



HIGH PARK NEIGHBOURHOOD AREA BIODIVERSE LANDSCAPE MANUAL

2025

CITY OF TORONTO

CITY PLANNING

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01 BACKGROUND

There is a growing body of research supporting the use of native plants in landscaping to protect and support local biodiversity and sustain native wildlife populations. The High Park Neighbourhood Area Biodiverse Manual (the Manual) has been developed to assist landscape architects, arborists and natural heritage professionals in supporting the unique ecology of the area around High Park. This Manual can be used when undertaking landscape projects on new development sites, in parks and the public right-of-way in the vicinity of High Park. This Manual does not apply to the High Park woodlands and savannahs within High Park which are managed by the City of Toronto Parks Forestry and Recreation Division.

This Manual was developed primarily to support [Site and Area Specific Policy No. 551](#) for the High Park Apartment Neighbourhood located immediately to the north of High Park. This Manual also supports the Bloor West Village Avenue Study and Urban Design Guidelines. Much of the guidance found within this Manual would apply beyond this neighbourhood and into the greater Humber Plains, which can be identified by the presence of relic black oak (and other oak species), and red pine, as well as the characteristic Lake Iroquois sand plain soils.

The High Park Apartment Neighbourhood currently does not contain any significant natural heritage features and has been heavily altered from its historic condition by urbanization, infill, and long-term human use. Redevelopment within this area presents an opportunity to: enhance and restore biodiversity, soften the ecological impact of the surrounding developed area and transportation corridors, and contribute to the sustainability of the park. This Manual guides redevelopment towards creating landscape areas that provide bird and pollinator habitat and mimic the structure and species of the unique vegetation communities of High Park.

High Park is known as one of the “jewels” of Toronto’s park system and is recognized as one of the most significant natural areas in Toronto because of its unique vegetation. Over half of High Park is designated Area of Natural and Scientific Interest (ANSI) and [Environmentally Significant Area](#) (ESA) because of its plant communities and rare flora.



View south, east from the High Park Apartment Neighbourhood towards High Park. (Credit: City of Toronto)

02 INTRODUCTION

The dominant vegetation community in the High Park ANSI and ESA is Dry Black Oak – Pine Tallgrass Prairie Savannah and Woodland, a provincially and nationally significant vegetation community which supports rare species of flora and fauna. In addition to rare species, High Park's black oak woodlands and savannahs, in combination with its other unique plant communities, provide refuge for a wide variety of plants and animals within Toronto's urban environment. Areas surrounding High Park also support the ecological features and functions of the park through ecosystem services from an extensive urban forest canopy which includes old growth oaks and storm and groundwater inputs. Background information about the geological history and some key remaining elements of the biophysical features that are still visible in the neighbourhoods around High Park are identified and discussed in the [Bloor West Village Avenue Natural Heritage Impact Study](#) (Dogan, 2018).

This Manual provides suggestions and resources for enhancing biodiversity and improving wildlife habitat availability in areas surrounding High Park and the greater Humber Plains.

It includes explanatory text and lists of recommended plants to use and plants not to use. A Glossary of Terms is included near the end of this Manual. Additional resources on biodiversity are included in the Resources section at the end of this Manual.

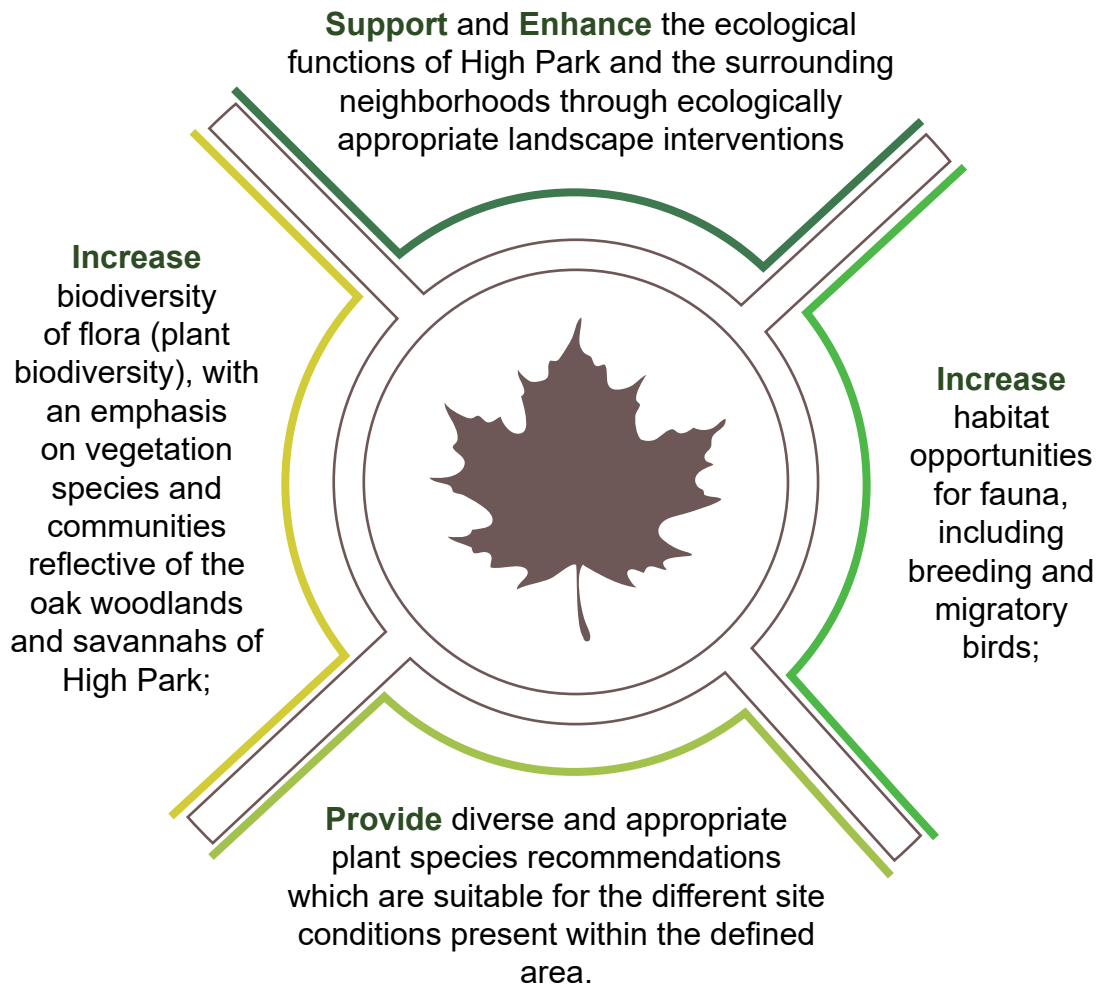
Property owners who wish to support the ecology of High Park and the surrounding neighbourhood when undertaking major landscaping projects on private property are advised to consult with a landscape architect, arborist or natural heritage professional for guidance on how to apply the information in this Manual.

Parts of this Manual may also be of interest to residents in the High Park neighbourhood area who are undertaking small landscaping projects such as planting beds, pots and balconies.



03 GOALS

This Manual is intended to promote the following goals within the area surrounding High Park:



This Manual can be understood as an evolving project. It is recognized that the practical aspects of implementing the information in this Manual are evolving due to availability of regionally appropriate native plants and challenges with replicating reference vegetation communities. The City would be interested to receive feedback from professionals using this Manual to improve its applicability.

Feedback can be provided sustainablecity@toronto.ca.

04 REFERENCE VEGETATION COMMUNITIES

The [Bloor West Village Avenue Natural Heritage Impact Study](#) (Dougan, 2018) and [the High Park – Terrestrial Biological Inventory](#) (TRCA, 2019) identify a variety of natural and cultural vegetation communities, referred to as Ecological Land Classification (ELC) communities, as present in the High Park Oak Woodland ANSI.

Six of those communities are of local and/or provincial conservation concern.

The High Park woodland and savannah landscape is unique and there is potential to support it by expanding key ecological features and functions to the surrounding areas.

By looking to these vegetation communities, we can find commonalities with the surrounding developed areas that can be used to expand and soften the ecological borders of High Park.

Existing Communities

- | | |
|--|--|
|  Dry Black Oak-Pine Tallgrass
Prairie Savannah |  Dry - Fresh Oak - Red Maple
Deciduous Forest Type |
|  Dry-Fresh Red Oak Deciduous Forest |  Dry-Fresh Oak-Red Maple Deciduous
Forest |
|  Dry-Fresh Mixed Oak Deciduous Forest |  Dry-Fresh Hardwood Mixed Forest Type |

Other ELC communities dominated by herbaceous, shrub or treed cover may also serve as useful habitat analogues for some areas, such as encumbered soils over parking garages and low maintenance areas.

