

# Green Solutions for a Changing World



## Conservation

### Water Conservation

Using our combination of patented, proprietary technologies, we can reduce the water needs of grass, plants and trees by 50% to 85% over conventional sprinkler and subsurface drip systems. The ability to reuse grey water and condensation from air conditioning units for irrigation further increases savings.

### Energy Conservation



EPIC is a passive subsurface irrigation and drainage system which uses capillary physics and gravity to move water through an interconnected series of chambers and pans, delivering water and nutrients to the root zone. The low pressure and greatly reduced water volume means less energy is needed to operate the system, resulting in significant savings. The EPIC system allows reduced water usage and combats heat islands, resulting in significant energy savings.

## Sustainability and Reuse

### Urbanization Minimization

Systems that capture rain water for irrigation needs can produce substantial savings by reducing the size of the water delivery and waste water treatment infrastructures needed in new communities. Rehbein systems are designed to maximize savings by capturing, pre-treating, and storing runoff on-site for later use in irrigation. This reduces, and in some climates completely eliminates, the infrastructure costs of storm catch basins, drains, downstream embankment reinforcements and flood control structures.

### “Brownfield” Use



The EPIC system seals or “caps” contaminated land with a liner, eliminating ground water infiltration. With this system, previously unusable “brownfields” can be used for golf courses and driving ranges, soccer fields, or parking lots without the expense of soil removal. The EPIC system is versatile enough to allow for the possible treatment of certain leachates.

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## Pollution Control

### Water Pollution



Rehbein uses permeable pavers, the EPIC System, the Mueller™ Green Roof or any combination of these to reduce water pollution. All water is sand filtered at the site to remove particles. Soluble pollutants such as nitrates and phosphates are used up as nutrients by the growing plants. Organic pollutants from vehicle drippings are absorbed and decomposed in the biological environment. Grey water, previously released into public sewer systems, can be treated on-site and reused for irrigation without any public health concerns.

Our permeable pavers are recognized by the U.S. Environmental Protection Agency as a Best Management Practice suitable for improving stormwater quality.

### Air Pollution

Rehbein technologies and products allow even the most water-deficient geographies to implement green solutions. This increases air quality by reducing carbon dioxide and other pollutants, and combats the “heat island” effect of hard surfaces typically used in these arid environments.

### Noise Pollution

The Mueller™ Green Roof reduces noise pollution by substituting soft, noise-absorbing material (vegetation) for asphalt and concrete.

## Water Management

### Stormwater Management

Rehbein’s EPIC system leverages the laws of physics and the beauty of landscaping to enable our patented filtration and storage system to clean up and retain water that would otherwise run off untreated.

### Permanent Erosion Control

The EPIC system, permeable pavers, and reflex mesh elements, in addition to other existing technologies, can permanently mitigate existing erosion problems caused by sloping terrain, water volume and speed, and erodable soils.

*Look for future complementary systems from Rehbein including retaining and sea walls.*