

FRESH FIELDS

ECOLOGICAL RESTORATION AND SITE DESIGN OF THE YORKLANDS GREEN HUB

Master Plan



The Yorklands Green Hub site is located at 895-905 York Road in Guelph, Ontario. The site is part of the former Ontario Reformatory and is full of significant environmental and cultural heritage. The potential for environmental restoration and community use of the site is huge. Fresh Fields is a conceptual design for the rehabilitation of the Yorklands Green Hub site that focuses on restoring the ecosystem types within the site and encouraging community engagement.

Master Plan Key

- 1 Raised community planting beds - Provide an opportunity for community members to grow and maintain their own produce and learn to garden.
- 2 Greenhouses for community members - A place for community members to start plants early in the spring and grow a variety of plants during the summer.
- 3 Open space for community events - The community green, this wide lawn has the potential to host a variety of gatherings and celebrations.
- 4 Parking lot - A parking area for visitors that is conveniently located near the community gardens and the Superintendent's house.
- 5 Superintendent's house - This historic building should be preserved and used as a welcome centre and education hub for the history of the site.
- 6 Natural heritage education centre - A short walk from the Superintendent's house, this building serves as a gathering point and a place to learn about the ecology of the site.
- 7 Raised boardwalk with viewing nodes - This raised wooden boardwalk lets visitors explore the wetland without disturbing the ecosystem.
- 8 Deciduous forest ecosystem - The proposed deciduous forest ecosystem will be comprised of native tree species and provide habitat for a variety of animals.
- 9 Meadow ecosystem - These meadows will be both beautiful and purposeful as they provide food and habitat for a wide range of pollinator species.
- 10 Wet meadow ecosystem - The wet meadow is a transition between meadow and wetland ecosystems. The plant species are beautiful and diverse.
- 11 Marsh Ecosystem - The marsh ecosystem will have both permanent and seasonal waterbodies and provide habitat for a wide variety of flora and fauna.
- 12 Existing water body - These existing ponds are beautiful and important to the heritage of the site.
- 13 Existing stone wall - A combination of field stone and quarried stone, these walls are also important to the site's cultural heritage.
- 14 Picnic tables - Seating provided for guests in the shade.

Perspective

A) This perspective shows the community greenhouses and raised garden beds located towards the south end of the site. The raised garden beds provide an opportunity for community members who may not otherwise be able to garden. Fruits and vegetables produced on site will support local food production and sustainable agriculture. Growing produce will let people experience the joy of gardening.



Context Map



Goals

1. Encourage and support sustainable urban agriculture
2. Support cultural and environmental heritage
3. Increase public use of the site and

Objectives

1. Maintain and highlight historic built forms and features
2. Establish community garden plots
3. Create opportunities and hubs for educating the public about site history and ecology
4. Allocate space for large group gatherings and recreation

Educating the Public

The Fresh Fields site will provide an educational opportunity for community members. The Superintendent's house, a building of significant cultural heritage, would be given a new purpose as an education centre focused on the history of the site. A lounge style area could be created to serve as a gathering point for guests.



The historic Superintendent's house currently located on the Yorklands Green Hub site.

After walking along a pathway through the pollinator meadow to the east of the Superintendent's house, visitors will arrive at the eco education hub. This round building focuses on informing guests about the importance of environmental restoration on the site and the species that they might see.

Leading out from the eco education hub is a wooden boardwalk trail that winds through the wetlands on site. Along the boardwalk are two large viewing decks that serve as gathering points. They have signage to inform guests about the surrounding

Meadows

The meadows will be composed of native wildflowers and grasses. Once established, the meadows will be both beautiful and functional, providing habitat and food for many pollinator species. The ratio of approximately 70% wildflowers and 30% grasses will be used to create the meadow ecosystems. Located at higher elevations within the site, the species chosen will thrive in a mesic to dry loam soil with full sunlight.

To create the meadow, the existing turf must be removed and the topsoil tilled. Soil that is less fertile is preferable because then weeds will be less likely to take over the area. The meadow area towards the east of the site should be seeded while the areas near the Superintendent's house should be planted with plugs.