These include:

- | | |
|--|--|
|  Dry Tallgrass Prairie Type |  Round-leaved Dogwood
Carbonate Shrub Rock Barren Type |
|  Fresh-Moist Tallgrass
Prairie Type |  Mineral Shrub Bluff Ecosite |
|  Dry Carbonate Open Rock
Barren Type |  Mineral Treed Bluff Ecosite |
|  Common Juniper Carbonate Shrub
Rock Barren Type | |

Table 1 (see page 10) examines the structure, composition, plant species and soil conditions of these reference communities, and draws a parallel to potential planting zones.



4.1 Planting Zones

The Importance of Soil

High Park is located on the former Lake Iroquois sand plain. The specific section of the Lake Iroquois sand plain in West Toronto is very well-distinguished by its soils and vegetation ([TRCA, 2019](#)). Native soil in the High Park area is generally characterized as nutrient poor, sandy soil and the native vegetation is adapted to this type of soil. When selecting plant species, attention must be paid to the soil on site and whether it is true native soil or altered soil due to development or previous filling. Soil will have an impact on species survival and should influence species selection. The species identified in the Recommended Plant List in the Appendix have been selected based on types of soil conditions found in High Park.



ORIGINAL SOILS

Soil that has not been altered by development or previous filling. Landscaped areas with no buildings or underground structures are most likely to contain original soil, to remain undisturbed into the future and are best suited to support native species and mature tree canopy over the long-term.

ALTERED SOILS

Soil that has been altered due to development or previous filling and/or the addition of organic rich topsoil.



STREETSCAPE



Planting zones for streetscapes are defined by being adjacent to a roadway. These linear features experience frequent inundation due to rain flow from hardscape. Salt-tolerant planting species are required due to salting activities during the winter months. The City of Toronto's [Green Streets Vegetation Selection Tool](#) (2017) provides a list of vegetation and conditions to address streetscape that can be applied to streetscape areas surrounding High Park.

— Soil quality

— Surrounding Developments

— Hardscape

SHALLOW SOILS

In the High Park Apartment Neighborhood, many of the existing green amenity spaces are underlain by parking garages. These landscaped areas with buildings or underground structures are referred to as “encumbered soils” and plantings are thereby limited to species with shallow rooting character. Maintenance of parking garages every 2 to 4 decades means that the soils and plantings will be disrupted and that early successional species and shrubs and forbs are best suited for this planting zone. The occasional areas of soil that are not encumbered by parking garages or historical fill in the High Park Apartment Neighbourhood provide the broadest opportunity for plantings.



GREEN ROOFS



Green roofs can be designed to mimic almost any habitat and also provide an opportunity to recreate specific native landscapes. Habitats such as grasslands and herb communities are well suited to intensive roofs (roofs with shallow soils).

Green roofs have been found to be broadly analogous to certain types of landscapes, from which plants are seemingly pre-adapted to the harsh green roof environment. Selecting plants from habitats that exhibit microclimatic characteristics similar to green roofs will help ensure the long-term survival of green roof vegetation.

VERTICAL GREENING

While there are no analogous natural communities that are on the vertical plane, these still present a greening opportunity using native vines. Vines can provide shading, cover, and a food source for insects and birds.



— Soil quality

— Surrounding Developments

— Hardscape

Testing for soil type and moisture is recommended for any landscaping project. Users of the plant lists included in this Manual should choose the appropriate plants for the appropriate soil conditions.



Table 1. Reference Communities for Planting Zones¹

Reference Community	Structure + Composition	Species	Soils
Dry Black Oak-Pine Tallgrass Savannah	- Tree cover between 25 -35% - Widely spaced, open-grown trees with an understory of prairie graminoids and forbs	<i>Dominant:</i> Black Oak, White Pine, prairie graminoids, including Big Bluestem, Little Bluestem, Indian Grass. <i>Common Associates:</i> Cylindric Anemone, Rock Sandwort, Pinweed, Scribner's Panic Grass, Bluets	- Dry to fresh moisture regimes. - Mineral substrate - Well-drained sand and loam - Subject to prolonged periods of summer drought - Frequently disturbed by fire
Dry-Fresh Red Oak Deciduous Forest	Tree cover greater than 60%	<i>Dominant:</i> Red Oak, <i>Common Associates:</i> White Oak, Black Oak, Red Maple, White Pine, Black Cherry <i>Understory:</i> Bracken Fern, Lowbush Blueberry, Wintergreen, Starflower	- Moderately dry to fresh moisture regimes - Shallow soils over bedrock, rock, sands and coarse loams - Rapid drainage - Subject to droughty conditions
Dry-Fresh Mixed Oak Deciduous Forest	Tree cover greater than 60%	<i>Dominant:</i> Red Oak, White Oak, Black Oak <i>Common Associates:</i> Red Maple, White Pine, Black Cherry <i>Understory:</i> Bracken Fern, Big-leaved Aster, Canada May-flower	- Moderately dry to fresh moisture regimes - Shallow soils over bedrock, rock, sands and coarse loams - Rapid drainage - Subject to droughty conditions
Dry - Fresh Oak - Red Maple Deciduous Forest Type	Tree cover greater than 60%	<i>Dominant:</i> Red Maple, Red Oak, White Oak <i>Common Associates:</i> Hickory, Sugar Maple, White Ash, Beech, Basswood, Ironwood, Black Cherry <i>Understory:</i> Trilliums, Hepaticas, Bellwort, Jack-in-the-pulpit, Zigzag Goldenrod, Blue-stemmed Goldenrod, Big-leaved Aster, False Solomon's-seal	- Moderately dry to fresh moisture regimes - Sands and coarse loams with silt and clay components - Moderate drainage

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Most Suitable Planting Zone(s)	Additional Notes	Reference Community
- Original soils - Altered soils - Streetscape (salt-tolerant species only)	- Black Oak can be difficult to source commercially; White oak and red pine may be as a second choice option. Red oak can hybridize with black oak and should be used sparingly in areas where black oak are present. - Although fire is used as a disturbance tool in High Park it is unlikely to be possible outside of park. Mechanical disturbance (mowing) can be used to reinvigorate prairie understory)	Dry Black Oak-Pine Tallgrass Savannah
- Original soils - Altered soils - Unencumbered soils - Streetscape (salt-tolerant species only)		Dry-Fresh Red Oak Deciduous Forest
- Original soils - Altered soils - Unencumbered soils - Streetscape (salt-tolerant species only)		Dry-Fresh Mixed Oak Deciduous Forest
- Original soils - Altered soils - Unencumbered soils - Streetscape (salt-tolerant species only)		Dry - Fresh Oak - Red Maple Deciduous Forest Type



Reference Community	Structure + Composition	Species	Soils
Dry-Fresh Hardwood – Hemlock Mixed Forest Type	Tree cover greater than 60%; conifers > 25% and deciduous trees > 25%	<i>Dominant:</i> Hemlock with Red Oak, Red Maple and White Pine. <i>Common Associates:</i> Sugar Maple, White Ash, Beech, Basswood, Black Cherry <i>Understory:</i> Alternate-leaved Dogwood, Christmas Fern, Marginal Woodfern, Zigzag Goldenrod	- Moderately dry to fresh moisture regimes - Sands and coarse loams with silt and clay components - Moderate drainage
Sand Barren	Vegetation cover patchy and barren	<i>Shrubby:</i> Shrubby Cinquefoil, Shrubby St. John's Wort, Common juniper <i>Open:</i> Little Bluestem, Switchgrass, Poverty oat grass, Sand Dropseed, Hay Sedge, Muhly sedge, Old-field cinquefoil, Pussytoes	- Unconsolidated mineral substrates; sand, loam, gravel, shingle or cobble - Subject to extremes in moisture and temperature
Shrubby / Open Alvar / Bedrock Barren	Vegetation cover patchy and barren	<i>Shrubby:</i> Shrubby Cinquefoil, Creeping Juniper, Fragrant Sumac <i>Open:</i> Tufted Hairgrass, Poverty Oatgrass, Little Bluestem, Prairie Smoke	- Patchy mosaic of bare rock pavement and shallow substrates over bedrock - Alternates between inundation and drought

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Most Suitable Planting Zone(s)	Additional Notes	Reference Community
Original soils	- Particularly useful for shaded areas - Away from busy street traffic	Dry-Fresh Hardwood – Hemlock Mixed Forest Type
- Green Roofs - Shallow soils	Design Manual for Biodiverse Green Roofs provides detailed recommended plant species list (City of Toronto 2013)	Sand Barren
- Green Roofs - Shallow soils	Design Manual for Biodiverse Green Roofs provides detailed recommended plant species list (City of Toronto 2013)	Shrubby / Open Alvar / Bedrock Barren

¹ Based on Ecological Land Classification for Southern Ontario (Lee et al. 1998). Species found in reference communities may not always be able to be replicated outside of natural areas.



05 RECOMMENDED PLANT SPECIES

The Appendix provides two charts that outline recommended plant species, and species not to plant for the High Park neighborhood area. Some of the considerations that were used to develop these plant lists include:

Plants which are reflective of the ecologies of High Park are indicated and are the preferred species for use in landscape plantings

Plants recommended for encumbered soils are species which are known to be tolerant of shallow soils

Recommended streetscape plantings are salt-tolerant species

And, for green roof species, please refer to the document [Design Guidelines for Biodiverse Green Roofs](#) (City of Toronto, 2013), which contains detailed plant lists and recommendations for incorporating habitat in green roof design.



