A Word on Maintainenance

As a general rule, a little maintenance often is better than a big "fix-up job" just occasionally. Once you have created your natural shelterbelt, it will be too easy to walk away and forget about it. However, some periodic maintenance is required, so remember to install a farm gate when you erect the fence. Keep an eye out for:-

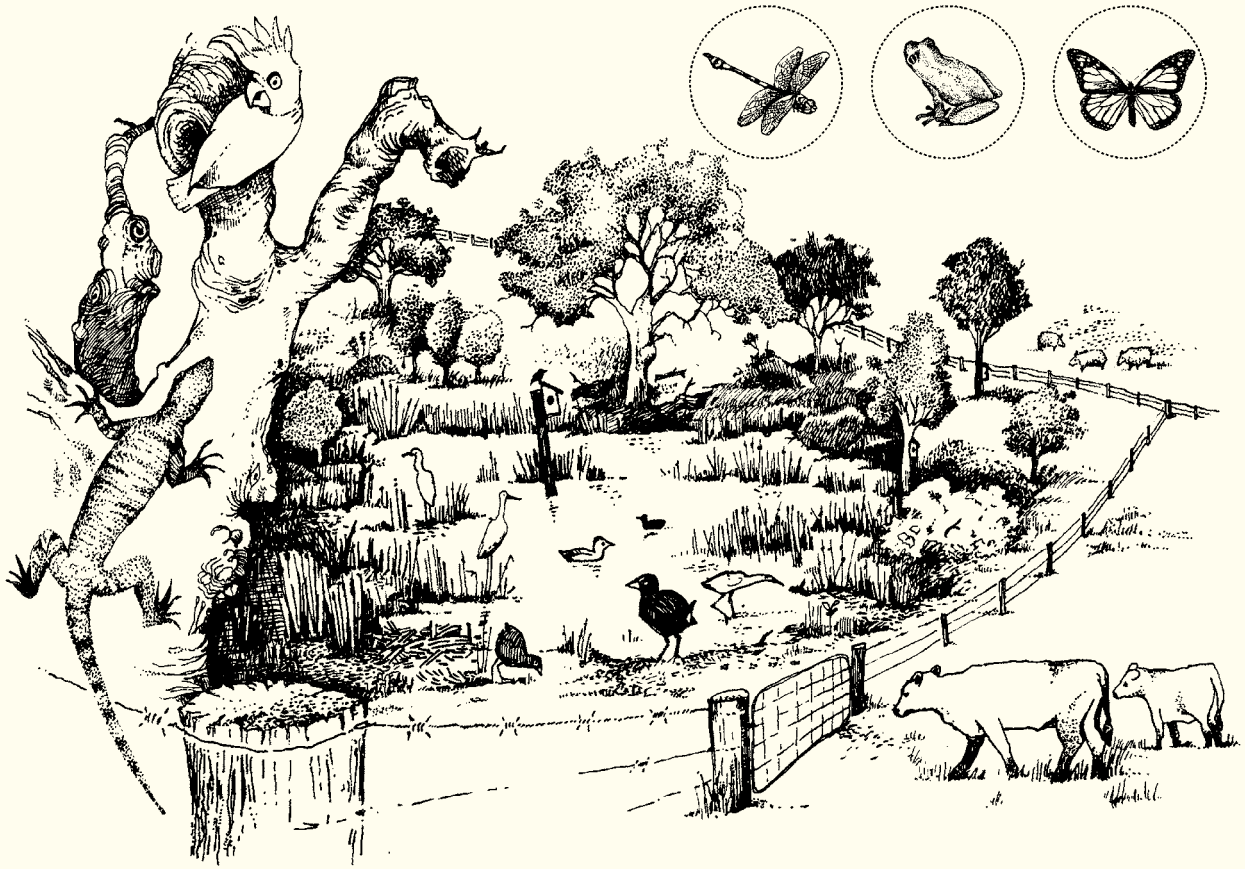
Pest animals - Vegetative cover and the prospect of easy pickings from your new wildlife residents can attract feral pests such as cats, rabbits, foxes and Indian Mynahs to the belt.

Weeds - Keep an eye out for weeds and keep them under control.

Fences - Keep your wires taut and trees and limbs off them, and your livestock will stay out.

What Next ?

For advice on what funding may be available to help you implement your project or to discuss in more detail any topic raised in this booklet please contact the Westernport Catchment Landcare Network on (03) 5941 8446 or 0429 613 974. If required a visit to your property can be arranged. You can also visit www.wpcln.org.au for further information.



Further References:

"Revegetation Planner" - free from Baw Baw Shire Council and Latrobe Catchment Landcare Network
Latrobe Catchment Landcare Network "Biolinks Strategy", 2011
Use your favourite Internet search engine to search on "shallow wetlands on farms", "bush regeneration" and "nest boxes"

Acknowledgements:

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Spirit of the Bunyip

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Convert Problem Wet Areas into Valuable Habitat

A guide for creating a place of valuable wildlife habitat in an unproductive area of your farm prone to water-logging.

One in a series of Practical Landcare guides

What is a Problem Wet Area ?

It is not uncommon for farms in high-rainfall districts to include some areas which are subject to water-logging. This saturation may persist for short periods or for long periods, depending on local conditions such as intensity of rain events, terrain, aspect, soil type, drainage and so on. Proximity to standing water or permanently flowing water will also influence the extent to which an area is, and remains, water-logged.

If such an area remains saturated for short periods only, then it may simply be a case of excluding stock until the ground dries out sufficiently for stock to safely resume grazing. A temporary hot-wire fence is a useful means to keep stock out of an area for a short period.