Wildflower species

Heath aster *Symphotrichum ericoides*
Cylindric blazing star *Liatris cylindracea*
Common milkweed *Asclepias syriaca*
Butterfly milkweed *Asclepias tuberosa*
Hoary vervain *Verbena stricta*
Wild bergamot *Monarda fistulosa*
Virginia mountain mint *Pycnanthemum virginianum*
Sky blue aster *Symphotrichum oolentangiense*
Black eyed susan *Rudbeckia hirta*

Grass species

Little bluestem *Andropogon scoparius*
Switch grass *Panicum virgatum*
Canada wild rye *Elymus canadensis*



Deciduous Woodland

The deciduous woodland is proposed for the south corner of the site. This area is the high point of the site and has well drained loam soil. The woodland will be established using a nucleation technique. This involves planting small pockets of native vegetation that will grow and spread over time. Each planting cell should have a variety of pioneer and canopy species as well as edge species that provide a buffer to the interior plants. Over time, the pioneer species can be cut back to allow the climax forest species to mature fully.

Canopy species

Red oak *Quercus rubra*
Red maple *Acer rubrum*
Beech *Fagus grandifolia*

Sub canopy species

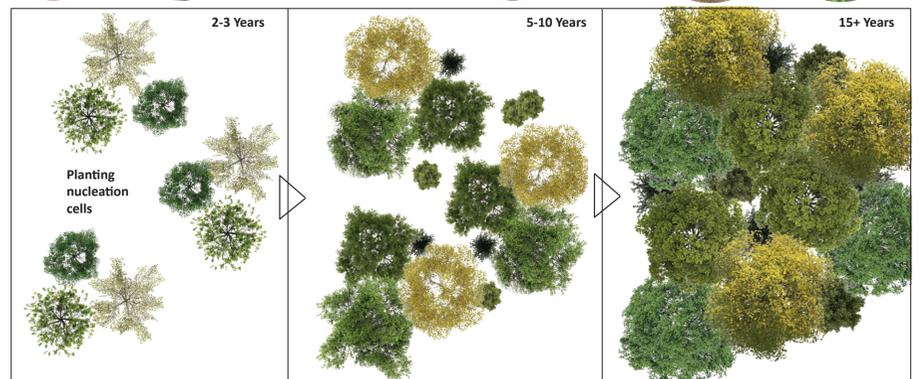
Ironwood *Ostrya virginiana*
Alternate-leaved dogwood *Cornus alternifolia*
Maple-leaved viburnum *Viburnum acerifolium*

Herbaceous species

Bloodroot *Sanguinaria canadensis*
False solomon's seal *Smilacina racemosa*
Tall meadow rue *Thalictrum polygamum*



Woodland Progression



Wet Meadow Species

Cardinal flower *Loebelia cardinalis*
Flat-topped white aster *Symphotrichum umbellatus*
Swamp aster *Symphotrichum puniceum*
Blue eyed grass *Sisyrinchium montanum*
Obedient plant *Physostegia virginiana*
Fox sedge *Carex vulpinoidea*
Sweet Grass *Anthoxanthum nitens*

Riparian Species

Boneset *Eupatorium perfoliatum*
Spotted Joe Pye-weed *Eupatorium maculatum*
Great blue lobelia *Loebelia siphilitica*
American three-square bulrush *Scirpus americanus*

Emergent Species

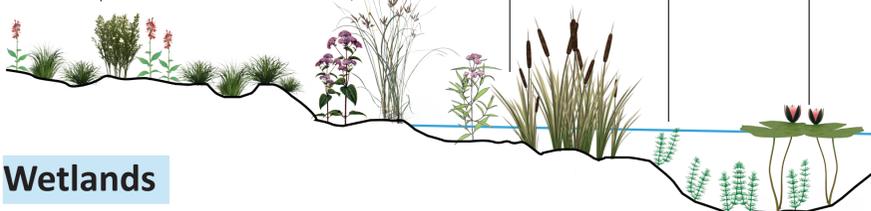
Swamp milkweed *Asclepias incarnata*
Broad-leaved cattail *Typha latifolia*
Fringed sedge *Carex crinita*
Water horsetail *Equisetum fluviatile*

Submergent Species

Coontail *Ceratophyllum demersum*
Sago Pondweed *Potamogeton pectinatus*
Common Bladderwort *Utricularia vulgaris*
Alternate water milfoil *Myriophyllum alterniflorum*

Floating Species

Lesser duckweed *Lemna minor*
Yellow pond lily *Nuphar variegatum*
Star duckweed *Lemna trisulca*



Wetlands

This diagram shows the progression of a wet meadow ecosystem into a marsh. The marsh can be divided into four different plant zones: riparian plants, emergent plants, submergent plants and floating plants. There are some common plant species between the wet meadow and the riparian wetland zone. Healthy, functioning wetland ecosystems are important because they filter groundwater and provide habitat to a wide range of creatures such as the muskrat (*Ondatra zibethicus*), red-winged black bird (*Agelaius phoeniceus*) and leopard frog (*Lithobates pipiens*).