



INFORMATION SHEET 1

Is your property in the Te Waihora/Lake Ellesmere Catchment?

Waihora Ellesmere Trust (W.E.T.) is keen to partner with you in RIPARIAN MANAGEMENT on your property.

W.E.T. may be able to help you with:

- **Planning — where, what and how to plant**
- **Fencing**
- **Site preparation**
- **Plant supply**
- **Planting and establishment**
- **Maintenance**
- **Sourcing funding for fencing, planting and maintenance**

W.E.T.
PO Box 198
Tai Tapu 7645
Canterbury
Email: admin@wet.org.nz
Phone: 03 353 9712
Mobile: 0211 816 417
www.wet.org.nz

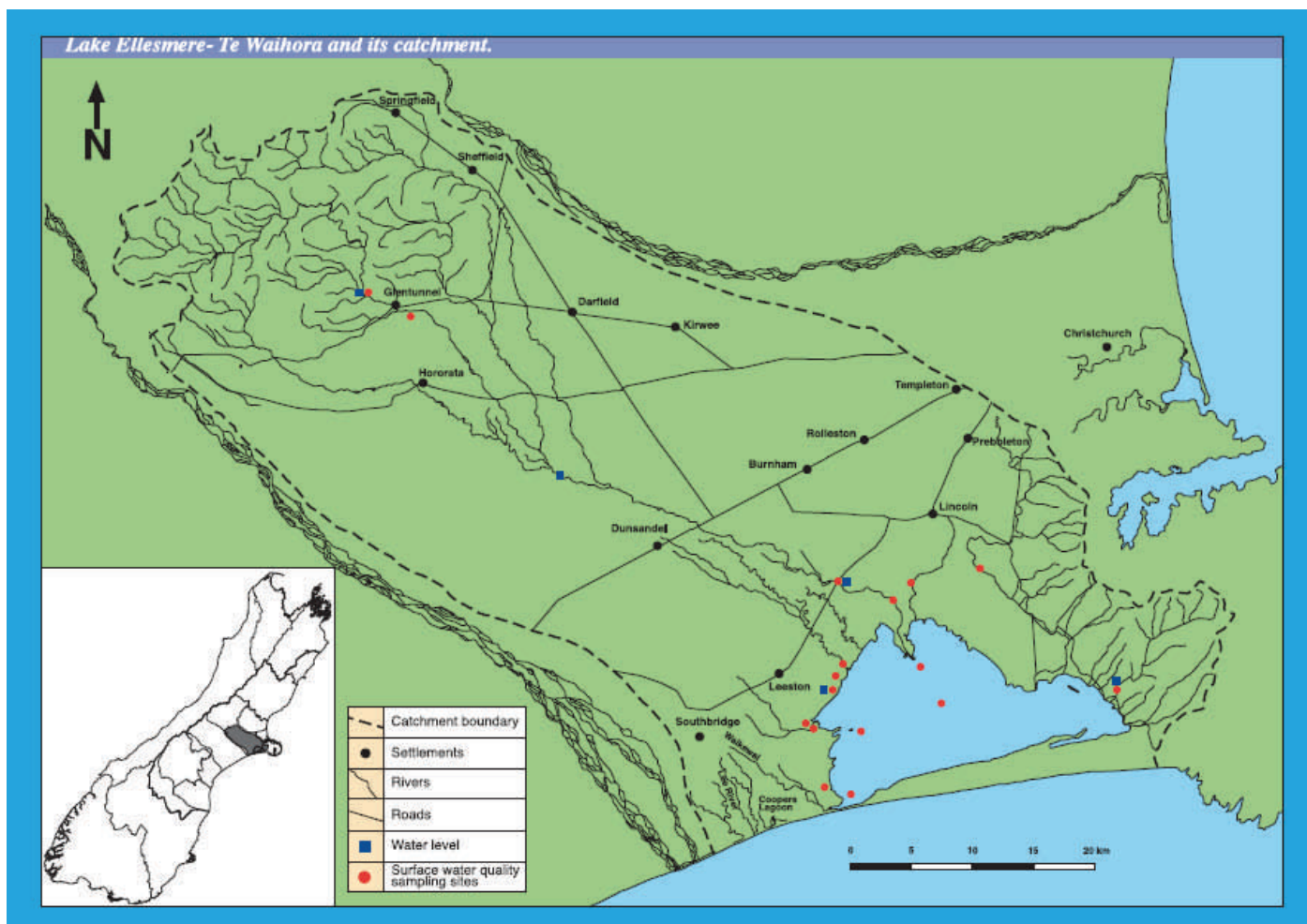
If you are a landowner in one of our priority catchments, we may be able to provide you with a one-stop shop for your riparian management needs. That is, we will plan, prepare and help obtain funding for planting your site!