Polinator meadow in full bloom. (Credit: City of Toronto)



Notes on species selection:

Native species can be difficult to source. It is important to ensure that nurseries provide true native plant material rather than cultivars (which are similar), as many cultivars do not offer the same benefits to insects and other pollinators. An effort has been made to identify species which are readily available in the nursery industry as true native. Some species, which are present in the High Park ANSI and could be well suited to the growing conditions in the surrounding area, are commonly misidentified or are difficult to source. Therefore, these species have been excluded from the recommended plant list. Native plant sales, nurseries specializing in native plants, and contract grow/install projects are options for sourcing appropriate plant material for less commonly available species.

Avoid planting invasive species. Many non-native species are both extremely adaptive and prolific. As a result, they become invasive and should never be planted near naturalized areas. Once established in naturalized areas, these species can out-compete native plant species resulting in a monoculture of invasive species with low ecological and biodiversity value. A list of common invasive species can be found on the [Ontario Invasive Plant Council](#) website.

06 HABITAT STRUCTURE AND ENHANCEMENT RECOMMENDATIONS

Wildlife habitat is defined in the [Natural Heritage Reference Manual](#) (MNRF, 2010) as:

“areas where plants, animals and other organisms live, and find adequate amounts of food, water, shelter and space needed to sustain their populations.”



Habitat can serve different functions in the life cycle of wildlife, including provision of food, shelter, locations to breed, or temporary refuge (such as during migration). Every species has individual requirements for suitable habitat. In urban environments, habitat is available but can be limited by the type and variety of built structures, vegetation, food (i.e. insects) present, species sensitivity to human activities, noise, and/or the proximity to existing natural habitats. High Park contains rare vegetation communities and is an important migratory bird stopover location in the City of Toronto because of its size and location near to the shoreline of Lake Ontario. The following recommendations can be used to enhance habitat structure and availability by providing for more opportunities to fulfil the life cycle requirements of wildlife species through provision of additional opportunities for food, shelter, locations to breed, or temporary refuge.

1. Use a diversity of native species in landscape plantings, as different wildlife species require different foods (nectar, leaves, seeds, buds, fruit, insects), with their diets often varying throughout the year:

- Pollinators will benefit from a diversity of planting types and blooming times. [Toronto Pollinator Protection Strategy](#);
- Different bird species have different food needs, and variable food needs throughout the year.
- The recommended plant list has been developed with consideration paid to recommended plant species for both breeding and migratory birds;
- Some species also require certain plants for completing life cycle functions (e.g., butterfly larval host plants); and
- See Appendix 1's plant list for recommendations.



At High Park in June, the forest floor of the Black Oak Savannah turns blue when the wild lupine blooms. (Credit: City of Toronto)



Green roof at City Hall podium. (Credit: City of Toronto)



The Black Oak Savannah within High Park, close to the south side of Bloor Street West. (Credit: City of Toronto)

2. Incorporate permanent or temporary water features in the landscape, as water is important for both drinking and bathing, and is less abundant in the urban environment than in natural environments:

- For birds, shallow water (<5 cm) is preferred as compared to deep water;
- Fresh water is preferred over stagnant water; stagnant water can serve as breeding habitat for mosquitos, and is not recommended in the urban environment;
- Rain harvest may be used to supply water features;
- Fountains, water spouts or small waterfalls are effective for birds, and may add sound elements attractive to humans.

3. Including a diversity of types and sizes of vegetation (deciduous and coniferous trees and shrubs, herbaceous groundcovers, grasses) benefits wildlife through protection from weather and predators, food sources including insects in leaf litter, nesting and perching opportunities for different species:

- Low shrub massing, hedges and denser plants, including conifers, provide more cover/shelter close to the ground than taller deciduous plants (see plant list for species recommendations);
- Colonial shrubs and trees will spread from initial plantings, don't over plant but allow sufficient space;
- Mature trees with imperfections such as cavities and loose bark provide opportunities for species which prefer this type of nesting site, so maintaining these features in the landscape is important.

4. Habitat structures may be useful to provide nesting options for some species of birds, and also could provide interpretive opportunities for residents.

- Bat boxes are potentially suitable, especially near the southern border of High Park where they may roost in boxes and forage in nearby High Park;
- Bird boxes are discouraged in highly urbanized areas, such as neighbourhoods around High Park, because they are likely to attract non-native/nuisance species (i.e., house sparrow, European starling, house wren);
- Including woody debris (i.e. logs, stumps) and leaf litter/mulch in the landscape will add nutrients to soil and can provide additional habitat and food opportunities for wildlife; and
- Building height affects the usefulness of roof gardens for birds and insects. In general, green roofs should focus on insect and pollinator habitat. Rooftop greening at all heights has benefits for energy and water management.



5. Consider Context and Wildlife Safety

- **Street habitat safety** – vehicles can pose collision hazards for wildlife. Plantings should be prioritized along quieter streets with lower traffic volumes and speeds, and shrub plantings should be avoided close to busy streets. Large woody debris (i.e. logs, stumps) and leaf litter/mulch in the landscape that might be used as refuge for wildlife should be situated away from roads so as not to bisect two natural habitats and the increase of wildlife collisions/road mortality.
- **Bird Friendly** – most new development in the City of Toronto is required to incorporate bird-friendly practices into the building design. These practices are designed to minimize window collisions by birds. However, existing buildings, without bird-friendly treatment may pose a hazard to breeding and/or migratory birds. Therefore, new plantings in proximity to existing buildings should be designed with bird-friendly design practices in mind, which include the following:
 - Place new landscapes sufficiently away from glazed building façades so that no reflection occurs;
 - Alternatively, if planting of landscapes nearby a glazed building façade is desirable, plant trees and shrubs immediately adjacent to the exterior glass walls, at a distance of less than three feet from the glass. Such close proximity will obscure habitat reflections and will minimize fatal collisions by reducing birds' flight momentum from the vegetation towards the glass. This planting strategy also provides beneficial summertime shading and reduces cooling loads;
 - Minimize the reflection of rooftop landscapes in adjacent building features or surrounding properties. Ensure adequate space for birds to fly safely to and from rooftop vegetation;
 - Minimize the exterior visibility of interior landscaping to reduce its attractiveness to birds; and
 - Apply visual markers to the exterior (first surface) of the glass or use overhangs to obscure reflections of vegetation in the glass and avoid light pollution. For additional information see Toronto's [Best Practices for Bird Friendly Glass](#) and [Best Practices for Effective Lighting](#).

07 ADDITIONAL HABITAT & ENHANCEMENT OPPORTUNITIES

Below are additional general recommendations for actions which can improve the establishment and/or growth of plants, or increase wildlife habitat availability.

1. Appropriate maintenance of landscape plantings has the potential to enhance the wildlife habitat availability:

- Maintain mulch or leaf litter around the base of trees and other plants will help to return carbon and nutrients to these systems, provide cover for invertebrates that are food sources for birds, and reduce the need for watering.
- Clean-up of trash which may collect among low plants will help to maintain visual “cues for care” in these landscapes; research has shown that naturalized landscapes which have indications that they are regularly maintained in some way, are more accepted by the general public. Removing trash will also prevent plastics and other foreign objects from becoming hazards to wildlife.
- Reduce use of de-icing salts which can have negative impacts on plant growth and establishment. Plants chosen for streetscapes, along pathways, and within low impact development (LID) measures should use salt-tolerant plants, as they are located in portions of the landscape most likely to receive salt spray or salt-laden runoff. Curbs or other slight grade elevations may reduce input of salt to planting areas. The document [Landscape Design Guide for Low Impact Development](#) (Credit Valley Conservation, 2010) includes plant lists for the most common LID features currently in use in Ontario including green roofs, bioretention cells, filter strips, grass swales, and dry swales. Salt tolerance is indicated in this document.
- Programs could be implemented for the strategic removal of invasive non-native species plants so that these species do not out-compete desirable native plants in landscape plantings.
- Plant health can be maintained through ongoing maintenance such as pruning, mowing and plant division as appropriate to particular species.



- Landscaping practices that could be beneficial to insects and other wildlife habitat could be adopted for maintenance regimes. These practices could include:
 - Delaying deadheading of flowers as seeds may be used as food, leaving standing dead stems of plants until spring as they might be crucial overwintering habitat for insects;
 - Delaying the spring cleanup of standing dead stems until after some of these overwintering species might have emerged (i.e., wait until temperatures have reached 20 degree Celsius); and allowing patches of bare soil for native ground nesting bee species.

2. Locally-sourced plant material will help to maintain local genotypes in the High Park neighbourhood and can foster increased appreciation of plant communities in local natural areas:



- [Local native plant sales](#) are a useful local source for native plants, as are plant sales organized by the North American Native Plant Society which are typically organized annually in the spring; and
- Other commercial native plant nurseries in the GTA can provide plants and advice on their establishment.

