

Report by Lorraine Johnson, re Karen Barnes' natural garden, Burlington, Ontario

November 30, 2022

SUMMARY: In my professional opinion as a naturalization expert, the landscape (front yard, side yard and boulevard) at [address redacted], Burlington, represents a deliberately planted or cultivated naturalized area, and is actively managed in numerous clearly visible ways that indicate intentionality and maintenance.

BACKGROUND:

On November 27, 2022, I visited [address redacted], Burlington, in order to determine whether or not, in my professional opinion (see Appendix 2), the landscape was a deliberately planted or cultivated naturalized area. The owner, Karen Barnes, and her daughter were present, as was a City of Burlington bylaw supervisor, Mike Donnelly. The meeting was very cordial and clarified a number of issues, though it also left a number of other issues unclarified.

At the visit, I searched for Noxious Weeds designated under Ontario's Weed Control Act and found none. At the visit, Mr. Donnelly did not assert the presence of any Noxious Weeds designated under Ontario's Weed Control Act, though he referred repeatedly to the "weeds" present. Mr. Donnelly did not clarify what plants he considered to be "weeds," instead noting that he is not a weed expert. In my opinion, it was unfortunate that Mr. Donnelly did not clarify for Ms. Barnes what plants the City considers to be "weeds," since this is an issue relevant to the November 2, 2022 Order to Comply. According to the November 2, 2022 Order to Comply, Ms. Barnes is required to cut unspecified "common weeds" (in addition to the specified plants New England aster, white panicked aster, milkweed and goldenrod) that exceed 20cm in height or length on the front and side yard. Mr. Donnelly could not clarify what plants the City is referring to as "common weeds."

Unlike Noxious Weeds, which are designated under the Weed Control Act, the term "common weeds" is contextual. That is, the definition of weeds (in dictionaries, in the gardening literature, in agricultural literature, etc.) depends entirely on context: "weeds" are plants considered undesirable in a particular situation, plants in the wrong place, or plants growing where they are not wanted. (See Appendix 1.) Although neither Mr. Donnelly nor I asked Ms. Barnes if there were any plants growing that she did not "want," I assume, considering Ms. Barnes' effort to protect her naturalized landscape from being cut by the City, that she does indeed "want" the plants that form this naturalized landscape.

At no point during the site meeting did Mr. Donnelly ask Ms. Barnes to identify any plants on the landscape, nor did Mr. Donnelly ask Ms. Barnes to clarify which plants she had deliberately planted or which plants had grown spontaneously from the soil seed bank or through seed recruitment via wind, animals, etc.

I evaluated the vegetation community/communities, and determined that, based on the plants present, the landscape consists of a deliberately planted or cultivated naturalized area—specifically, an early successional meadow.

The vegetation includes a mix of native plants of high value for pollinators (native goldenrods, asters and milkweed—plants that the November 2, 2022 Order to Comply specifically names and requires Ms. Barnes to cut to 20cm) and non-native and naturalized plants. (See Appendix 1 for details on the specialist pollinators supported by native goldenrods, asters, and milkweed.) The native goldenrods, asters and milkweeds in Ms. Barnes’ naturalized landscape are commonly available from commercial nurseries and are commonly promoted (by municipalities, conservation authorities, scientists, non-profit habitat/wildlife/environmental organizations, and other experts) for use in residential naturalization.

A few of the plants present are species that do not simply grow spontaneously if a lawn is left unmown; rather, they are commercially cultivated cultivars. The variegated dogwood in the front yard is one example of this clear demonstration of intentional planting. The majority of other plants, such as goldenrods and asters, for example, are early successional meadow species that could have been deliberately planted, deliberately seeded or could have grown spontaneously via recruitment from the soil seed bank, wind or via animal vectors (birds, for example). Neither Mr. Donnelly nor I asked Ms. Barnes for information about the provenance (i.e., whether they were planted, seeded or were the result of spontaneous recruitment) of any of the plants growing on site. Although it was not discussed at the site meeting what plants were or were not deliberately planted or seeded, it is important to note here that it is standard practice in naturalization to welcome and cultivate native asters, goldenrod and milkweed when they appear as spontaneous vegetation, even if they are not deliberately planted or seeded.

