

Loddon Plains Landcare Network

Investment prospectus

September 2021



About the Loddon Plains Landcare Network

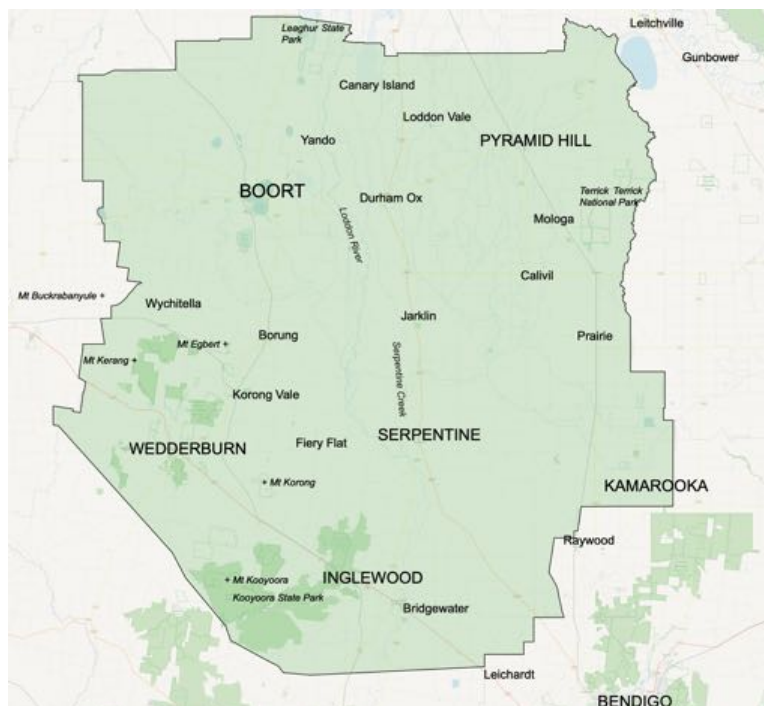
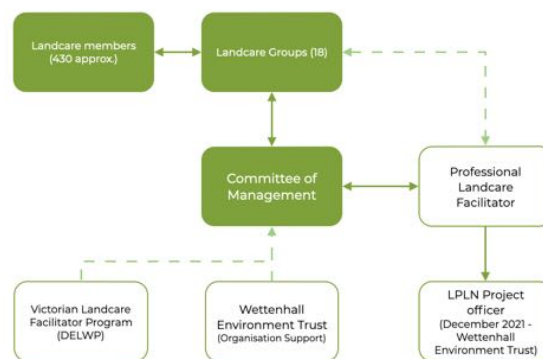
Since 2009, Loddon Plains Landcare Network (LPLN) has built its capacity and partner relationships to deliver large-scale community, landscape restoration and on-ground projects of up to \$200 000 per year.

These projects, as part of its Blueprint for Action Strategic Plan and Sustainable Agriculture Strategy, include annual community-led landscape restoration projects focussed on important environmental assets, sustainable soils and regenerative agriculture programs, landscape-scale pest management and supporting Landcare groups in delivering projects as part of the Victorian Landcare Facilitator's Program.

Governance Framework

LPLN values a community-led governance and operational framework. The Network is made up of approximately 430 members across 18 Landcare groups. The LPLN Committee of Management (CoM) is made up of members from its groups and provides the decision-making guidance for the Network's operations. The Wettenhall Environment Trust supports the CoM in its governance..

An employee funded by the Victorian Landcare Facilitator Program, augmented by additional project funding, supports the Network.. In August 2021, the Wettenhall Environment Trust committed to further support to LPLN by way of funding for an extra employee from December 2021.



Canary Island - Leaghur Biodiversity Restoration Project



Prepared by Danny Pettingill



Introduction

The black box dominated riverine grassy woodlands/forests and lignum wetlands between the Loddon River and lower reaches of Serpentine Creek in the vicinity of Canary Island and surrounds (south to Boort) provide habitat for a range of threatened fauna, including Grey-crowned babbler. This area contains remnant vegetation of 'very high' and 'high' conservation significance and includes the lower reaches of Serpentine Creek that have not received as much attention as reaches further upstream.

