

SNOWY RIVER RAINFOREST AND RIPARIAN VEGETATION RESTORATION PROJECT

Smaller projects done well can have significant outcomes

Victoria:

Region: East Gippsland

Affiliated Regional NRM Group: East Gippsland Catchment Management Authority

Background

The Snowy River Project is a 40 hectare area of rainforest and riparian vegetation, in a prominent location on the Princes Highway.

The aim of the project is to successfully restore rainforest in highly degraded niches by facilitating natural regeneration, extensive planting, replacing the weed of national significance (willows) with indigenous waterline vegetation, and the conservation of a suite of rare and threatened rainforest flora and fauna.



This project arose from the success of the *Nyerimilang Greenfields Rainforest Restoration Project* and the lessons learnt there.

The Nyerimilang project is a seventeen hectare site situated on Maringa Creek at the eastern end of the Gippsland Lakes near Lakes Entrance. This partially cleared catchment contributes significant amounts of nutrient pollution to the Gippsland Lakes which leads to frequent and severe Blue-green Algae outbreaks. Each outbreak is calculated to directly cost the regional economy in the vicinity of \$20 million, with a flow on factor of 4.

The project site is strategically located at the bottom of the catchment with rainforest restoration works specifically designed to reduce floodplain water velocities in order to trap and recycle nutrients on the floodplain using Warm Temperate Rainforest and Swamp Scrub.

The project has provided habitat for and conserved the following:

- ❖ Environmental Protection and Biodiversity Conservation Act listed species:
 - the vulnerable Limestone Blue Wattle; the vulnerable Grey-headed Flying fox; the endangered Swift Parrot.
- ❖ Flora and Fauna Guarantee Act listed communities:
 - East Gippsland Coastal Warm Temperate Rainforest; Alluvial Terraces Warm Temperate Rainforest; and East Gippsland Karst Dry Rainforest.

- ❖ Flora and Fauna Guarantee Act listed plants:
 - Maiden's Wattle and Limestone Blue Wattle.
- ❖ Flora and Fauna Guarantee Act listed animals:
 - White-bellied Sea Eagle; Swift Parrot; Powerful Owl; Masked Owl; Sooty Owl; and Diamond Firetail.
- ❖ Rare or Threatened Australian Plant species:
 - Limestone Pomaderris.
- ❖ Draft East Gippsland Native Vegetation Plan Very High Conservation status:
 - Swamp Scrub, Limestone Pomaderris Shrubland (endangered);
 - Limestone Box Forest (vulnerable).
- ❖ High Conservation status (rare):
 - Warm Temperate Rainforest.
- ❖ Victorian Rare or Threatened species:
 - Star Cucumber; Yellow Milkvine; Creeping Loosestrife; Jointed Mistletoe; Bolwarra; Pinkwood; Wallaby Bush; Spicy Everlasting; Viscid Daisy-bush.
- ❖ Rainforest dependant migratory species:
 - Rufous Fantail; Ciccada Bird; Topknot Pigeon; White-headed Pigeon; Black-faced Monarch.

The Snowy River Project is an icon project for the establishment of large areas of rainforest:

- it has the greatest diversity of plantings;
- natural rainforest regeneration is higher because there are no browsing issues;
- the existing remnant is extremely diverse.

The project aims to protect vegetation of highest conservation significance:

- ❖ Flora and Fauna Guarantee Act (1988) listed community:
 - Alluvial Terraces Warm Temperate Rainforest.
- ❖ Environmental Protection and Biodiversity Conservation Act Listed species:
 - the endangered Swift Parrot and Grey-headed Flying Fox
- ❖ Rare or threatened rainforest plants including the Flora and Fauna Guarantee Act listed species:
 - Maidens Wattle, Buff Hazelwood and Yellow Elderberry, the vulnerable Yellow Milk-vine, Cabbage Fan-palm, Blackfellows Hemp and Black-stem Maidenhair and the rare species: Bolwarra, Trailing Guinea-flower, Branching Grass-flag, Gippsland Hemp, Eastern Bitter bush and Wallaby Bush.

The project also aims to improve river health and the visual amenity of the lower Snowy River for locals and tourists alike.

