

Rain gardens

Given the weather we've had you could be forgiven for thinking that all gardens in Ireland are rain gardens but the name is a little misleading...

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These are gardens designed to allow the soak away of run off from hard paved areas. Instead of directing rain water to drains it is channelled in to these gardens, depressions where plants suited to (frequent) deluges and (occasional) dry spells, thrive. Imagine a car park with planted areas at a slightly lower level and you get an idea of the basic concept.

You expect to occasionally see water on the surface in these gardens from time to time but keep in mind they are not wetland or bog gardens, they can and should occasionally dry out. Plant selection can be native or "exotic".

Plants with deep fibrous roots will have a better chance of survival in this challenging growing environment. Many suitable ornamental plants happen to come from South Africa's Eastern Cape where they experience cool, wet winters.

Red hot poker, Montbretia and Kaffir lily are suited to all but the coldest parts of Ireland. Plants from closer to home include sedges, meadowsweet, bistort, flag iris etc. Native species are better at supporting biodiversity.

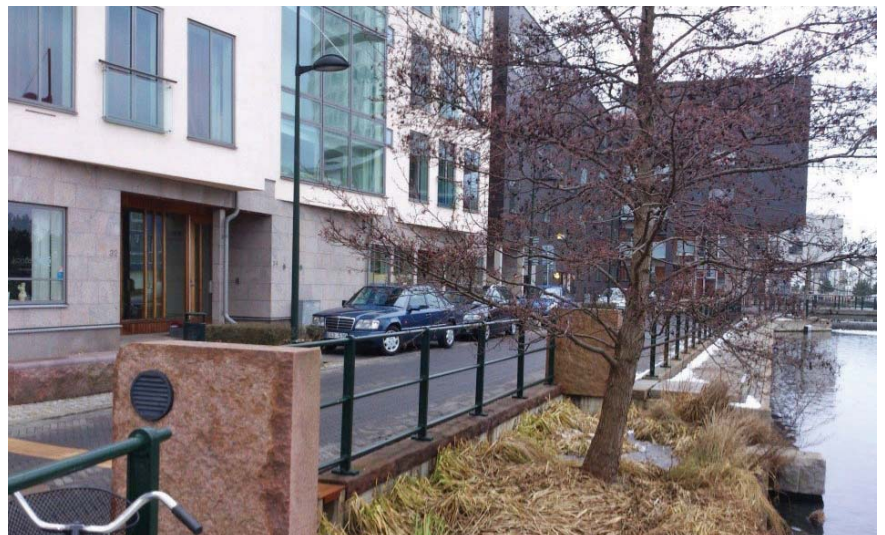
Bioswales

To you and me these are ditches but to planners these are "simple" systems to allow for water from streets and hard surfaces to be drained and cleaned.

Ornamental bioswales have a gentle incline from one end to another and are planted with grasses or short ornamental perennials. They help to



Award-winning apartments in Malmö, Sweden, use rain gardens in courtyards to drain water from hard surfaces.



Gardens are connected using bioswales that eventually discharge in to a canal.

trap sediment in the ditch as the water gently meanders along the length of its course before eventually joining with streams and rivers.

The swales have a gentle incline from the edge to the centre that allows for easier maintenance with mowers or trimmers at drier times of the year.

Constructed wetlands

These are manmade wetland areas that store and slowly release water to streams and rivers. Again, with water running off from hard surfaces and collecting in these basins are designed to expand as the level of rain increases and slowly allow sediment to settle and any nutrients to be used by plants growing in the margins. The scale could be from small garden ponds to the size of a football field or bigger.

Plants such as reed mace, reed canary grass, bulrush, water forget-me-not, water mint and flag iris etc. thrive in the margins and help to develop habitats for invertebrates, amphibians and birds.

These garden features can be used on their own or connected together to form a chain of treatment systems that can look attractive and can be low maintenance.

Teagasc is developing biodiversity features at many colleges and centres. As part of the expansion of the Teagasc Ashtown Campus students studying landscape construction and design from the College of Amenity Horticulture, Botanic Gardens, will be involved in the development of new gardens with biodiversity features. For further information on courses see http://www.teagasc.ie/training/courses/horticulture_courses.asp