Restoration actions in this landscape could include protection of existing black box woodland, particularly remnants with many large old trees, and active management through controlled grazing to promote regeneration of the grassy understory and black box trees. Many significant faunal values are associated with woodlands with a grassy understory, so lignum abundance in grassy woodlands would need to be monitored and controlled where necessary to prevent over-abundance of lignum. Revegetate degraded habitats with appropriate shrubs and trees to increase habitat for Grey-crowned babbler and other fauna, and re-connect linear habitat along roadsides and creeklines by widening buffers and replanting where necessary.

As part of a revision of its Blueprint for Action (2012), LPLN surveyed members to understand community priorities. As part of its survey, members identified the Canary Island region as one of four important landscapes for restoration, providing the direction for LPLN's Priority Landscape Strategy 2021 - 2025.

Issue:

The Canary Island locality, taking in the district of Boort - Leaghur is rich in diversity and plays a key ecological role in the central Victorian landscape.

The area is an important habitat resource and is a key area of biodiversity, with the convergence of a number of bioregions Victorian Riverina, Murray Mallee and Murray Fans, making the region a significant food and habitat areas for a myriad of species.

Two significant and important waterways, the Loddon River and Serpentine Creek, flow through this region with these waterways branching off into important creek and floodplain systems such as the Bannagher and Penny Royal creek systems adding to the importance of this region as a food, habitat and biodiversity system on the Loddon flood plain of central Victoria.

This area, referred to as the Leagher region for the purposes of the State of Victoria's Biodiversity Decision Systems and Biodiversity Response Planning, provides very high priorities in strategic management including pest plant and animal management and restoration of landscapes to promote diversity of species and provide opportunities for threatened species.

Since the year 2000, the region has recorded and provided habitat for 8 critically endangered species and 32 endangered flora and fauna species listed on the Flora and Fauna Guarantee Act. There are a further five species listed as endangered on the Victorian Advisory List of Threatened Fauna.

What we want to achieve:

The Canary Island - Leaghur project will identify remnant and high value assets on private land that will provide the best opportunity to enhance and create opportunities for rare, threatened and endangered species. By working with private landholders, the project provides an opportunity to extend habitat opportunities that may exist or be managed by public land managers, creating further public good.

A significant portion of the Canary Island area is private farm land, with an engaged and enthusiastic community with priorities in creating regenerative and sustainable agriculture systems and providing greater opportunities for biodiversity and the natural environment. Landholders are open to working with Landcare on large scale landscape restoration.



LPLN will work with landholders to provide:

- Protection of remnant habitat for biodiversity
- Extension of remnants and development of biodiversity areas on private land to increase biodiversity opportunities
- Design restoration areas that provide benefits in erosion and surface water management to increase river and waterway health in the region
- Aggregate landholders to provide connections to restored and remnant habitat on private and public land to improve landscape connection
- Assist in increasing river health through restoration of adjacent landscapes and ecosystems

Long-term (10 years) outcome:

- 25% increase in average size of grey-crowned babbler population in Boort-Leaghur district
- Increase in the number of grey-crowned babbler groups
- Demonstrable improvement in established habitat for woodland birds, reptiles, amphibians in restored areas
- Demonstrable evidence, through monitoring, of woodland birds populations (specifically Grey-crowned Babbler) migrating between groups to decrease genetic bottleneck pressure
- Landscape provides key resources to see an increase in Goanna (Lace monitor) numbers as an apex predator in the region
- Improvement to water quality in key waterways including Loddon River, Serpentine Creek and Bannagher and Penny Royal Creeks systems
- Restored areas carrying rare, threatened or absent flora species with recruitment occurring
- Farming enterprises have transitioned to effective regenerative practices that promote and enhance local ecosystems

Short-term outcomes (3 years):

