



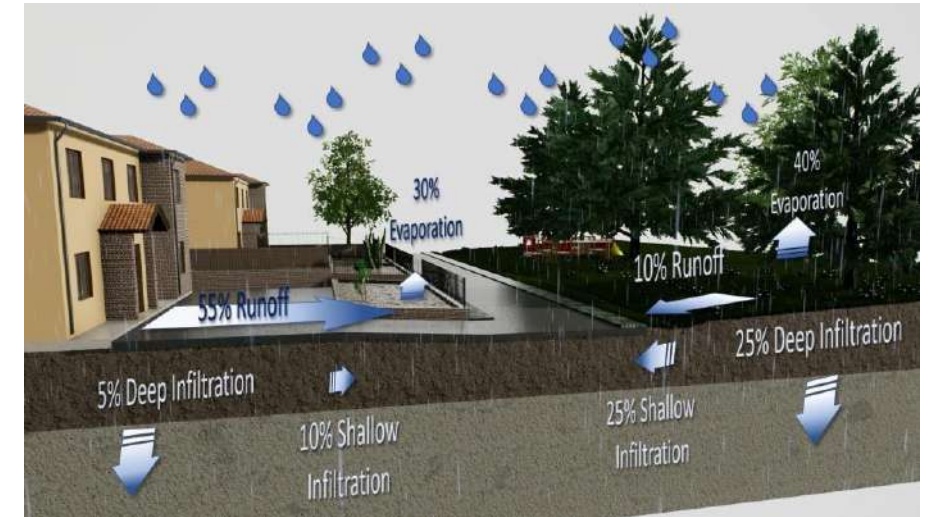
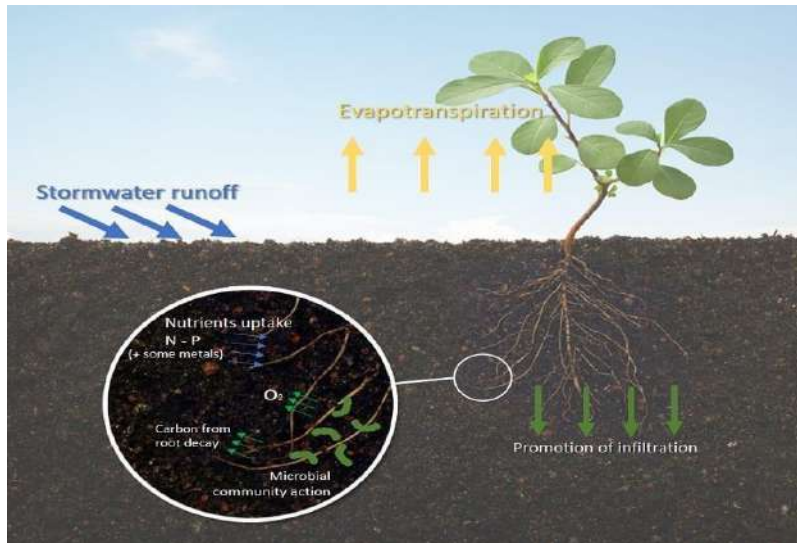
Rain Garden Design



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What is rain garden?

A rain garden is a depressed structure (natural or artificial) that collects the superficial water flows from roof tops, streets, sidewalks and other impermeable or semi-permeable urban surfaces after torrential rain events. This depressed area and the layers under the surface allow a partial or total water soak in an underground drainage system.



What is a stormwater management system?

Stormwater management involves the control of runoff water from precipitation through designed plans and systems including a set of actions to reduce risks relating to rainwater runoff.

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There are different types of rain gardens that are used to reduce runoff volume.

The simplified rain garden design

Because of the simplicity of the design, it is applicable almost everywhere even in private spaces to capture very small amounts of water. For example, it can be found in the backyards just in the direction of the downspout exit.



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The complex type of rain garden project

In a highly urbanized context, it may seem difficult to apply these concepts, because the higher volumes of water involved may require also a wider pond surface, but this obstacle can be overcome just by increasing the draining capacity of the layers underneath the pond.



Vegetation

When choosing vegetation, you need to take into account several aspects:

- Plant local varieties and species
- Consider root characteristics
- Use a high planting density combined to high diversity of species
- Perform a localised study of vegetation components.



Example of a Rain Garden Design

Created with **Edificius**, the architectural BIM design software

(download the full trial version here: <https://www.accasoftware.com/en/>)

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