WINDHARP HORIZONS

LANDSCAPE ACTION FOR A 2043 VISION

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ACKNOWLEDGEMENT OF COUNTRY

The Buloke and Northern Grampians Landcare Network (BNGLN) conducts its work on the Traditional Lands of the Dja Dja Wurrung and Wotjobaluk Peoples. For tens of thousands of years, they have nurtured and cared for Country.

We understand that this Country is so much more than a landscape. It is more than what is visible to our eyes. Country is a living entity which holds the Lore of the Traditional Owners and has a history that cannot be erased. Accordingly, we pay our respects to the original Custodians of the land, and their Elders past, present and emerging; for they keep the memories, culture, traditions, knowledge and hopes for their Peoples.

We have much to learn from all First Nations people from their deep connection to and stewardship of Country. The BNGLN and its Windharp Horizons Program acknowledges and respects the unique knowledge Traditional Owners have of the area, their leadership and generosity; and we are dedicated to walking with First Nations partners to care for and heal Country together.

PREFACE

This Landscape Action Plan (the Plan) was developed through the New Futures for Victorian Landcare project, with generous support from the Ian Potter Foundation and the Natural Resources Conservation Trust.

The Buloke and Northern Grampians Landcare Network was selected as one of two pilot areas for the New Futures project in Victoria and successfully secured funding through their application in 2023. This program utilised the 4 Returns Framework for Landscape Restoration to develop eight discrete landscape plans, outlined in this plan.

This plan is the culmination of multiple workshops and meetings with our partners, local stakeholders and landholders throughout 2024. The Windharp Horizons Working Group collated and refined this qualitative information, provided from all involved, to deliver this final plan.

INTRODUCING

WINDHARP HORIZONS

WHO ARE WE?

The Windharp Horizons (WH) Program is a new BNGLN initiative to revitalise our landscape and promote sustainability in environmental and agricultural practices as we work towards 2043. Our mission is to reconnect fragmented ecosystems, protect unique species and improve conditions for farmers, while fostering environmental stewardship. We also aim to enhance the knowledge and well-being of local communities, creating a more resilient environment both now and in the future.

To achieve these goals, the BNGLN established the Windharp Horizons Working Group (WHWG), focusing on partnerships with organisations, researchers, and corporations to benefit our landscape. In February 2024, we assembled a diverse team of seven local experts with backgrounds in Landcare and sustainable agricultural and connections to the local community.

Members of the Windharp Horizons Working Group (L-R):
Andrew Borg (Network Landcare Facilitator), Jordan Howell, Andrew Ward (Regen Farmers Mutual), Dougal McAllister, Elle Fox, Anthony Gallacher (Landcare Victoria), Maddie Grant, Marney Durie (Windharp Horizons Landscape Coordinator), Luke Batters.

ABOUT THE NETWORK

The BNGLN operates within the North Central Catchment Management Authority (NCCMA) of Victoria and includes 18 Landcare and Conservation groups. These groups span from Natte Yallock in the southeast, north to Wycheproof, west across to Donald, and south to Callawadda.

OUR PARTNERS

In addition to the New Futures partners, the WHWG worked closely with a range of partners to lay a solid foundation for the Windharp Horizons initiative, and to formulate this Plan. Together, we facilitated co-design workshops to identify key areas of collaboration, and developed landscape and community aspirations for the environment and the agricultural sector. The results are a comprehensive set of project objectives and plans that form the basis for achieving our 2043 vision.

Avon Plains Banyena Landcare

Landcare

Seeding Victoria

St. Arnaud Field Naturalists

Friends of Blue Gum Rise

TRUST FOR NATURE

THREATENED SPECIES CONSERVANCY

North Central CMA

Parks VICTORIA

BUSH HERITAGE AUSTRALIA

CASSINIA ENVIRONMENTAL

AGRICULTURE VICTORIA

BULOKE SHIRE COUNCIL

St Arnaud RAILLERY HUB

NORTHERN Grampians SHIRE COUNCIL

Biolinks Alliance Connecting Central Victoria

OUR VISION

"Local communities and partners collaborating for resilient, biodiverse, and productive landscapes."

Landscape restoration on farmland at Slaty Creek

In 2043, we have all become more connected to nature. As a result, both our landscape, and our communities, are becoming healthier with each passing year. Biodiversity has increased due to the regeneration and linkage of remnant vegetation pockets as part of Windharp Horizons: one of the inaugural New Futures for Victorian Landcare projects. Most notable (and noticeable) are the Red-tailed Black Cockatoos (which had been absent for nearly 100 years) - pushing back into the Buloke forests; family groups of Squirrel Gliders (absent for 30 years) crisscrossing the box-ironbark bushlands of the south; and there are frequent sightings of Plains-Wanderers in the restored northern grasslands.