PRIORITY CATCHMENTS:

- Hororata
- L1 / L2 / Liffey
- Waikekewai
- Kaituna
- Johnsons Road Drain
- Wainiwaniwa
- Silverstream
- Leeston
- *Halswell (continuing)

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Te Waihora/Lake Ellesmere: A Map of the Catchment



Map, courtesy of Environment Canterbury

Te Waihora/Lake Ellesmere covers around 20,000 hectares, and is one of the five largest lakes in New Zealand.

The catchment drains 256,000 hectares. Rivers flow into the Lake from the foothills of the Southern Alps, coastal plains, and the hills of Banks Peninsula. About three-quarters of the Te Waihora/Lake Ellesmere catchment is made up from in-flows from across the Canterbury Plains.

Changing land use has directed attention to the various environmental impacts of human activities on the quality of water entering the waterways and the Lake.

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Water Quality of Te Waihora/ Lake Ellesmere

The water of Te Waihora/Lake Ellesmere shows high nutrient and sediment concentrations, and consequently this has led to high phytoplankton biomass and low water quality. The Lake is neither entirely freshwater nor estuarine; it supports abundant fish and bird communities.

Being a lowland lake, Te Waihora/Lake Ellesmere not only receives in-flows from within its immediate vicinity, but also from the wider catchment: across the Canterbury Plains up to the foothills. The quality of the Lake's tributaries reflect the intensive land use surrounding them, with elevated nutrients and bacteria found in many sites.

A summary of statistically significant trends in water quality data collected from 1993 to 2007 for four

	Timberyard Point	Mid Lake	Off Selwyn River	Off Taumutu
Dissolved oxygen (% saturation)	—	—	—	—
Suspended solid concentrations	—	—	—	▲
Clarity (Secchi depth)	▼	▼	▼	▼
Salinity	▼	▼	▼	▼
Total nitrogen concentrations	▼	—	▼	—
Total phosphorous concentrations	—	—	—	—
Phytoplankton biomass (Chlorophyll a)	—	—	—	—
Faecal coliform bacteria	—	—	—	—

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Riparian protection around the lake margin and tributaries will greatly help reduce some contaminant inputs such as sediment and phosphorous.

Catchment-wide nutrient and water allocation management is also needed to reduce nitrates and improve freshwater in-flows to the Lake.

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trust

INFORMATION SHEET 4

Benefits of Riparian Management and its Impacts on Farming

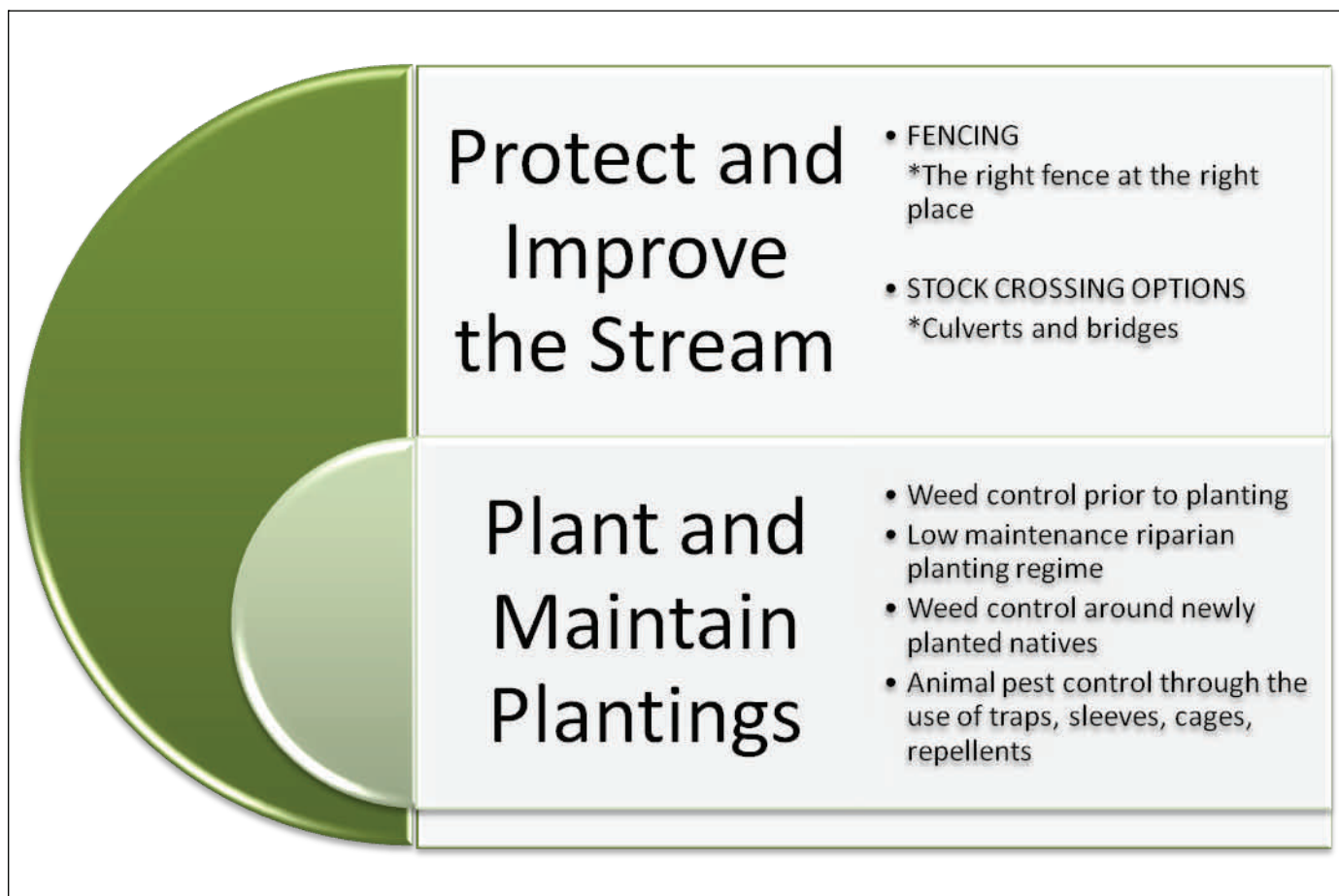
Well-managed riparian margins can help to meet market demands, enhance farm and stock management, and protect water quality and freshwater life into the future.

