



ECO-MESH

***Low Impact Development
Stormwater Management and Solution***

Subsurface Conservation, Irrigation and Drainage

WCID-Water Conservation, Irrigation and Drainage System

ECO-MESH is the Simple & Economical Solution





LID-Stormwater Management and Solution

WCID-Water Conservation, Irrigation and Drainage System

WCID – Sandy Soil Layer Applications



Residential Rain Garden



Bio-retention



Green Pavement



Landscaping



Agricultural Horticulture



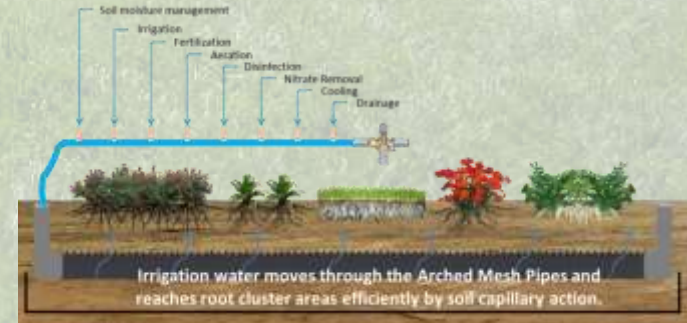
Green Roof



Golf Course

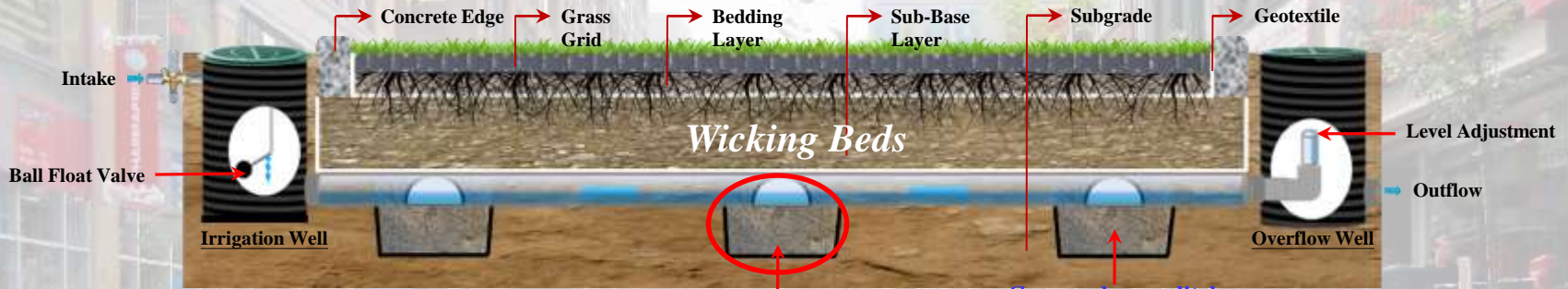


Sport Field



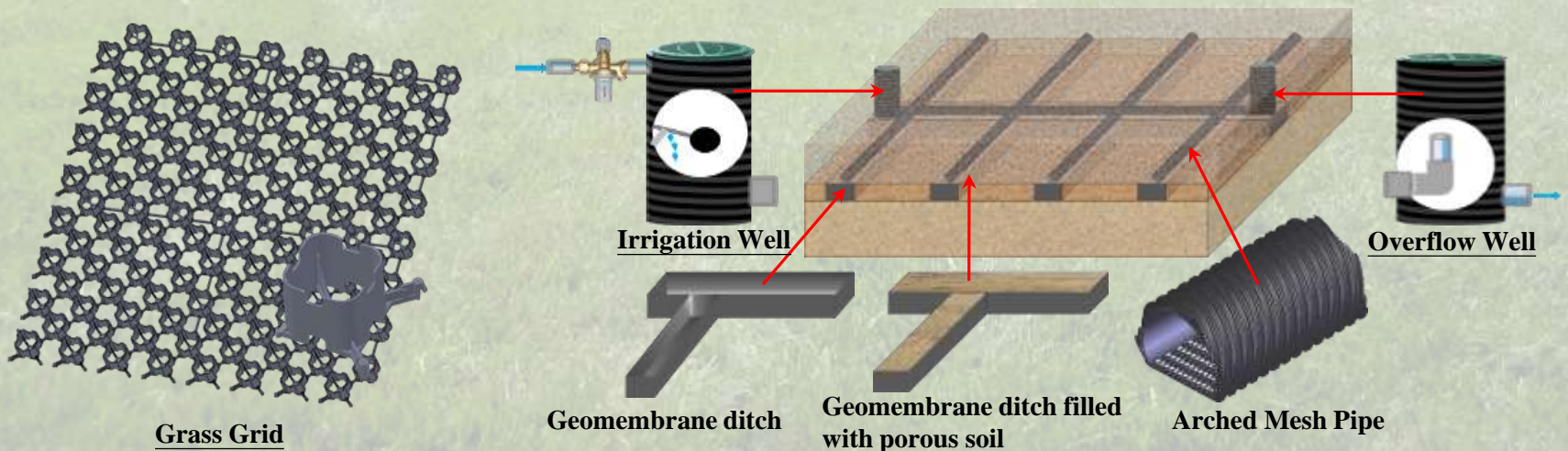
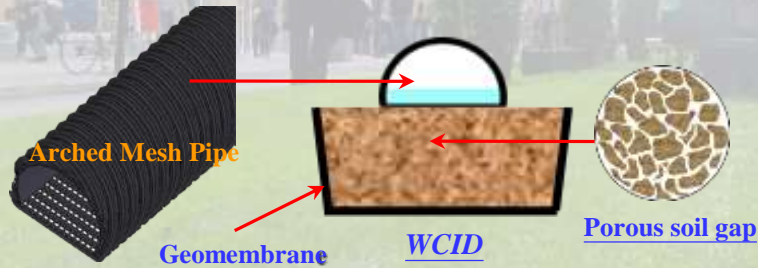
Create a comfortable environment for the growth of plants

WCID-grass grid permeable green pavement application - Structure



WCID-Water Conservation, Irrigation and Drainage System

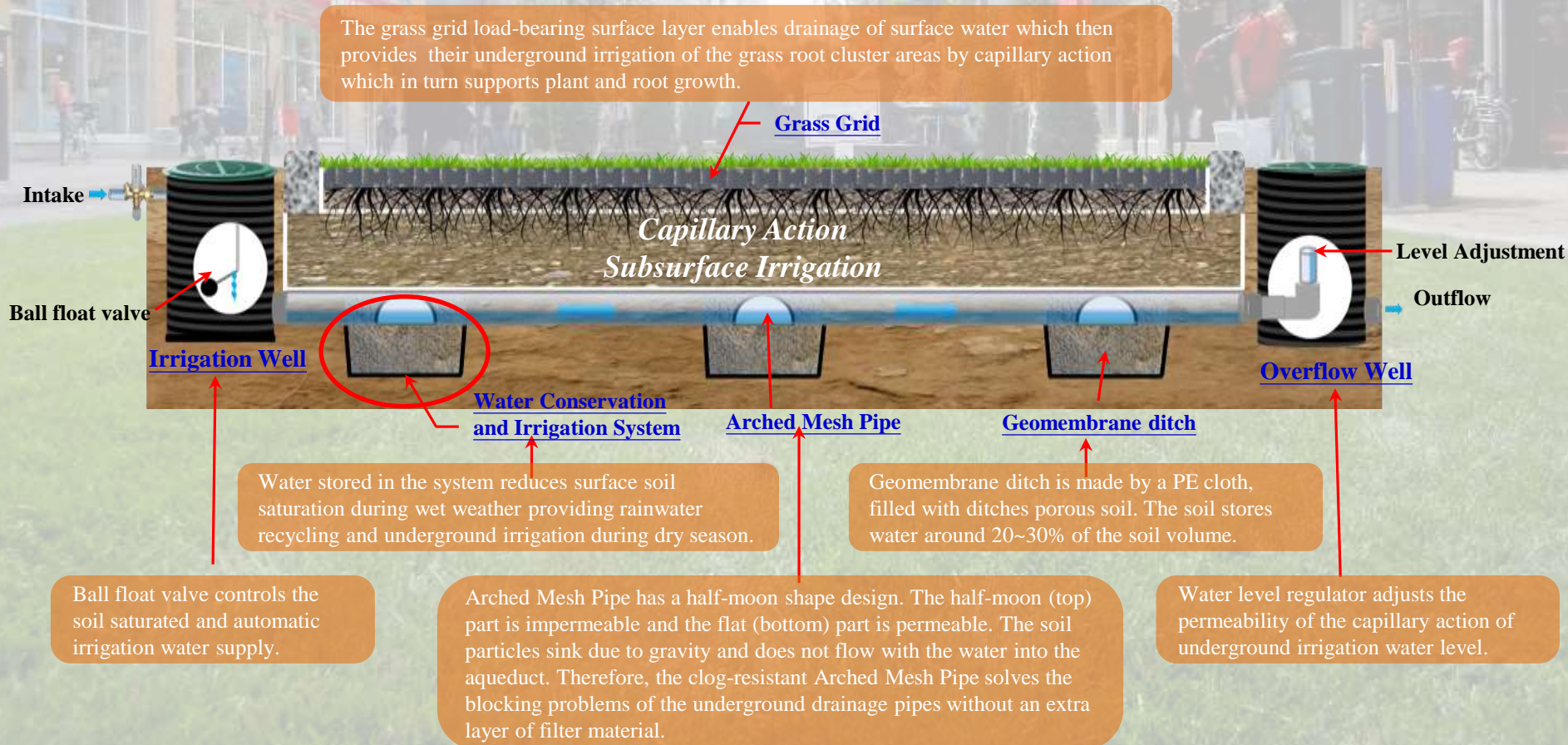
Geomembrane ditch stores irrigation water, 20 ~30% of the soil volume. Irrigation water reaches root cluster areas through the system by capillary action.



