

# Request for Delegation to Council

**Council Meeting Date:**

January 11, 2021

**Subject: \***

Development of Land Between County Road 16 and Highway 9

**Full Name: \***

Jeanne-Marie White

**Address (including Unit # if applicable): \***

[REDACTED]

**Phone Number: \***

[REDACTED]

**Email: \***

[REDACTED]

**Name of Speaker or Title (if applicable):**

Jeanne-Marie White

**Nature of business to be discussed, course of action and reasons (what you would like Council to do): \***

Dear Mayor Brown and Council,

My name is Jeanne-Marie White and I am a resident of Orangeville. In the nearly ten years I have lived here, there has been a dramatic change of the landscape. I was disheartened to hear there was an approved plan for development at the intersection of County Rd 16 and Highway 9. To see further deforestation and construction is truly upsetting.

The dramatic urbanization of this once quaint town has potentially serious public health risks. While we remain focused on vaccinations and social distancing as a solution to COVID-19, we fail to heed the warnings of conservation scientists on habitat fragmentation and deforestation being a precursor for more frequent pandemics. For years, conservationists have been unable to captivate policy makers' attention regarding the protection of natural habitats and old forest growth. However, increasingly, their research is linking the destruction of natural habitats and deforestation as selecting for more adaptable species which are more likely to transmit diseases to humans. COVID-19, Avian Influenza, Hendra virus

and Ebola are just a few examples of the many. Dr Ostfeld et al. provide an excellent example which hits closer to home in their decades' long research on emerging Lyme disease and ecological health.

As a small animal veterinarian, I can assure you that locals are extremely concerned about the exponential growth of ticks they are finding on themselves and their pets recently. Whereas ten or even five years ago, they hardly worried about them, the past two years they have noticed that there are A LOT of them. Many of these clients were not interested in tick prevention for their pets but now, they feel they are a necessity. The lifecycle of the tick involves adults laying eggs which hatch into larvae. These larvae attach to a host, take on a blood meal, fall off and molt into nymphs. The nymphs attach to a host, receive a blood meal, fall off and molt into adults. There are many diseases transmitted by ticks. Lyme disease is caused by a bacterium called *Borrelia burgdorferi* which is transmitted by Ixodes ticks during a blood meal. Nymphs, which are the size of the tip of ballpoint pen, are the most likely stage to infect a host with Lyme disease. Misdiagnosed in humans, Lyme disease can cause serious cardiac and neurologic issues.

Dr. Ostfeld and his team have been studying the effects of deforestation and loss of biodiversity on the increase in prevalence in Lyme disease in upstate NY. To summarize their research for the purpose of maintaining your interest, they have found that some species are very good at transferring Lyme disease and poor at grooming off ticks while others hardly transfer Lyme and are great at grooming off ticks. For example, fifty percent of the larval ticks that feed on mice will feed successfully, fall off and be able to molt into nymphs. In contrast, Virginia opossums kill off 97% of the larval ticks that attach to them and thus only 3 percent will feed and molt into nymphs successfully. In addition, over 90% of the larval ticks that feed on mice pick up Lyme bacterium successfully and are able to transmit it to their host while only 3 percent of larvae feeding on opossums pick up Lyme bacterium.

In multiple studies globally, medium sized and larger mammals, like opossums, tend to disappear first during habitat loss whereas mice almost always tend to linger and prosper due to the increasing resources and loss of predators. Mice carry a host of diseases which are zoonotic (i.e. contagious to humans). Hantavirus, which can cause severe pulmonary disease, is transmitted by the excreta of mice. However, in the case of Lyme disease, simulation models have demonstrated that the impacts of encouraging biodiversity have vastly more far reaching positive consequences on decreasing the risk of Lyme disease than by simple rodent culling techniques.

We also know that forests and wetlands act as carbon sinks. If we are extremely concerned about climate change, we must acknowledge the negative effects development can have on carbon release while we pat ourselves on the back for moving towards renewable energy sources.

I thus urge you, as our leaders in this community, to really weigh the benefits of further development against the negative effects urbanization can have on our environmental and likely our health. As the United Nations is working to encourage governments to commit to preserving biodiversity, I hope we, as a community, can be a model for others.

I thank you for your time.

Sincerely,  
Jeanne-Marie White