



Designing Landscapes for Water Quality

Why be concerned?

One of the most important ways to protect our streams and rivers is to preserve existing features that naturally manage stormwater such as wetlands, floodplains, vegetated areas and permeable soils. Each of these helps to slow and store stormwater, as well as filter out pollutants. Preserving natural features also makes economic sense by reducing the need for building and maintaining structural stormwater controls.

Choosing low-maintenance plantings reduces the need for irrigation and landscape chemicals.



Local environmental protection regulations vary. Contact the community where the property is located to find out if any existing features are considered environmentally sensitive.

Protecting Natural Features and Drainage Patterns

Before preliminary site design, identify the following:

- wetlands
- woodlands
- floodplains
- permeable soils
- natural drainageways and depressions
- vegetation along streambanks

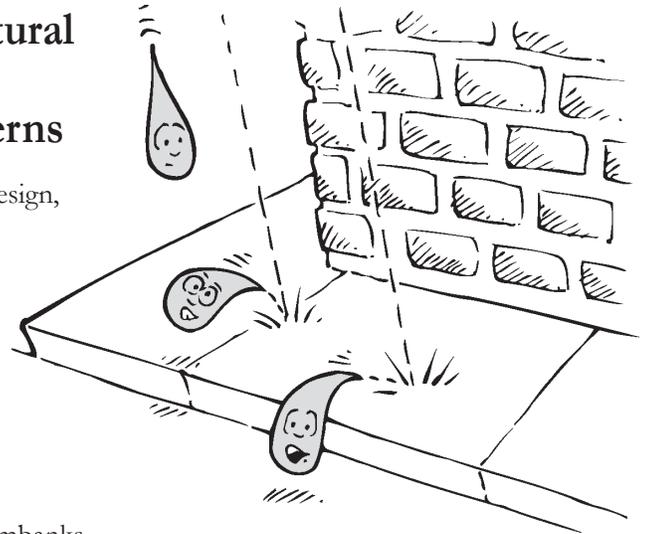
Once these have been delineated, provide for their protection and incorporation into drainage systems.

For help identifying the natural features on a site, contact the government offices where the property is located or one of the agencies listed under "Getting Help." For help incorporating natural features into your stormwater management system, contact Cobb County Stormwater Management.



Buffering Waterways

Maintain a variety of plantings (preferably, native) along pond and stream banks to help reduce the volume, velocity and pollutant loading of stormwater before it flows into the receiving waterway. Vegetated buffer areas should be as wide as possible since, the wider the buffer, the greater the opportunity for plants to slow and filter stormwater.



The Impact of Impervious Surfaces

Impervious surfaces (such as buildings, pavement and compacted soils) prevent stormwater from filtering into the ground, increasing the volume and velocity of runoff. Since infiltration removes pollutants from stormwater, impervious surfaces also impair water quality.

- Minimize the use of concrete, asphalt and other impermeable surfaces. Consider alternatives such as modular pavers, grass block pavers or gravel.

- Design roads and pathways to reduce runoff velocities and increase stormwater infiltration. (For example, by reducing width and straightaway design.)

- Convey stormwater through grassed swales instead of enclosed pipes, whenever possible. For more information about designing stormwater management systems to protect water quality, call Cobb County Stormwater Management.

- Keep parking spaces to a minimum. Consider parking space banking for future expansion.

“Disconnecting” Impervious Areas

Avoid directly discharging drainage pipes onto pavement and other impervious surfaces. Direct runoff from roofs, streets and parking lots to lawns, vegetated swales or other areas where stormwater can filter into the ground.

Designing Irrigation Systems

Design irrigation systems to prevent overwatering. Incorporating separate irrigation zones saves water and minimizes runoff by applying the appropriate amount of water in each zone.

Select systems that are easy to adjust and reschedule as weather patterns change. Place and adjust sprinkler heads to ensure comprehensive coverage, instead of watering longer to irrigate areas that are just out of reach.

Improving Pond and Stream Banks

Stream bank erosion, limited planting types and channel straightening degrade water quality. The first two problems may be improved by planting pond and stream banks with a variety of native plantings. For more information about planting pond and stream banks to improve water quality, contact one of the agencies listed under “Getting Help.”

If you replant a pond or stream bank, replace unwanted plants gradually, so that their roots can hold the soil in place until the desired plants are established. For more information about how to prevent soil erosion when replacing plants, contact UGA Cooperative Extension. If stream improvement plans involve more than installing plants, a permit may be required. Contact Cobb County Stormwater Management for more information.

GETTING HELP

UGA Cooperative
Extension Service for
Cobb County(770) 528-4070

Cobb County
Stormwater Management..(770) 419-6435
Water Quality Section(770) 419-6441

Community Partners for
Healthy Streams(770) 528-1482