



WAINUIOMATA/ORONGORONGO CATCHMENT POSSUM CONTROL

Safeguarding Wellington's drinking water

What's happening?

Greater Wellington Regional Council is planning a possum control operation in the Wainuiomata/Orongorongo water supply catchment. The start date of the operation is weather dependent and planned for between June and September 2005.

The Wainuiomata/Orongorongo water supply catchment provides approximately 20 percent of the tap water for the Wellington metropolitan region.

Why are we doing this?

We need to reduce possum numbers to protect the water quality and the health of the forest in the catchment. This operation will contribute to a safe public water supply.

Possoms carry organisms such as *Giardia* and *Cryptosporidium*, which can infect the water supply and may lead to serious illness. The forests surrounding the rivers that supply our water play an important role in regulating and purifying it.

Though water from this catchment is treated at Greater Wellington's Wainuiomata Water Treatment Plant before entering the water supply network, international best practice advocates a multi-barrier approach to guarding against contaminated water supplies.

Minimising risk within water catchments before treating the water is more effective than water treatment alone. The Ministry of Health's grading system for water supplies promotes this multi-barrier approach.

Recent monitoring shows that possum numbers are approaching an unacceptable level in the water catchment.

How will we do it?

Cereal bait containing 1080 poison will be applied from the air over an area of 7,350ha. The

bait will be applied at a rate of 2kg/ha by helicopter using a GPS satellite-based navigation system to ensure accurate delivery.

Are there any risks?

There is no risk to the water supply as a result of this operation. We will not be taking any water from the Wainuiomata/Orongorongo water supply catchment during or immediately after the drop until the Medical Officer of Health determines that the water catchment can be used for supply again. Water will be supplied from the Hutt River and Waiwhetu aquifer instead.

But won't there be some effect when water supply from the catchment resumes?

No. Water take from the Wainuiomata /Orongorongo water supply catchment will not be resumed until the toxin in the 1080 bait on the ground has broken down, which may take 20-30 days. This bait breakdown will be independently monitored.

The water in our supply rivers and streams will also be regularly monitored. The Medical Officer of Health will not allow the water to be used for supply until he is satisfied that it has been proven safe for human consumption.

Between 1990 and 2000, field monitoring of numerous 1080 pest control operations using aerially-sown 1080 baits showed no presence of 1080 in reticulated water and no evidence of significant or prolonged 1080 contamination in surface or ground waters. No 1080 was detected in any water samples taken for analysis during 1080 operations in Greater Wellington's Wainuiomata/Orongorongo water supply catchment in 1999 or in the Hutt water supply catchment in 2003.

Does 1080 harm the environment?

1080 is a naturally occurring chemical (sodium monofluoroacetate) that can be manufactured synthetically. 1080 does not persist in the environment as some other toxins do. It is water-soluble, so any poison in uneaten baits is leached into the soil by rain and is broken down and rendered harmless by micro-organisms.

1080 has been used in New Zealand since the 1950s and is the most studied well-understood pesticide in New Zealand. Studies here and overseas have repeatedly confirmed the 'ready biodegradability' of 1080 in soils. Field sampling indicates that 1080 does not leach through soils in measurable amounts into waterways.

Extra precautions for dog owners

1080 is extremely toxic to dogs. The greatest risk is from dogs scavenging on poisoned possum carcasses.

Most of the dead possums in the catchment will decompose naturally in the forest environment during the months following the operation.

The Wainuiomata/Orongorongo water supply catchment is closed to the public so no dogs are permitted at any time.

Dogs outside the operational area could access possums poisoned during this operation if there is a flood and carcasses are washed down the Wainuiomata or Orongorongo Rivers. We will put signs at known entry points to the downstream section of Rimutaka Forest Park. The Wainuiomata Recreation Area will be closed to dogs during the time that it takes carcasses to decompose. We will be checking the sides of the rivers after floods and will warn dog owners to keep their dogs on a lead along the side of the rivers.

Contact your city council for alternative dog exercise areas if warning signs are put up.

Why does NZ use 80% of world's 1080 production?

There is nothing sinister about the fact that New Zealand uses more 1080 than any other country. 1080 was originally developed in the United States to control mammal pests. It is more toxic to mammals than other species, so its use in the United States and other countries has been restricted because of the detrimental effect the poison had on populations of native mammals that were not pests.

New Zealand is unique as we do not have large populations of native land mammals apart from two species of bat, which are not at risk from 1080 poison. All other mammals are introduced and most are ranked as pests in the wild.

New Zealand is better suited than any other country for using 1080 to control mammal pests because we don't have large populations of native mammals.

1080 is used by other countries, including Australia, Mexico, Japan, USA and Israel.

Could another type of poison be used?

Wainuiomata/Orongorongo Catchment is a large area of steep and mountainous land. The most effective method of controlling possums in this type of terrain is by aerial application. 1080 is the only effective possum poison registered for distribution from the air.

What about other methods?

Other methods, such as trapping or using bait stations with poisons, may be used for sections of the forest in future, but are not viable for the whole area. The steep terrain and large areas of impenetrable vegetation would make it very difficult to effectively undertake a trapping operation or install bait stations. Installing bait stations would also mean cutting tracks through the bush and disturbing the vegetation.

What other precautions are we taking?

The catchment is closed to the public. Warning signs will be erected at all known entry points and Greater Wellington staff will rigorously enforce the no-entry policy.

Benefits for our native birds

New Zealand has one of the highest rates of rare and endangered birds in the world. The primary cause of their decline is the impact of introduced pests such as rats, stoats and possums. Without predator control, native birds have a bleak future. However, the good news is that, in areas where the poison 1080 has been used, the birds are coming back.

Improvements in bait technology and application methods have reduced the risk to native birds. 1080 cereal baits are dyed green and flavoured with cinnamon oil, which makes them unattractive to birds. Less 1080 poison is now used in 1080 operations – the application rate of cereal baits has been reduced from 10-20 kg/ha in the 1980s to 2kg/ha in recent years.

Careful monitoring shows no evidence of long-term negative impacts on native bird populations from 1080. Bird populations benefit from 1080 operations in the longer term, as more food becomes available (less competition from possums) and there is reduced danger to eggs and fledglings. Native bird numbers increase after the first year of a 1080 operation, as the toxin also kills rats (and stoats that eat the rats) thereby giving the birds a chance to breed in relative safety.

The Royal Forest and Bird Protection Society of New Zealand advocates the use of 1080 to protect native species, describing it as "...the best available tool for significantly reducing pest numbers and allowing native forests, birds and invertebrates to thrive once more". A fact sheet on 1080 is available from Forest and Bird.

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FOR FURTHER INFORMATION

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