Biology*, 12(5), pp. 1113-1119.

Stylinski, C.D. (August, 1999). Lack of Native Species Recovery Following Severe Exotic Disturbance in Southern California Shrublands. *The Journal of Applied Ecology*, 36(4), pp. 544-554.

Weathers, K.C., Cadenasso, M.L., Pickett, S.T. (December, 2001). Forest Edges as Nutrient and Pollutant Concentrators: Potential Synergisms between Fragmentation, Forest Canopies, and the Atmosphere. *Conservation Biology*, 15(6), pp.1506-1514.

