

What's Best For Us?

The Case Against
Roadside Spraying



Objective:

“The ground water resource is crucial in Lanark Highlands as it is the source of drinking water for our communities and our rural population. In addition to residential uses, ground water is crucial for the agricultural purposes and commercial and industrial uses.”

- Official Plan of Lanark Highlands

The Issue:

- Wild Parsnip grows in our Township
- Some people consider it a risk
- Some people want it managed



Exec. Summary:

- It will never be eradicated, but,
- We can control its impact in several ways
- Clearview and other poisons are not the solution



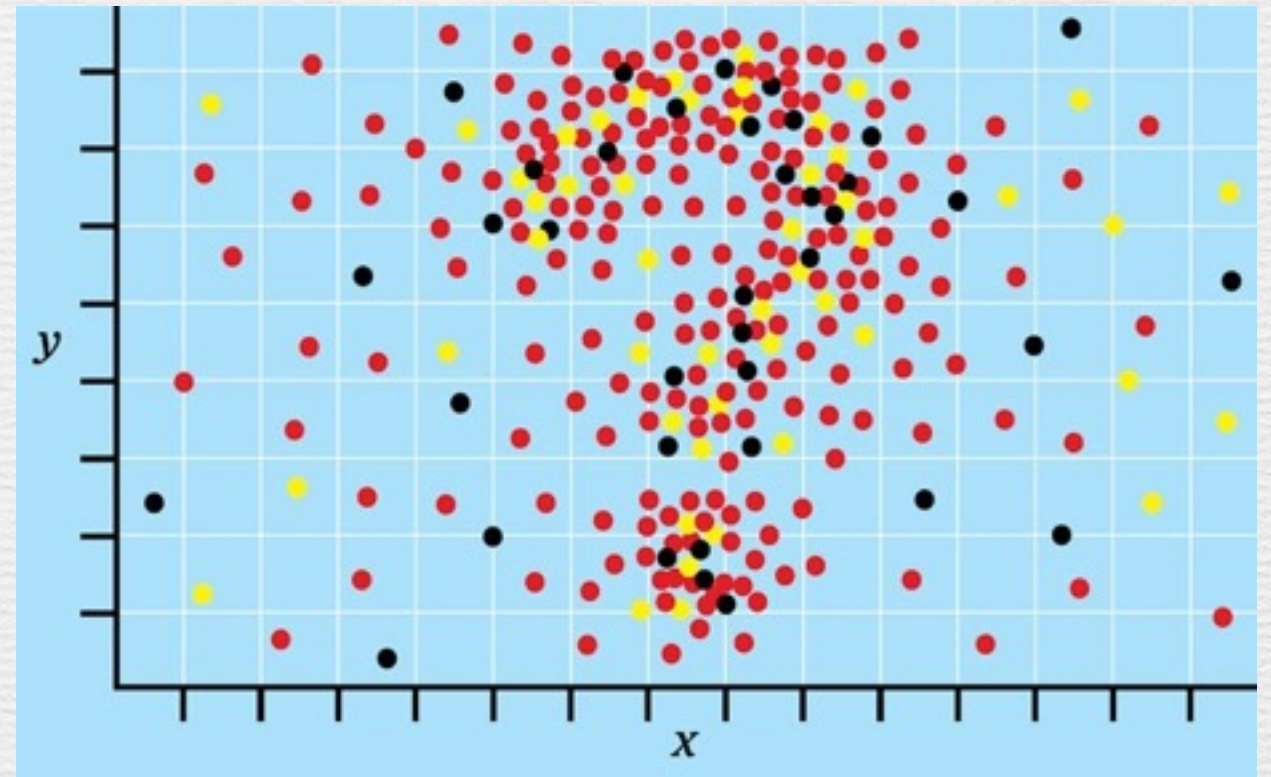
The Problem:

- If the plant is in flower, and
- If the stalk is broken, and,
- If you get sap on exposed skin, and,
- If you don't wash it off, and
- If the sap is exposed to sunlight, then
- Burns may result



The Impact?