(Living Streams- Environment Canterbury)

- **Provide shade for livestock**
- **Protect stock from being trapped in swampy areas**
- **Provide shelter for livestock**
- **Provide habitat for predators of pasture pests**
 - Mahinga kai (traditional food source)
 - Enhance wildlife habitat
 - Create wildlife corridors
 - Improve biodiversity
 - Enhance the landscape
 - Enhance the environment for farm staff
 - Increase in-stream fauna
- **Improve irrigation efficiency**
- **Protect and stabilize stream banks**
- **Reduce sedimentation in waterways**
- **Reduce peak flow floods**
- **Create nutrient traps and filters**
- **Reduce evapo-transpiration**
- **Provide vegetative buffer**
- **Reduce bank erosion**
- **Provide shade and reduce weed growth in waterways**

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SOME KEY SOURCES OF INFORMATION:

- Living Streams Handbook 2009. *Environment Canterbury*, www.ecan.govt.nz; phone: 0800 32 46 36
- Waihora Ellesmere Trust Website: www.wet.org.nz; Email: admin@wet.org.nz
- Protecting and Restoring Our Natural Heritage: A Practical Guide. *Davis, M and Meurk C. (2001) Department of Conservation*

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INFORMATION SHEET 6

Riparian Management: Some Examples



Carex plants help to filter run-off and shade the stream. Establishing shade trees and shrubs will further reduce light levels, thus restricting weed growth and reducing the need to clean the waterway.

A sturdy, well-maintained fence designed to suit your stock types is essential. Fencing stops stock from breaking down stream banks.



If stock are regularly walking through the stream, installing a bridge or a culvert is a good idea.

Culverts can be a cheaper option for streams that don't carry a lot of sediment and don't flood too high.

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INFORMATION SHEET 7

Funding for Riparian Management in the Catchment

Environment Enhancement Fund (EEF) and Honda Tree Fund

Environment Canterbury has a contestable fund that can assist with individual or group project costs within the Canterbury region.

Projects funded in the past have included fencing streams and riparian work and planting. Grants up to a maximum of \$5000 per property are available, with financial assistance normally covering 50% of the plant and fencing material costs.

Funding applications must be made on the Environment Enhancement Fund Form. Applications open in June and close by the end of August. Decisions are announced in December and funds made available to successful projects early the following year.

For more information, call Environment Canterbury on **0800 324 636**, or email Waihora Ellesmere Trust at admin@wet.org.nz.

Other Funding Opportunities

- **Biodiversity Condition Fund**
- **The Pacific Development and Conservation Trust**
- **Habitat Protection Fund**
- **Nature Heritage Fund**
- **Sustainable Management Fund**
- **BOC Where There's Water Community Environmental Grants**
- **Selwyn Natural Environment Fund**

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