The TRUEGRID® System and Storm Water Run-Off

How does TRUEGRID help fight storm water run-off and other pollutants?

One of the many benefits of the TRUEGRID system is to reduce pollutants that are running off into rivers, lakes, bayous, and oceans. TRUEGRID's highly permeable surface and base aggregate temporarily detain storm water runoff before infiltrating into the subsoil or point out-flowing into city systems, drainage ditch, sheet flow, etc... TRUEGRID allows rainwater that would normally runoff into rivers and streams, to detain below the surface and receive water quality treatment by filtering through the base aggregate and filtering through soils below when conditions allow. Hydrocarbons from cars, pet waste, nitrogen, and other pollutants are filtered and removed by bioremediation, before polluting the ground water. Asphalt, concrete or other impermeable surfaces would otherwise carry these pollutants direct from the surface to storm sewers, streams, and reservoirs.

TRUEGRID Permeable Pavers allows for filtered water seepage for point outflow release or groundwater recharge while preventing stream erosion problems. It captures the heavy metals that fall, preventing them from washing downstream and accumulating inadvertently in the environment. In the void spaces, naturally occurring micro-organisms digest carolls, leaving little but carbon dioxide and water.

Structural BMP Expected Pollutant Removal Efficiency

BMP (Best Management Practices)

Typical Pollutant Removal (percent)					
ВМР Туре	Suspended Solids	Nitrogen	Phosphorous	Pathogens	Metals
TRUEGRID	65 – 95	65-82	30 – 65	65 – 95	65 - 99
Dry Retention Basins	30 - 65	15 – 45	15 – 45	< 30	15 - 45
Retention Basins	50 – 80	30 - 65	30 - 65	< 30	50 – 80
Constructed Wetlands	50 – 80	< 30	15 - 45	< 30	50 – 80
Infiltration Basins	50 – 80	50 - 80	50 - 80	65-100	50 – 80
Infiltration Trenches / Dry Wells	50 – 80	50 - 80	15 - 45	65-100	50 – 80
Grassed Swales	30 – 65	15 – 45	15 – 45	< 30	15 – 45
Vegetated Filter Strips	50 – 80	50 – 80	50 – 80	< 30	30 – 65
Surface Sand Filters	50 - 80	< 30	50 – 80	< 30	50 – 80

Source: Adapted from US EPA. Note: TRUEGRID represents permeable paving in the chart above.





