RFP No. 201-2014 B PA So The City of Winnipeg Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass

Appendix QQ - (Draft) Natural Area Appraisal and Removal Guidelines, City of Winnipeg



## THE CITY OF WINNIPEG • VILLE DE WINNIPEG

PUBLIC WORKS DEPARTMENT • SERVICE DES TRAVAUX PUBLICS

PARKS & OPEN SPACE DIVISION • DIVISION DES PARCS ET DES ESPACES OUVERTS

CITY NATURALIST'S OFFICE – BUREAU DU NATURALISTE MUNICIPAL
NATURALIST SERVICES BRANCH / SERVICES DE CONSERVATION DE LA NATURE

# **Draft**

# **Natural Area Appraisal and Removal Guidelines**

These guidelines are applicable to situations where natural areas containing native species are to be removed.

The appraisal value is based on the type of vegetation present, diversity of native species and overall habitat quality.

Compensation for habitat removal including integral damages to the site species or composition thereof is based on the following formulas. Compensation can be achieved through monetary means or completing a landscape restoration of equivalent habitat value.

Funds received by The Naturalist Services Branch in compensation will be invested back in the form of habitat restoration within the ward to maintain the natural features within our urban area.

#### Formulas:

## 1. Habitat Including Groupings of Trees and/or Shrubs

#### 1.A. Trees

Tree values are based on the Urban Forestry Branch's Tree Removal Guidelines

Trees > 5cm up to 17.5cm DBH: \$600 \* (number of replacement trees required) \* (Species Rating %) \* (Habitat Grade Value) = cost/tree

- Trees greater than 10cm dbh are valued at one replacement tree for every additional 7.5 cm of dbh (ie. 17.5cm dbh = 2 replacement trees @ \$600 / tree = \$1200)
- Trees and shrubs in poor condition will not be appraised

## 1.B. Shrubs and Woody Vines

< 1m in height = \$20 \* (Species Rating %) = cost/shrub 1.01m – 2m in height = \$40 \* (Species Rating %) = cost/shrub > 2m in height = \$60 \* (Species Rating %) = cost/shrub

Non-native shrubs will not be appraised



1.C. Herbaceous Plants (Forbs, Grasses, Non-Woody Vines)

|       | # of Native Species | Value(\$) per m <sup>2</sup>                   |
|-------|---------------------|------------------------------------------------|
| Α     | 1-10                | \$12 * (% cover)                               |
| В     | > 10                | (# of species – 10) * (\$1) * (habitat rating) |
| Total |                     | A + B                                          |

Non-native herbaceous species will not be appraised

#### 2. Grassland / Prairie

|       | # of Native Species | Value(\$) per m <sup>2</sup>                                      |
|-------|---------------------|-------------------------------------------------------------------|
| Α     | 1-10                | \$12 * (% cover)                                                  |
| В     | > 10                | (# of species – 10) * (\$2) * (habitat rating) + (\$12 * % cover) |
| Total |                     | A + B                                                             |

- Individual or small groupings of shrubs will be included in the above formula
- Individual trees will be valued according to 1.A.

#### **Additional Guidelines:**

- If Naturalist Services Branch is not contacted prior to removal of habitat the value of compensation will be based on the nearest similar habitat with a grade equal to or better than the habitat destroyed.
- 2) The tree values are based on the Tree Removal Guidelines provided by the Urban Forestry Branch. Only one value will be applied to each tree. Urban Forestry Branch may assess trees in a low quality natural area at a higher value by not adjusting for the habitat grade value. If there is discrepancy between the Natural Area Removal Guideline and the Urban Forestry Branch Tree Removal Guideline the higher value shall apply.
- 3) In the case of habitats with unique or endangered species it is the position of the Naturalist Services Branch to deny requests for removal or destruction of the natural habitat
- 4) Contact Naturalist Services Branch for assistance with minimizing habitat impacts and thus reducing compensation requirements

#### Notes:

The Natural Areas Appraisal Document provides explanations and also contains examples of different scenarios and formula calculations. Please contact the Naturalist Services Branch to obtain copies.



