

Turf Culture

Most corporate business grounds in Waterloo Region and surrounding areas subscribe to a turf grass maintenance regime whereby large swaths of lawn are fertilized, edged, weeded, watered, and mowed on a regular basis throughout the spring, summer and fall. This is a common routine that isn't unique to our region; it occurs worldwide.

For the amount of time, money, and resources that are poured into the development and maintenance of turfgrass you would expect the benefits of this prized and popular landscape choice to be monumental, wouldn't you?

How does your turfgrass landscape benefit your business? Your employees? The community?

In reality this so called "greenspace":

- is prone to pests and disease
- has limited ecological function
- is costly and resource demanding
- is a dead zone for wildlife and pollinators
- does not contribute to regional biodiversity
- is unsustainable; requiring ongoing maintenance with fuel dependant machinery
- has no seasonal attraction; blooms, colour change
- is rarely utilized and enjoyed by employees in corporate and industrial settings

Now consider the possibility of a more sustainable landscape, one which requires a fraction of the time, money and resources of a conventional lawn.

"The cultivation of various turfgrasses has evolved into a dynamic, multi-billion dollar, worldwide industry"...
"Turfgrasses provide greenspace to break up urban sprawl and industrial complexes"...it has evolved from a nonessential luxury item to an existential component of our daily lives." (MICHAEL D. CASLER Turfgrass Biology, Genetics, and Breeding January 2003 pg. 3)

Naturalized Landscapes

A naturalized landscape can take many forms, such as a wildflower meadow or short grassland, shrub and forest complex, woodland understory, pond or wetland. It incorporates native plants which have adapted to our climate, and are capable of surviving drought, freezing temperatures and even fire. Consider the benefits of naturalized landscapes:

Ecological - Native plants are naturally pest resistant and drought tolerant, they do not require pesticides, fertilizers or constant irrigation. Planting trees helps cool paved areas that absorb heat, and open spaces with no shade. Regular maintenance is not necessary in naturalized landscapes; resulting in reduced carbon emissions and associated air & noise pollution. Naturalized landscapes encourage water infiltration, and can be designed to assist with onsite stormwater treatment and flood control. They also enhance local biodiversity, increase carbon sequestration, and create habitat for birds and butterflies.

Financial - Long-term cost savings (3-5 year return) through eliminating the expense of regular maintenance, pesticides, fertilizers and irrigation. Naturalization is a low-cost enhancement to your company image.

Social - A natural landscape surrounding the workplace helps to mitigate stress, create peaceful meeting places and recreational trails for employees. A well designed sustainable landscape can earn many awards for achievements in sustainability and environmental excellence. Naturalization shows commitment to social and environmental wellbeing.



This naturalized landscape assists with on-site stormwater treatment.

Returning to Nature

Naturalization is an old concept that is based on letting nature take its course; however, its use as a landscape option has been largely overlooked. Recent increases in fuel costs and more frequent periods of drought have made naturalization an effective solution for corporate property owners who want a sustainable, low maintenance alternative to resource demanding turfgrass.

Quiet Nature Ltd. is committed to sustainable landscape solutions and returning nature to Waterloo Region. Take a look at a few local businesses that have embraced the concept of naturalized landscapes, and in turn, have been honored for their efforts in environmental responsibility. Enermodal Engineering, the Region of Waterloo Landfill Workshop, and Brantford's Union Gas buildings are all surrounded by Naturalized Landscapes, which are maintained by Quiet Nature.



The Region of Waterloo Landfill has adopted a Naturalized Landscape approach on lands surrounding their municipal buildings and parking lots.

Ontario Die International Inc. Kitchener, Ontario

The City of Kitchener 2002 Urban Design Award.

This award acknowledges the overall design of the building and property, and commends the naturalized landscape design.

Regional Citation from the 2003 Canadian Society of Landscape Architects (CSLA) Professional Awards Program.

This citation cites the ecological management approach which brings "aesthetic enhancement" to the site and context. The jury recognizes forward thinking on behalf of the client and municipality."

Husky Injection Moulding Systems Bolton, Ontario

Husky makes significant efforts to naturalize the landscapes surrounding its manufacturing facilities by re-establishing

communities of plants and wildlife that require minimal intervention. Naturalized landscaping eliminates the use of herbicides, pesticides, chemical fertilizers and emissions-causing gas mowers. At Husky's Bolton campus alone, naturalized landscaping circumvented the use of 3000 tonnes of fertilizer per year and 300 kg of pesticide per year.

Landscaping at many Husky facilities also incorporates a storm water management plan. Shallow swales, ponds and wetlands throughout the campuses promote natural infiltration of storm water while providing both animal habitat and protection. These may be small adaptations, but by looking for environmental and social alternatives that makes sense, Husky is incorporating CSR into all aspects of its business.

