

Simple streetgarden outside Kylie's off-grid house

Why do cities need more streetgardens?

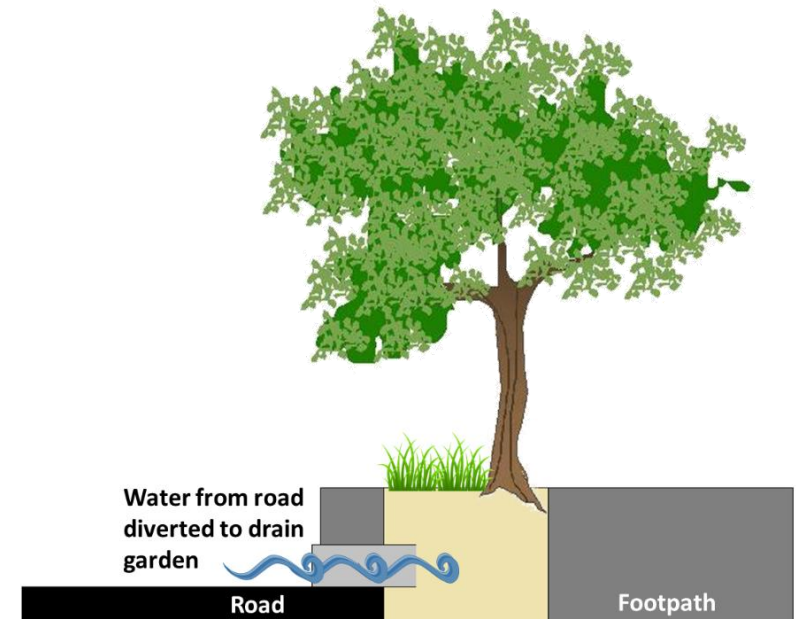
Dark roofs, dark pavements and the lack of plants and trees create what is called an Urban Heat Island, which is the rise in temperature in a built up area and causes many negative environmental, health and economic impacts. Streetgardens help cool cities by providing much-needed water to curb-side trees, increasing their canopy, and reducing local temperatures with extended shade.

What is the general design of Michael Mobbs' streetgarden?

When rainwater falls on roofs and roads, it runs down the street picking up rubbish and contaminants along the way and ends up polluting our harbors and ocean. Instead of wasting such a precious resource, Michael's streetgarden diverts the rainwater runoff flowing down Kylie's street into a patch of soil on the curb where plants and the nearby tree get irrigated. The two main goals of this streetgarden are to retain stormwater runoff and meet the tree's natural demand for water presently denied.

Facts about the streetgarden in front of Kylie's house

1. Streetgarden dimensions (W x L x D): 555 x 3,954 x 348 mm
2. Maximum water volume a streetgarden can hold: 230 litres assuming soil's water holding capacity is 30%
3. Average rainfall in Sydney: 1,213 mm per year (143 days of rainfall per year with each rainfall averaging 7.6 mm) -- the average Sydney rainfall produces 1,412 litres of runoff from the section of Kylie's street that would source the streetgarden.
4. Estimated annual runoff volume diverted to streetgarden: because the average rainfall produces much more water than the streetgarden can hold, we assume the streetgarden will absorb its maximum volume for each rainfall occurrence -- **we estimate each streetgarden to absorb 32,890 litres of rainwater runoff per year.**
5. Rainwater runoff diverted to plants every year if ten streetgardens were installed on the block: if Kylie's streetgarden were replicated nine other times around the block, almost 330,000 litres of rainwater runoff could be diverted from polluting our ocean and instead used to water plants and trees. The small section of Oxford Street between Albermarle St and Turtle Ln alone produces 664,845 litres of rainwater per year, so it would take around 20 streetgardens to harvest all that water.
6. Streetgarden maintenance: minimal; remove sediment from sediment trap annually



For more information about installing a streetgarden outside your house, contact Michael Mobbs at 0424-460-525 or michael@sustainablehouse.com.au.