

Report 99.12

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Report to the Landcare Committee and the Utility Services Committee
from Geoff Cameron, Manager, Natural Forestry and
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Possum Control Operation : Wainuiomata and Orongorongo Water Collection Areas

1. Purpose

To inform both Committees that a possum control operation is planned in the Wainuiomata and Orongorongo Catchments when the water supply intakes are closed in the autumn, and that we are now ready to start planning and other discussions with key stakeholders.

To seek approval for the planning and communications programme, subject to final Council endorsement of the operation when the views of key stakeholders are known and a Resource Consent obtained.

2. Regional Policy Statement

Chapter 9 – Ecosystems – of the Regional Policy Statement states a number of objectives and policies aimed at improving the quality of ecosystems in the Region. Method 7, which flows on from those, states that “*the Regional Council will ... provide control and maintenance programmes for the management of possums in specified areas.*”

Thus the Council’s Regional Policy Statement is very supportive of properly planned and managed possum control to protect regionally important ecosystems from animal pests.

3. Sound Catchment Management is Important

The Wainuiomata and Orongorongo Catchments provide 21 percent of metropolitan Wellington's water. They contain the last significant remnant of lowland podocarp forest in the southern North Island, high altitude beech forest and important wetland associations. Good, systematic and on-going, management of these catchments is required. This possum control project (with deer, pigs and goat control to follow), is an integral part of that process.

Report 98.495 updated the December 1998 Utility Services Committee meeting on a range of catchment management issues. The report was based on a review of both last year's contamination scare at the Wainuiomata Treatment Plant and findings from the significantly larger Sydney Water event. The Utility Services report highlighted the need to look at catchment management from a combined forest health, pest control and physical security perspective.

The Landcare Division has consistently advocated integrated catchment management. Natural Forestry have provided the Water Group with vegetation management services for three years and professional rangers are now in place to provide increased security because of concerns about unauthorised entry. Pest control is a key part of enhanced catchment management.

Clearly the potential effects of not having good catchment management are significant. At the national level, the Ministry of Health is paying increased attention to catchment management and minimising contamination as part of the overall grading of water supply. The Ministry's 1998 draft on Public Health Grading of Drinking-Water Supplies states:

Throughout the world, and New Zealand is no exception, by far the most common problems arise from microbiological contamination of the source waters. Animal, bird and human effluent, introduced in one way or another upstream from a water supply, can make that water unfit for consumption. Bacteria and viruses have always been of major concern, while protozoa such as Giardia and Cryptosporidium are increasingly being highlighted as causing ill health through drinking water.

There are two ways of minimising the risk from these microbiological contaminants:

- 1. Keep the source as clean as possible, by protecting the catchment and minimising the possibility of contamination.*
- 2. Treat the water to remove and/or inactivate any contaminants introduced.*

The most successful approach is to use both of these, and to regularly monitor the water quality to demonstrate that any risks are firstly identified, and secondly are being controlled. Good systematic and ongoing management is important.

The United States EPA recently published a new rule on "Interim Enhanced Surface Water Treatment"; the accompanying documentation states:

In 1990, EPA's Science Advisory Board (SAB), an independent panel of experts established by Congress, cited drinking-water contamination as one of the most important environmental risks and indicated that disease-causing microbial contaminants (i.e. bacteria, protozoa and viruses) are probably the greatest remaining health risk management challenge for drinking-water suppliers (EPA/SAB, 1990). Information on the number of waterborne disease outbreaks from the US Centres for Disease Control and Prevention (CDC) underscores this concern. CDC indicates that, between 1980 and 1996, 401 waterborne disease outbreaks were reported, with over 750,000 associated cases of disease.

It is also interesting to note that the final report of the Sydney Water Inquiry focussed attention on catchment protection to minimise sources of contamination. "A modern treatment plant is not a substitute for proper catchment management" (third report of the Sydney Water Inquiry, quoted in Report 98.495).

There is no doubt that catchment management is an issue of worldwide concern. We are indeed fortunate to have surface water catchments in this region that can be kept in near pristine condition through appropriate land management and close attention to forest health.

4. **Council Lands Animal Pest Management Strategy**

The Natural Forestry Department prepared this document in accordance with the *Regional Animal Pest Management Strategy*. It was approved by the Landcare Committee in April 1998. Copies were made available to Councillors at the last Landcare Committee workshop.

