Project: Diehl Park

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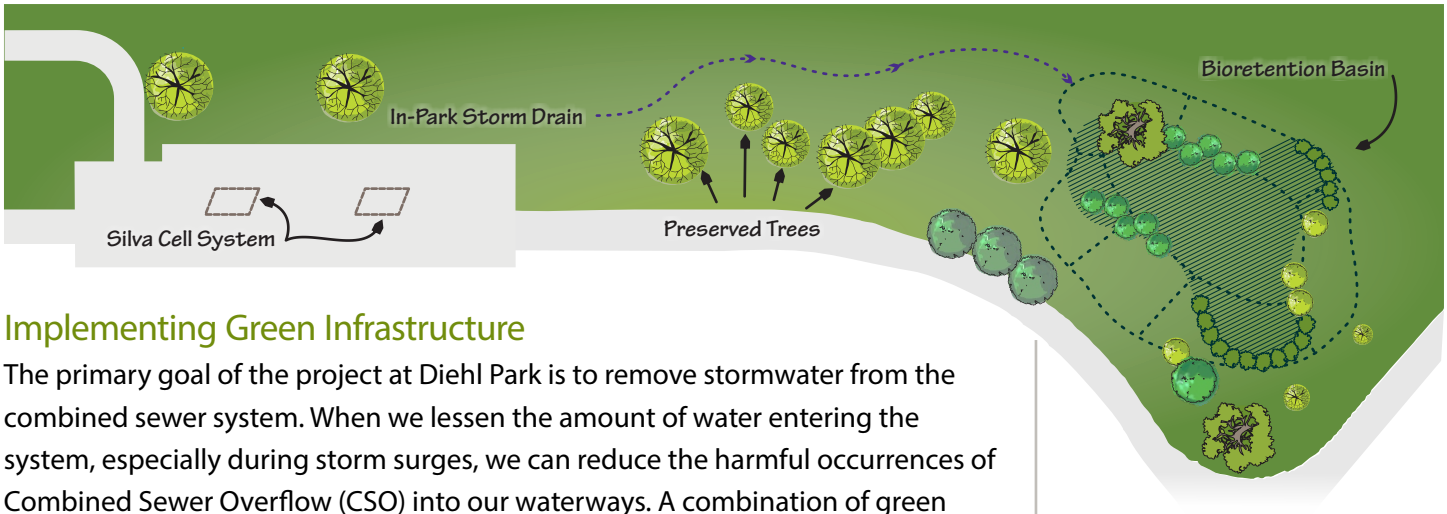

Implementing Green Infrastructure

The primary goal of the project at Diehl Park is to remove stormwater from the combined sewer system. When we lessen the amount of water entering the system, especially during storm surges, we can reduce the harmful occurrences of Combined Sewer Overflow (CSO) into our waterways. A combination of green infrastructure practices have been implemented within the park, including:

Silva Cells:

- Rainwater from the parking lot flows into two designated areas where the structural plastic frames called Silva Cells form a system of suspended pavement allowing for large trees to be planted without compaction of soil around their roots. These frames create storage for soil and water beneath the pavement, allowing additional time for the tree to absorb water and also for infiltration of rainwater into the soils.

Bioretention Basin:

- Excess stormwater is conveyed into a Bioretention Basin. Functioning like a large-scale rain garden, the stormwater will slow down, spread out, and soak into the soils in the basin, with the assistance of native deep-rooted plants selected for their water tolerance.

Preservation of Trees:

- In addition to helping cool and clean the air and provide beauty to the park, mature trees consume large volumes of water through interception, evapotranspiration, and soil storage. This project was carefully designed to maintain all mature trees within the park.
- Deep rooted trees filter water and oxygen through the soil, slowing down runoff thereby protecting water quality.

Slow it Down, Spread it Out, Soak it In.

By removing stormwater from the combined sewer system and letting it filter naturally, percolating through the native soils, we **improve the quality** of our groundwater, our streams and rivers, and ultimately the quality of **our drinking water supply!**

We all have a role in preserving our Great Lakes. Our actions on the land impact the water quality in Lake Erie. From planting a tree to volunteering, there are many ways you can have a positive impact on our environment and improve the health of our local waterways.

Putting Our Green Space To Work

Diehl Park is a prime example of putting our green space to work through the use of Green Infrastructure. Native trees, shrubs, grasses and perennial flowering plants drink, store, and process rain water, creating a functional yet beautiful landscaping.

Ohio Environmental Protection Agency

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Urban Forestry at Diehl Park

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Putting Our Trees To Work

Trees are an important component of any green infra-structure project. Enabling urban tree growth through use of Silva Cell makes it possible to improve water quality.

The stormwater from Diehl Park is being filtered through the Silva Cells in the parking lot and then into a separate storm sewer system that connects to a bioretention basin where deep-rooted native plants are working to: "Slow It Down, Spread It Out, Soak It In".

This combination of green infrastructure practices means that there is no longer a connection from Diehl Park into the combined sewer system.

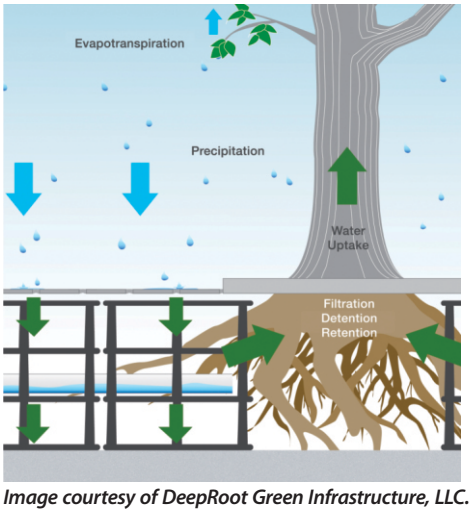

Image courtesy of DeepRoot Green Infrastructure, LLC.

Silva Cells:

- Are modular plastic frames designed to support traffic loads, allowing for a suspended pavement in parking lots and streets.
- Prevent soil from getting compacted around tree roots, allowing for large tree growth and on-site stormwater management.
- Make it possible to grow large canopy, mature trees within the confines of a parking lot.
  or other dense urban areas.

Putting Native Plants To Work

Native Plants Incorporated Into The Bioretention Area Include:

Trees:

Red Maple

Shadblow Serviceberry

River Birch

American Sycamore

Bur Oak

Perennials:

Butterfly Weed

New England Aster

Nodding Bur Marigold

Purple Coneflower

Blue Flag Iris

Marsh Blazing Star,

Black-Eyed Susan

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the bottom of the basin is planted with a "stormwater mix" of approximately 24 additional tall native species specially selected for their water-soaking abilities.

everydropcounts

This project protected and preserved existing park trees and is part of the City of Defiance Master Planting Plan.