



Green Infrastructure

“Green Infrastructure (GI) is a cost-effective, resilient approach to managing wet weather impacts that provides many community benefits. Green Infrastructure reduces and treats stormwater at its source while delivering environmental, social, and economic benefits.” - Environmental Protection Agency



Brighton, New York

Transportation infrastructure and stormwater management are closely linked. In the USA, there are an estimated 500,000,000 surface parking spaces. In some American cities, more than 1/3 of the land area is dedicated to parking

Roadways and parking areas constitute the majority of impervious surfaces in downtown Geneva, and are major contributors of pollutants to Castle Creek and Seneca Lake.

Additional benefits:

- Improved air quality
- Reduction of greenhouse gasses
- Urban Heat Island mitigation
- Health benefits
- Biodiversity and habitat
- Year-round visual quality



“When making policies and taking actions, we will Protect Seneca Lake through fostering water quality enhancement efforts and continuing initiatives to physically and civically connect Geneva with the lake”

- Geneva Comprehensive Plan (p. 19)

Categories of pollutants in urban stormwater runoff:

- Sediment
- Nitrogen and phosphorus
- Pathogens
- Petroleum hydrocarbons
- Metals
- Synthetic organics
- Thermal pollution

Geneva Downtown DRI Streetscape project area:

About 281,000 square feet of impervious pavements (6.45 acres), which generates 4.7 million gallons of annual runoff (equivalent to about 117,500 bathtubs, or about 8 Olympic swimming pools)

Currently, all stormwater is collected in a closed drainage system that discharges untreated into Seneca Lake. Excess nutrients in stormwater runoff, combined with the growing effects of climate change, are contributing to declining water quality in Seneca Lake, including harmful algal blooms.

The Green Infrastructure practices included in the Geneva DRI Streetscapes can reduce the amount of runoff to Seneca Lake, and provide bio-filtration for a significant water quality volume.



Rochester, New York

Routes 5&20 Corridor & Downtown Streetscape Project