- Identify key landscape assets for restoration projects to 6 to 10 farms in the region, identified for biodiversity assets and potential to provide increased habitat for target species
- Deliver six to ten farm projects that protect and enhance biodiversity, with focus on target species
- Undertake baseline monitoring, using water quality, woodland birds, reptiles including the Goanna and invertebrates as key identifiers of landscape change.
- Increase in water and migratory birds in the region (Brolga, Eastern Great Egret, Pied Cormorant, Musk Duck, Pacific Black Duck)
- Introduction of key rare, threatened or absent flora species in restoration projects (50% of these species to be represented as per LPLN project design framework)
- Provide support to farmers in developing grazing management strategies that promote grassy woodland ecosystems and opportunities for Plains Wanderer and Bush-stone Curlew
- Improved community awareness of ecosystem and biodiversity values in the area and active change toward improved management and stewardship practices

Actions:

LPLN will work with landholders to assess their landscape assets and protect, restore or enhance areas to promote biodiversity and create food and habitat opportunities for threatened species.

The project aligns with NCCMA landscape priorities and Victoria's Biodiversity Response Planning priorities (Leaghur). Actions will complement the work NCCMA is doing through its *Native Fish Recovery Strategy* by targeting areas outside of its project scope that will enhance species opportunities and contribute to water health outcomes. The project design will be guided by Victoria's *Biodiversity Decision System* tools and *Strategic Management Prospects*.



This project is part of the **LPLN Priority Landscape Strategy 2021 - 2025**, and also provides key contributions to the **LPLN Sustainable Agriculture Strategy 2021** including:

- **6.1 Education and community building**, to increase adoption of sustainable agriculture practices and help the Loddon Plains farming community to better understand the benefits of biodiversity in agricultural systems. Building stronger connections around the health of both agricultural soils and the natural environment.
- **6.2. Increase environmental sustainability to contribute to biodiversity**, promote areas to assist in key threatening processes and establish areas for wild pollinators and predators (birds, insects, reptiles etc.) for greater pollination and pest management in cropping enterprises.

Project actions will support Victoria's Biodiversity 2037 strategy and Biodiversity Response Planning in key Biodiversity 2037 outcomes:

- Promote a **Public and Community Vision** through undertaking community landscape priorities, reflective of LPLN's survey of members
- **Protect Natural Capital**
- Contribute to **Establish reliable baselines about biodiversity, connection to nature and protection of natural environment**
- **Measuring projects through monitoring, evaluation and reporting** on short and long term outcomes
- **Raise awareness of all Victorians about the importance of the state's natural environment** through developing engagement and field day opportunities and developing education, media and awareness material around the project
- Contribute to **embedding consideration of natural capital into decision making** across the agriculture and farming industry for public and private good.
- Help to **Create more liveable and climate adapted communities** through restoring environmental assets that can contribute to mitigation of drying climates through improvements in shade, evapotranspiration, wind mitigation and improvements to water quality.
- **Increase incentive and explore market opportunities**, specifically Environmental Goods and Services through carbon and land stewardship payments.

Actions delivered will address the above strategic and policy goals through the creation of a Landcare-led community program and will provide significant value in addressing the above priorities with the KPMG report, Landcare Victoria - Return on Investment Report 2020 finding that every \$1 of investment in the Victorian Landcare Program generates \$7 of additional value in engagement activities and community capacity.

Support required:

A three year investment program is required for the project including

- | | |
|-------------------------|--|
| • \$20 000 per year | - Project delivery, community capacity and education campaign |
| • \$15 000 per year | - Monitoring program |
| • \$45 000 per year | - Restoration key landscapes with significant biodiversity potential (~400 ha) |
| Total Investment | \$225 000 (\$75 000 per year) |

Our partners:

The organisation is supported in its vision and landscape priorities by North Central CMA, Loddon Shire Council and its member groups. LPLN has strong relationships with Dja Dja Wurrung Traditional Owners, Parks Victoria, Trust for Nature and Bush Heritage Australia, providing benefits to collaborate on conservation and biodiversity outcomes.

