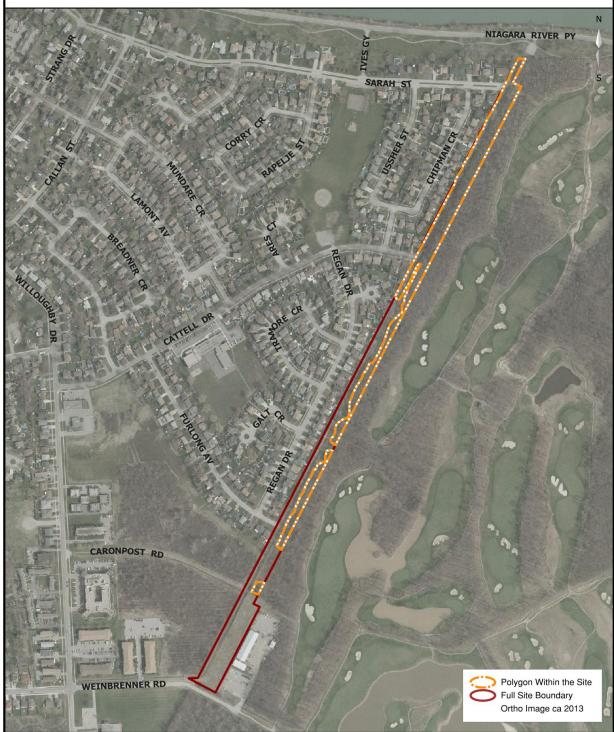


# 29 - Little Mississippi Drain



### Site 29 Little Mississippi Drain

#### General Description

This trail begins as a pleasant path at a parking lot off the Niagara Parkway and continues as such for a while. There are some well-built bridges that appear to be the private property of the adjoining residents between their backyards and the trail. There is no easy access for other residents of the subdivision who wish to use the path.

Further on, the trail ends and there are some meadow and brush areas and some mowed areas. The survey group also saw many encroachments, even some where there was a fence between the city-owned property and the resident's back yards.

Where gardens backed right up to the drain, invasive species were more numerous. There was also dumping of garbage, broken bottles, garden debris and building supplies dumped right into the drain.

The drain area between Furlong Avenue and Weinbrenner Road was not accessible to the survey team. There was no trail and the brush was very thick with brambles. The survey group could not locate an access point to the drain from Weinbrenner Rd.

#### Polygon 1

Buckthorn and other invasive species make up a large part of the species list of this area. Many of the green ash are dying. However, there are also some excellent native species including a very large pin oak, numerous American elm trees and shrubs such as nannyberry and ninebark.

#### Recommendations

- Continue the walking path from Niagara Pkwy to Weinbrenner Road. This path could be an excellent recreational path for residents and visitors to the city. Look at connectivity to adjacent neighbours.
- Work with Niagara Parks, owners of the adjoining golf course, to plant more native species in all areas including those where green ash trees have died and perhaps cull some invasive species. More native riparian species could be planted along the drain.
- Neighbour encroachments shall be removed from the woodland. In addition to being illegal under the City parks bylaw, these encroachments degrade the quality of the natural habitat and may negatively impact the public use of the lands.
- 4. Promote woodlot stewardship to the community, specifically residents backing onto the drain.
- Removal of invasive species should be done. Priority for removal shall be in areas where there is greater impact on the existing native vegetation. After removal of invasive species has occurred, monitoring is necessary to ensure that these

- plants do not re-establish themselves. The techniques used for the removals shall be tailored to the invasive species being removed and be in accordance with industry standards.
- 6. Litter and debris should be removed from the woodland. Consideration should be made for the installation of waste receptacles at the entrance to the woodland in a convenient location for both the public and maintenance staff. Natural debris from dead trees shall be left on-site but moved off trails.
- 7. To raise awareness of the woodland features and functions, informative signage should be put on site. The signage should be installed near a main trail or access point to the woodland.



Figure 1- Bridges belonging to private residents. Credit: NF Nature Club



Figure 2- Meadow and Brush Area. Credit: NF Nature Club



Figure 3- Dumping of building supplies. Credit: NF Nature Club

## **Little Mississippi Drain Plant Species Inventory**

<u>Legend:</u>
Layer: 1=Canopy(>10M), 2=Sub-Canopy, 3=Understory, 4=Ground Layer

Abundance: r=Rare, o=Occasional, a=Abundant, d=Dominant

Invasive Species: ai=Aggressive Invasive Species, i=Invasive Species

Old Growth: og=Old Growth Plantation: p=Plantation Species

Federal Status: t=Threatened, v=Vulnerable, sp=Special Concern Provincial Status: e=Endangered, t=Threatened, v=Vulnerable

| Site<br>Number | Site Name                | Polygon | Layer | Species                 | Abundance | Invasive | Old Growth | Plantation | Federal | Provincial |
|----------------|--------------------------|---------|-------|-------------------------|-----------|----------|------------|------------|---------|------------|
| 29             | Little Mississippi Drain | 1       | 1     | Acer platanoides        | а         | i        |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 1     | Fraxinus pennsylvanica  | d         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 1     | Malus sp.               | r         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 1     | Populus tremuloides     | r         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 1     | Pyrus communis          | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 1     | Quercus bicolor         | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 1     | Quercus palustris       | а         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 1     | Salix fragilis          | r         | i        |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 1     | Tilia americana         | r         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 1     | Tilia cordata           | r         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 1     | Ulmus americana         | а         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 2     | Acer negundo            | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 2     | Carya ovata             | r         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 2     | Crataegus               | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 2     | Crataegus mollis        | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 2     | Juglan nigra            | r         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 2     | Morus alba              | r         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 2     | Prunus avium            | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 2     | Rhamnus cathartica      | d         | ai       |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 2     | Salix sp.               | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 3     | Cornus racemosa         | d         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 3     | Lonicera tatarica       | 0         | i        |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 3     | Physocarpus opulifolius | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 3     | Rhus typhina            | r         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 3     | Ribes sp.               | r         |          |            |            |         |            |

