



Possibility grows here.



TD Friends of the Environment Foundation

Newsletter 1 - Issue 1

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WIARTON'S MIYAWAKI "TINY FOREST" NEWSLETTER

PERMISSION TO PLANT!



Fig 1.1 - Location of the Miyawaki Forest in Wiarton

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What is a Miyawaki Forest?

A Miyawaki forest, or “Tiny Forest” is a different kind of tree planting design, approximately the size of a tennis court, where trees are planted with high density and diversity.

Through competition with each other, these trees grow rapidly into an oasis of biodiversity - faster than plantations. Miyawaki Forests are planted with approx. 1 tree per square foot - much denser than conventional plantings. Experience is showing that robust and diverse ecosystems emerge, with high density of birds and insects.

Here’s a great example of a Tiny Forest growing quickly in a northern climate - video link:



[Tiny Forest documentary about the effects of the Miyawaki method in the Netherlands](#)

Miyawaki Forests are also part of a global movement that provides ample resources to educate about the value of biodiversity and practice core skills of ecosystem **regeneration**. They can go by many names like mini forests, little forests, or pocket forests, but they all stem from Prof Akira Miyawaki’s methodology, which was refined in the early 1980’s in Japan.

Using the Miyawaki methodology, we can create native urban forest ecosystems quickly. The method takes its inspiration directly from processes and diversity in nature: 15 to 30 different species of trees and shrubs are planted together. This plant community works very well together, and is perfectly adapted to local weather conditions.

The habitat created will get more complex over time and attract biodiversity. Vegetation becomes dense and quickly has the structure of a mature natural forest. It is a multi-storey structure, where different levels of vegetation appear. The forest thus structured delivers many benefits in the form of ecosystem services. It would take over 200 years to let a mature forest recover from its removal on its own. With the Miyawaki method a similar result is achieved in 20 years.

There are three main functions typical of a Miyawaki forest:

1. To halt the loss of local biodiversity in urban areas
2. Decrease the impacts of climate change
3. Increase the frequency of nature in urban areas for people to enjoy and appreciate

Another primary goal *in Wiaraton* will add a fourth main function:

4. create a continuing educational experience where students can observe biodiversity regeneration and emerge themselves in associated activities.

What is a Bioswale?