There were clearly visible cues to care on the property that demonstrated intentional maintenance:

- There was low fencing in a number of places, framing the landscape and separating it from the sidewalk.
- In numerous places, vegetation such as goldenrods and asters had been tied up with string to prevent plants from bending over onto the driveway, walkway or neighbour’s property.
- There was a section of new topsoil (clearly purchased topsoil due to the visible presence of perlite, which looks like small white foam balls) in one area of the front yard, which I assumed was fall-seeded. (Ms. Barnes later confirmed to me that this new bed had been seeded with a number of native plants such as wild bergamot, evening primrose, black-eyed Susan, butterfly milkweed among other plants commonly used in residential naturalization projects, using seeds purchased from the company Northern Wildflowers.)
- There were front yard beds delineated in clear patterns with rocks, flagstones and wooden planks.

- There were indications that the front yard had been raked to remove dead leaves, due to the limited presence of dead leaves despite the deciduous trees and shrubs. There were no branches or nurse logs in the front yard. Ms. Barnes confirmed that she had raked some of the dead leaves and removed any dead wood out of a concern for potential fines.
- The evergreen beside the pathway had been wrapped.

At the visit, I enumerated each of these clearly visible maintenance practices to Mr. Donnelly, who, in response, reiterated that he considered the landscape to be “unmaintained” and “unkempt.”

Mr. Donnelly indicated two particular aspects of the landscape that led him to consider it “unmaintained”: the section of “long grass” (under 20cm in height, but over 20cm in length) in the front yard and the “weeds” (mainly goldenrod) growing out of the asphalt in a number of places.

I asked for clarification as to what species of grass were a problem. Most of the native grasses recommended by conservation authorities, Halton Master Gardeners, pollinator experts and on various cities’ websites (though not Burlington’s, as I said at the site visit, mixing it up with the recommendations on Oakville’s and Toronto’s websites) for planting in naturalized gardens grow above 20cm. (Given the time of year, it was not possible to accurately identify all of the grass species present.) I considered it important to clarify whether or not Mr. Donnelly was including native grasses in the requirement of a 20cm height limit. Mr. Donnelly did not clarify.

I asked for a second time if “a requirement for the City to perceive this as maintained would require removing any plants growing through the asphalt; is this a fair summary?” Mr. Donnelly answered by asking me, “would you agree that if you naturalize a garden, there has to be maintenance?” I responded with “absolutely,” adding that this is the case unless one is referring to the well-established tradition of “passive restoration,” but I noted that this landscape didn’t fall into the category of passive restoration due to the clear signs of maintenance and management activities. I asked if it would be helpful for Ms. Barnes to prepare a list for the City of the maintenance tasks she carries out and the time she spends on maintenance activities. Mr. Donnelly did not respond to this question.

Mr. Donnelly mentioned the City’s concern over coyotes in areas with “overgrowth” and vermin such as mice, but he clarified that he was not suggesting coyotes were a potential problem at this property. Ms. Barnes confirmed that she had not seen any coyotes or mice on the property.

Mr. Donnelly confirmed that he did not see any sightline problems or sightline obstructions on the property.

Ms. Barnes confirmed that the neighbour had mowed the boulevard.

Mr. Donnelly reiterated the City's offer to send people in to assist Ms. Barnes to come up with a plan or strategy or solution that would meet Ms. Barnes' needs and also mean that the City would "not have to make as many attendance calls" to the property. I mentioned that Ms. Barnes has a Masters degree in Ecology and is naturalizing the yard using common naturalization methods, strategies and maintenance practices, and reiterated the question of what, in specific, Ms. Barnes needed to do in order for the City to consider the naturalized landscape to be in compliance with the bylaw. In response, Mr. Donnelly thanked us and left.

