



March 13, 2012

Radnor Township Board of Health & Radnor Township Environmental Advisory Council
301 Iven Avenue
Wayne, PA 19087-5297

Dear Board of Health and Environmental Advisory Council,

I write to ask that you recommend the Township reject the use of herbicides as the means of controlling invasive and/or weed plants along the Radnor Trail or on other Radnor Parklands. Herbicides should not be used as the primary mode of weed control on public lands. These areas are used by people, wildlife and domestic animals on a regular basis and the repeat exposure to the chemicals found in herbicides, including the active ingredients and surfactants, has environmental and health risks for those repeatedly exposed. And, the unilateral use of herbicides is not an effective means for reintroducing the healthy plant life and habitats that can help keep non-native invasive plants at bay, provide wildlife food and habitats, provide beauty for those enjoying the public lands, and allow children and adults to be educated about the value of healthy native ecological systems.

When offering a resolution that would support the continuing use of herbicides on Radnor's park lands, the Board of Health did not seem to have available to it important information necessary to properly assess the potential implications of the use of the herbicide Roundup, or any other herbicide, for the people, animals, wildlife, or adjacent water, wetland or forest systems. For example, there was no information regarding:

- ✓ How often the herbicide was being applied;
- ✓ The volume of herbicide being used in a given application or over the course of a season or a year;
- ✓ What policy was guiding the application of the herbicide;
- ✓ What species was the Township seeking to address;
- ✓ Was the herbicide being applied by licensed applicators;
- ✓ What exact type of Roundup was being utilized;
- ✓ How close to water or wetlands was the herbicide used;
- ✓ How soon after application were people or animals allowed to use the Radnor trail;
- ✓ What frequency do individuals use the trail and so what is their level of exposure;
- ✓ What is the pathway by which children; adults or animals are getting exposed to the herbicide after its use on the Radnor Trail – air, hand to mouth contact, etc.?
- ✓ What notification is given to parents and other users of the trail who want to protect their children, their pets and themselves from exposure to the toxic substances found in the herbicides (regardless

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- of what Township officials ultimately decide, whether or not a Township resident wants to be exposed to these chemicals is an important personal decision that must be honored and protected);
- ✓ What are the rights afforded adjacent neighbors of the Radnor Trail to elect not to have pesticides sprayed near their property where it may drift in the air or runoff during rains;
 - ✓ Where else in Radnor Township are Roundup or other herbicides being used and what is the total usage contributing to potential human and animal exposure;
 - ✓ While there seemed to be heavy discussion on the desirability of using herbicides to control non-native invasive plants and to restore natives, there were no expert or scientific studies provided about the appropriate use of herbicides in invasive control and native restorations;
 - ✓ While there was a lot of discussion about the environmental importance of controlling non-native invasive plants there was no scientific information provided about the environmental harm of continued use of herbicides or the special steps taken to protect the woods, wetlands and stream that are parallel to or cross the Trail, or to protect amphibians and other creatures known to be affected by exposure to Roundup and/or other herbicides; and
 - ✓ There was also no discussion of whether there was a larger plan for addressing non-native invasive species throughout the Township because simply spraying herbicides along the Radnor Trail will not accomplish the goal of non-native invasives control and revitalizing native plants; it is just another means of killing off all plants, including the desirable ones, in an area. Understanding where herbicide application fits into a larger plan, and whether or not there is such a plan, is vital information for informed decisionmaking.

It also seemed that the scientific information relied upon at the BOH meeting in February to dismiss the human health implications of the use of Roundup or other herbicides was minimal; it seemed it was based upon only two documents both of which focused on the active ingredient glyphosate as opposed to the surfactant in the herbicide and/or the synergistic affects of the active ingredient glyphosate with its surfactant. This is a concern as there is a wealth of science on the health implications of Roundup and other herbicides in this Monsanto family of products. To be truly informed on the health implications and/or the environmental implications the BOH and the EAC need to be considering a representative level of science; the two studies reviewed (which were not made available to the public for consideration before or during the meeting) cannot be defined as fulfilling the obligation to ensure informed decisionmaking in this regard.

On February 21, 2012, shortly after the Board of Health meeting, I submitted a Right to Know request to the Township seeking:

Copies of any policies, records, communications (such as letters or emails) or other documentation that identifies the Township policy for application of herbicides to the vegetation along the Radnor Trail, and any records of when applications have in fact been made over the past 24 months and what volume of herbicides have been applied to what area (e.g. square feet) during this period.

In addition, I would like to request any documentation, communications (such as email) or information or guidance regarding policies/protocols regarding human or animal exposure to the herbicides after they have been applied and records regarding the implementation of these polices and/or protocols.

