



Good to grow

BY MAGGIE BARRY

Go with the flow

Stylish rain gardens make good use of storm water, converting run-off into water features that purify and irrigate, which also helps the planet.

Americans call it “Staycation” – the holiday you have when you can’t afford to go away. Making the most of being at home could mean doing nothing or, if you’re in the mood for a project, you could always do your bit to help save the planet by building a rain garden.

The most obvious advantage of a rain garden to those of us in the throes of midsummer water restrictions is the ability to trap and redistribute excess water in our own backyards. But there are other compelling reasons for building one.

Many city and regional councils are enlisting home gardeners to help control and slow the flow of storm water, which contributes to erosion and contaminates waterways.

In Hamilton and on Auckland’s North Shore, large road-run-off rain gardens use gravel, organic mulches and plantings of native flax, rushes and grasses to control and filter storm water.

The Auckland Regional Council website (see www.arc.govt.nz, then follow the environment links) describes how to build a rain garden. The council has sponsored a couple of exhibition gardens at flower shows, and landscape designer Kirsten Sach, who helped create them, is enthusiastic about the twin benefits for home gardens and the wider community.

The problem with rainwater is that it isn’t as pure as it looks. If it has flowed

across roofs, driveways and other hard surfaces, it’s likely to contain zinc, copper and other heavy metals, as well as engine oil and litter, which can destroy ecosystems. When run-off is captured in a series of ponds, those toxins can be filtered out and used by plants before the water is released into storm water drains or recycled around your garden.

As with any water feature, rain gardens can be simple or elaborate.

However, when choosing the location it’s important to go with the flow – use gravity so that any run-off moves naturally into and out of your garden. You may need a plumber or handyman to connect

up the downpipes to the area you want to use or to the overflow pipes to carry it into storm-water drains.

Ultimately, the size of the planter box, tank or ponds you need will depend on the surface area of the run-off. As a rule of thumb, the

regional council recommends that a rain garden be between 4% and 8% of the total area of your roof or driveway. You won’t need a permit unless the garden is bigger than 1000sq m or 20m long by 5m wide.

To ensure the plants’ survival, invest in a few bags of specifically mixed soil that contains 60%-90% of sand, which makes it free-draining but also able to retain moisture.

Unsightly plastic pipes and guttering can be painted or disguised by climb-

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ing plants. Recycled clay pipes make an attractive alternative to overflow pipes or channels from pond to pond.

There are many native plants suitable for the storm-water box, including flax (*Phormium tenax*), rush (*Apodasmia similis* or “Oioi”; *Juncus*); grass and sedge (*Carex*, *Cortaderia*, *Isolepis*, *Baumea*).

Good exotics that thrive in the dry but will also tolerate brief immersion, include green and black taro (*Colocasia*); the arum (*Alocasia*), with its striking foliage; and the African rush (*Elegia capensis*).

Some plants are unsuitable because they need fertilising or constant cultivation, which disturbs the soil and increases the risk of releasing undesirable elements, including nitrogen, into waterways. Avoid deciduous plants, because the leaves and litter could block the pipes. They also need more maintenance than evergreens.

Growing edible plants in a rain garden is not recommended because of the possibility of toxic metals in the run-off. ■

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This three-tiered, rustic residential rain garden was designed by Kirsten Sach on a budget of \$6000.

The roof run-off flows through a downpipe into a lined pond, where goldfish, water lilies and other aquatic plants oxygenate and purify the water. Any overflow then drops into a storm-water planter box, where it is further purified by native plants able to cope with both dry and wet conditions.

First, the "box" is excavated to a depth of 1m, then the bottom is lined with gravel. A drainage and overflow pipe (minimum width 100mm) is laid along the bottom, emerging through 900mm of sandy soil mix, topped with a 100mm layer of river stones.

Sach used sustainably treated wood (no arsenic) for the pond and planter boxes, which are painted the same colour to make them less conspicuous.

Depending on the size of the run-off area, you could use an old barrel for the pond. Alternatively, make one from bricks or natural stone.

However, remember to line the receptacle with black polythene to prevent leaks.

Local pool-fencing regulations will apply if your pond is any deeper than about 400mm.

If you're having goldfish, you can probably get away with a 300mm-deep pond, especially if there are lush plants to hide them from opportunistic birds.



Holding tanks needn't be obvious and can look contemporary, as this Auckland Regional Council-sponsored courtyard garden proves. The tank containing the roof run-off is concealed in the central plaster wall. When it overflows, it becomes a water feature, pouring water into channels that direct it onto irises and native reeds.

