

13. AQUATIC VEGETATION MANAGEMENT (EGERIA DENSA)

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

The purpose of this report is to advise the Community Board of matters related to the management of the invasive aquatic weed *Egeria densa*. Recent developments and consultation proposals are noted and future actions discussed.

BACKGROUND

A report was presented to the Board in June 1999 advising the discovery of a new aquatic weed in Kerrs Reach on the Avon River, which had serious implications for river management in Christchurch waterways and throughout the South Island.

Following consultation with Environment Canterbury, NIWA (National Institute of Water and Atmosphere) and others, it was considered that eradication of the *Egeria* weed species could be achieved by suction dredging. Suction dredging was subsequently carried out from September to December 1999 and followed up by targeted hand weeding to remove individual plants.

Although initial results were positive and it appeared that some control of the *Egeria* was being achieved, results of further underwater surveys carried out by NIWA in May this year were disappointing and widespread regrowth was recorded throughout the Kerrs Reach area. The occurrence of *Egeria* species is still at a relatively low density (15% of area) in Kerrs Reach but has the potential to take over the whole area in a few years.

It became apparent to Waterways and Wetlands staff that the eradication of *Egeria* may be unrealistic and any required change in management of the species could have serious implications for the existing level of service and waterway maintenance costs within the Avon River and beyond.

Scientists from NIWA, who have considerable experience with aquatic species elsewhere, were engaged to produce an issues and options report for management of *Egeria densa*. This was received in August 2000. (Copies of the report are available on request from Chris Rance, Water Services Unit.)

To gain further insight into Egeria management issues elsewhere two staff members travelled to the North Island to speak to other authorities who have Egeria and other weed species present in their local waterways. The experience gained from this trip has proved valuable and highlights the need to keep the Egeria infestation in perspective.

Although Egeria is a recent invader in the Canterbury region, it has been in the North Island since 1946 and is now widespread and managed as one of a number of exotic aquatic weeds. The spread of the Egeria appears to have been accelerated by the mobility of various water users such as trailer boat owners and eel fishermen physically transferring weed fragments between waterways.

The situation in the South Island is currently more positive with known Egeria sites restricted to the Marlborough area and now the Avon River. Even if eradication is not realistic we have a very good opportunity to contain Egeria by responsible and careful waterway management.

This is a major metropolitan issue and a challenge the Council needs to address urgently.

FUTURE MANAGEMENT

In summary the management options suggested in the NIWA report (August 2000) are:

1. Eradication

In NIWA's view the only feasible means of eradication of Egeria involves the use of introduced Grass Carp. This raises other serious issues associated with the introduction of a further exotic species and control/containment of the Grass Carp.

2. Containment

Containment is intended to limit the spread of Egeria beyond the Avon (or any other site) and its success is likely to be a function of expenditure involved. The use of the aquatic herbicide, diquat, is considered an important tool for this option.

3. Do nothing until necessary

This option is considered to be unreasonable given the high recreational use made of Kerrs Reach. In the past year major problems were experienced by the rowing clubs during regattas and training activities from excessive aquatic weed growth.

All these options have significant implications for the existing river users and future waterway management costs. Decisions of this nature are considered to be outside of the role of staff and accordingly Waterways and Wetlands staff have initiated a consultative approach to formulate a strategy for future management of Egeria.

CONSULTATION PROCESS

Stakeholders' Meeting

The first part of this process involved a stakeholders meeting held on 18 September 2000. Invitations to this meeting were extended to Tangata

Whenua, Fish & Game, DOC, NIWA, electricity supply companies, recreational users, community representatives, City Council and Environment Canterbury Councillors, and Environment Canterbury staff. A staff member from the Marlborough District Council also attended and explained the background and impact that Egeria had made on that District since its discovery in 1970s.

The possible implications of the Kerrs Reach Egeria infestation were described to the meeting and supported by the experiences gained from the recent staff trip to the North Island. The urgent need for action was explained to the meeting and agreement sought for carrying out herbicide trials this summer.

