Urban waterways forum: University of Canterbury (UC) waterways within the Upper Avon / Otākarōro River sub-catchment: research and practice

Tuesday 13 February 2007
Agenda

- Welcome, and introduction to UC Waterways Project – Kate Hewson & Rachel Barker
- Campus history and water - Jeremy Thin
- CREAS river environment survey - Rachel Barker & Shelley McMurtrie
- Stormwater - Aisling O’Sullivan & Eleanor Taffs
- Ecology of the campus waterways - Jon Harding
- Factors likely to be preventing stream recovery - Angus Macintosh
- Maintenance templates - Jeff Weston and CCC team
- Future opportunities at UC and in Upper Avon River sub-catchment
- Tour of Okeover Stream and further discussion
Upper Avon/ Otākarōro catchment
University drainage network
Background

- 1996 Green Corridor project initiated

1997 Opening ceremony for plantings at Avon River by UCSA building
Ongoing in-stream maintenance changes from 1998

Changes from bed raking to minimal intervention

Removal of selected weed species

Plus nine new riparian planting areas along Okeover Stream & Avon River
1998
Partnership Plan

2000
Rock and log placements in the riffle section

2000
Raupo swamp & engineering channel planting

2001
Kahikatea wetland (engineering pond)

2002 ESR riparian planting

Before 1996

After 1997
2003 Headwaters rehabilitation
2004 mudfish and crayfish trials
2004 Gold award (NZILA)
sustainable design for Headwaters
2003 Mayfly trials
2005 Meanders rehabilitation/ eel homes/ harakeke softening project
2006 Stormwater research projects
From UC Waterways Plan 2006:

A series of self-sustaining ecosystems, which have a natural physical character and function. These ecosystems will support communities of plants and animals dominated by indigenous species appropriate to a lowland South Island stream tributary. These waterways will be an integral part of the University’s programme of research and teaching, and will contribute to an urban campus environment that can sustain wildlife and is enjoyed and valued by people.
UC Waterways goals

Mitigate and manage factors that impact upon campus waterways on a catchment-wide basis.

Develop and implement plans to restore ecosystem processes, habitat heterogeneity, and plant and animal communities broadly representative of natural lowland South Island stream tributaries, for all reaches of all three campus waterways.

Encourage research that contributes to the rehabilitation of the campus waterways and advances knowledge in sustainable management of freshwater ecosystems, particularly in urban environments.

Develop the University waterways as places of learning and encourage their use in teaching throughout a wide array of academic disciplines and educational levels.

Ensure that the University’s waterways restoration approaches are in alignment with our responsibilities and relationships under the Treaty of Waitangi.

Work cooperatively with other groups in the wider community to restore the ecology of the campus waterways for all to enjoy.

Raise awareness and participation amongst staff and students in the campus waterways and their restoration.

Manage our campus lands and facilities in an environmentally sustainable manner that supports the restoration of the campus waterways.

Establish institutional processes and resources that will allow the objectives of the waterways restoration project to be met.