3. Appropriate soil conditions, both for existing and new plants, will help to support the wildlife habitat that these plants provide:

- Soils should be protected from compaction due to construction in order to minimize the potential for damage to roots and changes to infiltration capacity;
- New developments should include adequate soil depths, volumes and pH levels for the plantings proposed, and soil quality and texture appropriate for promoting plant growth as well as water infiltration;
- The document [Preserving and Restoring Healthy Soil: Best Practices for Urban Construction](#) (TRCA 2012) provides a very comprehensive framework for managing urban soils, as well as recommendations for pH, texture, depth, and other standards for urban soils.

Recommended soil conditions for new plantings are provided in the “Reference Communities” section of this document.

4. Achieving an appropriate balance and spatial relationship between naturalized/ habitat areas and recreational areas for residents is important, as the ecological function of naturalized areas can be compromised by encroachment and/or compaction from foot traffic, and associated human uses:

- In some areas turf will be an appropriate landscape treatment to provide recreational opportunities. Turf grasses provide very little suitable habitat but do provide for surface water infiltration;
- Plant tougher, more durable, hardier plants between areas of greater human activity and more sensitive natural planting areas (e.g. some turf-like sedges such as *Carex pensylvanica*, *C. siccata*, and *C. eburnea*);
- Where appropriate, use grade changes such as berms or swales to discourage pedestrian and cycling traffic into sensitive natural areas but preserve sightlines and views;
- Establish clear delineation of manicured vs. naturalized cover to add efficiency to maintenance operations and prevent mower damage to planted areas; and
- For areas such as the High Park Apartment Neighbourhood, design and maintenance of pedestrian routes will also be important to allow for walking (and bike riding) through the neighbourhood. Providing well-designed connected pedestrian routes will minimize the amount of off-trail use, and the potential degradation or encroachments into habitat.



Bee supported by polinator planting. (Credit: City of Toronto)



GLOSSARY OF TERMS

Area of Natural and Scientific Interest – areas of land and water containing natural landscapes or features that have been identified by the Province of Ontario as having life science or earth science values related to protection, scientific study or education.

Cultivar – a plant that has been produced by selective breeding. From an ecological standpoint, natives are better than cultivars.

Ecological Land Classification (ELC) communities – the vegetation communities of Ontario can be surveyed and classified using the ELC process. An ELC community helps to identify recurring ecological patterns on the landscape to reduce complex natural variation to a reasonable number of meaningful ecosystem units.

Environmentally Sensitive Area (ESA) – areas of land and water with significant environmental qualities designated by the City of Toronto using criteria found in section 3.4 of the Official Plan and shown on Map 12A of the Official Plan.

Invasive Plants – An invasive plant is a non-native plant whose introduction negatively impacts native biodiversity, the economy and/or society, including human health. Second to habitat loss, invasive species have been identified by the International Union for Conservation of Nature as the most significant threat to biodiversity (Ontario Invasive Plant Council).

Low Impact Development (LID) – a set of small-scale site design strategies and practices to mimic the natural hydrology to the greatest extent possible through infiltration, evapotranspiration, harvesting, filtration, and detention of stormwater. Low impact development is a component of green infrastructure, which is an approach to stormwater management that seeks to manage rain and other precipitation as close as possible to where it falls to mitigate the impacts of increased runoff and stormwater pollution.

Native Plants – A native plant (sometimes referred to as indigenous plants) has existed in an area for millennia, and has evolved in the presence of native soils and climate, and in tandem with other native species of plants, animals, fungi and bacteria. Native plants exist as part of naturally-forming communities and have important ecological roles to play. (adapted from Ontario Invasive Plant Council).

Public Right-of-Way – also known as municipal road allowance, refers to a piece of City-owned land. It includes the roadways, sidewalks and a section of land used for utility services (e.g. electrical equipment, water mains, gas lines and telecommunication cables).

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Bee supported by pollinator planting. (Credit: City of Toronto)

APPENDIX

**APPENDIX 1: HIGH PARK NEIGHBOURHOOD AREA BIODIVERSE
LANDSCAPE MANUAL — RECOMMENDED PLANT LIST**

**APPENDIX 2: HIGH PARK NEIGHBOURHOOD AREA BIODIVERSE
LANDSCAPE MANUAL — SPECIES NOT TO PLANT**



Appendix 1: High Park Neighbourhood Area Biodiverse Landscape Manual Recommended Plant List

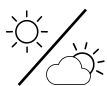
Biodiverse Landscape Manual Plant List

Attributes						
Common Name	High Park Species	Form	Species	Visual Screen Value	Characteristics	Light
Big Bluestem	✓	Grass	<i>Andropogon gerardii</i>	●	Provides food for the Little Glassywing, Crossline Skipper, and Delaware Skipper butterflies.	☀
Canada Bluejoint		Grass	<i>Calamagrostis canadensis</i>	●	Wet zone species (swales, rain gardens)	☀
Indian Grass	✓	Grass	<i>Sorghastrum nutans</i>	●	Prairie species	☀/☁
Little Bluestem	✓	Grass	<i>Schizachyrium scoparium</i>	●	Very adaptable. Provides food for the Little Glassywing, Crossline Skipper, and Delaware Skipper butterflies.	☀
Northern Dropseed		Grass	<i>Sporobolus heterolepis</i>	●	Prairie species	☀
Sand Dropseed	✓	Grass	<i>Sporobolus cryptandrus</i>	●	Prairie species CAUTION: This is a rare species in High Park; this species may be hard to find locally-sourced, true native stock.	☀
Side-oats Grama		Grass	<i>Bouteloua curtipendula</i>	●	Distinctive arrangement of oat-like seed spikes.	☀
Switch Grass		Grass	<i>Panicum virgatum</i>	●	Very tolerant. Can spread aggressively. Many cultivars available in varying colours, showy broad seed head.	☀
Tufted Hair Grass		Grass	<i>Deschampsia cespitosa</i>	●	Delicate grass of dry soils and gravels	☀
Bastard Toadflax	✓	Herbaceous	<i>Commandra umbellata</i>	●	Colonial plant, white flowers, drought tolerant	☀/☁
Black Eyed Susan	✓	Herbaceous	<i>Rudbeckia hirta</i>	●	Pollinator habitat CAUTION: Native cultivars are more common than true native stock in nurseries. Ensure local genotype.	☀
Bristly Greenbriar	✓	Herbaceous	<i>Smilax tamnoides</i> AKA <i>Smilax hispida</i>	●	Vine with bristles & spines.	☀/☁
Butterfly Weed	✓	Herbaceous	<i>Asclepias tuberosa</i>	●	Prairie species	☀
Common Cinquefoil		Herbaceous	<i>Potentilla simplex</i>	●	Spreading meadow and edge groundcover, especially effective on poor soils	☀
Common Strawberry		Herbaceous	<i>Fragaria virginiana</i>	●	Small white flowers, small red strawberries in summer. Spreads rapidly in spring and fall by runners; important food source for insects, birds, & animals.	☀/☁

Visual Screen Value:

- Low
- Medium
- Moderate
- High

Light:

-  Sun
-  Shade
-  Sun/Part Shade

Biodiverse Landscape Manual Plant List						
Attributes						
Soil	Shallow Soils	Native Soils	Streetscape*	Green Roofs**	Vertical Greening	Common Name
All mineral soils	✓	✓	✓			Big Bluestem
Wet mineral or organic	✓	✓		✓		Canada Bluejoint
Many soil types, poor to average fertility	✓	✓	✓	✓		Indian Grass
Low fertility soils	✓	✓	✓	✓		Little Bluestem
Low fertility soils	✓	✓	✓			Northern Dropseed
Low fertility soils	✓	✓	✓	✓		Sand Dropseed
Adaptable	✓	✓	✓	✓		Side-oats Grama
Best on fertile soils.	✓	✓	✓			Switch Grass
Dry to mesic mineral or gravel	✓	✓		✓		Tufted Hair Grass
Sandy soil	✓	✓		✓		Bastard Toadflax
Adaptable	✓	✓	✓	✓		Black Eyed Susan
Fertile loam	✓	✓			✓	Bristly Greenbriar
Low fertility soils	✓	✓	✓			Butterfly Weed
Low fertility soils, gravel	✓	✓	✓	✓		Common Cinquefoil
Low fertility soils, gravel	✓	✓	✓	✓		Common Strawberry



Appendix 1: High Park Neighbourhood Area Biodiverse Landscape Manual Recommended Plant List

