

RAINGARDENS

WHAT ARE *RAINGARDENS*?

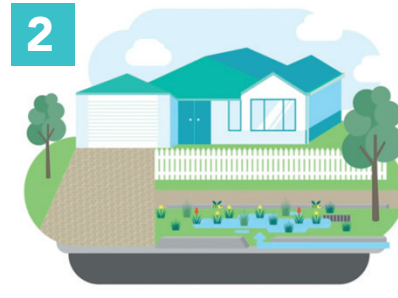
Raingardens are self-watering, low maintenance porous gardens that protect our rivers and creeks by capturing rainwater runoff from impervious urban areas, like roofs, driveways, walkways, car parks, and lawn areas and infiltrates into an underground stormwater drainage system.



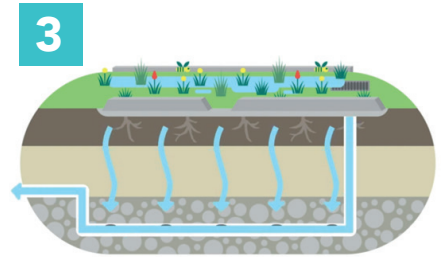
HOW DO THEY *WORK*?



Raingardens are full of thirsty plants such as shrubs, flowers and trees which catch and soak up the rainwater that fall onto our streets and roads.



In instances of excess water not needed by the plants, the water slowly passes through layers of soil, pebbles, and rocks. This natural process filters the water, removing any nutrients and pollutants as a result of road runoff. Drains are also installed which will drain excessive water during heavy rainfall events.



The plants in the raingardens can soak up 30% more water than typical grass, before potentially joining a larger wetland system like a creek or river.

Sometimes rain gardens are called **"biofiltration"** or **"bioretention"** systems. **"Bio"** means plants, which slow down the water and use it to grow. **"Filtration"** means the water goes through layers, and **"retention"** means it stays there for later use.

WHY ARE THEY *IMPORTANT*?

Raingardens offer several benefits which makes them important. They:

- Help manage stormwater runoff.
- Prevent water pollution and highly erosive flows on waterways and reduce nitrogen and phosphorus pollution in our creeks and rivers.
- Recharge groundwater.
- Reduce flooding.
- Promote water conservation.
- Enhance the beauty of neighbourhoods.
- Enhance biodiversity by attracting birds, butterflies, and beneficial insects, creating a vibrant and ecologically diverse habitat.
- Empower residents to actively contribute to a more sustainable and resilient environment.
- Transpiration by plants causes a cooling effect in summer, acting like a natural air conditioner.



NOTE: All rain garden systems work in a similar way, but some have trees, some have small plants, and others have different layers or are part of larger wetland systems.





WHERE ARE THEY *LOCATED?*

Raingardens are commonly located near buildings, roads and other impermeable surfaces. In Austral, they are typically located between the footpath and the road near corners and intersections.



Morley Ave, Rosebery.

SIGNS OF A HEALTHY *FUNCTIONAL* RAINGARDEN

The raingarden is healthy if it's full of green and lush shrubs, plants, flowers and or trees. The plants shouldn't obstruct a footpath or limit driver's visibility, but a dense and wild looking raingarden is a sign that it is thriving.



NOTE: Please do not walk or interfere with anything within the raingarden including plants, flowers, shrubs, trees and pebbles.



Image credit: City of Sydney, 2019

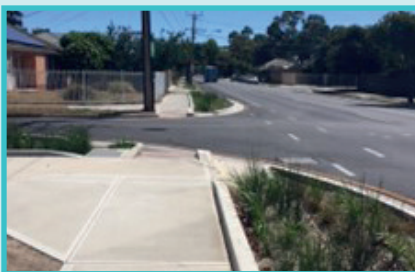


Image credit: City of Charles Sturt, 2023

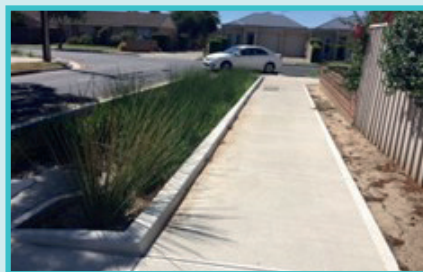


Image credit: City of Charles Sturt, 2023

SIGNS OF A *DISTRESSED UNFUNCTIONAL* RAINGARDEN



A raingarden is distressed if:

- Too much stormwater runoff is bypassing the raingarden;
- It is ponding for longer than 24 hours;
- Erosion is occurring in the raingarden;
- The plants are stressed or are dying as demonstrated by yellowing of the leaves or wilting;
- The raingarden contains litter or rubbish; and
- Plants have been removed.

WHAT WE'RE *DOING*

Liverpool City Council is committed to promoting a healthier and more resilient community by integrating raingardens across the LGA especially in our new growth areas like Austral.



NOTE: Before raingardens are constructed, they are built as unembellished silt traps as shown in this image. Please do not walk or interfere with the dirt as the raingarden is still in mid-construction. These temporary silt traps will capture silt from nearby housing construction sites, which would otherwise pollute our waterways. Planting will be carried out once most homes within the raingarden's catchment have been completed.