- Not everyone is affected
- Wild Parsnip-specific records are not kept
- No statistics exist
- We only have anecdotes



Expert Opinion:

“I find parsnip to be over-rated in terms of how dangerous it is. For some reason, there was quite a bit of panic last year about a plant we have been living with for 100+ years.”

- Naomi Cappuccino, Associate Professor,
Department of Biology, Carleton University

Solutions:

1. Mowing
 2. Pulling
 3. Tarping
 4. Chemical control
- Ontario Invasive Plant Council



Clearview:

- Dow Chemical
aminopyralid 52.5% &
metsulfuron 9.45%
- 38% undeclared
- Uses Gateway as an
adjuvant. (mixed together
in preparation for
spraying.)



ClearView™ Herbicide

GROUP	4	HERBICIDE
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GROUP	2	HERBICIDE
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ClearView Herbicide is a selective herbicide for post-emergent control of annual and perennial broadleaf weeds, invasive plants and shrubs on rangeland, permanent pasture, rights-of way, industrial and other non-crop areas of Canada.

COMMERCIAL

READ THE LABEL AND BOOKLET BEFORE USING
KEEP OUT OF REACH OF CHILDREN

GUARANTEE: Aminopyralid, present as potassium salt	52.50%
Metsulfuron – methyl	9.45%

Warning, contains the allergen sulphites
Wettable Granules

REGISTRATION NO. 29752 PEST CONTROL PRODUCTS ACT

CAUTION – EYE IRRITANT

NET CONTENTS: 0.1 kg - Bulk

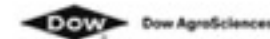
Dow AgroSciences Canada Inc.
2400, 215-2nd Street S.W.
Calgary, Alberta
T2P 1M4
1-800-667-3852

®™Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

Gateway:

“Contains aromatic petroleum distillates which are toxic to aquatic organisms. Do not contaminate any body of water by direct application, cleaning of equipment or disposal of wastes. Do not apply directly to water or wetlands. Do not apply when weather conditions favour drift or run-off from areas treated.”

- Dow Agrosciences



SAFETY DATA SHEET DOW AGROSCIENCES CANADA INC.

Product name: GATEWAY™ Adjuvant

Issue Date: 11/14/2016

Print Date: 11/14/2016

DOW AGROSCIENCES CANADA INC. encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: GATEWAY™ Adjuvant

Recommended use of the chemical and restrictions on use

Identified uses: Adjuvants

COMPANY IDENTIFICATION

DOW AGROSCIENCES CANADA INC.
#2400, 215 - 2ND STREET S.W.
CALGARY AB T2P 1M4
CANADA

Customer Information Number:

800-667-3852
solutions@dow.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: 613-996-6666

Local Emergency Contact: 613-996-6666

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance

Physical state: Liquid.

Color: Yellow

Odor: Aromatic

Hazard Summary

CAUTION!!

Combustible liquid and vapor.
May cause eye irritation.
Aspiration hazard. Can enter lungs and cause damage.
Isolate area.
Possible cancer hazard. May cause cancer based on animal data.
Highly toxic to fish and/or other aquatic organisms.

Expert Opinion:

“Gateway is toxic in and of itself and is volatile so will be an added risk for applicators and everyone else.

Aromatic hydrocarbons (including but not limited to naphthalene) are toxic to many organs, and are in Gateway. Benzene is the most toxic to the bone marrow and causes hematologic cancers such as leukemia. Aromatic hydrocarbons can also interfere with hormone systems.

Other ingredients improve spreading and penetration of the pesticide into plants, and this happens on our skin as well.

Pesticides are not tested along with their adjuvants for registration.”

- Meg Sears, PhD, Chair, Prevent Cancer Now

Expert Opinion:

“A 2014 study found that 8 of 9 common commercial products tested were hundreds of times more toxic to human cells than just the pure pesticide active ingredient without formulants.”