Biodiverse Landscape Manual Plant List

Attributes

Common Name	High Park Species	Form	Species	Visual Screen Value	Characteristics	Light
Cup Plant	✓	Herbaceous	<i>Silphium perfoliatum</i>	●	Provincially Significant	☀
Cylindric Blazing Star	✓	Herbaceous	<i>Liatris cylindracea</i>	●	Purple flowering heads.	☀
Dense Blazing Star		Herbaceous	<i>Liatris spicata</i>	●	Purple spike in summer. Good nectar source for butterflies. CAUTION: Rare - this species may be hard to find locally-sourced, true native stock.	☀/☁
Early Goldenrod	✓	Herbaceous	<i>Solidago juncea</i>	●	Yellow inflorescence in late summer	☀
Eastern Bracken Fern	✓	Herbaceous	<i>Pteridium aquilinum</i> var. <i>latiusculum</i>	●	Colonial species, does well on dry sandy sites	☀/☁
Evening Primrose	✓	Herbaceous	<i>Oenothera biennis</i>	●	Pollinator habitat; meadows	☀
Foxglove Beard-tongue		Herbaceous	<i>Penstemon digitalis</i>	●	Pollinator habitat; moist meadows	☀
Gray Goldenrod	✓	Herbaceous	<i>Solidago nemoralis</i>	●	Pollinator habitat, moist to dry meadows	☀
Grey Headed Coneflower		Herbaceous	<i>Ratibida pinnata</i>	●	Prairie species	☀
Hay Sedge	✓	Herbaceous	<i>Carex siccata</i>	●	Prairie and open woodland CAUTION: this species may be hard to find locally-sourced, true native stock.	☀/☁
Lance-leaved Aster	✓	Herbaceous	<i>Symphotrichum lanceolatum</i>	●	Pollinator habitat	☀
New England Aster	✓	Herbaceous	<i>Symphotrichum novae-angliae</i>	●	Pollinator habitat	☀
Large-leaved Aster	✓	Herbaceous	<i>Aster macrophyllus</i>	●	Colonial shade adapted species of deciduous and mixed forests	☀/☁
Woodland Sunflower		Herbaceous	<i>Helianthus divaricatus</i>	●	Colonial shade adapted species of edges and openings in deciduous forests	☀/☁
Pale-leaved Woodland Sunflower	✓	Herbaceous	<i>Helianthus strumosus</i>	●	Shade-adapted for woodlands	☁
Prairie Smoke		Herbaceous	<i>Geum triflorum</i>	●	Pink flowers in spring, followed by development of hairy 'tails' giving smoky appearance. Poor soils and gravels; seasonally moist; dislikes strong competition	☀
Rough Woodland Sunflower	✓	Herbaceous	<i>Helianthus divaricatus</i>	●	Colony-forming sunflower; well adapted to urban woodlands and edges	☀/☁
Round-headed Bush-clover	✓	Herbaceous	<i>Lespedeza capitata</i>	●	Tall spike of yellowish flowers. Grows easily from seed; adds nitrogen to soil.	☀/☁
Showy Tick-trefoil	✓	Herbaceous	<i>Desmodium canadense</i>	●	Species of open woodlands and savannah	☀/☁

Visual Screen Value:

- Low
- Medium
- Moderate
- High

Light:

-  Sun
-  Shade
-  Sun/Part Shade

Biodiverse Landscape Manual Plant List

Attributes

Soil	Shallow Soils	Native Soils	Streetscape*	Green Roofs**	Vertical Greening	Common Name
All mineral soils, dry to moist	✓	✓				Cup Plant
Dry, sandy or rocky, alkaline soils	✓	✓				Cylindric Blazing Star
Moist soils	✓	✓	✓	✓		Dense Blazing Star
Moist soils	✓	✓				Early Goldenrod
Dry to moist sand	✓	✓				Eastern Bracken Fern
Most mineral soils	✓	✓				Evening Primrose
Most mineral soils	✓	✓		✓		Foxglove Beard-tongue
Most mineral soils	✓	✓		✓		Gray Goldenrod
Most mineral soils	✓	✓	✓	✓		Grey Headed Coneflower
Sandy soil	✓	✓		✓		Hay Sedge
Most mineral soils	✓	✓				Lance-leaved Aster
Adaptable	✓	✓				New England Aster
Humus-rich mineral soil	✓	✓				Large-leaved Aster
Adaptable	✓	✓				Woodland Sunflower
Adaptable	✓	✓				Pale-leaved Woodland Sunflower
Rocky, gravel or silty soils	✓	✓	✓	✓		Prairie Smoke
Adaptable	✓	✓	✓			Rough Woodland Sunflower
Adaptable	✓	✓	✓			Round-headed Bush-clover
Adaptable	✓	✓	✓			Showy Tick-trefoil



Appendix 1: High Park Neighbourhood Area Biodiverse Landscape Manual Recommended Plant List

Biodiverse Landscape Manual Plant List

Attributes

Common Name	High Park Species	Form	Species	Visual Screen Value	Characteristics	Light
Silverweed		Herbaceous	<i>Potentilla anserina</i>	●	Yellow flowers, silvery leaves, creeping. Shoreline species; spreads by runners; tolerates foot traffic.	☀
Smooth Aster	✓	Herbaceous	<i>Aster laevis</i>	●	Pollinator habitat	☀
Stiff Gentian	✓	Herbaceous	<i>Gentianella quinquefolia</i>	●	Low plant with blue flowers; adapted to prairies and shores	☀/☁
Wild Bergamot	✓	Herbaceous	<i>Monarda fistulosa</i>	●	Pollinator habitat	☀
Wild Lupine	✓	Herbaceous	<i>Lupinus perennis</i>	●	Species of open woodlands and savannah	☀/☁
Woodland Fern-leaf AKA Fernleaf Yellow False-foxglove	✓	Herbaceous	<i>Aureolaria pedicularia</i>	●	Fern-leaved false foxglove is a partial plant parasite, using the roots of oaks (<i>Quercus</i>) as its preferred host. Yellow flowers.	☀/☁
Common Juniper		Shrub (Coniferous)	<i>Juniperus communis</i>	●	Prickly and dense low shrub, produces blue fruits	☀
Eastern Red Cedar		Shrub (Coniferous)	<i>Juniperus virginiana</i>	●	Salt tolerant, sensitive to compaction; will not tolerate standing water over 48 hours; plant BB in early spring or late fall.	☀/☁
Black Huckleberry	✓	Shrub (Deciduous)	<i>Gaylussacia baccata</i>	●	Low shrub with edible, blueberry like fruits, turns red in fall	☀/☁
Buffaloberry AKA Soapberry		Shrub (Deciduous)	<i>Shepherdia canadensis</i>	●	Prairie and alvar shrub species	☀/☁
Bush Honeysuckle	✓	Shrub (Deciduous)	<i>Diervilla lonicera</i>	●	Low colony-forming shrub of woodlands and edges	☀/☁
Bushy Cinquefoil	✓	Shrub (Deciduous)	<i>Potentilla paradoxa</i>	●	Low shrub of shorelines and rocky areas	☀
Chokecherry	✓	Shrub (Deciduous)	<i>Prunus virginiana</i>	●	Colonial shrub, supports caterpillar species; abundant fruits, significant impact on facilitating bird breeding.	☀/☁
Common Blackberry	✓	Shrub (Deciduous)	<i>Rubus alleghaniensis</i>	●	Prickly low shrub, excellent to deter pedestrian access, edible fruits.	☀/☁
Downy Arrow-wood		Shrub (Deciduous)	<i>Viburnum rafinesquianum</i>	●	Low shrub for woodland edge and understory; lack fruits last into winter.	☀/☁
Fragrant Sumac		Shrub (Deciduous)	<i>Rhus aromatica</i>	●	Aromatic shrub, suited to dry conditions and poor soils	☀
Alternate-leaved Dogwood, Pagoda Tree	✓	Shrub (Deciduous)	<i>Cornus alternifolia</i>	●	Layered canopy, alternate leaves, seasonal fall colour	☀/☁

Visual Screen Value:

- Low
- Medium
- Moderate
- High

Light:

-  Sun
-  Shade
-  Sun/Part Shade

Biodiverse Landscape Manual Plant List

Attributes

Soil	Shallow Soils	Native Soils	Streetscape*	Green Roofs**	Vertical Greening	Common Name
Sand or gravel, rocky.	✓	✓	✓	✓		Silverweed
Adaptable	✓	✓	✓			Smooth Aster
Wet soils, adaptable	✓	✓		✓		Stiff Gentian
Adaptable, dry to moist	✓	✓	✓			Wild Bergamot
Sandy soil	✓	✓	✓			Wild Lupine
Sandy soil		✓				Woodland Fern-leaf AKA Fernleaf Yellow False-foxglove
Adaptable	✓	✓	✓			Common Juniper
Coarse-fine soils, adaptable.	✓	✓	✓			Eastern Red Cedar
Adaptable	✓	✓				Black Huckleberry
Alkaline soils, salt-tolerant	✓	✓	✓	✓		Buffaloberry AKA Soapberry
Adaptable	✓	✓	✓			Bush Honeysuckle
Sand or gravel, rocky.	✓	✓	✓	✓		Bushy Cinquefoil
Adaptable	✓	✓	✓			Chokecherry
Adaptable	✓	✓	✓			Common Blackberry
Coarse to fine, very adaptable	✓	✓				Downy Arrow-wood
Dry to mesic mineral or gravel	✓	✓	✓			Fragrant Sumac
Coarse-fine soils, adaptable.	✓	✓				Alternate-leaved Dogwood, Pagoda Tree