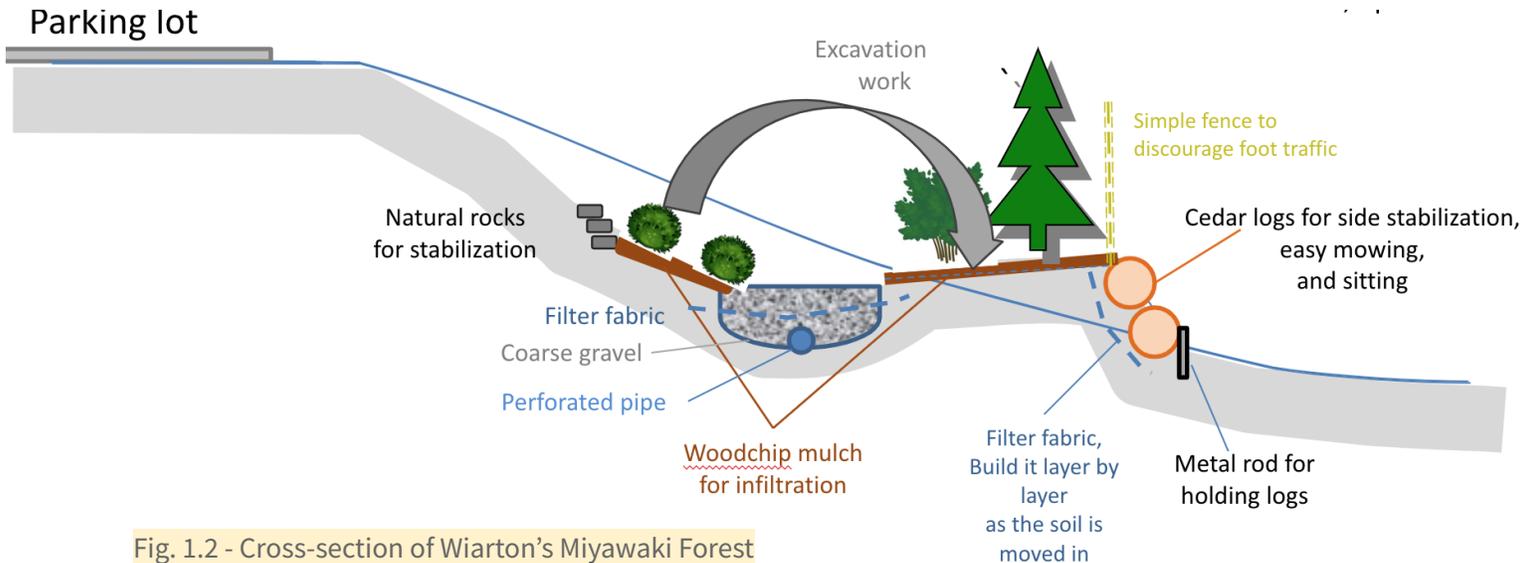


Fig. 1.2 - Cross-section of Wiarthon's Miyawaki Forest

Bioswales are channels designed to concentrate and convey stormwater runoff while removing debris and pollution. Bioswales can also be beneficial in recharging groundwater. Bioswales are typically vegetated.

They are low-impact development work, and are extremely beneficial in protecting surface water and local waterways from excessive pollution from stormwater runoff. The longer the runoff stays within the bioswale, the better the pollutant removal outcome. It is also beneficial in removing standing ponds that could potentially attract mosquitos. Bioswales can also be designed to be aesthetically pleasing and attract animals and create habitats.

Who are We?

Many community members are actively working toward this shared goal of nurturing our region's landscapes such that they remain biodiverse and resilient into the future. This project is led by volunteers, such as:

Nick Schwass - teacher at PSDS - **school champion**
Thorsten Arnold - Regenerate Grey Bruce- **designer & lead coordinator**
Leigh Grigg - The Sustainability Project - **partnerships & promotion**
Jo-Anne Harbinson - Stewardship Grey Bruce - **advisor**

This Miyawaki Forest is “officially” a project of [Regenerate Grey Bruce](#), which is busy building a network of practitioners in landscape regeneration from our region, and formulating a “narrative of hope” for this region’s landscape in our changing climate. A new landscape narrative will require a collective effort of our community to change our relationship with the land, the way that we value the

land's ecological functioning, and even how we value the land and the creatures that inhabit it. We can only do this together as a community.

The non-profit is [The Sustainability Project](#), formerly known as Grey Bruce Sustainability Network, who bring together community members who reside in this region – the Traditional Territory of the Saugeen Ojibway Nation, – who are dedicated to *creating a culture of sustainability*. Our board members are civic leaders and champions of at least one community project that creates positive change. Together we're learning about climate action, resilience to extreme weather, landscape regeneration, climate justice, food security, and the whole doughnut in doughnut economics.



**REGENERATE
GREY BRUCE**



**The
Sustainability
Project**

Nurturing Ideas that Transform

The Greenbelt Foundation is supporting projects – like Regenerate Grey Bruce – that increase plant cover in the Greenbelt & Niagara Escarpment. More info on Greenbelt is found at www.greenbelt.ca

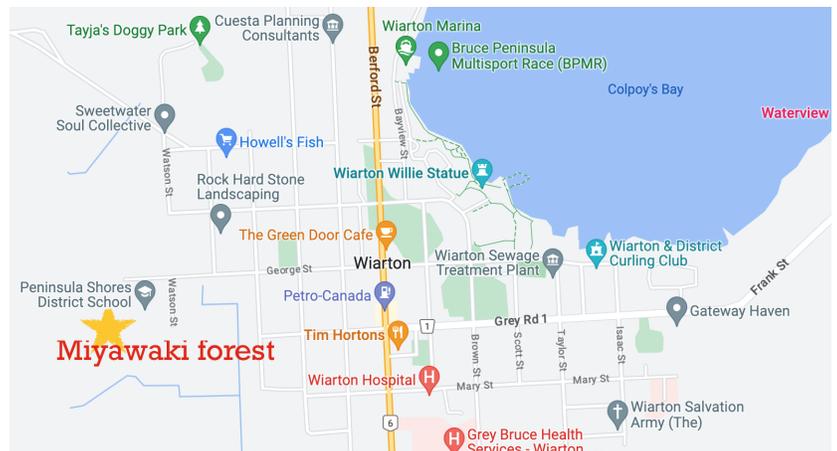
The project is also proudly supported by [TD Friends of the Environment Foundation](#), [Stewardship Grey Bruce](#), [Lake Huron Forever](#), and your amazing Rotarians at [Warton Rotary Club](#).

