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Managing overland flow

How to recognise an overland flow

Overland flow paths are the routes taken by water when the man-made drainage network is overloaded.

Water will naturally flow to the lowest point, so you can often tell where surface water will collect in a flood by looking at the shape of the ground and looking at some surrounding features flowing towards the nearest drain, stream or the sea.

These flow paths are a vital component of Auckland's drainage and when they are blocked they can cause floods.

Overland flow paths are protected by a variety of bylaws and planning regulations.

Why is it important

Auckland is prone to unexpected and intense rainfall causing significant amounts of surface water. This can often build to a flood and poorly managed overland flow paths can mean the potentially destructive power of the water can cause damage to land, property and potentially lives.

An obstructed overland flow can act as a dam. This will flood the land around it or it will be picked up by the water and block the flow path further downstream. Blockages will occur at points where the path narrows or at inlets to the stormwater network. Such blockages are a common cause of flooding in Auckland.

A blockage can be manmade e.g. a fence, or something as simple as leaves, fallen branches and trees.

What you can do

The stormwater drainage network has been designed to collect and transport low level storms so water will often run parallel to stormwater pipes underground.

When looking at your property:

- check that the ground is shaped so that any overland flow or stormwater is directed away or around buildings
- check that your roofs, paved areas are connected to your drainage systems via downpipes, catchpits. This will prevent it from draining in to the wastewater drainage system for your property
- think about overland flow when adding fences, sheds or even landscaping your garden. Changing the level of the land can have serious consequences when it blocks the path of water
- maintain overland flow paths on your property by clearing them of blockages.

When developing your site the floor levels of buildings are a critical flood protection mechanism and minimum levels apply for new property developments. The floor levels of existing buildings above surrounding land need to be maintained when developing a site e.g. taking into account landscaping.

Roads

Roads have an important drainage function as they collect and carry a lot of stormwater; this means that it is important to make sure that vehicle access points are shaped so that they are able to keep this flowing water off the property. Visit www.aucklandtransport.govt.nz for specifications on constructing a vechicle crossing.

Neighbouring properties

If you make alterations to your own land this may change the overland flow and potentially cause erosion and flooding in the neighbours' property. For example, if you decide to concrete your driveway this reduces the area for the rain to soak in to and may increase flow into your neighbours' property.

It is easier for neighbours to share resources and fix things together.

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For more information

If you think that you have a problem regarding overland flow, then a landscaping contractor or engineer will be able to advise you.

Before starting a development that may affect flow paths on your land please consult Auckland Council by calling 09 301 0101. Talking to us at the very start can avoid costly problems later.

Resources are available on our website: www.aucklandcouncil.govt.nz - keyword 'stormwater'

Find out more: phone 09 301 0101
or visit www.aucklandcouncil.govt.nz

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