| Site<br>Number | Site Name                | Polygon | Layer | Species                   | Abundance | Invasive | Old Growth | Plantation | Federal | Provincial |
|----------------|--------------------------|---------|-------|---------------------------|-----------|----------|------------|------------|---------|------------|
| 29             | Little Mississippi Drain | 1       | 3     | Rosa multiflora           | а         | i        |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 3     | Rubus occidentalis        | а         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 3     | Thuja occidentalis        | r         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 3     | Viburnum lentago          | r         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 3     | Viburnum sp.              | r         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 3     | Viburnum trilobum         | r         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Agrimonia gryposepala     | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Alisma plantago-aquatica  | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Alliaria petiolata        | а         | ai       |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Ambrosia artemisiifolia   | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Asclepias syriaca         | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Aster novae-angliae       | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Aster simplex             | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Carex vulpinoidea         | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Centaurea sp.             | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Daucus carota             | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Dipsacus sylvestris       | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Epipactis helleborine     | r         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Erigeron annuus           | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Fragaria sp.              | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Geum sp.                  | а         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Hedera helix              | а         | i        |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Impatiens capensis        | а         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Lysimachia ciliata        | r         | i        |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Lysimachia nummularia     | а         | i        |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Lythrum salicaria         | 0         | ai       |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Mentha arvensis           | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Parthenocissus sp.        | а         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Phalaris arundinacea      | 0         | ai       |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Polygonum hydropiperoides | а         |          |            |            |         | -          |
| 29             | Little Mississippi Drain | 1       | 4     | Prunella vulgaris         | 0         |          |            |            |         | -          |
| 29             | Little Mississippi Drain | 1       | 4     | Rhus radicans             | а         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Solidago canadensis       | а         |          |            |            |         | -          |

| Site<br>Number | Site Name                | Polygon | Layer | Species               | Abundance | Invasive | Old Growth | Plantation | Federal | Provincial |
|----------------|--------------------------|---------|-------|-----------------------|-----------|----------|------------|------------|---------|------------|
| 29             | Little Mississippi Drain | 1       | 4     | Solidago graminifolia | а         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Taraxacum officinale  | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Tovara virginiana     | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Typha sp.             | 0         |          |            |            |         |            |
| 29             | Little Mississippi Drain | 1       | 4     | Vitis sp.             | 0         |          |            |            |         |            |

## **Little Mississippi Drain Disturbance Report**

| Site                        | Polygon | Disturbance / Extent                             | Total<br>Score |  |
|-----------------------------|---------|--|----------------|--|
| 29 Little Mississippi Drain | 1       | Alien Species / Extent Of Alien Species          | 9              |  |
| 29 Little Mississippi Drain | 1       | Beaver Activity / Extent Of Beaver Activity      | 0              |  |
| 29 Little Mississippi Drain | 1       | Browse (e.g. Deer) / Extent Of Browse            | 0              |  |
| 29 Little Mississippi Drain | 1       | Disease/Death Of Trees / Extent Of Disease/Death | 4              |  |
| 29 Little Mississippi Drain | 1       | Dumping (rubbish) / Extent Of Dumping            | 6              |  |
| 29 Little Mississippi Drain | 1       | Earth Displacement / Extent Of Displacement      | 0              |  |
| 29 Little Mississippi Drain | 1       | Encroachment                                     | 4              |  |
| 29 Little Mississippi Drain | 1       | Fire / Extent Of Fire                            | 0              |  |
| 29 Little Mississippi Drain | 1       | Flooding (Pools & Puddling) / Extent Of Flooding | 0              |  |
| 29 Little Mississippi Drain | 1       | Gaps In Forest Canopy / Extent Of Gaps           | 1              |  |
| 29 Little Mississippi Drain | 1       | Ice Damage / Extent Of Ice Damage                | 0              |  |
| 29 Little Mississippi Drain | 1       | Intensity / Extent Of Logging                    | 0              |  |
| 29 Little Mississippi Drain | 1       | Livestock (Grazing) / Extent Of Livestock        | 0              |  |
| 29 Little Mississippi Drain | 1       | Noise / Extent Of Noise                          | 0              |  |
| 29 Little Mississippi Drain | 1       | Planting (plantation) / Extent Of Planting       | 0              |  |
| 29 Little Mississippi Drain | 1       | Recreational Use / Extent Of Recr. Use           | 1              |  |
| 29 Little Mississippi Drain | 1       | Sugar Bush Operations / Extent Of Operations     | 0              |  |
| 29 Little Mississippi Drain | 1       | Time Since Logging                               | 0              |  |
| 29 Little Mississippi Drain | 1       | Tracks And Trails / Extent Of Tracks/Trails      | 1              |  |
| 29 Little Mississippi Drain | 1       | Wind Throw (blow Down) / Extent Of Wind Throw    | 0              |  |