Project design will work with carbon and environmental goods and services partners to establish readily adoptable EG&S actions with the aim of executing an EG&S transaction that provides long term stewardship outcomes of which landholders are remunerated.



Flagship and focus species

Grey-crowned Babbler

Endangered in Victoria, the Grey-crowned Babbler is found in open forests and woodlands, favouring inland plains with an open shrub layer, little ground cover and plenty of fallen timber and leaf litter. (Birdlife Australia)

Goanna (Lace Monitor)

Listed as endangered in Victoria, the Lace Monitor has become a victim of clearing and agricultural land use. The species is a key predator of the plains landscape and very little research or monitoring has been done to understand its key threatening processes or distribution in central Victoria or on the Loddon Plains. Lace Monitors need large, well-connected areas of bushland consisting of woody debris and large hollows. Lace monitors are apex predators and require healthy woodlands providing abundant food sources of large insects, reptiles, young birds and eggs for its survival.

Endangered, Rare and Vulnerable species

These species are severely underrepresented and protected under state or federal lists. These species will be a focus for conservation and reintroduction into the landscape.

Flagship Fauna

Grey-crowned Babbler

Diamond Firetail
Hooded Robin
Brown Treecreeper
Black-eared Cuckoo
-

Bush Stone-curlew

Plains-wanderer

-

Brolga

Eastern Great Egret

Pied Cormorant

Musk Duck

Pacific Black Duck

-

Fat-tailed Dunnart

Goanna (Lace Monitor)

Growling Grass Frog

Striped Legless Lizard

-

Freshwater Catfish

Golden Perch

Flagship Flora

Buloke
Buloke Mistletoe
Tough Scurf-pea
Hoary Scurf-pea
Winged New Holland Daisy
Streaked Wattle

Slender Water-ribbons
Twin-leaf Bedstraw
Winged Water-starwort
Small Water-fire
Western Bitter-cress

Priority Plant Communities:

Buloke Grassy Woodland Community (T)
Northern Plains Grassland Community (T)
Chenopod Grassland (E)

Plains Woodland (E)
Plains Grassland (E)



LODDON
PLAINS
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Healthy environment . Healthy agriculture . Sustainable communities
to protect and enhance biodiversity of the Loddon Plains

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Kamarooka Wetland Complex Project Phase Two



Direct seeding of a Kamarooka site. Photo credit: James Nelsson.

Prepared by Danny Pettingill

Background

Delivered in 2018 and 2019, the Kamarooka Project Phase I was designed to enable local communities to act in protecting the Loddon Catchment Floodplain through the preservation and restoration of an important hydrological asset, the Kamarooka wetland complex.

Led by Loddon Plains Landcare Network, a successful collaboration between Landcare, community, landholders and agency and NFP groups resulted in successful weed control, restoration planting and fencing of sensitive hydrological assets.

The initial design period identified seven wetland areas for restoration, all with significant value to the wetland system. Of these, four areas were chosen for restoration works:

- Whingee Swamp
- Thunder Swamp
- Dunn's Swamp
- Wilkinsons Swamp

The Kamarooka Wetlands is an area of high regional significance with a variety of wetlands with diverse vegetation types. The wetlands provide important habitat, feeding and breeding sites for many species including the Brolga.



Fencing and gates – Kamarooka Wetlands Complex. Photo credit: James Nelsson.

Phase One Works

Phase one of the works was delivered through a \$95,000 investment from the Victorian State Government's Our Catchment Our Communities program and supported by the NCCMA.

The works concentrated on private land, developing opportunities to enhance biodiversity and habit for species such as woodland birds, amphions such as the endangered Growling Grass Frog and water birds, specifically developing future breeding areas for Brolga.

These works delivered the following:

- 14 kilometres of fencing
- 50 hectares of direct seeding
- 280 hectares of wetland and surrounding habitat protected (previously agricultural land)
- 1200 Black box tube stock planted and watered.



Phase Two Priorities

As part of a revision of its Blueprint for Action (2012), LPLN surveyed members to understand community priorities for 2021 - 2024. As part of its survey, members identified the Kamarooka Wetland Complex as one of four important landscapes for restoration.