The document notes that:

the Wellington Regional Council will undertake to control possums on its lands to such a level that:

- *externalities are not experienced on adjoining private property.*
- *environmental values are protected.*
- *economic damage is minimised.*

In the three years 1996-1998, Natural Forestry have contracted the Biosecurity Department to carry out possum control on more than 16,000 hectares of Council forest land.

In preparing the Strategy document, Natural Forestry staff divided Council lands into a number of management units. Each unit was "scored" for ecological values in accordance with nationally accepted criteria, and priority rankings were derived. Both the Wainuiomata and Orongorongo catchments rate the highest because of their outstanding ecosystem attributes. These ecosystems are susceptible to all animal pests and therefore are top priority for animal pest control.

The Strategy also stresses the importance of proper monitoring to gather reliable information on animal pests and their impacts. The monitoring information can be

compared against pre-determined target populations of pests to see if control operations are warranted. The monitoring of possum populations in both catchments showed possum populations at higher levels than prescribed in the Strategy.

5. From Strategy to Operation

In the Strategy, the Wainuiomata Catchment was programmed for possum control in 1998/99, and the Orongorongo Catchment the year after. There is now an opportunity to treat both catchments at once.

The Council has a range of methods available for this operation. They are:

- spread poison by aerial means
- spread poison by hand
- hunt (trap or shoot) by hand

After considerable discussion amongst Council staff, and receipt of expert advice from outside the Council, the most efficient and effective approaches were recommended to Senior Management: a mix of all three methods, with the predominance of aerially spread 1080 in cereal bait at the rate of 3kg per hectare. This will be supplemented by trapping around the water intakes and treatment plant with hand spreading in areas too small for a helicopter. Cost is a factor, with aerial treatment the most efficient. Aerial spreading is also the most effective because of the catchment geography, for occupational health and safety, and Medical Officer of Health concerns over heavy human presence.

This operation will be strictly in accordance with Ministry of Health guidelines. At the same time, the water supply intakes in both catchments will be closed and therefore no water from the Wainuiomata treatment plant will go into the system until comprehensive testing confirms that it meets the required standard set by the Medical Officer of Health. One small sub-catchment, just outside the water collection area, will remain untreated and untrapped. This will serve as a control for comparison purposes until the testing programme is completed.

A control programme against deer, goats and pigs is still being planned in line with the “all pests” approach. Large animal monitoring will take place in March/April, and professional hunters will be used in the new financial year.

6. **The Next Step**

Subject to Committee approval, the process to be followed now is:

(1) **Communications Programme**

- (a) Inform our principal water supply customers (the Territorial Authorities) of the basis for, and the value of, this operation.
- (b) Advise our neighbours of the proposed possum control operation: discuss with them the Medical Officer of Health guidelines to be followed, ensure physical land boundaries are understood and any critical areas such as water supply points identified, and ascertain whether part or all of their land could be included in the operation at the marginal cost.

There are approximately 20 neighbours along the Moores Valley ridge. The Department of Conservation is a significant neighbour on the eastern and southern boundaries. Much of the Rimutaka State Forest Park to the east has been treated for possums recently.

- (c) Liaise with Iwi emphasising the improvements to the forests.
- (d) Liaise with the Forest and Bird Protection Society.
- (e) WRC staff will be kept informed throughout this process.

(2) **Operational Programme**

- (a) Finalise the operational map, the operational plan and budget allocations.
- (b) Complete the process of seeking Medical Officer of Health approval, obtain WRC Resource Consents, and any Consents required by the Territorial Authority (Hutt City Council).
- (c) Give a minimum of two weeks public notification before the operation. Because of the weather conditions required, it is difficult to be definitive about an operational date.
- (d) Report back to the Council seeking an endorsement to proceed with the operation, having completed the communications programme, and obtained Resource Consents and Medical Officer of Health approval.

7. Recommendations

- (1) That the Report be received and its contents noted.*
- (2) That the Committee approves the communication and planning processes for a possum control operation in the Wainuiomata and Orongorongo catchments.*
- (3) Note that the operation will remain subject to final endorsement by the Council once the communications programme is complete and the resource consent and Medical Officer of Health approval are obtained.*

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