

Stephen M. Tomasik
NYS DEC - Division of Environmental Permits
625 Broadway, 4th Floor
Albany, NY 12233-1750

February 21, 2015

6 NYCRR 608.8

Application ID: 0-9999-00181/00009 - Water Quality Certification
Application ID: 0-9999-00181/00010 - Freshwater Wetlands
Application ID: 0-9999-00181/00011 - Water Withdrawal
Application ID: 0-9999-00181/00012 - Excavation and Fill in Navigable Waters
Application ID: 0-9999-00181/00013 - Stream Disturbance

Dear Mr. Tomasik,

This letter is in regard to the use and impacts of herbicides and how vegetation management in rights-of-way (ROWs) have many risks.

According to Section 2.2 of the Federal Energy Regulatory Commission's (FERC) Final Environmental Impact Statement (FEIS) for the Constitution Pipeline Wright Interconnect Projects: "Collectively, Constitution and Iroquois' proposed projects would affect 1,871.5 acres during **construction** and 761.5 acres during operations."¹

Whether it is the 1,871.5 acres during construction or the 761.5 acres during operations, the land taken for this pipeline will be affected and would become the acreage whose vegetative growth must then be managed by Constitution Pipeline. Just considering the 761.5 operational acres would require the use of a very large amount of an herbicide product. Let's say it requires 1.5 gallons per acre; that's well over a 1000 gallons of herbicide.

Many acres of the proposed pipeline route are within hundreds of feet of homes, drinking water wells, streams, and ponds. Herbicides from some of the hundreds of manufacturers and the thousand or more trade names for herbicides may be used to control vegetation. These herbicides can cause eye irritation, blurred vision, skin rashes, burning or itchy skin, nausea, sore throat, difficulty breathing, headache, lethargy, noise bleeds, dizziness, an increased risk of cancer, miscarriages, attention deficit disorder, and reproductive problems in humans.

According to the Hudsonia Report - Pipeline Maintenance², pipeline rights-of-way (ROW) in New York are normally maintained in herbaceous vegetation by use of mowing or herbicides. Herbaceous vegetation is where you have green, leafy plants or plants that are fleshy, as opposed to woody.

Both management techniques are hazardous to plants and animals of conservation concern that use these linear meadows (e.g., nesting turtles, foraging birds, and certain potentially rare plants and butterflies on upland segments of rights-of-way, and many other animals and plants in wetland segments).

Although there have been no immediate studies on deer exposure to herbicides, deer populations in some states have been studied. But those studies do not tell anything about deer reactions or long term effects of exposure to herbicides. Additionally, the changes in vegetation, noise levels, and the overall changes from the destruction to the land will have a negative effect on all wildlife.

Mowing these ROWs also transports propagules (organisms) of invasive weeds along rights-of-way. Pipeline service roads not only support the necessary maintenance vehicles, but they also attract all-terrain vehicles (ATVs) which drive through streams and wetlands causing soil erosion, as well as noise disturbance to birds and other animals.

Herbicides affect wildlife directly when animals are exposed to chemicals, or indirectly when wildlife habitat is altered. Many of the herbicides, by their nature, do not distinguish between the plants they kill. Thus, rare and endangered plants are particularly at risk from exposure to the herbicide. When you read about the herbicides, the companies that produce them warn about safety before, during and after spraying. The herbicide literature stresses that concerns for safety, secure storage, etc. are paramount. However, safety warnings regarding herbicides are useless if the person(s) applying them is reckless or just plain ignorant.

The application of many herbicides needs to wait so that warmer temperatures can stimulate weed growth, but some like paraquat work even when weeds are frosted. However, herbicide application during temperature inversions (when a warm layer of air sits on top of colder air at ground level, sometimes seen as mist or smoke apparently trapped close to the ground) needs to be avoided because spray droplets may linger as a mist and subsequently drift.

Numerous studies are being conducted to investigate the occurrence, fate, and effects on human health and the environment from the extensive worldwide use of herbicides to control weeds. Few studies, however, are considering the degradates of these herbicides in their investigations.³

In 1998 the U.S. Geological Survey conducted the first large-scale reconnaissance for herbicide degradates in streams. Degradates are the product of the environmental transformations of the parent pesticide, which can have similar properties to the parent pesticide. Over 70 Midwestern streams were sampled as part of the reconnaissance. Results from the reconnaissance show that the concentrations of herbicide degradates were relatively high when compared to their parent compounds, and that herbicide degradates make up a significant share of the total herbicide load in streams during post-application runoff events.

Specific results from the reconnaissance include:

- The median concentrations of most of the herbicide degradates were greater than the median concentrations of their parent pesticide.
- Maximum concentrations of the herbicides acetochlor, atrazine, alachlor, cyanazine, and metolachlor all exceed the maximum concentration of their degradates.⁴

The results suggest that studies in which only parent herbicide compounds are measured will not tell the complete story of the potential impacts of herbicide use on aquatic ecosystems. Including herbicide degradates in these studies is important because many of them have similar toxicities to their parent compounds.

While there are many studies and sources for data regarding herbicide use and impacts to soil, air, water, plants, animals, and humans, herbicide use is without question a risk and is widely ignored as a problem.

The companies that have been fined or are still in litigation for polluting water are the same companies that have been fined for over-application of weed control chemicals/herbicides and for failure to properly report chemical use, spills, leaks, storage, and other hazardous chemical reporting requirements.

Therefore, given the risks associated with:

- herbicidal use in rights-of-way
- potential transporting of invasive weeds along rights-of-way
- long term effects of herbicides to animal & human health, drinking water, and plants
- other potential risks that are NOT known or have not been studied related to the use of herbicidal chemicals

It is recommended that the New York State Department of Environmental Conservation deny a 401 water quality certificate to the Constitution Pipeline for this project.

Sincerely,

Signature _____

Name _____

Address _____

¹ - FERC FEIS 0249F, Vol. 1, Oct 2014, Docket Nos.: CP13-499-000; CP13-502-000; PF12-9-000

² - HUDSONIA, Review of the DEIS and Technical Report for the Constitution Pipeline Prepared by Erik Kiviat PhD (Hudsonia) and David C. Richardson PhD (SUNY New Paltz) Hudsonia Ltd PO Box 5000, Annandale NY 12504 845-758-7053

³ - The Environmental Occurrence of Herbicides: The Importance of Degradates in Ground Water, D. W. Kolpin, E. M. Thurman, S. M. Linhart, U.S. Geological Survey, Received: 13 February 1998/Accepted: 27 May 1998.

⁴ - USGS, Environmental Health, Degradates: A Key to Assessing Herbicide Impacts in Streams; http://toxics.usgs.gov/highlights/herbicides_deg_streams.html