Kamarooka Wetland Complex Phase II will focus on the following priorities:

- Monitoring of Brolga populations and behaviour in the Kamarooka area, and how the species utilises the wetlands and evidence of breeding behaviour
- Focused pest management program, specifically fox control to promote water bird habitation and breeding
- Extension of phase one works to include protection and restoration of a further 3 sites

The project will work with private landholders and the extended community in the Kamarooka area to undertake education, awareness, restoration and fox control programs to support species that use the wetland complex.

It is believed the Brolga population has dropped to just 60 - 70 in the northern irrigation areas of Victoria (SWIFFT 2013), there have been a number of factors for such a drop including land use and predation from vertebrate pests.

A program to deliver increased habitat and breeding opportunities through fox control methods and landscape restoration is vital to retaining the species in Victoria.

The project will include camera monitoring of the area, particularly Tang Tang and Thunder Swamps but extend to selected sites to provide greater understanding around how Brolga use the area.

The program will also include a robust monitoring program including landscape condition, species habitation (birds, reptiles, amphibians) and focus on water bird populations to establish a dataset to provide information about how these birds utilise the wetland complex.

A community based project will provide opportunities to increase awareness of the species and new insights and understanding in behaviour of water bird species, the value of healthy wetlands to biodiversity and the landscape and provide an opportunity to work with the community to increase breeding opportunities i.e water availability, feral predation on young birds and mature birds, changes to land use etc.

Undertaking this project aligns with LPLN's 2021 - 2025 Landscape Strategy, with the wetlands highlighted as an important landscape for restoration and also aligns with the LPLN Sustainable Agriculture Strategy specifically:

- *6.1 Education and community building, to increase adoption of sustainable agriculture practices and help the Loddon Plains farming community to better understand the benefits of biodiversity in agricultural systems. Building stronger connections around the health of both agricultural soils and the natural environment.*
- *6.2. Increase environmental sustainability to contribute to biodiversity, promote areas to assist in key threatening processes and establish areas for wild pollinators and predators (birds, insects, reptiles etc.) for greater pollination and pest management in cropping enterprises.*

Investment Support Required

A three year investment program is required for the project including

- | | |
|-------------------------|---|
| • \$20 000 per year | - Community capacity and education campaign |
| • \$15 000 per year | - Pest control program with community (inc. training for landholders) |
| • \$15 000 per year | - Monitoring program |
| • \$30 000 per year | - Restoration of three wetlands |
| Total Investment | \$195 000 |

For further details and costing details please contact:

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Calivil Creek Restoration

Black Box Woodland Plains Grassland Plant Communities



Introduction

This project builds on previous on-ground works across multiple projects delivered through Agriculture Victoria and Loddon Plains Landcare Network. The project will continue to restore functioning ecosystems through the reintroduction of riparian habitat on the Calivil Creek.

It will increase the extent of Riverine Chenopod Woodland (listed as vulnerable in Victoria) and Plains Grassland (Endangered) to improve connectivity along the riparian zone of the creek and provide further development of the plant community in order to promote enhanced biodiversity and greater food and habitat opportunity for birds and other local fauna.

Works include revegetation with Black Box (*Eucalyptus largiflorens*) and indigenous understory flora.

The project will address a lack of connectivity in the landscape, linking remnant black box areas along the creek, and providing a new stepping stone between existing remnant patches nearby.

The riparian restoration will provide a link for birds and wildlife in the landscape that is currently very limited.

Black Box are very slow growing and essential for wildlife and a functioning landscape. The species does not regenerate well after disturbance or soil effects such as salinity. Following die off from over irrigation and flooding last century, the Calivil Creek lost this vital source of habitat. The Loddon Vale Landcare Group and local Yarrowalla landholders are keen to see the Calivil Creek Black Box areas restored and to continue the work that has been done previously in order to improve habitat opportunity.

The long term aims are to improve connectivity in the landscape and create a buffer from surrounding stock areas. Revegetation will be completed through a mix of plantings and direct seeding involving Landcare volunteers and contractors.

