

MiSustainable Holland

About this series

The MiSustainable Holland column is a collection of community voices sharing updates about local sustainability initiatives.

This Week's Sustainability Framework Theme:

Community Knowledge: The collective knowledge and energy of the community is an incredible resource that must be channeled to where it is needed.

Urban forestry offers big benefits to the Holland community

By Lexie Kasper
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Cities can be beautiful places for connection, culture, and expanding horizons, yet a downside of population density and the desire for walkability is the elimination of green spaces.

As the amount of porous surfaces such as soil, grass, gardens, and cropland decreases, rainfall has much less chance of infiltrating into the ground. This leads to flash flooding, increased pollutant runoff, and less recharge to the water table. In turn, this creates a cycle of drought, and the small amount of porous ground that remains becomes compacted, which only contributes to the lack of water infiltration.

Lack of plant life also correlates to poorer air quality, higher temperatures, and increased energy usage for heating and cooling.

Even with these issues, cityscapes continue to grow. They can, however, be adapted to address some of these issues and reduce the impact on the land.

One way to adapt is with urban forestry, which considers all the trees and woody shrubs in an urban area and the way they interact with the environment. Taking a look specifically at trees, there are notable benefits to increasing their numbers.

Not only do tree-lined streets look beautiful, but increasing the density of trees in an area improves air quality because trees store carbon dioxide and absorb other harmful pollutants, all while releasing oxygen.

They also provide windbreaks, which reduce the amount of heating or cooling that needs to be done in residential and commercial structures. In addition, trees keep outdoor temperatures lower through evapotranspiration from the leaves, as well as provide shade. These mechanisms help reduce “heat islands,” or cities that are notably warmer than the rural areas directly around them.

In sum, trees help absorb rainfall, slow water as it flows, promote healthy soils, reduce erosion, and help control temperatures.

When looking at the City of Holland, we are lucky enough to have had an [Urban Tree Canopy Assessment](#) completed in 2014 by the city and Grand Valley State University. This assessment shows a breakdown of the land surface types: Trees; pervious surfaces such as grass, gardens, crops; impervious surfaces, and water.

It also shows a comparison of various streets and the benefits provided by the trees. Although it was completed in 2014, the Assessment is still a great overview and provides a base guide for the city as staff implement further plantings.

The city and Hope College also support the [TreeSap app](#), which helps identify or find trees in the City of Holland and shows the environmental benefits of specific tree species.

As you use those resources to learn about everything that your local trees are providing, both environmentally and economically, we won't judge if you'd like to give one a hug.

- *Lexie Kasper is the Land & Water Outreach Coordinator for the ODC Network.*