Special thanks is also owed to Peninsula Shores District School, the Bluewater District School Board, By the Bluffs Nursery, Owen Sound Field Naturalists, and last-but-certainly-not-least our friends at the Georgian Bluffs Climate Action Team who assisted greatly in incubating this idea.

Where is this Miyawaki Forest going to be planted?

Located on the back schoolyard of the PSDS in Warton, the Miyawaki Forest will be primarily used by students. The planting process, however, will also involve the larger community. School staff will be available to monitor students during the development stage of the site/forest and incorporate learning opportunities.

The space that has been chosen to host a Miyawaki Forest is located in close proximity to the elementary playground, as well as the secondary running track. The chosen location is centered between the elementary and secondary sides of the school, allowing easy access to all learners.



Once the forest is established, it will be used as a powerful learning tool to reach curricular content, and potentially as a biodiverse gathering spot for lessons, a perfect spot for an outdoor classroom! It is anticipated that the Miyawaki Forest will help teachers of several grades to actualize learning, by providing a hands-on demonstration site. Teaching objectives include ecosystem monitoring, identification and observation of native species, and basic principles of ecosystem care. These objectives need to be linked with the curriculum requirements at different age groups, but so far in Warton several teachers have indicated interest.

In addition to these curriculum-based learning, the project will put up several signs that educate about the purpose of the Miyawaki Forest, the species of trees, shrubs and groundcover, the planting and site preparation, and the expected timeline. Such signage will help students, parents and visitors to learn about the Miyawaki Forest as a biodiversity hotspot.

Who was Prof. Miyawaki?

Doctor Akira Miyawaki was a botanist and Emeritus Professor at Yokohama National University and is the inventor of this “Tiny Forest” technique. He is a recipient of the 2006 Blue Planet Prize, which is the equivalent of a Nobel Prize in ecology.

Prof. Miyawaki calculated that only 0.06% of contemporary Japanese forests were indigenous forests. Contemporary forests, created according to forestry principles, in his opinion, were neither the most suitable candidates to address climate change nor the most resilient vegetation for the geo-bioclimatic conditions of Japan.

Using the concept of potential natural vegetation, Miyawaki developed, tested, and refined a method of ecological engineering today known as the Miyawaki method to restore native forests from seeds of native trees on very degraded soils that were deforested and without humus. With the results of his experiments, he restored protective forests in over 1,300 sites in Japan and various tropical countries, in particular in the Pacific region.



Where are some nearby Miyawaki Forests?

Miyawaki urban forests are fascinating complex ecosystems, in balance with today’s soil and climate conditions. This technique works worldwide irrespective of soil and climatic conditions. Thousands of forests have been successfully created using this method. Several are findable online, and well chronicled in Ontario, including:

Little Forests Kingston: <https://rideau1000islandsmastergardeners.com/little-forests-kingston/>

Transition Cornwall: <https://transitioncornwall.com/intro/>

There is also an emerging Ontario “Mini Forest Hub” that tracks locations, site species mix, observations and more, viewable at:

<https://experience.arcgis.com/experience/d3e6a2b5490c4387b3479b9e44b0c67a>

It’s estimated that there are now over two thousand Tiny/Mini/Pocket/Urban Forests on the planet... so the lists go on....

Sugi: <https://www.sugiproject.com/projects>

IVN (Netherlands): <https://www.ivn.nl/aanbod/tiny-forest-europe/our-forests/>

Earthwatch: <https://tinyforest.earthwatch.org.uk/tiny-forest-sites>

We hope you come along for the journey in Wiarton as we plan, plant and grow our own Miyawaki Forest. It will be a learning opportunity for the children of PSDS, and for ourselves. Ideally it will also provide a venue for ecological/environmental/climate groups to gather and cross-pollinate. This newsletter will continue to keep you up to date on the timeline and the opportunities to participate.

Please give us a simple reply with the word **UNSUBSCRIBE** if you do not wish to receive these 5 updates. We will not exceed the 5 newsletter updates planned for this summer, as we respect your inbox. You are receiving newsletter #1 because we feel it may be related to your organization or school’s activities.... but we may have got this wrong, so you can unsubscribe at any time.

In the meantime, please contact the friendly staff at **Regenerate Grey Bruce** for opportunities to participate in regeneration at regenerategreybruce@gmail.com and please contact the **Georgian Bluffs Climate Action Team** to learn more about their monthly climate action gatherings at a2gbcats@bmts.com and if you have a great project in mind that could create a brighter future in our region, please contact us, **The Sustainability Project** at connect@thesustainabilityproject.ca

Thanks for all you do!

Leigh Grigg

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