- Robin Mesnage, Nicolas Defarge, Joël Spiroux de Vendômois, and Gilles-Eric Séralini, “Major Pesticides Are More Toxic to Human Cells Than Their Declared Active Principles,” BioMed Research International, vol. 2014, Article ID 179691, 8 pages, 2014. doi:10.1155/2014/179691

Background:

Concerns first arose about spraying roadsides with herbicides as the result of actions by a concerned group of residents in Mississippi Mills. These residents assisted the Mississippi Mills Environmental Advisory Committee with the production of a report on the negative environmental impacts of ClearView. They were also able to enlist the help of a resident of Mississippi Mills, Dr. James Coupland, who is a renowned expert in the field of entomology, agricultural research and ecology.

A public meeting on the topic 2 years ago at the Mississippi Mills Council convinced most of the public who attended, and both Mississippi Mills County representatives, that the purported benefits of spraying with ClearView were not as advertised.

Expert Opinion:

“There isn’t enough incidence of interaction with wild parsnip to merit such a huge outlay of herbicide.

All the information we need to know is on the Clearview label.”

- Dr. James Coupland, Entomologist,
Agricultural Research Scientist, Ecologist

Clearview Environmental Hazards:

“TOXIC to terrestrial and aquatic plants. Observe terrestrial and aquatic buffer zones specified under DIRECTIONS FOR USE. **The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g., sandy soil) and/or the depth to the water table is shallow.** To reduce runoff from treated areas into aquatic habitats **avoid application to areas with a moderate to steep slope**, compacted soil, or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body. Avoid application when heavy rain is forecast, as runoff water may flow onto adjacent areas and injure crops and other desirable non-target vegetation.”

- ClearView Herbicide E 29752 May15f SPECIMEN.docx

Label Warnings:

- “Toxic to terrestrial and aquatic plants.”
- “Injury or loss of desirable plants may result.”

Spraying our roadsides with non-selective herbicide won't just kill wild parsnip.



**Protect
our rural
roadside
plants
for
pollinators**

**... request a
NO SPRAY
sign!**

Official “NO SPRAY” signs may be obtained from Lanark County Public Works (613-267-4200 x 3190) for your property bordering a County road.
Signs will tell sprayers:
Please do not spray non-selective herbicide here!!

**Simply mow/cut wild parsnip
before it goes to seed.**
Avoid skin contact (as with poison ivy)

Here are a few of the other casualties:
milkweed
wild strawberry
red clover
wild rose
buttercup
chicory
brown-eyed Susan
thistles
bloodroot
burdock
dandelion
mallow
hawk weed
lamb's quarters
hawk's beard
ox-eye daisy
wild sage
chamomile
tansy
buckwheat
toadflax
wild oats
evening-primrose
knapweed
shepherd's purse
bottle gentian
wild mustard
wild caraway
yellow foxtail
wild willow
cinquefoil
Canada anemone
New England aster
sweet white violet
wild columbine
wild sarsaparilla

Label Warnings:

- “Toxic to terrestrial and aquatic plants.”
- “Injury or loss of desirable plants may result.”



Dying Sweet Clover (no parsnip)

Collateral Damage:

- Results of 2016 spraying program
 - “Avoid application within the dripline of trees.”
 - “Injury or loss of desirable plants may result.”
- Clearview Label



Dying Cedars

Collateral Damage:

- Results of 2016 spraying program
 - “Avoid application within the dripline of trees.”
 - “Injury or loss of desirable plants may result.”
- Clearview Label



Dying Cedars

Collateral Damage:

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 - “Injury or loss of desirable plants may result.”
- Clearview Label



Dying Sumacs

Collateral Damage:

- Results of 2016 spraying program
 - “Avoid application within the dripline of trees.”
 - “Injury or loss of desirable plants may result.”
- Clearview Label



Dying Daisies

Label Warnings:

“Use of this chemical may result in the contamination of groundwater, particularly where soils are permeable, and the depth to the water table is shallow.”



