

CASE STUDY

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BACKGROUND

Native vegetation is not only important habitat for wildlife, it contributes to natural values, resources and processes of biodiversity, soil and water resources, hydrology, land productivity, sustainable land use, and climate change. Native vegetation also contributes to natural and cultural heritage, and indigenous people's interests. Benefits to agriculture include shelter for stock and crops from wind and weather, pest control by birds and insects, primary and secondary products from native vegetation, pollination by insects, health, recreation and amenity benefits and helping to address erosion, waterlogging and salinity management.

Here in the Illawarra, a lot of the vegetation has become fragmented and is isolated. Clearing activities over time from the red cedar logging industry throughout the 1800's and then for the agricultural industry, high conservation value vegetation such as our Illawarra Subtropical Rainforest and Lowlands Grassy Woodland, is now in many areas of our region, restricted to the escarpments and steep foothill areas. With added pressures from urban development, it's important that we engage with landholders who have important stands of native vegetation on their property and help them to sustainably manage this important vegetation. (Greening Australia, 2005).

Landholders have a number of obligations to manage native vegetation on their land as well as weeds which can carry a number of federal and regional statuses with a number of legal Acts surrounding this.



BIODIVERSITY AND FARMING – CAN THEY WORK TOGETHER?

Getting the best productivity outcomes from the land whilst preserving and having the lowest impact on the surrounding natural environment is a challenge most farmers and landholders face across the country.

There are a number of organisations which offer a range of advice and expertise in land management issues that landholders can access free of charge.

In the Illawarra we have a number of support networks available to the community including:

LANDCARE ILLAWARRA – Landcare Illawarra is the umbrella Landcare organisation in the region. This network of community volunteers regularly applies for state and federal funding to employ a project officer who specialises in biodiversity expertise, and delivers the regional biodiversity project "Illawarra Woodland and Rainforest Project". This project offers technical support to landholders who have Woodland and Rainforest on their property, as well as access to locally sourced plants free of charge to improve biodiversity on private property.

SOUTHERN RIVERS CATCHMENT MANAGEMENT AUTHORITY (SRCMA) – SRCMA hosts a number of support staff with different background areas and expertise. Property Vegetation Plan (PVP) officers and special biodiversity program officers are available for site advice and offer incentive support to landholders with high quality vegetation.

ILLAWARRA DISTRICT NOXIOUS WEEDS AUTHORITY (IDNWA) – Give regular presentations at community workshops and forums about weed management and are on-hand to offer advice and support for weed management on private and public land.





SMALL FARMS NETWORK (SFN) – The SFN is a managed network of landholders and farmers which offers support in the way of devolved grants for sustainable land management projects as well as regular field days and training workshops for capacity building about sustainable farming and land use.

BUSH REGENERATION CONTRACTORS – Bush regeneration contractors have high levels of expertise in vegetation and weed management. These services are valuable when considering ongoing bush regeneration projects.

CONSERVATION VOLUNTEERS AUSTRALIA (CVA) – CVA is a national volunteer organisation which offers regional support to landholders through practical on-ground conservation work with volunteers from the local community. CVA works with corporates, councils and private landholders to carry out conservation projects around the country and in the Illawarra.

WHERE TO START AND WHO TO TALK TO?

Our case study looks at a Jamberoo Dairy Farm in NSW.

The landholder has good stands of high conservation value vegetation surrounding the property as well as some island remnants of vegetation. Like most properties, there are problems with weeds particularly on the fringes of the vegetation.

Lantana (*Lantana camara*), Wild tobacco (*Solanum mauritianum*), and a number of other environmental weeds dominate the fringes of most of the native vegetation on the property. The issue around this was two pronged – the landholder has an obligation to manage these weeds by law, in particular lantana which is listed as a Weed of National Significance (WONS), and is listed as noxious in the Illawarra region, and the landholder was losing productive land due to weed invasion.

The landholder wanted to rehabilitate two island remnants of rainforest vegetation which sat in open grazing paddock. The vegetation is isolated, but provides important shelter for cattle and provides refuge for native wildlife travelling through nearby intact rainforest corridors, but is heavily degraded by weeds.

The landholder wanted to reclaim some of the weed infested areas surrounding the vegetation islands and decided to engage with the Southern Rivers Catchment Management Authority to explore their options under a Property Vegetation Plan (PVP).

A PVP is a free service provided by CMAs across the state and outlines recommendations in consultation with native vegetation management staff and the landholder on conservation obligations, desires and clearing rights.

A document was created which outlined a basic management plan for the landholder.

The landholder had previously attempted to control Lantana and Wild tobacco through slashing and then piling debris within the vegetation, hoping for it to mulch down. In principle, this sounds like an efficient management technique, let's face it, most people want to achieve results immediately and in one go.