Project History:



To date 6.75 km of fencing has been installed along 4 km of the creek. The fencing was erected through funds from a DEPI Kerang Biodiversity Fund project. In 2015 the Network secured a 20 Million Trees Grant as part of the Australian Government's National Landcare Programme to revegetate a 5.33km portion of the creek with 3560 tubestock and 16km of direct seeding. Planting was undertaken in September 2015 with 80 East Loddon P-12 College students, members of the Loddon Vale Landcare Group and the Green Army Team from the Landscape Change in Upper Loddon Catchment Project.

Map one: target area, white shaded areas will be re-visited, green areas indicate extension of project works

Project Breakdown

Supporting the plant community

Plantings will focus on Riverine Chenopod Woodland Swampy Woodland, Plains Grassland species. Plantings will give greater emphasis to endangered, rare, threatened or under-represented species within the plant community including local threatened Black Box (*Eucalyptus largiflorens*), and listed rare or endangered species *Eremophila divaricata* ssp. *divaricata* (Spreading Emu-bush), *Sclerolaena tricuspidis* (Streaked Copperburr), *Atriplex lindleyi* (Flat-top Saltbush), *Disphyma crassifolium* ssp. *clavellatum* (Rounded Noon-flower), *Sclerolaena napiformis* (Turnip Copperburr).

Plantings will re-establish the above focal species and reinforce the complimentary plant community in which these species occur.

Promote invertebrate and pollinator diversity through species selection and habitat construction

Plains Grassland species will be used to promote further habitat opportunity for local pollinator and invertebrate species. Developing this activity will prove vital in restoring soul quality to the area and provide improved food sources to birds and small reptiles and mammals, resulting in greater opportunity for these species.

Community Engagement

Local Landholders and the Loddon Vale Landcare group will be engaged in delivering this project. A community engagement program will also be delivered with a focus on flagship plant communities and focus species such as *E. largiflorens* and the Grey-crowned Babbler.

Delivery of this engagement will stay flexible due to the current social climate in light of Covid 19 and may take the form of webinars, resource documents or field days such as planting days and ecological tours.

Work with Traditional Owners

Dja Dja Wurrung will be engaged in project design with the DJANDAK focus on food and fibre plants being incorporated into the project where appropriate. A cultural learning and engagement event may also be organised within the context of the project outcomes.

Investment

LPLN is seeking an investment of \$50 282 to deliver community engagement and on-ground environmental outcomes for this project. Funds will include 0.2FTE for a project manager and \$27 000 in onground outcomes.

Total Investment: \$50 282, one year

Flagship species

Flagship species in this project include;

Grey-crowned Babbler;

Endangered in Victoria, the Grey-crowned Babbler is found in open forests and woodlands, favouring inland plains with an open shrub layer, little ground cover and plenty of fallen timber and leaf litter. (Birdlife Australia)

***Eucalyptus largiflorens*, Black Box and supporting plant community;**

A healthy Black Box community will support arboreal fauna, bats and abundant bird species including Grey-crowned Babbler, thornbills, treecreepers, whistlers, rosellas, currawongs, robins, pardalotes, cuckoos, parrots, wrens, honeyeaters etc. as well as a community of reptiles; skinks, legless lizards, geckoes, dragons, goannas and snakes and frogs. This species is essential for landscape function and supports an understory that provides opportunity and habitat for the above species.

Endangered, Rare and Vulnerable species;

These species are severely under-represented and protected under state or federal lists. These species will be a focus for conservation and reintroduction into the landscape.

Eremophila divaricata ssp. divaricata,
Spreading Emu-bush (rare, Vic)

Sclerolaena napiformis Turnip Copperburr
(Endangered, Federal)

Acacia oswaldii Umbrella Wattle (vulnerable,
Vic)

Atriplex lindleyi Flat-top Saltbush (rare, V



EVC map of area indicating vegetation types including Lignum Woodland/Plains Grassland Mosaic (blue), Plains Grassland (pink), Wetland Formation (dark blue)