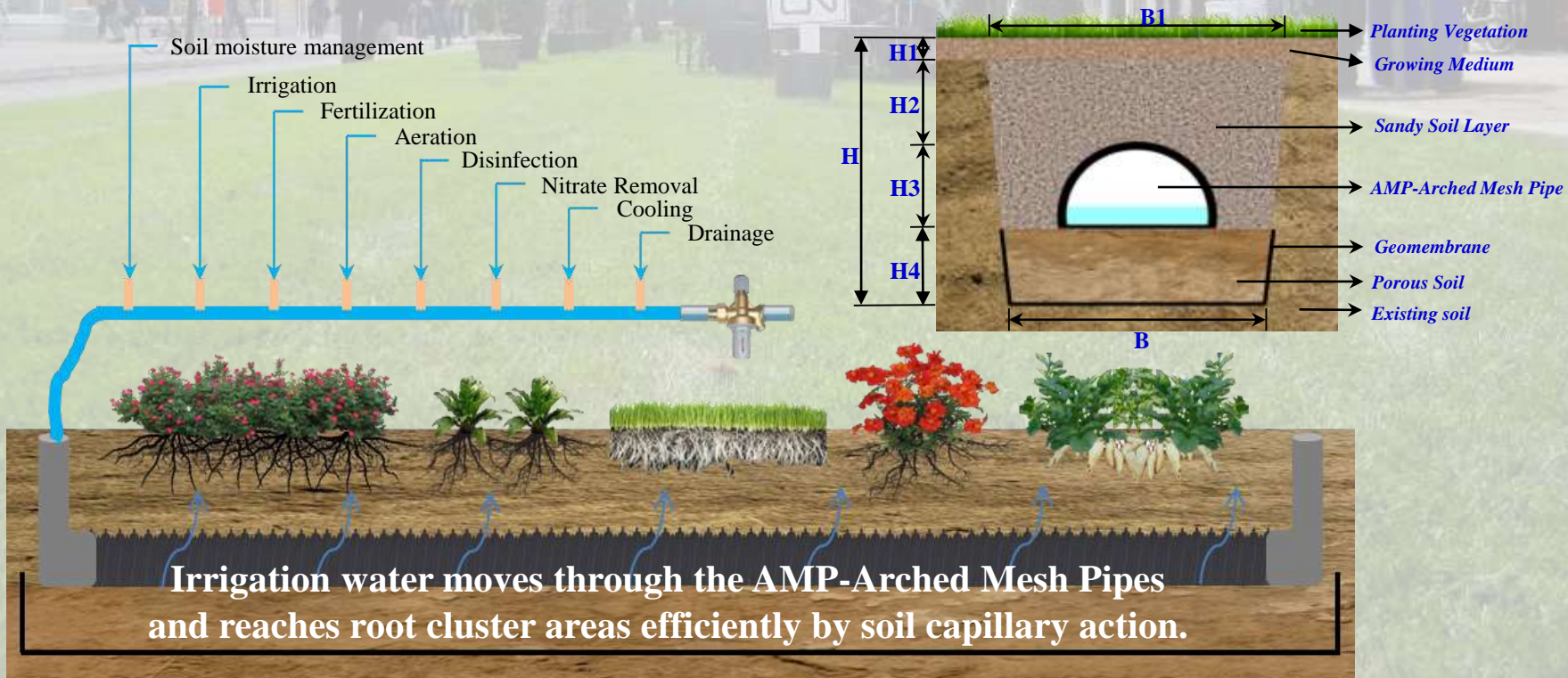
WCID-grass grid permeable green pavement application - Features