Appendix 1: High Park Neighbourhood Area Biodiverse Landscape Manual Recommended Plant List

Biodiverse Landscape Manual Plant List

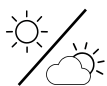
Attributes

Common Name	High Park Species	Form	Species	Visual Screen Value	Characteristics	Light
Grey Dogwood	✓	Shrub (Deciduous)	<i>Cornus racemosa</i>	●	Dense shrub, gray bark, white fruit on salmon coloured racemes	☀️/☁️
Round-leaved Dogwood	✓	Shrub (Deciduous)	<i>Cornus rugosa</i>	●	Dense shrub, purplish-yellow twigs, bluish-white fruits, seasonal fall colour	☀️/☁️
Hairy Honeysuckle		Shrub (Deciduous)	<i>Lonicera hirsuta</i>	●	Small yellow flowers, red berries.	☀️/☁️
Highbush Cranberry		Shrub (Deciduous)	<i>Viburnum trilobum</i>	●	Vigorous shrub, bright red fruits last into winter, red leaves in autumn CAUTION: This species may be hard to find locally-sourced, true native stock; the cultivar is routinely sold as "native".	☀️/☁️
Meadowsweet	✓	Shrub (Deciduous)	<i>Spiraea alba</i>	●	Low shrub with white flower spikes	☀️
Nannyberry	✓	Shrub (Deciduous)	<i>Viburnum lentago</i>	●	Vigorous shrub, dark blue fruits last into winter, red leaves in autumn	☀️/☁️
New Jersey Tea	✓	Shrub (Deciduous)	<i>Ceanothus americanus</i>	●	Low shrub of dry woodlands and savannah; attractive foliage	☀️/☁️
Ninebark		Shrub (Deciduous)	<i>Physocarpus opulifolius</i>	●	Vigorous shrub of shrelines; dense white flowers attract many pollinators; seed pods turn bright red for second show.	☀️/☁️
Pasture Rose	✓	Shrub (Deciduous)	<i>Rosa carolina</i>	●	Low-growing rose adapted to variable edge and open conditions	☀️/☁️
Red-osier Dogwood	✓	Shrub (Deciduous)	<i>Cornus stolonifera</i>	●	Dense shrub, red bark provides strong winter colour, white fruit on racemes	☀️/☁️
Shrubby St. John's-Wort	✓	Shrub (Deciduous)	<i>Hypericum prolificum</i>	●	Hardy shrub of shorelines	☀️/☁️
Smooth Wild Rose	✓	Shrub (Deciduous)	<i>Rosa blanda</i>	●	Low, generally thornless rose of open sites, dry to moist	☀️/☁️
Snowberry	✓	Shrub (Deciduous)	<i>Symphoricarpos albus</i>	●	Low to medium height, showy flowers, white fruit attractive to birds. Winter value	☀️/☁️
Spicebush		Shrub (Deciduous)	<i>Lindera benzoin</i>	●	Showy shrub with fragrant leaves, red fruit, autumn colour; adapted for edges and rain gardens	☀️/☁️
Juneberry AKA Serviceberry		Shrub (Deciduous) or Small Tree	<i>Amelachier laevis</i>	●	Early flowering, delicate form, reddish-blue fruits in late June.	☀️/☁️
Pin Cherry	✓	Shrub (Deciduous) or Small Tree	<i>Prunus pensylvanica</i>	●	Colonial shrub or small tree, abundant fruits, significant impact on facilitating bird breeding.	☀️/☁️
Staghorn Sumac	✓	Shrub (Deciduous) or Small Tree	<i>Rhus typhina</i>	●	Tall shrub, forms its own canopy, colonial; tolerates salt	☀️

Visual Screen Value:

- Low
- Medium
- Moderate
- High

Light:

-  Sun
-  Shade
-  Sun/Part Shade

Biodiverse Landscape Manual Plant List

Attributes

Soil	Shallow Soils	Native Soils	Streetscape*	Green Roofs**	Vertical Greening	Common Name
Coarse-fine soils, adaptable.	✓	✓	✓			Grey Dogwood
Coarse-fine soils, adaptable.	✓	✓				Round-leaved Dogwood
Adaptive to most soils	✓	✓			✓	Hairy Honeysuckle
Coarse-fine soils, moist conditions.	✓	✓				Highbush Cranberry
Coarse-fine soils, moist conditions.	✓	✓				Meadowsweet
Coarse-fine soils, moist to mesic conditions.	✓	✓				Nannyberry
Sandy soil	✓	✓		✓		New Jersey Tea
Coarse-fine soils, adaptable.	✓	✓	✓			Ninebark
Coarse-fine soils, dry to moist, adaptable.	✓	✓	✓	✓		Pasture Rose
Coarse-fine soils, adaptable.	✓	✓	✓			Red-osier Dogwood
Coarse-fine soils, adaptable.	✓	✓	✓	✓		Shrubby St. John's-Wort
Coarse-fine soils, dry to moist, adaptable.	✓	✓	✓	✓		Smooth Wild Rose
Coarse-fine soils, adaptable.	✓	✓				Snowberry
Coarse-fine soils, adaptable, mesic to wet	✓	✓				Spicebush
Coarse-fine soils, adaptable.	✓	✓	✓			Juneberry AKA Serviceberry
Adaptable	✓	✓	✓			Pin Cherry
Coarse-fine soils, adaptable.	✓	✓	✓			Staghorn Sumac



Appendix 1: High Park Neighbourhood Area Biodiverse Landscape Manual Recommended Plant List

Biodiverse Landscape Manual Plant List

Attributes

Common Name	High Park Species	Form	Species	Visual Screen Value	Characteristics	Light
Balsam Fir		Tree (Coniferous)	<i>Abies balsamea</i>		Evergreen that typically grows in the shade of other trees; winter interest; acidic soils preferred.	
Basswood	✓	Tree (Coniferous)	<i>Tilia americana</i>		Highly suitable; tolerates relatively high moisture conditions; attracts pollinators. CAUTION: there are some issues about identification confusion with various Eurasian lindens. Verify the source.	
Eastern Hemlock	✓	Tree (Coniferous)	<i>Tsuga canadensis</i>		Dense, pyramidal conifer of the pine family.	
Eastern White Cedar	✓	Tree (Coniferous)	<i>Thuja occidentalis</i>		Tolerant of periodic short-term inundation; provides wildlife habitat; sensitive to salt-spray.	
Red Pine	✓	Tree (Coniferous)	<i>Pinus resinosa</i>		Intolerant of shade; does well in windy locations.	
Tamarack		Tree (Coniferous)	<i>Larix laricina</i>		Tolerant of periodic short-term inundation.	
White Pine	✓	Tree (Coniferous)	<i>Pinus strobus</i>		Sensitive to pollution, salt, & compaction, transplant BB in early spring.	
White Spruce		Tree (Coniferous)	<i>Picea glauca</i>		Conifer that is fast-growing, some varieties are salt-tolerant.	
Balsam Poplar	✓	Tree (Deciduous)	<i>Populus balsamifera</i>		Aggressive roots; tolerant of periodic short-term inundation; fast maturing; colony forming; short-lived trees that are appropriate for sites away from utilities, homes roadways and infrastructure. A top species for feeding birds.	
Bitternut Hickory		Tree (Deciduous)	<i>Carya cordiformis</i>		Fast-growing.	
Black Cherry	✓	Tree (Deciduous)	<i>Prunus serotina</i>		Sensitive to compaction; somewhat difficult to transplant.	
Black Oak	✓	Tree (Deciduous)	<i>Quercus velutina</i>		Provides food for the Edwards' Hairstreak and Hickory Hairstreak butterflies. CAUTION: This species may be hard to find locally-sourced, true native stock; ensure local genotype seed source.	
Black Walnut	✓	Tree (Deciduous)	<i>Juglans nigra</i>		Highly suitable; roots produce juglone in soil which inhibits growth of some plants.	
Blue Beech		Tree (Deciduous)	<i>Carpinus caroliniana</i>		Sensitive to compaction, difficult to transplant - plant BB in early spring.	