Achievements to Date:

In the Nyerimilang area:

- ❖ 11 hectares of rainforest revegetation and 6 hectares of sclerophyll revegetation have been established to augment 0.6 hectares of existing rainforest;
- ❖ recolonisation of rainforest birds into the revegetated area has been extremely rapid, with the first species returning within nine months and a good spread of species achieved within two years;
- ❖ monitoring systems have been established to record species in revegetated and remnant areas;
- ❖ nutrient trapping effects have been monitored, immediately above the RAMSAR listed Gippsland Lakes;

In the Snowy River area:

- ❖ plantation surveys of previous vegetation have been completed to establish proximity and connectivity factors;
- ❖ revegetation has been undertaken;
- ❖ certain bird species have already recolonised, including Wonga Pigeons, Satin Bower Birds and the Bassian Thrush which is rarely seen outside of high quality rainforest habitats.

Information Used:

National data sets:

- ❖ Environmental Protection and Biodiversity Conservation Act schedules

State data sets:

- ❖ Flora of Victoria
- ❖ Flora & Fauna Guarantee Act schedules (Victoria)
- ❖ Victorian Flora Species List

Regional data sets:

- ❖ Draft East Gippsland Native Vegetation Plan

Market and Non-Market Mechanisms for Biodiversity Conservation:

Community measures (motivational mechanisms):

- ❖ Focus on the Snowy River as an icon landscape.
- ❖ Local champion who works with local groups and key stakeholders.
- ❖ Stakeholder support by involving local Members of Parliament and local Councilors in all activities.
- ❖ Effective publicity by sending photos of significant events such as the iconic Satin Bower Birds nesting on the site.

INTEGRATION OF BIODIVERSITY INTO REGIONAL NRM PLANNING

- ❖ Involvement of Koori people in works, regeneration of species and access to cultural sites.
- ❖ Awards for innovative partnerships with agencies such as the Department of Correctional Services.
- ❖ Extension resulting in 13 landholders with similar valley remnants submitting funding bids to revegetate and restore.
- ❖ Use as a teaching site to build local capacity to restore rainforest sites.
- ❖ Development of a Certificate III course in Rainforest Restoration Techniques, based on this site.
- ❖ Development of a Riparian Restoration Guide that can be used throughout the region.

Critical Success Factors:

- ❖ Excellent alignment of local, regional, state and national priorities for actions on vegetation of highest conservation significance:
 - Commonwealth requirements for protection of nationally threatened and rare species;
 - Statewide process through Remnant Vegetation Plans to identify ecosystems needing attention;
 - East Gippsland Lowlands identified as a bioregion;
 - analysis within this bioregion for areas of conservation, based on depletion status and threatening processes.(The degree of alignment is reflected in the consistency of funding achieved.)
- ❖ Operation at a landscape level:
 - revegetation of isolated rainforest remnants conducted 15 years ago are only now showing levels of recolonisation of birds comparable to the current restoration projects;
 - the difference is the connectivity in the landscape, with a strong relationship between the distance from existing seed sources and the rate of recolonisation, such that a disconnection greater than one kilometre will result in zero augmentation of rainforest seeds.
- ❖ Focus on restoration rather than revegetation:
 - recharging of the soil seed bank;
 - continuous recruitment and regeneration through the establishment of nursery crop species and successional planting to establish maturing canopies;
 - use of bird species recolonisation as an indicator of successful restoration.
- ❖ Consistency and timeliness of funding:
 - The project has invested heavily in developing community capacity;
 - the efforts all melt down if funding is not procured on time;
 - small businesses can't hold stock, key people drift away.



- ❖ Gaining the trust and understanding of funding agencies:
 - educating funders that restoration is different to revegetation:
 - restoration is focussed on creating a self managing system through successional planting,
 - revegetation is focused on a single planting of trees and shrubs that evolves into trees over grass as time passes;
 - Restoration demands a five year funding commitment.

Further Reading:

- Nyerimilang Project Report (details to come).

Contact for Further Information:

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Quote:

“Our aim is to restore the structure, walk away and leave a self replicating ecosystem”

Bill Peel