Various issues were raised at the stakeholders' meeting about the use of herbicide and Grass Carp and it was difficult to reach a consensus that endorsed or provided direction for trials over the 2000/01 summer. It was agreed that the Water Services Unit would prepare an action plan detailing trials proposed for this summer and distribute to stakeholders and other interested groups for comment and endorsement. It is likely that a resource consent from Environment Canterbury will be needed to carry out these trials in Kerrs Reach.

Although it was not possible to reach agreement on an action plan at the stakeholders' meeting, the majority of those attending supported:

- A high level of control to contain Egeria to Kerrs Reach.
- Opposition to the use of Grass Carp.
- Herbicide (Diquat) use - subject to more information on environmental impacts, issue of a discharge consent and verification that method was feasible.
- More education of the community about the Egeria.
- A follow-up stakeholders' meeting in April 2001.

Action Plan Workshop

To make progress on the Action Plan, a further workshop was held in early October. This meeting was attended by representatives from the community, Tangata Whenua, rowing association, NIWA, DOC, Environment Canterbury, Christchurch City Council, and Marlborough District Council.

Two action plans were presented to this meeting. One plan focused on the operational aspects to be dealt with by the City Council and the second covered the regional aspects that are the responsibility of Environment Canterbury.

The Christchurch City Council Operational Action Plan - Summer 2000

1. Complete bottom lining at boat ramps.
2. Undertake herbicide trials - NIWA to manage and monitor trials - consent being sought now.

3. Continue data gathering on water temperature and flows within Kerrs Reach.
4. Continue with weekly organic litter runs.
5. Restrict the harvesting boat use to essential areas to provide limited service to the recreational river users. The use of the harvester will be subject to strict hygiene measures to prevent the spread of any Egeria fragments.
6. Survey potential sites in city area for infestations of Egeria.

The Regional Action Plan - Summer 2000

1. Erect signs at the boat ramps and other areas along Kerrs Reach to educate the river users.

2. Undertake urgent publicity, public education.
3. Arrange displays at Garden and Pastoral shows.
4. Contact river users and emphasise need to clean weed from fishing gear.
5. Survey other regional sites for Egeria.
6. Review status of Egeria species in Regional Pest Management strategy - public consultation process underway.

The Action Plans have been forwarded to the stakeholders and interest groups for comment. Work is proceeding on obtaining the consent for the herbicide use and the trials will proceed under the direction of NIWA as soon as the discharge consent is granted.

Results from the trials will be reported to the Community Board and the stakeholders in April/May 2001. Until the proposed trials are completed it is not possible to confirm if the use of herbicide will provide adequate control to contain the Egeria and other exotic aquatic species. It is hoped that information from the trials will provide the basis for a long-term management strategy for Egeria.

However it is important to recognise that there is likely to be major disruption to recreational river users in Kerrs Reach over this summer, particularly the rowing and canoe clubs.

BUDGET IMPLICATIONS

The 2000/01 budget includes specific provision of \$60,000 for Egeria densa control. It is possible that additional funding may be required if the cost of the proposed trials and monitoring can not be contained within this sum and additional monetary savings from the maintenance budget due to the reduction in weed harvesting.

- Recommendations:**
1. That the Community Board endorse the consultative approach adopted by the Water Services Unit so far and support the consultation process as described in this report.
 2. That the Community Board support the proposed operational trials for Egeria management to take place over this summer.

Chairperson's

- Recommendations:**
1. That abovementioned recommendations be adopted.
 2. That the Board oppose the introduction of Grass Carp at any site as a means of containing or eradicating weed infestation in Christchurch waterways.

3. That the Board accept the use of a herbicide trial at Kerrs Reach, only because the implications of not containing Egeria to this site would have such an impact on recreational users and amenity values of the Avon River and other South Island waterways.