

The Principle OF ECOSOURCING

To restore the natural indigenous biodiversity to an area it is important that the plant material used is from local stock, appropriate to the locality. This practise is referred to as ecosourcing and entails:

- Only planting species within their natural geographic and ecological range
- Only using local plant populations for propagation material (local genotypes)
- Only planting species within their natural habitat type

Every plant community is different in its species composition and each species in that community may differ genetically from individuals in other areas (different genotypes). These genetic differences may cause visible differences in things like leaf shape and growth form and also affect growth rate and disease resistance. Locally sourced plants are usually better adapted to the local site conditions and consequently will grow better.

Planting STAGES

Establishing a forest stand that will hopefully become self-perpetuating requires staged planting of early successional species followed in later years by those requiring sheltered establishment. Once an initial nurse cover of early species has established, other species will begin to regenerate naturally from bird and wind dispersed seed. This self regeneration will be augmented by planting of longer lived trees that, because of their current scarcity or lack of dispersal agents, do not have the opportunity to regenerate naturally.

Weed CONTROL

Weed control will be critical throughout the revegetation process. Initially rank grass will be the main weed competition on open sites and in later years, invasive woody species will require constant surveillance and control.
* Refer to the associated Turitea Planting Guide for details of preparation, selection, planting, and maintenance.

For further information, please contact the Palmerston North City Council, ph (06) 356 8199, or visit: www.environmentnetwork.org.nz

GREEN CORRIDORS

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Heavily MODIFIED ECOSYSTEM

The Manawatu is one of the most heavily modified ecosystems in New Zealand.

Most of the lowland indigenous forest that once covered the area has been cleared and most of the wetlands drained. Only a few fragmented remnants remain and these small areas are vulnerable to disturbance and browsing by introduced animals and invasion by weeds. These remnants are too small, too isolated, and often have too many predators to be able to sustain populations of most of our indigenous birds and other indigenous wildlife. Restoration of these areas requires active management to improve the habitat value and extend the habitat area.

Model FOR FUTURE

The Turitea Stream project is creating the model for future Green Corridors, recognising that long term, the environmental health of a city does not depend solely on its public parks. A Green Corridor is protected open space that is managed for conservation, landscape values, and/or recreation. The Turitea Stream project has involved planning, implementing and management of a green corridor from the entrance of the City water reservoir to where the Stream joins the Manawatu River, a distance of about 12 kilometres.

Background AND OBJECTIVES

Green Corridor projects attempt to restore the Manawatu lowland ecosystem. Projects are a partnership between the City Council, community groups, and landowners.

Managing RIPARIAN MARGINS

This will mainly involve clearing weeds and establishing selected predominantly indigenous vegetation on the stream banks, or "riparian margins". There is a net benefit to river environments, including improved water quality, when riparian margins are retired from grazing or planted. Managed riparian buffers can substantially reduce inputs of nutrients and sediment from agricultural land, reduce water temperature fluctuations, help stabilise stream banks, and provide a more natural environment for indigenous aquatic life. Management involves maintaining appropriate vegetation and restricting stock access to rivers and streams. There is huge potential for using riparian plantings of indigenous species as dual-purpose areas that provide the above riparian management benefits as well as wildlife habitat and corridor linkages to other remnants. Corridor linkages are particularly important for species that cannot or will not travel over open pasture (some birds, lizards and many invertebrates). The Turitea Stream riparian corridor has been planted with a diverse range of eco-sourced indigenous species. Some areas will be left unplanted (i.e. kept in mown grass) to provide for passive recreation access and views of scenic vistas.

Your PARTICIPATION

Green corridors are located on land owned by a mixture of public organisations, private companies and individuals. Agreement and cooperation between such owners is the key to success of green corridor projects.

You do not have to be a landowner to make a contribution.

Participation by any members of the community is welcome and desirable. There are many ways for individuals or groups to become involved. Please contact the Palmerston North City Council for further information. Private landowners have several ways to make their property available for green corridors through the creation of esplanade reserves: by legal easements to the Palmerston North City Council; by creating esplanade or access strips; by conservation covenants; or by donating land that may qualify as future subdivision reserve contribution.

Any of these options is best done by discussion with the Council to simplify the legal process and minimise costs.

Livestock will need to be fenced out of specific areas. Predator control will also be required to protect certain plant species. Some parts of the corridor will require public access. Talk to the Council about your particular requirements.