Visual Screen Value:

- Low
- Medium
- Moderate
- High

Light:

-  Sun
-  Shade
-  Sun/Part Shade

Biodiverse Landscape Manual Plant List

Attributes

Soil	Shallow Soils	Native Soils	Streetscape*	Green Roofs**	Vertical Greening	Common Name
Coarse-fine soils, adaptable.	✓	✓				Balsam Fir
Loam, adaptable		✓				Basswood
Evenly moist but very well-drained sandy to organic soil		✓				Eastern Hemlock
Adaptive to most soils	✓	✓				Eastern White Cedar
Well-drained soil		✓				Red Pine
Adaptive to most soils		✓				Tamarack
Coarse-fine loams, well-drained	✓	✓				White Pine
Even moisture.	✓	✓				White Spruce
Fine, moist-wet	✓	✓				Balsam Poplar
Medium-fine.		✓	✓			Bitternut Hickory
Med. coarse to med. fine, well-drained fertile soil.	✓	✓				Black Cherry
Dry, sandy to moist, rich soils		✓				Black Oak
Fine textured.		✓				Black Walnut
Medium-fine.		✓	✓			Blue Beech



Appendix 1: High Park Neighbourhood Area Biodiverse Landscape Manual Recommended Plant List

Biodiverse Landscape Manual Plant List

Attributes

Common Name	High Park Species	Form	Species	Visual Screen Value	Characteristics	Light
Bur Oak		Tree (Deciduous)	<i>Quercus macrocarpa</i>	●	Highly suitable; wildlife food/shelter. A mast species for feeding birds and small mammals.	☀
Chinquapin Oak		Tree (Deciduous)	<i>Quercus muehlenbergii</i>	●	Carolinian zone plant. Rare. A mast species for feeding birds and small mammals.	☀
Columnar English Oak		Tree (Deciduous)	<i>Quercus robur</i> var. <i>fatigiata</i>	●	Susceptible to powdery mildew and Oak leaf miner.	☀
Common Hackberry		Tree (Deciduous)	<i>Celtis occidentalis</i>	●	Easily transplanted in spring, plant with care in fall, generally tolerant.	☀
Eastern Cottonwood		Tree (Deciduous)	<i>Populus deltoides</i>	●	Aggressive roots; easily transplanted in spring or fall, fast maturing; short-lived trees that are appropriate for sites away from utilities, homes roadways and infrastructure. A top species for feeding birds.	☀
Freeman Maple		Tree (Deciduous)	<i>Acer x freemanii</i>	●	Naturally-occurring hybrid between <i>A. rubrum</i> & <i>A. saccharinum</i> .	☀/☁
Hop Tree	✓	Tree (Deciduous)	<i>Ptelea trifoliata</i>	●	A Threatened species, drought tolerant, adaptable.	☀/☁
Large-tooth Aspen	✓	Tree (Deciduous)	<i>Populus grandidentata</i>	●	Fast-maturing; colony forming. A top species for feeding birds.	☀
Paper Birch	✓	Tree (Deciduous)	<i>Betula papyrifera</i>	●	Difficult to transplant - use small size container stock. A top species for feeding birds.	☀
Peach-Leaved Willow	✓	Tree (Deciduous)	<i>Salix amygdaloides</i>	●	Usually multistemmed; does not form colonies; tolerates inundation.	☀
Pin Oak		Tree (Deciduous)	<i>Quercus palustris</i>	●	Use as ornamental.	☀
Red Elm		Tree (Deciduous)	<i>Ulmus rubra</i>	●	CAUTION: Often mistaken for European <i>Ulmus glabra</i>. Avoid if you can't verify the stock.	☀/☁
Red Maple	✓	Tree (Deciduous)	<i>Acer rubrum</i>	●	Common on poorly aerated soils, tolerant of periodic short-term inundation, best planted in early spring, sensitive to salt; requires acidic soils and will go chlorotic on alkaline.	☀/☁
Red Oak	✓	Tree (Deciduous)	<i>Quercus rubra</i>	●	Sensitive to compaction, provides wildlife food/shelter, transplants easily in early spring. Provides food for the Edwards' Hairstreak and Hickory Hairstreak butterflies. A top species for feeding birds.	☀

Visual Screen Value:

- Low
- Medium
- Moderate
- High

Light:

-  Sun
-  Shade
-  Sun/Part Shade

Biodiverse Landscape Manual Plant List

Attributes

Soil	Shallow Soils	Native Soils	Streetscape*	Green Roofs**	Vertical Greening	Common Name
Adaptive to most soils		✓	✓			Bur Oak
Rocky, dry.		✓				Chinquapin Oak
Well-drained soil		✓				Columnar English Oak
Med. coarse - med. fine.		✓				Common Hackberry
Coarse infertile sands to silt	✓	✓	✓			Eastern Cottonwood
Adaptable		✓	✓			Freeman Maple
Coarse-rocky, sand	✓	✓				Hop Tree
Coarse-rocky, sand	✓	✓				Large-toothed Aspen
Coarse - organic.		✓				Paper Birch
Sand, silt, or gravel.		✓				Peach-Leaved Willow
Adaptable, but prefers acid soils		✓	✓			Pin Oak
Very adaptable.		✓				Red Elm
Coarse-fine. Very adaptable.		✓	✓			Red Maple
Med. coarse to fine, well-drained.		✓	✓			Red Oak



Appendix 1: High Park Neighbourhood Area Biodiverse Landscape Manual Recommended Plant List

Biodiverse Landscape Manual Plant List						
Attributes						
Common Name	High Park Species	Form	Species	Visual Screen Value	Characteristics	Light
Sassafras	✓	Tree (Deciduous)	<i>Sassafras albidum</i>		Provides food for the Spicebush Swallowtail butterfly. NOTE: Can be difficult to source and to transplant.	
Shagbark Hickory		Tree (Deciduous)	<i>Carya ovata</i>		Sensitive to salt, difficult to transplant - plant BB in early spring.	
Shining Willow		Tree (Deciduous)	<i>Salix lucida</i>		Colony forming; tolerates inundation.	
Silver Maple	✓	Tree (Deciduous)	<i>Acer saccharinum</i>		Very tolerant & easy to transplant, aggressive roots, tolerant of periodic short-term inundation. CAUTION: Do not use in underdrained situations.	
Sugar Maple	✓	Tree (Deciduous)	<i>Acer saccharum</i>		Shade tolerant hardwood that turns brilliant orange or red in autumn. Suitable for streetscapes where salt is not heavily used.	
Swamp White Oak		Tree (Deciduous)	<i>Quercus bicolor</i>		Withstands spring season inundation; wildlife food/shelter; suitable from Burlington south; otherwise ornamental - planted with increasing frequency outside its natural habitat and range. A top species for feeding birds.	
Sycamore	✓	Tree (Deciduous)	<i>Platanus occidentalis</i>		Easily transplanted. CAUTION: Often confused with hybrid non-native Platanus x acerifolia.	
Thornless Honey Locust		Tree (Deciduous)	<i>Gleditsia tricanthos var. inermis</i>		Intolerant of inundation or standing water.	
Trembling Aspen	✓	Tree (Deciduous)	<i>Populus tremuloides</i>		Highly suitable; very aggressive roots; sensitive to pollution & compaction; tolerant of periodic short-term inundation; transplant in early spring or fall, fast maturing; colony forming. A top species for feeding birds.	
Tuliptree		Tree (Deciduous)	<i>Liriodendron tulipifera</i>		Sensitive to compaction, transplant BB in early spring and avoid fall planting; Carolinian zone species, try to locate Ontario seed sources for hardiness in our winters.	
Upland Willow	✓	Tree (Deciduous)	<i>Salix humilis</i>		Low to medium height shrub, drought tolerant	
White Oak	✓	Tree (Deciduous)	<i>Quercus alba</i>		Extremely sensitive to compaction; difficult to transplant but very much worth the effort to do so; suitable in non-compacted soil where there is room; use plugs/small containers or seed; maintain carefully for 1-2 yrs after planting. A top species for feeding birds.	

Visual Screen Value:

- Low
- Medium
- Moderate
- High

Light:

-  Sun
-  Shade
-  Sun/Part Shade

Biodiverse Landscape Manual Plant List

Attributes

Soil	Shallow Soils	Native Soils	Streetscape*	Green Roofs**	Vertical Greening	Common Name
Coarse-fine. Very adaptable but prefers acidity eg. under oaks and pines	✓	✓				Sassafras
Medium-fine.		✓	✓			Shagbark Hickory
Sand, silt, or gravel.	✓	✓				Shining Willow
Med. coarse - fine.		✓	✓			Silver Maple
Fertile moist well drained soils	✓	✓	✓			Sugar Maple
Fine loams and clays		✓	✓			Swamp White Oak
Coarse sandy to med-fine		✓				Sycamore
Variable.		✓	✓			Thornless Honey Locust
Coarse-fine. Very adaptable	✓	✓				Trembling Aspen
Loose medium soils, well-drained.		✓	✓			Tuliptree
Coarse-fine soils, adaptable.	✓	✓				Upland Willow
Coarse to fine loams & clays. Well-drained		✓	✓			White Oak



Appendix 1: High Park Neighbourhood Area Biodiverse Landscape Manual Recommended Plant List

Biodiverse Landscape Manual Plant List

Attributes

Common Name	High Park Species	Form	Species	Visual Screen Value	Characteristics	Light
Thicketcreeper	✓	Vine	<i>Parthenocissus inserta</i>		Red fall color, red berries in fall. Tolerant of periodic short-term inundation, spreading, extremely aggressive and competitive; use mostly in situations where invasive exotics are a major threat.	
Bittersweet Vine	✓	Vine	<i>Celastrus scandens</i>		Moderately-growing vine, greenish-white flowers, brilliant orange fruits in autumn. Dioecious (need male and female plants to produce fruit; plant several to many)	
Virgin's bower	✓	Vine	<i>Clematis virginiana</i>		Profuse small white flowers. An aggressive vine with white flowers, followed by long fringed seed. Excellent wildlife cover.	
Running Strawberry-bush	✓	Vine (Creeping)	<i>Euonymus obovata</i>		Suitable for shade; Greenish flowers, orange to red fruits. Creeping vine, non-aggressive.	

