

# The Issue with Stormwater

When it rains in urban areas throughout Florida, hard surfaces, such as roads, sidewalks and parking lots, prevent rainfall from soaking into the earth where it can be filtered by the soil. Instead, stormwater rushes across the ground, picking up pollutants such as trash, oil, fertilizers and other chemicals.

Communities have traditionally managed stormwater runoff by channeling it into reservoirs or underground pipes to help control flooding. However, outdated or failing drainage systems can discharge polluted or poorly treated stormwater directly into our lakes, rivers, springs and wetlands, where it can degrade our water quality.

## What can be done?

In addition to upgrading outdated drainage systems, communities across Florida can use a cost-effective tool called green stormwater infrastructure to help control flooding and protect water quality. GSI uses nature-based techniques to capture and filter rainwater near where it falls, while providing a host of community benefits. When properly implemented, GSI can reduce water pollution, minimize flooding, alleviate pressure on traditional drainage systems, foster improved public and environmental health, beautify streets, increase property values and strengthen the local economy.

## Cleaner Water,

## Stronger Communities



Florida Department of Environmental Protection.

Visit [GSI.FloridaDEP.gov](https://www.gsi.floridaDEP.gov) to learn more about GSI in Florida



Green stormwater infrastructure (GSI) is helping communities across Florida protect local water quality while delivering community-wide environmental, social and economic benefits.

## What is Green Stormwater Infrastructure?

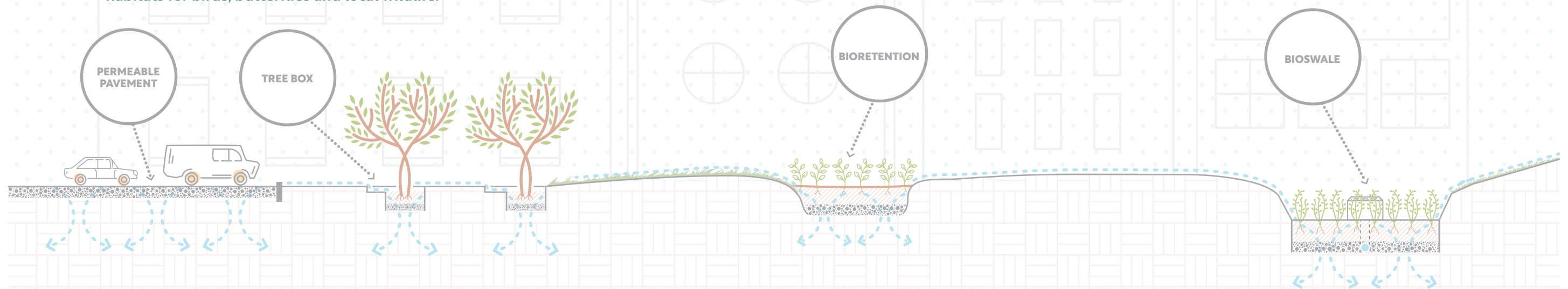
GSI PROTECTS OUR WATER QUALITY BY USING NATURE-BASED METHODS TO MANAGE STORMWATER NEAR WHERE IT FALLS.

**PERMEABLE PAVEMENT** systems consist of porous concrete, asphalt or open pore pavers that allow rainfall to pass through the surface and soak into the ground rather than accumulate on top or run off of it.

**TREE BOX** filters collect and filter stormwater through layers of mulch, soil and plant root systems. They also increase the tree canopy and add aesthetic value to communities.

**BIORETENTIONS**, also know as rain gardens, are shallow depressions filled with deep-rooted flowers, shrubs and grasses that collect rain and allow it to soak slowly into the ground. Bioretentions can also attract birds, butterflies and other wildlife.

**BIOSWALES** are shallow channels that use plants and specialized soil mixes to filter, absorb and convey stormwater runoff to larger treatment systems. Bioswales can also create habitats for birds, butterflies and local wildlife.



## Benefits of Green Stormwater Infrastructure

### ENVIRONMENTAL BENEFITS

- Reduces water pollution.
- Recharges and improves quality of ground and surface waters.
- Reduces urban heat island effect.
- Protects and enhances aquatic and wildlife habitat.

### SOCIAL BENEFITS

- Beautifies streets, neighborhoods and community facilities.
- Creates recreational spaces.
- Improves water and air quality.
- Mitigates flooding.

### ECONOMIC BENEFITS

- Reduces existing and potential future costs of managing untreated stormwater.
- Lowers heating and energy costs.
- Increases property values.
- Supports the health of industries that depend on clean water.

## Take Action

THE POSITIVE EFFECTS OF GSI ARE CUMULATIVE. THAT MEANS EVEN THE MOST LIMITED USE OF GSI CAN BENEFIT THE ENTIRE COMMUNITY. HERE ARE A FEW THINGS YOU CAN DO TO HELP.

- Support and advocate for green stormwater infrastructure in your community.
- Plant a rain garden in your yard or neighborhood.
- Use porous concrete or permeable pavers for walkways and patios around your home or business.
- When landscaping your home, select plants that match the soil, light, water and climate conditions, and practice proper fertilization.