A PVP IS A VOLUNTARY, LEGALLY BINDING AGREEMENT BETWEEN A LANDHOLDER AND THE LOCAL CMA, AND MAY BE OBTAINED FOR A NUMBER OF REASONS, INCLUDING:

- **APPLYING FOR NATIVE VEGETATION INCENTIVE FUNDING**
- **TO PROTECT NATIVE VEGETATION FOR FUTURE GENERATIONS**
- **TO CONFIRM THAT NATIVE VEGETATION ON A PROPERTY IS REGROWTH, PROVIDING A LANDHOLDER WITH ASSURANCE THAT THEY WILL NOT NEED FUTURE CLEARING APPROVAL**
- **TO CHANGE THE REGROWTH DATE OF NATIVE VEGETATION TO AN EARLIER DATE, PROVIDED THAT PROOF CAN BE SUPPLIED ILLUSTRATING TWO PREVIOUS CLEARING EVENTS ASSOCIATED WITH ROTATIONAL FARMING**
- **TO CONFIRM WHETHER EXISTING ROTATIONAL FARMING, GRAZING OR CULTIVATION PRACTICES MEET THE DEFINITIONS OF THESE IN THE NV ACT SO THAT CLEARING APPROVAL WILL NOT BE REQUIRED**
- **TO OBTAIN CLEARING APPROVAL, AND TO SECURE ANY OFFSETS ASSOCIATED WITH THAT CLEARING.**



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Unfortunately this resulted in suppressing any natural regeneration from occurring and opened up the vegetation edges to further weed infestations due to the high level of disturbance. Secondary weeds such as Cape Ivy (*Delairea odorata*), Bidens (*Bidens pilosa*) and Mist flower (*Ageratina adenophora*) rapidly took over where the lantana and wild tobacco stood, and increased the degree of difficulty in managing the vegetation and created less ideal conditions than the original state.

Although there was a high level of degradation in the native vegetation, there was some good diversity worth protecting and so the landholder looked at engaging some expert bush regenerators to carry out and rectify the situation.

A bush regenerator was employed who developed a strategy for rehabilitating the remnants. The landholder has also consulted Landcare Illawarra for appropriate native species to plant where there is no natural regeneration occurring. To date the bush regeneration team has almost completed the primary weeding in the first island and are about to commence work in second smaller island.

The method the team used, was to start from the middle of the island where all the good vegetation was (this is a basic bush regeneration principle adopted in many bush regeneration projects) and radiate outwards toward the edges. The team retained a barrier of Lantana and Tobacco around the perimeter to stop weeds from encroaching in from the outer edges such as Bidens, which can easily spread by wind-blown seed, and this way the barrier can aid in preventing some of this invasion until conditions are more stable in the remnant. The idea was also to keep the cows out with this barrier so they didn't trample any regrowth, (but this didn't work as the cows have been in there and the team will have to re-visit some ideas on how to manage this).

Some good results have been achieved so far, about 3000 square metres of woody weeds have been treated. There is some excellent natural regeneration happening with Maidens Wattle (*Acacia maidenii*), Hairy Clerodendron (*Clerodendrum tomentosum*) and Native Hibiscus (*Hibiscus heterophyllus*) all popping up as seedlings. There is still a bit of secondary weeding required to remove the Moth vine (*Araujia hortorum*) and Cape ivy that has taken off where the Lantana has been removed.

It is important to note that bush regeneration takes time and patience. Unfortunately weed removal is not a one step process, it requires careful planning and often landholders make the mistake of clearing too much too quickly and creating an even bigger problem than what they started with.

Also results are not always immediately visible especially when you are encouraging natural regeneration. Often the surrounding weeds are left in place to provide shade and shelter from drying and damaging winds so they can establish and survive under the best conditions possible, given what the site has to offer.

Follow up is important to make sure that other weeds are not dominating the area and this is required until the site is in a state where the native vegetation can sustain itself.

See the video http://www.youtube.com/watch?v=Gx_Y3L_rwug

RESOURCES AND REFERENCES

Clearing on State Protected Land – <http://www.environment.nsw.gov.au/resources/vegetation/nvinfosheet15.pdf>

Guideline for Clearing of Exotic Trees and Dead Native Trees on State Protected Land

– <http://www.environment.nsw.gov.au/resources/vegetation/splguideline.pdf>

Australia's Native Vegetation Framework

– <http://www.environment.gov.au/land/vegetation/nvf/pubs/native-vegetation-framework.pdf>

Greening Australia, 2005 "Native Vegetation: A guide to research and resources"

<http://live.greeningaustralia.org.au/nativevegetation/pages/index1.html>



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