Visual Screen Value:

- Low
- Medium
- Moderate
- High

Light:

-  Sun
-  Shade
-  Sun/Part Shade

Biodiverse Landscape Manual Plant List

Attributes						
Soil	Shallow Soils	Native Soils	Streetscape*	Green Roofs**	Vertical Greening	Common Name
Coarse to fine, very adaptable	✓	✓			✓	Thicketcreeper
Coarse to fine, very adaptable	✓	✓			✓	Bittersweet Vine
Fertile loam or silt.	✓	✓			✓	Virgin's bower
Adaptable					✓	Running Strawberry-bush



Appendix 2: High Park Neighbourhood Area Biodiverse Landscape Manual

Species Not to Plant

Biodiverse Landscape Manual					
What NOT to Plant List					
Form	Invasive Species		Choose this Instead		Conditions
	Common Name	Species	Common Name	Species	Soil
Grass	Miscanthus	<i>Miscanthus sinensis</i> ; <i>Miscanthus sacchariflorus</i>	Big Bluestem	<i>Andropogon gerardi</i>	All mineral soils
			Indian Grass	<i>Sorghastrum nutans</i>	Many soil types, poor to average fertility.
			Little Bluestem	<i>Schizachyrium scoparium</i>	Low fertility soils
Herbaceous	Creeping Bellflower	<i>Campanula rapunculooides</i>	Cylindric Blazing Star	<i>Liatris cylindracea</i>	Dry, sandy or rocky, alkaline soils
			Hairy Beard-tongue	<i>Penstemon hirsutus</i>	Average to dry soils
			Foxglove Beard-tongue	<i>Penstemon digitalis</i>	Most mineral soils
			Wild Bergamot	<i>Monarda fistulosa</i>	Adaptable, dry to moist
			Wild Lupine	<i>Lupinus perennis</i>	Sandy soil
Herbaceous	Lily of the Valley	<i>Convallaria majalis</i>	Bastard Toadflax	<i>Liatris cylindracea</i>	Dry, sandy or rocky, alkaline soils
			Canada May-flower	<i>Penstemon hirsutus</i>	Average to dry soils
			False Solomon's-seal	<i>Penstemon digitalis</i>	Most mineral soils
			Starry false Solomon's-seal	<i>Monarda fistulosa</i>	Adaptable, dry to moist
			Downy Solomon's-seal	<i>Lupinus perennis</i>	Sandy soil
			Common Cinquefoil	<i>Potentilla simplex</i>	Dry to moist, average to poor soils
			Common Strawberry	<i>Fragaria virginiana</i>	Rich, loamy soils
Herbaceous	Forget-me-not	<i>Myosotis scorpioides</i>	Bastard Toadflax	<i>Liatris cylindracea</i>	Sandy soil
			Hare-bell	<i>Campanula intercedens</i> (aka <i>C. rotundifolia</i>)	Dry, sandy or rocky, alkaline soils
			Common Strawberry	<i>Fragaria virginiana</i>	Rich, loamy soils
			Silverweed	<i>Potentilla anserina</i>	Sand or gravel, rocky.

Biodiverse Landscape Manual

What NOT to Plant List

Form	Invasive Species		Choose this Instead		Conditions
	Common Name	Species	Common Name	Species	Soil
Herbaceous	Sweet Woodruff	<i>Galium odoratum</i>	Bastard Toadflax	<i>Comandra umbellata</i>	Sandy soil
			Northern bedstraw	<i>Galium boreale</i>	Sandy soil, semi-shade
			Wild licorice	<i>Galium lanceolatum</i>	Sandy soil, semi-shade
			Common Strawberry	<i>Fragaria virginiana</i>	Rich, loamy soils
Shrub (Deciduous)	Common Barberry	<i>Berberis vulgaris</i>	Shrubby cinquefoil	<i>Dasiphora fruticosa</i>	Sand or gravel, rocky.
			Maple-leaved viburnum	<i>Viburnum acerifolium</i>	Shade to semi-shade
			Common Cinquefoil	<i>Potentilla simplex</i>	Dry to mesic mineral or gravel
Shrub (Deciduous)	Common Privet	<i>Ligustrum vulgare</i>	Meadowsweet	<i>Spiraea alba</i>	Coarse-fine soils, moist conditions.
			Bush Honeysuckle	<i>Diervilla lonicera</i>	Adaptable
			Grey Dogwood	<i>Cornus racemosa</i>	Coarse-fine soils, adaptable.
Shrub (Deciduous)	European Spindletree	<i>Euonymus europaeus</i>	Fragrant Sumac	<i>Rhus aromatica</i>	Dry to mesic mineral or gravel
			Common Cinquefoil	<i>Potentilla simplex</i>	Dry to mesic mineral or gravel
			Gray Dogwood	<i>Cornus racemosa</i>	Coarse-fine soils, adaptable.
			Red-osier Dogwood	<i>Cornus stolonifera</i>	Coarse-fine soils, adaptable.
Shrub (Deciduous)	Honeysuckle Shrubs (non-native)	<i>Lonicera tatarica</i> ; <i>Lonicera maackii</i> ; <i>Lonicera morrowii</i> ; <i>Lonicera x. bella</i> ; <i>Lonicera xylosteum</i>	Nannyberry	<i>Viburnum lentago</i>	Coarse-fine soils, moist to mesic conditions.
			Alternate-leaved Dogwood	<i>Cornus alternifolia</i>	Coarse-fine soils, moist to mesic conditions.
			Round-leaved Dogwood	<i>Cornus rugosa</i>	Coarse-fine soils, adaptable.
			Red-osier Dogwood	<i>Cornus stolonifera</i>	Coarse-fine soils, adaptable.
			Fly honeysuckle	<i>Lonicera canadensis</i>	Shade to semi-shade, moist
			Maple-leaved viburnum	<i>Viburnum acerifolium</i>	shade to semi-shade
			Bush Honeysuckle	<i>Diervilla lonicera</i>	Adaptable
			Hairy Honeysuckle	<i>Lonicera hirsuta</i>	Adaptive to most soils



Appendix 2: High Park Neighbourhood Area Biodiverse Landscape Manual

Species Not to Plant

Biodiverse Landscape Manual What NOT to Plant List

Form	Invasive Species		Choose this Instead		Conditions
	Common Name	Species	Common Name	Species	Soil
Shrub (Deciduous)	Japanese Barberry	<i>Berberis thunbergii</i>	Shrubby cinquefoil	<i>Dasiphora fruticosa</i>	Sand or gravel, rocky.
			Smooth Wild Rose	<i>Rosa blanda</i>	Coarse-fine soils, dry to moist, adaptable.
			Bush Honeysuckle	<i>Diervilla lonicera</i>	Adaptable
Shrub (Deciduous)	Multiflora Rose	<i>Rosa multiflora</i>	Smooth Wild Rose	<i>Rosa blanda</i>	Coarse-fine soils, dry to moist, adaptable.
Shrub (Deciduous)	Winged Euonymus	<i>Euonymus alatus</i>	Fragrant Sumac	<i>Rhus aromatica</i>	Dry to mesic mineral or gravel
			Ninebark	<i>Physocarpus opulifolius</i>	Dry to mesic mineral or gravel
			Round-leaved Dogwood	<i>Cornus rugosa</i>	Coarse-fine soils, adaptable.
			Red-osier Dogwood	<i>Cornus stolonifera</i>	Coarse-fine soils, adaptable.
Tree (Deciduous)	Manitoba Maple	<i>Acer negundo</i>	Staghorn Sumac	<i>Rhus typhina</i>	Dry to mesic mineral or gravel
			Canada Plum	<i>Prunus nigra</i>	Adaptable
			American Plum	<i>Prunus americana</i>	Adaptable
			Hawthorns	<i>Crataegus</i> spp.	Adaptable
			Pin Cherry	<i>Prunus pensylvanica</i>	Sandy soils
			Choke Cherry	<i>Prunus virginiana</i>	Adaptable
Tree (Deciduous)	Norway Maple	<i>Acer platanoides</i>	Juneberry AKA Serviceberry	<i>Amelachier laevis</i>	Coarse-fine soils, adaptable.
			Red Oak	<i>Quercus rubra</i>	Coarse to fine, very adaptable
			Black Oak	<i>Quercus velutina</i>	Sandy soils, signature species for area
			White Oak	<i>Quercus alba</i>	Sandy to silty soils
			Basswood	<i>Tilia americana</i>	Finer soils
			Shagbark Hickory	<i>Carya ovata</i>	Adaptable
			Freeman Maple	<i>Acer x freemanii</i>	Adaptable