# **Tables and Appendices**

Table 1. Habitat Rating for areas with trees

| Native Cover (%) | Habitat Rating |
|------------------|----------------|
| 1-8              | .25            |
| 9-16             | .50            |
| 17-24            | .75            |
| >24              | 1.00           |

Table 2. Habitat Rating for grassland areas

| Native Cover (%) | Habitat Rating |
|------------------|----------------|
| 0.1-12.5         | .25            |
| 12.6-25.0        | .50            |
| 25.1-37.5        | .75            |
| >37.6            | 1.00           |

Table 3. Habitat Grade Value

| Habitat Grade | Habitat Grade Value |
|---------------|---------------------|
| A             | 1.00                |
| A/B           | .90                 |
| В             | .75                 |
| B/C           | .50                 |
| С             | .25                 |
| C/D           | .10                 |
| D             | .00                 |



## Appendix 1: Species ratings for trees, shrubs, and woody vines

## **Trees**

| rrees                           |                       |                  |
|---------------------------------|-----------------------|------------------|
| Scientific Name                 | <b>Common Name</b>    | Species Rating % |
| Acer ginnala                    | Amur Maple            | 70               |
| Acer negundo                    | Manitoba Maple        | 60               |
| Acer saccharinum                | Silver Maple          | 70               |
| Betula papyrifera               | Paper Birch           | 70               |
| Betula pendula                  | Weeping Birch         | 60               |
| Celtis occidentalis             | Hackberry             | 80               |
| Crataegus spp.                  | Hawthorn              | 70               |
| Elaeagnus angustifolia          | Russian Olive         | 60               |
| Fraxinus mandshurica            | Manchurian Ash        | 90               |
| Fraxinus nigra                  | Black Ash             | 60               |
| Fraxinus nigra "Fall Gold"      | Black Ash "Fall Gold" | 80               |
| Fraxinus pennsylvanica          | Green Ash             | 80               |
| Larix spp.                      | Larch                 | 70               |
| Malus spp.                      | Apple                 | 70               |
| Picea spp.                      | Spruce                | 80               |
| Pinus spp.                      | Pine                  | 60               |
| Pinus sylvestris                | Scotch Pine           | 70               |
| Populus spp.                    | Poplar                | 50               |
| Prunus maackii                  | Amur Choke Cherry     | 80               |
| Prunus spp.                     | Plum                  | 60               |
| Prunus virginiana "Shubert"     | Schubert Choke Cherry | 80               |
| Pyrus spp.                      | Pear                  | 60               |
| Quercus macrocarpa              | Bur Oak               | 80               |
| Salix spp.                      | Willow                | 50               |
| Sorbus americana                | American Mountain-ash | 60               |
| Syringa reticulata "Ivory Silk" | Japanese Tree Lilac   | 80               |
| Tilia americana                 | American Basswood     | 80               |
| Tilia cordata                   | Little Leaf Linden    | 70               |
| Tilia flavescens "Dropmore"     | Dropmore Linden       | 80               |
| Ulmus americana                 | American Elm          | 100              |
| Ulmus davidiana var. japonica   | Japanese Elm          | 100              |
| Ulmus pumila                    | Siberian Elm          | 60               |



## **Native Shrubs**

| Scientific Name         | Common Name               | Species Rating % |
|-------------------------|---------------------------|------------------|
| Amelanchier alnifolia   | Saskatoon                 | 70               |
| Amorpha canescens       | Leadplant                 | 100              |
| Amorpha fruticosa       | False indigo              | 90               |
| Amorpha nana            | Dwarf false indigo        | 60               |
| Betula glandulosa       | Dwarf birch               | 60               |
| Betula pumila           | Swamp birch               | 60               |
| Cornus stolonifera      | Red-osier Dogwood         | 50               |
| Corylus spp.            | Native Hazelnut           | 80               |
| Crataegus spp.          | Native Hawthorn           | 90               |
| Elaeagnus commutata     | Silverberry, Wolf-willow  | 60               |
| Potentilla fruticosa    | Shrubby cinquefoil        | 50               |
| Prunus pensylvanica     | Pin Cherry                | 70               |
| Prunus spp.             | Native Plum               | 100              |
| Prunus virginiana       | Chokecherry               | 70               |
| Ribes spp.              | Native Currant/Gooseberry | 60               |
| Rosa spp.               | Native Rose               | 60               |
| Rubus ideaus            | Raspberry                 | 50               |
| Salix spp.              | Native Willow             | 50               |
| Shepherdia spp.         | Buffaloberry              | 50               |
| Spiraea alba            | Narrow-leaved Meadowsweet | 60               |
| Symphoricarpos spp.     | Native Snowberry          | 50               |
| Viburnum lentago        | Nannyberry                | 90               |
| Viburnum opulus         | High Bush Cranberry       | 80               |
| Viburnum rafinesquianum | Downy Arrow-wood          | 90               |

# **Native Woody Vines**

| Scientific Name             | Common Name          | Species Rating % |
|-----------------------------|----------------------|------------------|
| Celastrus scandens          | Climbing bittersweet | 80               |
| Lonicera dioica             | Twining Honeysuckle  | 80               |
| Menispermum canadense       | Yellow parilla       | 100              |
| Parthenocissus quinquefolia | Virginia Creeper     | 50               |
| Vitis riparia               | Riverbank grape      | 70               |