I would also like to request copies of any documents, invoices, payment vouchers, income records regarding payment for any herbicides used in the past 24 months by the Township, payment for entities to apply that herbicide to the Radnor Trail or other areas in the Township, and any income

received by the Township in support of the application of herbicides in the Township.

I would also like to request a list of employees that applied the herbicide and a list of those employees who are licensed applicators.

In order to have the time necessary to secure this information for my review the Township requested a 30-day extension. Because this very relevant information was not available to me upon request or shortly thereafter I must assume it is also not available to the Board of Health or the Environmental Advisory Council either. For any of us, to be able to properly consider what is happening along the Radnor Trail and the potential implications of the continuing use of Roundup or other herbicides for weed control along the trail, I think it important we all have the opportunity to receive and review this kind of information, along with the information necessary to answer the other questions I raise in my list above.

The BOH discussed the importance of controlling non-native invasive weeds in the Township. I would agree this is an important concern that needs to be addressed. But successfully controlling non-native invasive plants in Radnor cannot be accomplished by the regular application of herbicides to just one part of Radnor's public lands; and it cannot be accomplished by unilateral reliance on the application of herbicide chemicals.

When an area has been taken over by invasive plants, for some species (but certainly not all), herbicides may be used as one complimentary method for eradicating the non-native invasive plants in order to allow for the opportunity to reintroduce and support native species. If herbicides become an ongoing method of control there is no ability to reach the goal of reestablishing natives, a stated goal by some on the Board of Health at their February meeting, because the herbicides will kill the natives equally along with the non-native invasive species. So while on occasion herbicides may have to be used as a tool in a restoration effort, they should never be used as the primary and ongoing means of removing invasives from public or private lands. And there are plants for which herbicides are not an effective control measure. In order to have an effective plan/strategy for eradicating non-native invasive plants from an area and allow restoration of a healthy native population, it is critical there be a clear understanding of what invasive plants the township is seeking to impact, coupled with a clear strategy that is known to have the greatest level of effectiveness for the species at issue, and a plan for how native species will be reintroduced in order to help prevent reinvasion of the invasives thereafter. A plan of this kind does not seem to be in place in Radnor.

The Township needs to develop a comprehensive strategy for addressing the problem of invasive weeds in the Township and for how it will accomplish the laudable goal of restoring native plants to those areas now controlled by invasives. A comprehensive strategy needs to include recommendations for private homeowners who could be an important part of the solution for the Township.

I would be happy to offer my assistance in considering and/or crafting such an initiative.

All across the Delaware River Watershed, townships and private landowners are using herbicides to control invasive plants on our parks, trails and public lands. And so the exposure of children, adults, pets and wildlife is much more pervasive than just a single area that is the focus of a given discussion. In addition, there are many options available for controlling invasive plants to consider, including many non-toxic options. While there is literature that touts the safeness of glyphosate -- the active ingredient in Roundup, Rodeo and other Monsanto herbicides -- there is also peer-reviewed science documenting the known and

potential harms. In addition, these herbicides contain more than their active ingredients, they also include surfactants which help the active ingredient glyphosate penetrate the outer layers of the plant so it can achieve the internal disruption that leads to death. There is a significant body of science documenting the harms of the surfactant found in the Roundup family of products for people and valuable wildlife such as frogs and amphibians. It is incumbent upon the BOH and the EAC to consider all of the scientific and real world evidence regarding the harmful human, animal and environmental implications of the herbicides being used in Radnor and to make a decision that represents the best interests of the whole community. There are many chemical products such as PCBs and DDT which were once argued to be safe but in time and with research were proven to be devastatingly harmful. The precautionary principle would dictate in the case of herbicides like those in the glyphosate-based Roundup family where there is claimed scientific proof on both sides of the aisle that we avoid the use of such chemicals, particularly when making decisions that affect the lives of others.

Attached is an information sheet that discusses some of the research documenting the harms of the Monsanto herbicides we understand to be used on the Radnor Trail and perhaps other Township public lands. We also provide copies of some of the research cited as well as other helpful information for your further consideration.

The Delaware Riverkeeper Network has a mature, extensive and well-respected restoration program. I offer my professional expert to walk the Radnor Trail with you to discuss the Township's restoration goals, to identify the plants at issue so as to consider various control options, and to discuss how to develop a restoration program designed to restore the beneficial plants and wildlife that will beautify the trail, while educating the community about the importance and value of healthy native habitats. We have a grant in place that would cover the time necessary to engage in such a preliminary assessment/ discussion.

I apologize in advance for my inability to be at the BOH meeting on the 19th, but do hope to attend the EAC meeting later in the week. But I know you will benefit from the additional information brought forth at the meetings by Delaware Riverkeeper Network staff who will be in attendance.

Respectfully,



Maya K. van Rossum
the Delaware Riverkeeper