Healthy roadside ecosystem

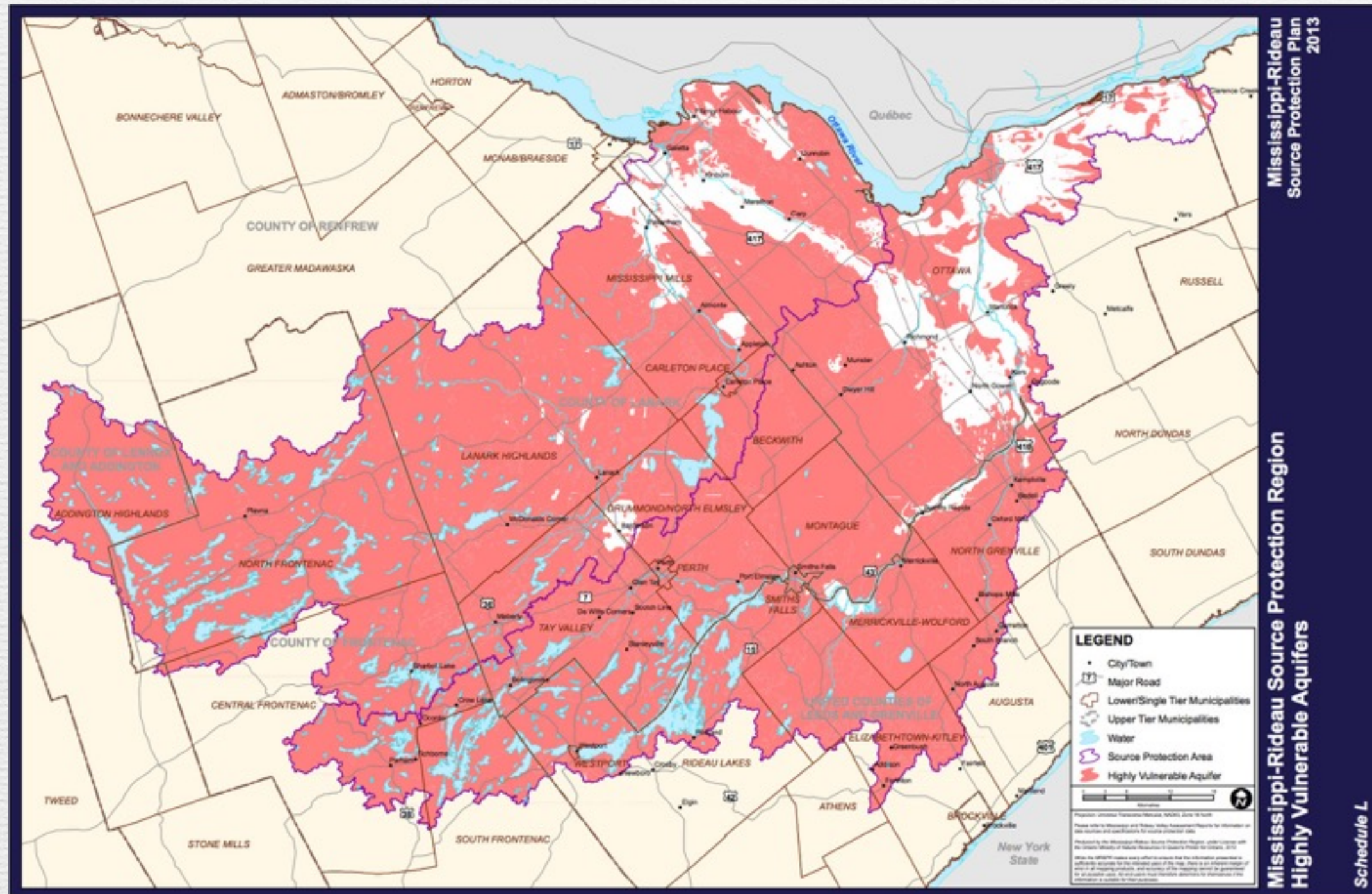
Expert Opinion:

“In 89 percent of the Mississippi-Rideau region the soil is very thin or completely absent and the underlying bedrock contains large cuts and gaps called fractures. These features make the underlying groundwater very vulnerable to surface contaminants so these areas are called Highly Vulnerable Aquifers. This regional groundwater is the source of drinking water for nearly one quarter of the population who are on private wells.”