WCID Water Solutions are water management solutions specializing in water conservation and provide efficient drainage and subsurface wicking irrigation.

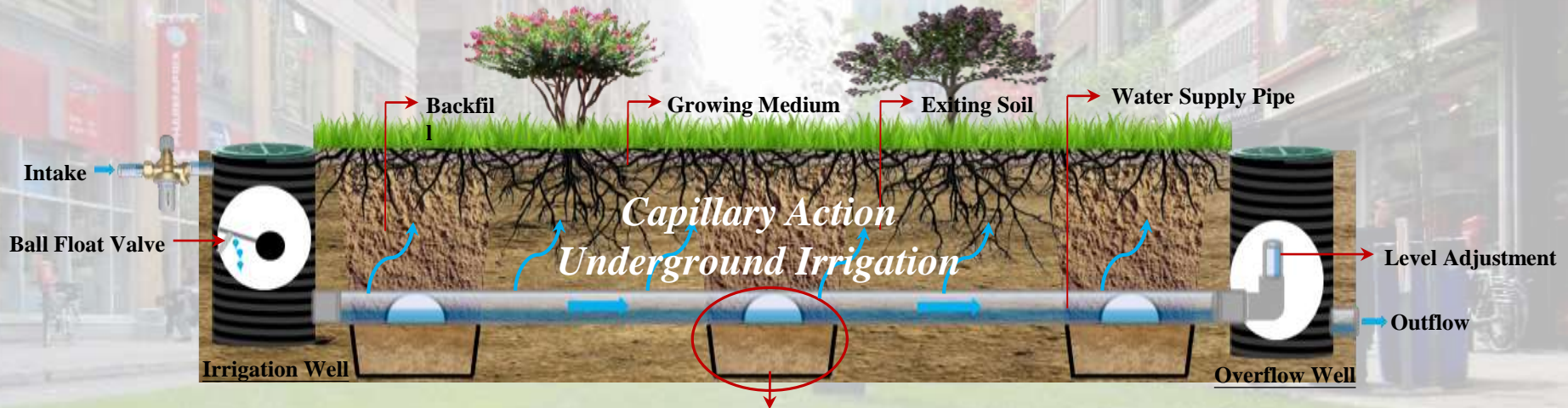
WCID provides these benefits using clog-free subsurface pipe that does not require additional filter materials but absorb and distribute water to the growing medium by non-pressurized and gravity driven capillary physics.



During a rain shower or irrigation application, the soil pores will fill with water, soil moisture content will be around 20~30% in volume. Irrigation water moves through the AMP-Arched Mesh Pipes and reaches root cluster areas efficiently by soil capillary action. Irrigation water and irrigation labor are reduced. Plant growth is improved and the fertilizer usage is reduced. AMP-Arched Mesh Pipe provides the functions of soil moisture management, drainage, irrigation, fertilization, temperature control, disinfection and more.



WCID-landscaping application - Structure



WCID-Water Conservation, Irrigation and Drainage System





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WCID-landscaping application - Features

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Growing Medium layer made of a suitable plant growth composed of fertilizer sand and Soil mixture.