Interview with Dirk Schlimm, VP Human Resources Husky Injection Molding, Monday July 22nd, 2002

Winner of numerous awards in the fields of; Environmental Excellence, Environmental Sustainability, Environmental Leadership, and Environmental Education

Enermodal Engineering Kitchener, Ontario

Enermodal Engineering is Canada's largest green building consulting firm, and provides a full spectrum of sustainable building services, from LEED consulting through commissioning and green education. The goal of their new headquarters in Kitchener, Ontario, was to create a healthy work environment for its employees in a building that uses less energy than any other office in the country. 'A Grand View', Enermodal's new headquarters, is a model of sustainability, and is set to become the first triple LEED Platinum office, aiming for certifications in LEED for New Construction, Commercial Interiors, and Existing Buildings: Operations and Maintenance rating systems. (www.enermodal.com)

A few notable features of 'A Grand View' include; native species, pesticide-free landscaping, employee vegetable garden plots, and smart building design which allows all occupants of 'A Grand View' to have a view of the outdoors.

Some of their many awards include:

2011 Tree for Life from Canadian Consulting Engineers Awards for 'A Grand View'

2011 North America's Most Liveable Building from the Center for the Built Environment for 'A Grand View'

2011 Great Places to Work - Canada

2011 Most Active Green Team Award for Enermodal's Employee Sustainability Committee from Sustainable Waterloo Region

2011 Healthy Workplace Award (Gold) from Region of Waterloo Healthy Workplace for 'A Grand View'

2010 Environmental Excellence Award from the Grand Valley Construction Association for 'A Grand View'

Union Gas Brantford, Ontario

“Our approach to stewardship is multi-faceted and continues to evolve. Beyond managing and continuously improving our own environmental performance, Union Gas actively encourages and promotes environmental responsibility throughout our distribution area. We believe our role as environmental stewards includes a responsibility to be an information resource for energy solutions and conservation solutions and to share our knowledge with our employees, customers, business allies, and the communities we serve.”

Union Gas was named one of Canada's Top 100 Green Employers in Canada for 2012.

(www.uniongas.com- Environmental Stewardship)



The Quiet Nature Approach

Combining a background in applied ecological restoration with over thirteen years experience in landscape design and construction, Quiet Nature is well suited to provide landscape naturalization services for a wide variety of applications. Our shop is located on a 10 acre farm where we operate a native plant nursery to supply material for our projects, and experiment with various naturalization techniques in our demonstration fields.

Over the last 10 years Quiet Nature has developed a systematic approach to Naturalizing turfgrass landscapes. The following

chart breaks down the approximate costs of converting a turfgrass landscape to a meadow, these values have been created using the current prices of quality, native seed sources.

This method, which can be altered depending on the size and conditions of a property, uses a tractor and cultivator to loosen the soil and distribute a seed mixture comprised of a variety of drought tolerant wildflowers and grasses.

The addition of an annual cover crop, such as oats, in the first year helps to out-compete any remaining turfgrass and invasive weeds, and acts as a green manure for the soil. Laying down additional seed in the fall of the first season fills in uneven areas and encourages a dense flush of wildflowers and grasses in the spring of the second year.

Long term maintenance is minimal, and can be increased to support property owners who prefer more formal gardens, or decreased to allow nature to take it's course.



Testimonial

“Northlake Woods School was very pleased with the Butterfly Garden rejuvenation project that Quiet Nature planned and installed for us. We are an Eco Gold school and appreciated Quiet Nature’s plan using all native plants and salvaging as much of the old garden as possible. The end result is beautiful, within our budget and was created using no power tools or environmentally harmful materials. We would recommend their work to anyone looking for a natural approach to landscaping.”

Victoria Lant, Chairperson, Northlake Woods School Council.

Turf Conversion (1 acre)	Cost
Elimination of existing turf and seed bed preparation	\$4 500.00
Supply and installation of customized native seed mixtures	\$2 750.00
Total for Turf Conversion	\$7 250.00
Price/m2	\$1.79
Monitoring and Management	
Year 1 Mowing/Maintenance	\$2 970.00
Year 2 Mowing/Maintenance	\$1 980.00
Years 3-10 Mowing/Maintenance	\$1 485.00
10 Year Maintenance Total	\$13 860.00
Installation and Maintenance 10 year total:	\$21 110.00

** assumes one continuous acre with minimal obstructions.

Cutting back on Turfgrass

Maintaining a turfgrass landscape is a long-term commitment with few benefits. A yearly routine of applying fertilizers, overseeding, topdressing, irrigating and mowing are a regular requirement, and few landowners question these activities. Consider the following table and graph outlining the costs of maintaining a turfgrass landscape compared to a naturalized landscape. It is evident that no matter how the figures are considered (benefits, costs, or maintenance) that a naturalized landscape is good for business, benefits employees, and shows a commitment to social and environmental wellbeing in the community.

Turf Maintenance	Year one	Year two	Ten Year Total
Core Aeration (every 2nd Year)	\$750.00	\$0.00	\$3,750.00
Mowing (10 times per year)	\$2,500.00	\$2,500.00	\$25,000.00
Fertilizer/Pest control/Overseeding/topdressing	\$1,850.00	\$1,850.00	\$18,500.00
Irrigation (water cost, maintenance)	\$9,081.07	\$9,081.07	\$90,810.70
(Water cost @ \$0.626/cu.ft for 1 inch /week)			
Yearly maintenance	\$5,100.00	\$4,350.00	\$47,250.00
With irrigation	\$14,181.07	\$13,431.07	\$157,698.56