- Mississippi-Rideau Source Protection Plan, 2015

Highly Vulnerable Aquifers

- Mississippi-Rideau Source Protection Plan, 2015



Objective:

“Ground water contamination from bacteria, nitrates, petroleum and chemicals, salt, pesticide use and naturally present contaminants can occur and as such it is important to consider groundwater quality when reviewing development applications in order to ensure the long term viability of this resource.”

- Official Plan of Lanark Highlands

Expert Opinion:

“These herbicides move easily through soil and water, and are toxic to aquatic life. Although the county has stated that a licensed contractor will be tasked with the spraying, the fact that most of our county roadsides are bordered by ditches, creeks and wetlands suggests a strong possibility that contamination will result.”

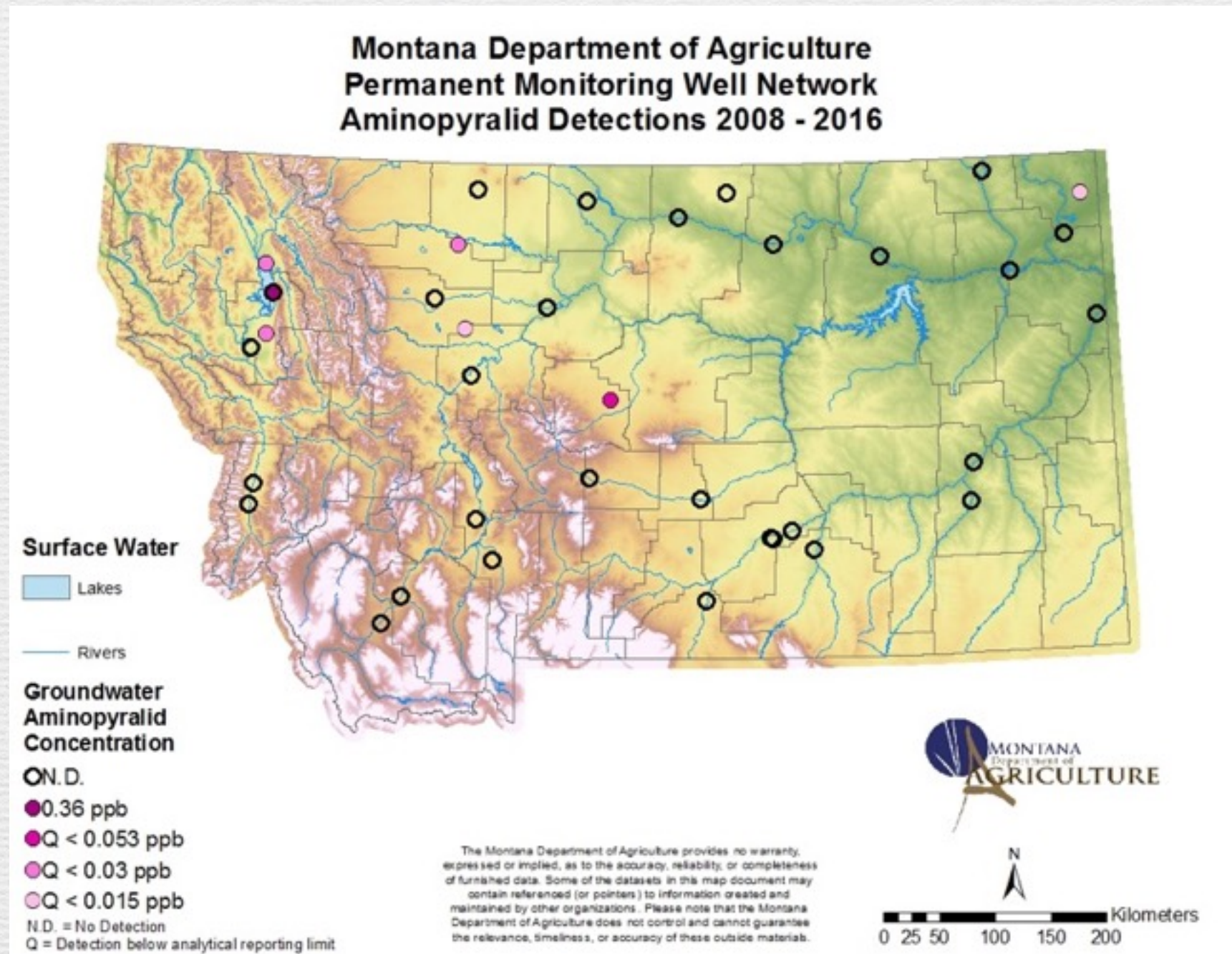
- Mississippi Valley Field Naturalists

Expert Opinion:

