

Soakage Basin Factsheet

What is a soakage basin?

A soakage basin collects stormwater run-off and allows it to slowly drain away.

What are the benefits of a soakage basin?

A soakage basin literally 'soaks up' stormwater in the ground. It reduces the amount of stormwater that makes its way into the network alleviating capacity issues in the downstream network. It also reduces the level of contaminants such as sediment and heavy metals that are discharged into the Maitai River.

What will the soakage basin at the end of Elizabeth St look like?

The basin will have a grass cover and be an area of green space enhanced with plantings. The area will not look too dissimilar from the photo below however it is likely our basin will include a rock channel to assist with soakage.

Example of a soakage basin



What excavation work will be involved?

A 1.5m basin with sloping sides will be excavated. All works will be below ground level. The basin will be regular-shaped with a permeable base enabling stormwater to drain into the water table.

How safe will the soakage basin be?

Water will not be retained for any longer than it will take to soak away, and the basin will not contain water every time it rains.

On occasion during heavy rainfall, water may accumulate in the basin. This is when the inflow will exceed the infiltration rate. Once inflows decrease to below the infiltration rate, the basin will gradually empty.

If the basin's capacity is exceeded (likely when the stormwater system's capacity is exceeded), stormwater will flow away via overland flow paths. This is much the same as what happens now when the stormwater system's capacity is exceeded.

We will assess the safety of the basin once it is constructed. While it is not usual to fence a soakage basin, we will look at options if the community has any safety concerns.

When will the soakage basin be constructed?

Once we've completed the construction of public mains and the private separation work in Elizabeth St, we will begin constructing the basin. This is expected to be about 18 months after the construction work for the mains pipes begins.

Is there a risk other types of water could be discharged into the basin i.e. commercial, industrial, or wastewater?

There is no commercial or industrial activity in the area that will drain into the basin and be discharged directly to groundwater. Completing separation of private property drainage before the basin is constructed will mean that no wastewater is discharged to the basin.

Kauri tree

There is a 38-year-old, 8.8m high Kauri tree on the site at 136-138 Broughton St where the soakage basin will be constructed.

This is a protected tree under the Resource Management Act 1991.

Two options were considered for the tree's future – to move it 25m north east to be closer to the property boundary, or move it to Dolamore Park.

The removal of the tree to Dolamore Park is the recommended option as it will provide the tree with a better growing environment.

Relocation creates a small risk to the tree. However, an experienced tree contractor will use current best practice to move the tree, and it will be appropriately cared for at Dolamore Park.

New plantings will be made at the soakage basin site.