APPENDIX 1:

As dictionaries, and garden, botanical and agricultural literature, all make clear, the term "weed" is entirely contextual. Whether or not a plant is considered a "weed" is based on a determination according to the situation. (A common cliché is that "a rose growing in a corn field is a weed.")

From Wikipedia:

*"A **weed** is a [plant](#) considered undesirable in a particular situation, "a plant in the wrong place", or a plant growing where it is not wanted. [...]the term "weed" has no botanical significance, because a plant that is a weed in one context, is not a weed when growing in a situation where it is wanted...Some plants that are widely regarded as weeds are intentionally grown in gardens and other cultivated settings..."*

From the book Weeds of Canada (Canada Department of Agriculture):

"Various definitions have been devised for a weed but essentially a weed is a plant growing where man does not want it to grow."

From Britannica:

*"**weed**, general term for any [plant](#) growing where it is not wanted."*

From Iowa State University Extension and Outreach:

"A weed is simply a plant out of place. By this definition, any plant could be a weed if growing in a location where it is not wanted. No one species of plant is always considered a weed in all settings and no species of plant is never considered a weed..."

The November 2, 2022, Order to Comply requires the property owner to cut to 20cm in height "Common Weeds, Grass, New England aster, White Panicked Aster, milk weed [sic] and golden rod [sic]." These latter four plants are all commercially available native plants highly valued for their support of pollinators.

Up until 2014, milkweed was on the Ontario Noxious Weed List, but it was removed due to the fact that it is the only known larval host plant for the endangered monarch butterfly.

New England aster, white paniced aster and goldenrod are not on the Ontario Noxious Weed List.

Goldenrod is often mistakenly blamed for hayfever, because it blooms at the same time as the hayfever-causing plant ragweed, but the pollen of goldenrod is heavy and not wind-borne, and does not aggravate hayfever. Goldenrod is included on the Ontario Ministry of Agriculture, Food and Rural Affairs "weed gallery" of "crop weeds," but this list is specifically intended as an identification aid for plants growing in an agricultural context.

New England aster, white paniced aster, milkweed and goldenrod are all native species specifically recommended for residential and community pollinator gardens by scientists (such as renowned entomologist and author Douglas Tallamy), many conservation authorities on their websites and public educational materials, and by environmental/conservation/wildlife non-profit organizations in their educational materials.

- Asters (*Aster* spp. and *Symphyotrichum* spp.) and goldenrods (*Solidago* spp.) are two of the top four genera to support pollen-specialist bees in northeastern North America. Pollen-specialist bees depend on the pollen from specific "host" plants in order to rear healthy young. Goldenrods support 29 species of pollen-specialist bees in northeastern North America. Asters support 26 species of pollen-specialist bees in northeastern North America.
- Common milkweed (*Asclepias syriaca*) is a larval host plant for the following pollinator species: monarch and queen butterflies; milkweed leaf beetle; large milkweed bug; and the following moth species: milkweed tussock, lined ruby tiger, striped garden caterpillar, delicate cycnia, stalk borer, cecropia and unexpected cycnia moths.
- New England aster (*Symphyotrichum novae-angliae*) has specialist relationships with the following pollinator species (this is in addition to the enormous value to generalist pollinator species): pollen specialist bees *Andrena aliciae*, *A. asteris*, *A. asteroides*, *A. canadensis*, *A. chromotricha*, *A. hirticincta*, *A. nubecula*, *A. placata*, *A. simplex*, *Perdita albipennis*, *P. octomaculata*, *Pseudopanurgus aestivalis*, *P. andreoides*, *P. compositarum*, *Melissodes boltoniae*, *M. dentiventris*, *M. druriellus*, *M. illatus*, *M. niveus*, *M. subillatus*, *M. trinodis*, *Colletes americanus*, *C. compactus*, *C. simulans*, *C. speculiferus* and *Dianthidium simile*; larval host for silvery checkerspot, pearl crescent, northern crescent, forgone checkerspot and tawny crescent butterflies; and *Acrocercops astericola*, pale-banded dart, aster borer, blackberry looper, white-dotted groundling, sharp-stigma looper, rusted paint, *Eucosma robinsonana*, confused eusarca, lost sallow, *Landryia impositella*, green leuconycta, dark-spotted palthis, *Phaneta essexana*, *P. parmatana*, *P. tomonana*, common tan wave, small brown quaker, arcigera flower, goldenrod flower, Canadian sonia, wavy-lined emerald, dimorphic grey, wormwood pug and many other moth species.

