

Officer responsible Water Services Manager	Author Chris Rance
Corporate Plan Output: Waterways and Wetlands Maintenance Vol 3 page 9.3.24	

The purpose of this report is to inform the Committee about the recent discovery of a new, invasive, aquatic weed species (*Egeria densa*) in the Avon River. The potential issues for waterway management and budget are noted for the Committee's information and additional maintenance funds are sought for 1999/2000 year. This report has been sent to the affected Community Boards for information, with responsibility seen as lying with this committee – the invasiveness of this weed makes it a metropolitan issue.

NATURE OF INFESTATION

Early in April 1999 the vigilant operator of the Christchurch City Council weed harvester reported a new species of weed in Kerrs Reach. This was subsequently identified as *Egeria Densa* by the Parks Unit Botanist and National Institute of Water and Atmosphere (NIWA) scientists.

This particular species is originally from South America and widespread in the North Island, around Blenheim and was recently reported as present on the West Coast of the South Island. *Egeria* was a popular aquarium plant but is now classified as a National Surveillance Plant Pest species that cannot be propagated, sold or otherwise distributed. Until this infestation was identified the Canterbury Regional Council staff considered Canterbury to be free of this species. Potentially the vigorous growth habit of this species will cause higher maintenance costs through increased harvesting required to provide a satisfactory level of service for river users and to reduce flood risk from choking of the waterways

ACTION TAKEN TO DATE

There has been close consultation between Christchurch City Council staff, Canterbury Regional Council staff, and NIWA scientists following the discovery of the *Egeria* infestation.

The options for management of this infestation are limited to either total eradication, the preferred option, or the use of modified waterway management techniques to contain distribution of the *Egeria* plant.

Before any decision can be taken on which is the best option to pursue, it is important to determine the exact nature and distribution of the *Egeria* infestation and its density. Currently the problem appears to be confined to the Kerrs Reach of the Avon River. A map showing where *Egeria* has been discovered to date is attached to this report.

An underwater survey has been completed by NIWA staff to fix the location of plant colonies and check if the infestation has spread beyond Kerrs Reach. The results of this survey suggests that the species is contained in Kerrs Reach.

There was a total of 135 separate colonies found and these ranged from single plants to areas of 2-3 square metres.

Canterbury Regional Council staff have taken responsibility for inspecting other sites throughout the region to check if further *Egeria* colonies have become established.

IMPLICATIONS

The relatively small area of infestation means that total eradication is a good prospect. The suction dredging method currently in use in Lake Wanaka is believed to be the most effective method immediately available to try and eradicate the *Egeria* colonies. This machine will be available for work in the Avon River from late July 1999 so the cost of the work will fall into the 1999/2000 year.

Additional maintenance costs for the current financial year related to the *Egeria* weed amount to about \$15,000. This is mainly for the NIWA and Council staff engaged in the survey work.

Costs of the 1999/00 year are still approximate until the effectiveness and productivity of the suction dredge have been established. However it is anticipated that additional maintenance costs in the order of \$60,000 will be required to deal with the *Egeria* infestation. A further underwater survey will be carried out in mid summer to check if any plant colonies have re-established and it is anticipated that this will need to be repeated annually for the next few years at least. Maintenance costs for the current 1998/99 year are running below budget and it is expected that this \$60,000 can be provided by carrying over unspent 1998/99 funds.

Other more significant cost implications may include the need for increased harvesting in Kerrs Reach and use of more specialised control methods. However it will not be possible to determine this until further investigation and the suction dredge work are completed.

FUTURE ACTION

It is intended to produce a comprehensive Aquatic Vegetation Management Report (AVM) to the Community Board for comment prior to reporting to the Council when the implications of the *Egeria* infestation are clarified. The presentation of this detailed AVM report is intended to be prior to the Council commencing its year 2000/01 budget round so that any maintenance funding requests for the years beyond 1999/00 can be considered.

- Recommendation:**
1. That this information be received.
 2. That the Annual Plan Working Party be advised that \$60,000 additional funding will be needed for the Waterways and Wetlands maintenance budget for the 1999/2000 year to control the new aquatic weed *Egeria densa*, noting that there is a reasonable likelihood that this can be provided by carrying over funds from 1998/99.

Chairman's

Recommendation: That the above recommendation be adopted.