The wetlands and rivers are a magnet for tourism and are now under the care of permanent staff. Indigenous rangers provide a connection to culture and nature for all visitors; with cultural sites and artefacts extensively mapped in the previous 20 years.

The first Junior Landcare members are now in their late twenties and early thirties. Some of them are employed as members of the BNGLN outdoor works crews, nursery staff or at the Landcare Museum and Sustainability Education Centre - teaching the next generation of environmental stewards. This has all come about by coordinated investment from multiple partners, which has linked private and public land managers into thinking about landscape scale improvements to our region, resulting in connectivity of native vegetation assets, both on agricultural and Crown Land.

Farmers enjoy the economic and health benefits of sustainable farming and regenerative agriculture techniques, including native species on their properties - pollinators, predators, shelter species to the benefit of their stock and crops. Soils have improved, with notable carbon capture, due to regenerative, organic, or biodynamic farming, and are better able to withstand the heating, drying climate that we are adapting to.

People flock to our region to enjoy the quiet, slow and careful lifestyle, the caring productivity of the farms, the cultural knowledge and ways of seeing the world, and to enjoy the stars at night in a dark sky, increasing the economic prospects for our region.

Farming at Natte Yallock

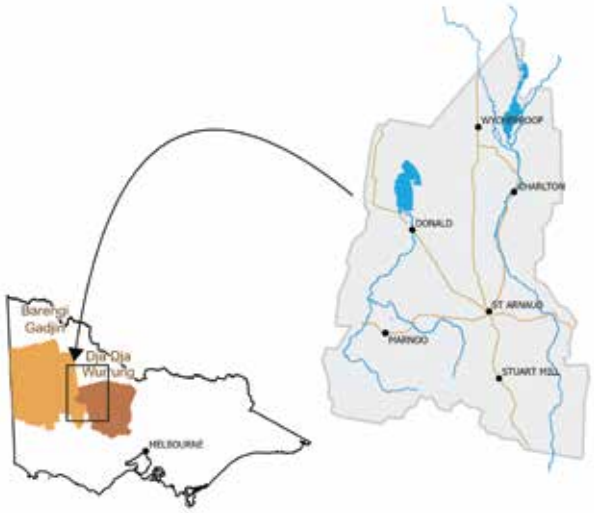
OUR LANDSCAPE

Lake Wooroonook

OUR REGION

Our region covers an area of approximately 700,000 ha in northern Victoria and includes the Traditional Lands of the Dja Dja Wurrung and clans represented by the Barengi Gadjin Land Council (BGLC), the Wotjobaluk, Jadwaa, Jadwadjali, Wergaia and Jupagulk peoples. Dja Dja Wurrung Country extends from the Boort Lakes in the north along the Avoca River to Kara Kara National Park in the South. BGLC's Country begins in the upper Avon-Richardson catchment and runs north along the Richardson River to Lake Buloke.

Farming is the lifeblood of the economy and community. The principal land use in our region is agriculture – specifically dryland, broadacre farming – with perhaps 80% of the agricultural land used for cropping (wheat, oats, barley, oilseed, pulses and legumes) and to a lesser extent, grazing (sheep).



Local government authorities are the Buloke Shire Council and Northern Grampians Shire Council, with major towns including St Arnaud, Stuart Mill, Donald, Charlton, Wycheproof and Marnoo. Population across the Network area is approximately 8,000, with less than 25% living outside the major townships.

Historically, the region has been subjected to a variety of land-uses through goldmining (1860s), logging (1920s) and agriculture. Accordingly, natural landscapes across the network area are highly fragmented and degraded, with the proportion of remaining native vegetation estimated at less than 7%.

The population is both declining in number and ageing - with the median age currently at 53 years. Nonetheless, there is a surging undercurrent of interest in environmental, sustainable and regenerative agricultural practices, on which Windharp Horizons is seeking to capitalise.