- white paniced aster (*Symphytotrichum lanceolatum*) has specialist relationships with the following pollinator species (this is in addition to the enormous value to generalist pollinator species): pollen specialist bees *Andrena aliciae*, *A. asteris*, *A. asteroides*, *A. canadensis*, *A. chromotricha*, *A. hirticineta*, *A. nubecula*, *A. placata*, *A. simplex*, *Perdita albipennis*, *P. octomaculata*, *Pseudopanurgus aestivalis*, *P. andrenoides*, *P. compositarum*, *Melissodes boltoniae*, *M. dentiventris*, *M. druriellus*, *M. illatus*, *M. niveus*, *M. subillatus*, *M. trinodis*, *Colletes americanus*, *C. compactus*, *C. simulans*, *C. speculiferus* and *Dianthidium simile*; larval host for silvery checkerspot, pearl crescent, northern crescent, forgone checkerspot and tawny crescent butterflies, and *Acrocercops astericola*, pale-banded dart, aster borer, blackberry looper, white-dotted groundling, sharp-stigma looper, rusted paint, *Eucosma robinsonana*, confused eusarca, lost sawfly, *Landryia impositella*, green leuconycta, dark-spotted palthis, *Phaneta essexana*, *P. parmatana*, *P. tomonana*, common tan wave, small brown quaker, arcigera flower, goldenrod flower, Canadian sonia, wavy-lined emerald, dimorphic grey, wormwood pug and many other moth species.

APPENDIX 2

My professional credentials related to this report are:

- 1) I am a recognized North American expert on habitat regeneration, naturalization and native plant gardening.
- 2) My books on the subjects of habitat regeneration, naturalization, native plant gardening and gardening in general include: *The Ontario Naturalized Garden* (1995); *Grow Wild! Native Plant Gardening in Canada and the Northern U.S.* (1998); *100 Easy-to-Grow Native Plants for Canadian Gardens* (1999); *The New Ontario Naturalized Garden* (2001); *Tending the Earth: A Gardener's Manifesto* (2002); *Garden Plants and Flowers: A-Z Guide to the Best Plants for your Garden* (ed., 2006); *The Natural Treasures of Carolinian Canada* (ed., 2007); *Canadian Gardener's Guide* (ed., 2012); *What Plant Where Encyclopedia* (ed., 2015); *A Garden for the Rusty-Patched Bumblebee: Creating Habitat for Native Pollinators in Ontario* (co-authored with Sheila Colla, 2022).
- 3) I am a recognized expert on municipal grass and weeds bylaws, regularly invited to consult with municipalities (e.g., Toronto) and to do presentations on the topic for environmental organizations (e.g., David Suzuki Foundation), gardening groups (e.g., Peterborough Master Gardeners) and professional associations (e.g., Canadian Society of Landscape Architects, the Ontario Association of Landscape Architects).
- 4) I am a current or former Board member of numerous non-profit organizations related to habitat, native plants and naturalization, including the North American Native Plant Society, Wild Ones: Native Plants, Natural Landscapes, LEAF (Local Enhancement and Appreciation of Forests), Toronto Botanical Garden, Project Swallowtail, among others.