

Reducing stormwater run-off

In this Fact sheet:

- Keep concrete and paving to a minimum
- Use permeable paving
- Try a rain garden
- Collect and use rainwater

Stormwater is the water that runs off surfaces such as houses, roads, driveways, footpaths. In urban areas, it runs down drains into stormwater pipes or channels and is carried to rivers, lakes or the sea.

Stormwater on private property is the responsibility of the property owner. When it's not properly managed, it can cause flooding, erosion and pollution of waterways. By taking steps to reduce stormwater run-off, you can:

- reduce the risk of flooding and erosion on your property and around your neighbourhood.
- use harvested rainwater for your own garden watering.
- help to keep rivers, lakes and beaches cleaner and safer for swimming, fishing and other recreational activities.
- reduce the need for spending on stormwater infrastructure, leaving money available for other uses or for savings on your rates bills.

Keep concrete and paving to a minimum

Water runs off hard surfaces and ends up in the stormwater system.

Consider:

- keeping your driveway short by having the garage near the front of the property
- using lawn, decking and semi-porous paving such as stones instead of hard paving or concrete
- using grass or bark mulch strips alongside hard surfaces to absorb runoff
- diverting stormwater from paths and other hard surfaces onto free draining garden areas.

Use permeable paving

For background information, see www.waitakere.govt.nz/cnlser/wtr/pdf/stwtrsol/swsolut-res-sites-sect7.pdf.

These are a variety of permeable paving products available. Try these sources:

- **Brick and Cobble Factory**, www.brickandcobblefactory.co.nz/
- **Firth** (Gobi block, grasspaver), www.firth.co.nz/TradeProductItem.aspx?pcid=31,
www.firth.co.nz/TradeProductItem.aspx?pcid=31&pitemid=164
- **Pebblepave**, www.pebblepave.co.nz/index.html
- **Permapave**, www.permapave.co.nz/index.htm
- **Suretech Industries** (Surepave), Ph 06-879-9328.
- **Stevenson** (Turfblok):
www.stevenson.co.nz/home/products.php&prod_id=12&group_id=1

Try a rain garden

Rain gardens may look very much like any other garden but they use different layers of soil, sand and organic mulch to treat and filter stormwater runoff.

Rain gardens use the concept of bio-retention, a water quality practice in which plants and soils remove contaminants. The different soil layers in a rain garden naturally filter contaminants such as suspended sediment and heavy metals. During the periods between storm events, the soil absorbs and stores rainwater and nourishes the rain garden's grasses, trees and shrubs. They also can provide minimal peak stormwater flow attenuation.

Read more on creating rain gardens at:

- www.waitakere.govt.nz/CnlSer/wtr/pdf/devserv/raingardens.pdf
- www.landcareresearch.co.nz/research/built/liudd/Rain_gardens.asp

Collect and use rainwater

Rainwater can be collected and used on your garden and - with a rainwater tank - for other household uses such as washing your clothes and flushing the toilet. The more rainwater you collect, store and use, the less there'll be left to run off into the stormwater system.

For more information, see Fact sheet 'Rainwater systems'.

For more information:

- See Fact sheets on
 - Using less water
 - Rainwater systems
- For more information on stormwater management, visit www.smarterhomes.org.nz/water/managing-stormwater/#2, www.level.org.nz/water/stormwater-controls/ and www.waitakere.govt.nz/cnlser/wtr/pdf/stwtrsol/swsolut-res-sites-sect7.pdf.
- For more information on rain gardens, visit www.waitakere.govt.nz/CnlSer/wtr/pdf/devserv/raingardens.pdf and www.landcareresearch.co.nz/research/built/liudd/Rain_gardens.asp
- For more information on using less water in your garden, visit www.waitakere.govt.nz/AbtCit/ec/bldsus/pdf/water/gardeningwithwtr.pdf



Concrete strips with gravel allow more stormwater to soak into the ground during rain