“I am concerned about the ecological impacts of the spraying of Clearview for wild parsnip. Most notably, I am very concerned by having seen expert opinion noting that it may not even be an effective solution to the problem raising the prospect of unnecessary use of pesticides contributing to environmental contamination, particularly in sensitive waterways.”

- Kathleen Cooper, Canadian Environmental Law Association

Montana Groundwater Aminopyralid Tracking:



Groundwater Contamination:

- Montana began using Clearview in 2007.
- Well water testing there detected aminopyralids in 2008 and every year since.
- After an exhaustive search with assistance from the Ministry of the Environment, we have been able to find only one laboratory in Ontario able to detect aminopyralids in our drinking water.

Expert Opinion:

“We are in an area with fractured rock and little ground cover which can easily lead to contamination of the aquifer at varying depths.”

- Dr. Paula Stewart, Leeds Grenville and Lanark District Health Unit, in a statement made to the Lake Networking Group, 2016.

Label Warnings:

“Clippings or hay from vegetation which has been treated with aminopyralid should not be used for composting or mulching. Aminopyralid residues pass through animals unchanged and are still herbicidally active. The manure from animals grazing treated areas or fed treated hay should not be used around susceptible plants.”

- ClearView Herbicide E 29752 May15f
SPECIMEN.docx



Livestock in Glen Tay

Exposure Risk

“Residents may be exposed to spray drift, dermal contact and ingestion of contaminated drinking water.”

- Public Health Ontario



Exposure Risk

- Dow advises workers to avoid sprayed areas for 12 hours after application.
- Who warns the residents?
- What protection does a “No Spray” zone offer?



Exposure Risk

“Local residents have been given the option of opting out of having their properties sprayed, which will reduce exposure in cases where residents are concerned about the potential exposures listed above.”

- Public Health Ontario

(How's that work, exactly?)



Expert Opinion:

“This is an agricultural Class 4 herbicide that is similar in its action to 2,4D. Clearview isn't approved for use on our lawns, so why would we be putting it on our roadsides?”

- Dr. James Coupland, Entomologist, Agricultural Research Scientist, Ecologist

Does it Work?

- The United Counties of Stormont-Dundas and Glengarry have been spraying for seven years.
- Herbicides' effect decreases over serial applications
- This year they have chosen to use Truvist.



Expert Opinion:

“The seed bank for this species (wild parsnip) is much more extensive than anyone could afford to spray.”

- Dr. Peter Carrington, Michigan State University

Expert Opinion:

“I have watched the spraying this year and I am certain it will be ineffective. The boom sprayers only cover a few metres into the roadside. In mid-July, you could see the line of dead plants along roads in Lanark and Ottawa. The remaining live plants extend far further back than that, and they will already have seeded into the sprayed area this fall. Even the sprayed area is full of viable seed, and will come right back next spring. It is an unfortunate and needless expenditure that is very unlikely to be effective at controlling Wild Parsnip, and which is not ecologically benign”.

- Holly Bickerton, Consulting ecologist, Expert on the Committee on the Status of Species at Risk in Ontario (COSSARO), Species at risk biologist, formerly Ontario Ministry of Natural Resources

Expert Opinion:

“Spraying a tough weed over and over, unless you change herbicides over and over, results in breeding a population of herbicide resistant plants that are more risky than the originals; never mind collateral damage to unintended species. In a few generations the best resistance genes are shared and the control agent may be useless.”

- Dr. Peter Carrington, Michigan State University

Expert Opinion:

“Not all of the roadside allowances have soil conditions suitable to grass. Wild parsnip has taken over areas which were previously dominated by sweet clover - thin soils over exposed bedrock. With the persistence of Clearview, there is no possibility of reseeding for months, leaving the land bare and vulnerable to recolonization by wild parsnip.”