However, if an area suffers water-logging for long periods, then it will be more productive in the long run to permanently exclude stock from the area. Stock grazing water-logged ground run the risk of becoming stuck in soft mud or becoming diseased. High concentrations of animal faecal matter in pools of water which form in water-logged ground is a breeding ground for disease. Unless stock are constantly monitored whilst grazing water-logged ground, they run the risk of becoming bogged and dying.

Problem wet areas which are grazed during periods of saturation suffer pugging and compaction, adversely affecting pasture quality. Runoff from these areas can affect adjacent pasture because of the excessive nutrients which have accumulated in the wet area.

Installing drainage may be an option in areas prone to water-logging, but this can be expensive and problematic, particularly if the terrain or soil type renders the area prone to erosion.

It may be the case that prior to the farm being established through land-clearing, the problem wet area was in fact a natural shallow wetland. Such wetlands often flooded for a part of the year, and offered local wildlife a place of habitat, refuge, breeding and nesting. Returning this part of the farm to its natural state will, therefore, go a long way towards encouraging the re-establishment of a healthy eco-system with a high degree of bio-diversity.

This guide offers some ideas on transforming an un-productive problem wet area into an area on the farm which provides both farm productivity gains and environmental benefits.

(Left) This un-fenced wet area shows signs of pugging, erosion and bank collapse, pooling of water and weediness (Blackberries & Parrot's Feather). Cattle have been found stuck fast and dead here !

Why Convert a Problem Wet Area ?

Converting a problem wet area into a place of habitat for local wildlife offers farm productivity gains to you, the landholder, and to the environment.

Landholder benefits & Productivity

Excluding stock through the installation of a stock-proof fence (with a farm gate to enable your access for periodic maintenance) will:-

- **Reduce stock losses** by mitigating the risks of stock becoming permanently stuck in soft ground or picking up diseases from contaminated feed and water.
- **Offer shade** and shelter to stock. Native bush within the wet area site, at its boundary with the paddock, offers shade and it offers shelter from wind and wind-driven rain. There has been much science conducted to quantify the productivity gains arising from providing shade and shelter to stock.
- **Improve the quality** of water runoff from the site. The exclusion of stock from the site, and the filtration offered by the re-establishing native vegetation will improve runoff water. If such water drains into a farm dam, then in time the water in the dam will contain less nutrients arising from concentrated stock faeces in the problem wet area. This water will hold less sediment too, as stock will no longer be trampling and dislodging the wet soils. Cleaner water is better for stock which use water from your dam.
- **Promote biological control** of damaging insects in your crops or pastures. Damaging insects beyond the fence line of your wet area will now be managed by birds and other creatures which call your wet area their home.
- **Create a carbon store**. Healthy vegetation is a natural carbon store; carbon is stored within the vegetation's bark, timber and foliage. Carbon is also stored in soil, and the healthier the soil with its rich organic matter the more carbon is safely stored. The more carbon that is locked up in our physical environment and the less carbon floating in our atmosphere, the more stable our climate will be over the long term. Fencing your problem wet area and allowing native vegetation to flourish there mitigates the effects of climate change.
- **Improve amenity** for you, your family and visitors to your farm. A well-managed farm, with aesthetically-pleasing landscape features and with a healthy natural environment (with birds and butterflies in abundance) offers the landholder a great deal of satisfaction and contentment. A well-managed farm requires the least amount of work in return for the most amount of farm productivity. The farm becomes a good place to be, rather than a place to toil. Prospective buyers will sense this and the re-sale value of your property will reflect this.

Environmental benefits & Bio-diversity

Converting a problem wet area into a place of habitat for local wildlife is a process which seeks to establish at the site a healthy eco-system with a great diversity of plant and animal species. A food web is created, where all creatures eat and are eaten. Your eco-system will comprise all manner of plants (trees, shrubs, groundcovers, climbers, sedges, reeds, rushes and grasses), lichens, mosses, fungi, birds, mammals, bats, reptiles, amphibians, insects, macro-invertebrates, and countless other organisms living within its soil.

Creating a healthy eco-system at your wet area offers local wildlife not just a valuable place of habitat, but a valuable place of refuge and source of food; some species will now have a place to nest, to perform breeding rituals and to breed.

How do you Convert your Problem Wet Area ?

The process of conversion starts with excluding stock from the site. Install a permanent stock-proof fence, with a farm gate to provide access for periodic maintenance. Re-habilitation of the plant population at the site will involve some bush regeneration, perhaps some revegetation and perhaps the installation of a few nest boxes.

- **Bush regeneration** occurs if the ground contains a store of locally-native (indigenous) seeds which have either lain there since land-clearing (Acacia seeds can lie dormant in the soil bed for over a hundred years !), or which have blown in over time and settled in, awaiting the right conditions for germination. Naturally, seeds will continue to blow in from any nearby remnant stands of native vegetation.
- **Revegetation**. If regeneration does not occur, or occurs very slowly, then you may introduce indigenous plants to the site by revegetating it, either by planting tubestock or by direct-seeding. Revegetation is a good way to supplement the plant species appearing through regeneration, in order to not only achieve a rich mix of plant species at the site, but to return the natural species mix present prior to land-clearing. Because your site is a wet area, select species suited to soils which will experience periods of saturation, if not inundation. Your local Landcare group and your local indigenous nursery will be able to advise you on suitable plant species. Be sure all your plants are grown from local-provenance seed and discuss this with your nursery when you place your plants order. Direct-seeding should only use local seed too. A Revegetation Planner guide is available in this series of Landcare booklets - see Further References.
- **Installing nest boxes** will provide birds, mammals and bats with somewhere to nest, which is particularly important in the absence of any natural tree hollows. Nesting boxes are designed to select for different species - the size of the entry hole, the size and shape of the box, and its location within the vegetation (i.e. high up in a tree, low down in a tree) are important important considerations when designing and positioning a box.