



Sealing abandoned bores

If a bore is abandoned and will not be used in the future, it must be sealed by pressure grouting. This requires specialised grouting equipment and should only be carried out by an experienced driller.

Do not simply pour concrete down your bore because it may not seal properly and can leak underground, creating large damp areas. The cost of fixing such leaks is significantly more than professional pressure grouting.

Some recent land owners may be unaware they have abandoned artesian bores on their land. There is a better chance of finding them during dry conditions, when flowing water would be easier to see in drain systems.



Your help is needed

Property owners are responsible for ensuring bores are appropriately constructed and maintained to prevent groundwater running to waste.

If you are aware of free flowing artesian bores on your property, please ensure that these bores are appropriately sealed.

Meanwhile, the NRC is continuing its investigation work to better understand the groundwater resources of Northland.

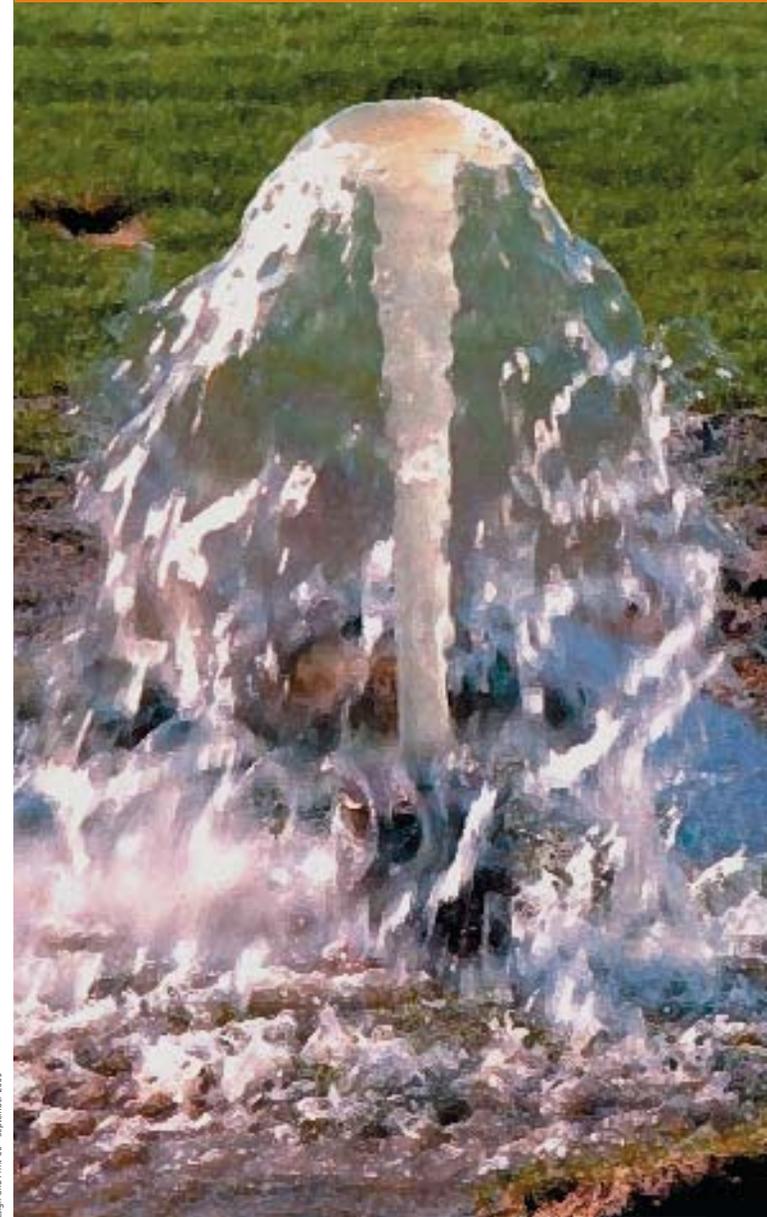
If you would like further information relating to sealing of flowing artesian bores, please contact Susie Osbaldiston, Northland Regional Council on freephone 0800 002 004.



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CARING FOR NORTHLAND AND ITS ENVIRONMENT

Save our groundwater



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AND ITS ENVIRONMENT



Flowing artesian bores waste water



Northland's groundwater is a valuable resource, mainly used for horticultural, stock and domestic requirements. It is not an infinite supply, and in some areas is becoming increasingly limited through contamination or wastage.

Abandoned artesian bores waste groundwater. It's like leaving a tap on but on a massive scale. It is estimated there are more than 600 flowing artesian bores in the Awanui area alone. Many of these are flowing into drains undetected as pipes have long rusted away.

Flowing artesian bores increase the risk of contamination of the groundwater resource and reduce the amount of water available for future use. They are a huge waste of water.



The Issue

In some areas in Northland, groundwater is pressurised due to impermeable layers underground. This can result in areas where the water level in bores is actually above ground level, such as at Awanui and Ruawai. If a bore in such an area is not appropriately sealed, groundwater is under such pressure that it flows freely from it. These bores are known as flowing artesian bores.

Free flowing artesian bores are of concern because they waste groundwater and increase the risk of contamination by lowering groundwater pressure and levels. In some areas near the coast, lowered pressure allows sea water to seep in. Free flowing artesian bores also reduce the volume of groundwater available for future use.

The Northland Regional Council's Water and Soil Plan for Northland requires all groundwater bore owners to keep their bores in good order, including making sure water does not flow freely from them.

How to seal a flowing artesian bore

There are two options to contain groundwater where a flowing artesian bore is in use. The bore's casing can be extended to a sufficient height (greater than the pressure of the water) which will contain the flow or the bore head can be fitted with a seal. There are advantages and disadvantages with each option:

Extending the bore casing to contain the flow

The problem with extending the bore casing further above ground level is that it is not always easy to know what level the groundwater may rise to in the long term. This means the bore casing may have to be extended again in the future. It is also not always practical to install a pump and rising mains into a bore with a casing that extends a long way above ground.

Sealing the bore head to contain the flow

Sealing the bore head relies on a flange being fitted. The rising main, electric cables, all joints in the casing and valves must be sealed to ensure water does not escape other than through the rising main. This can be done just above ground level, which generally makes it easier for fitting of the pump and the rising main. It is strongly recommended that all water pipes from bores be fitted with non-return valves.