- Maureen Bostock, Organic Farmer, Balderson, ON

Does it Work?

- Roadside spraying does not reach the property line.
- A boundary zone can exist where wild parsnip can grow.
- Spraying creates a wasteland for pollinators where only grasses survive.



Impacts to Beneficial Insects:

“Spraying may negatively impact apiaries and organic farmers.”

- The United Counties of
Leeds and Grenville



Objective:

“Honey bees and bumble bees in Ontario alone are responsible for \$897 million of the roughly \$6.7 billion in sales for agricultural crops grown in the province each year...In addition to the food we eat, pollinators also support healthy ecosystems that improve air quality, stabilize soils, and support other wildlife. Pollinator declines can have large impacts given the critical roles that pollinators play in ecosystem health.”

- Technical Guide for Enhancing, Managing and Restoring Pollinator habitat along Ontario's Roadsides, Pollinator Partnership

Objective:

“Many pollinator populations and species are in decline due primarily to habitat loss, disease, climate change, and the use of pesticides. Monarch butterflies have seen one of the most dramatic population declines with 90% losses and shrinking overwintering numbers. Honey bee colony losses have significantly impacted commercial beekeepers. Without feeding and nesting habitats, pollinators cannot function to support terrestrial ecosystem productivity. The decline of these pollinators is a serious problem that requires immediate action to ensure that Ontario’s food system and natural environment are productive and resilient.”

- Technical Guide for Enhancing, Managing and Restoring Pollinator habitat along Ontario’s Roadsides, Pollinator Partnership

Expert Opinion:

“The direct risks to pollinators associated with herbicides are not well understood. While they are not known to cause directly mortality, they can impact development and growth, which can impact pollinator function.”

- Victoria Wojcik, Ph.D Research Director Pollinator Partnership Canada

Expert Opinion:

“Herbicides will kill all broadleaf plants, which are vital for the health of our pollinators and other insects that form part of our ecosystem and our food supply.”

- Mississippi Valley Field Naturalists

Expert Opinion:

“Organic farmers depend upon healthy populations of insects to outcompete pests. But even more important is the significance of flowering wild plants to pollinators who are responsible for most of our food.”

“We’re in a pollinator crisis. The decline of the Monarch butterfly has helped us understand how fragile insect species have become as a result of chemicals.”

- Maureen Bostock, Organic Farmer, Balderson, ON

Expert Opinion:

“Monarch populations are under serious threat. The Mexican government released alarming new data today. It showed that last year, there were enough monarchs to cover an area the size of about three soccer fields. This year, there’s barely enough to cover an area the size of two soccer fields. The long-term trend is even more worrisome. Over the past twenty years, monarch populations in North America have decreased by 90 percent, threatened by deforestation, pesticide use, climate change and the destruction of milkweed plants where they lay their eggs. Without protection they could become a footnote in history, like the passenger pigeons that swarmed the skies, or the buffalo that thundered across the plains.”

- Catherine McKenna, Minister of Environment and Climate Change, Feb. 2017.

Market Response:

- Banned in Norway
- Not approved for use in New York State
- Detected in Montana groundwater
- Rejected by the Township of Mississippi-Mills, Tay Valley Township and Township of Rideau Lakes
- Not welcome here

(Note: The State of Vermont has stopped worrying about Wild Parsnip and have accepted it as a part of their landscape.)



Resident Response:

- Hundreds of Lanark Highlands residents have signed a petition
- Many letters, emails and phone calls have been made to Councillors
- No-spray signs dotted the countryside
- Opposed by Lanark County organic farmers and beekeepers
- Not welcome here



Alternatives:

- Mowing
- Education
- Restore a balanced roadside ecology



The Ask:

With respect, we ask that Council direct the Public Works Department to continue to protect township residents by not applying herbicides. Roadside mowing should occur before wild parsnip goes to seed. We ask that education programs be established to help residents identify and avoid wild parsnip and other potential hazards. These actions respect the concerns we share without compromising the social, environmental and economic health of our community.

What's Best For Us?

(Please, not poison.)