Wicking bed composed by a PE cloth, fill in the ditches porous soil, the soil generally a gap of 20~ 30% by volume can be stored soil water.

Water stored in the system reduces surface soil saturation during wet weather providing rainwater recycling and underground irrigation during dry season.

Ball float valve is to control the soil saturated and automatic irrigation water supply.

AMP-Arched Mesh Pipe half-moon shape design. The half-moon part is impermeable layer and the flat part is permeable layer. When constructing, the flat part of the mesh lies down. It results in soil particles sinking due to gravity and not going with water into the aqueduct. Therefore AMP-Arched Mesh Pipe can solve the problem of underground drainage pipe blocking without filter material and clog-resistant.

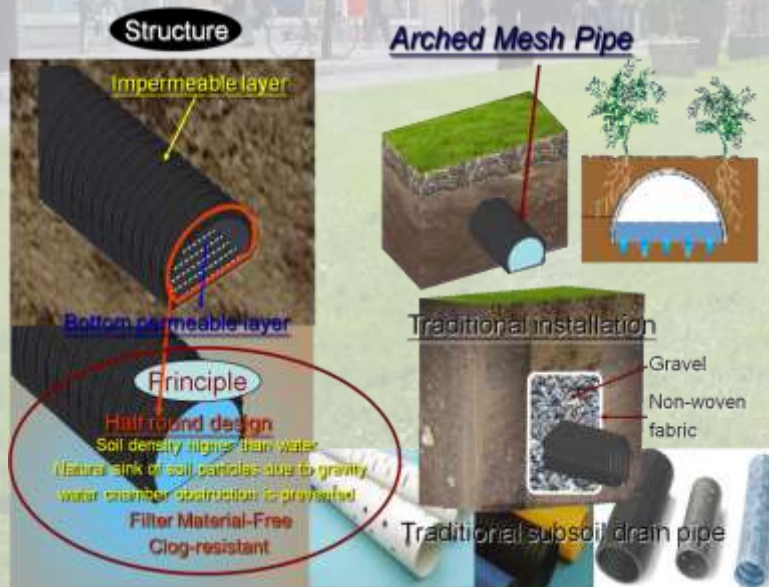
Water level regulator to adjust the permeability of the capillary action of underground irrigation water level.



What Is the AMP-Arched Mesh Pipe ?

Subsoil drainage pipe is used to remove excess ground water. AMP-Arched Mesh Pipe is a new type of drainage pipe that remains clog free without requiring additional filter material.

AMP-Arched Mesh Pipe Structure



Traditional subsoil drainage pipe installations require additional excavation to surround the pipe with gravel to provide sufficient drainage and the addition of filter material to prevent pipe blockages.

“AMP-Arched Mesh Pipe“ is impermeable on the upper arched surface and permeable on the lower surface. Soil particles sink through the permeable layer due gravity rather than traveling with the water into the aqueduct.

“AMP-Arched Mesh Pipe“ remains clog resistant and prevents drainage pipe blockage without requiring gravel installation or filter coatings.

AMP-Arched Mesh Pipe Description



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Advantages of underground irrigation and Drainage

- They are water-efficient ,use between 40 and 50% less water than a conventional garden bed.
- Watering from the bottom up prevents evaporation of surface water
- Harder for weeds to establish as the soil on the surface is drier.
- Very labor efficient, they are self watering, watering is automatic, so it is possible to go away for two or three weeks at a time without your garden bed drying out.
- Can be watered by a low pressure water system, meaning it can be directly connected to a water tank without the use of a pressure pump.
- They provide a lot of drainage in the event of a large downpour.
- Large reservoir of water reduces need for frequent watering.
- Evaporation reduced to a minimum with thick mulching.
- Harder for weeds to establish as the mulch covered surface is drier.
- Improve soil life. Nutrient is not lost to the subsoil when the garden bed is watered.
- No salting. No evaporation means no minerals left behind in the soil.
- No permanent stale water, so no mosquito larvae or anaerobic conditions.

WCID-Water Conservation, Irrigation and Drainage System

The most simple and economic way of storing rainwater.

The most efficient method of irrigation and drainage.