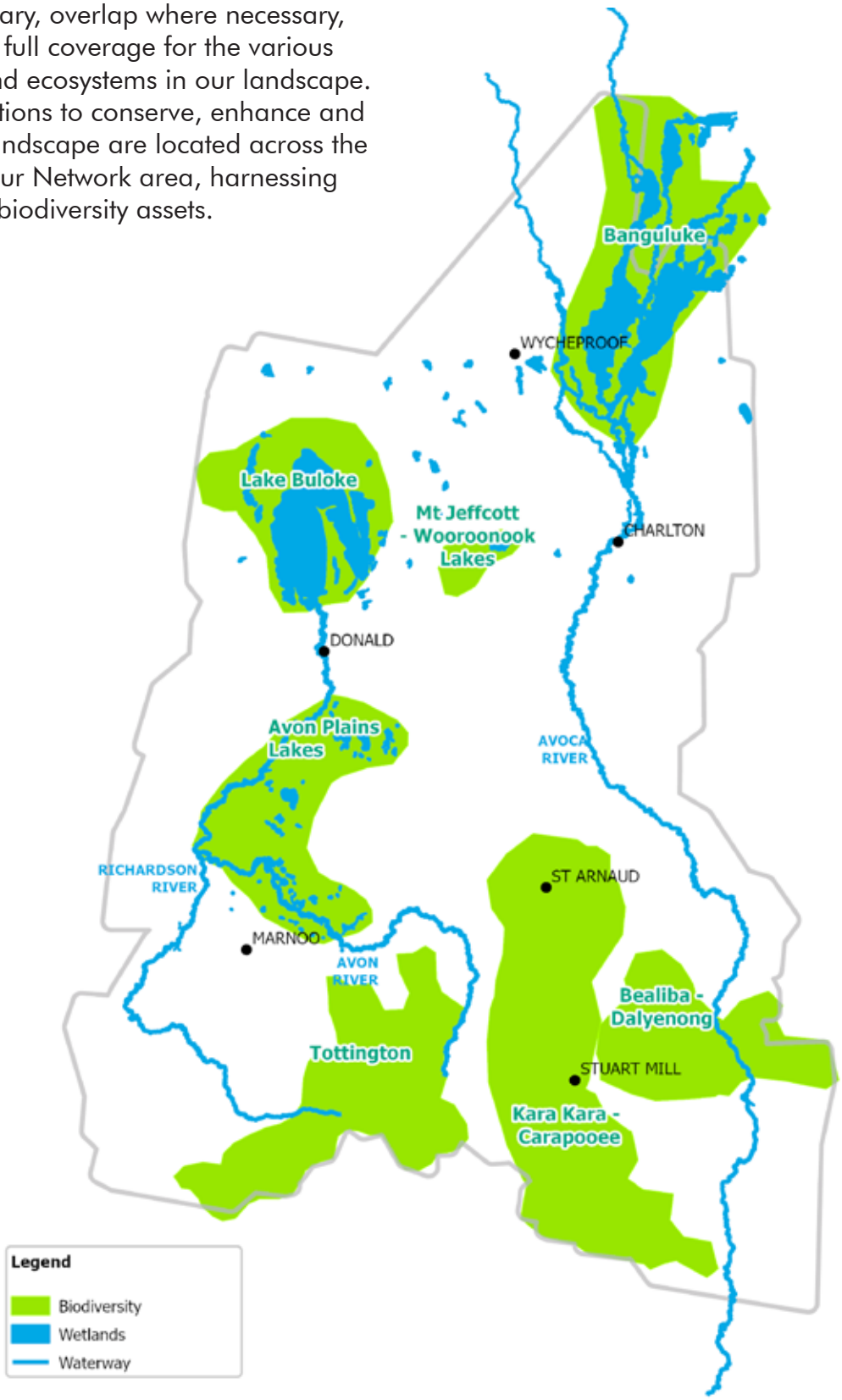
LANDSCAPE DESCRIPTION

The southern half of our region is characterised by grassy dry forest, box-ironbark forest, and heathy woodland and includes numerous reserves: Kara Kara National Park (adjacent to St. Arnaud Regional Park) and Dalyenong, Morrl Morrl, Bolangum and Big/Little Tottington Nature Conservation Reserves (NCRs). The northern foothills of the Pyrenees Ranges form the upper catchment of the Avon-Richardson and Avoca Rivers.

In our region's north (the eastern edge of the Wimmera plains) and west, the landscape is characterised by Buloke woodlands, plains grasslands, and black box/lignum wetlands. Significant wetlands include York Plains, Avon Plains Lakes, Lake Buloke, Wooroonook Lakes and Bunguluke, connected by a network of rivers and creeks that support the distinctive River Red Gum, along with other plants requiring permanent water or adapted to periodic or seasonal inundation. Grey box/yellow gum communities are also scattered throughout but are increasingly rare.

Buloke forest

In response to our region's environmental diversity, we developed focus areas for landscape-scale action that are complementary, overlap where necessary, and provide full coverage for the various land uses and ecosystems in our landscape. The interventions to conserve, enhance and repair our landscape are located across the breadth of our Network area, harnessing our existing biodiversity assets.



OUR NATIVE FLORA AND FAUNA

Aside from the National Park and many NCRs, the majority of vegetation (including endangered communities and species) occurs as irregular and disconnected patches of small size; mostly on private agricultural land. Therefore, in a landscape context, the existing remnants are extremely significant, providing critical habitat for a variety of native fauna. Notable threatened species include the Brolga, Powerful Owl, Swift Parrot, Diamond Firetail, Hooded Robin, Growling Grass Frog, and Bibron's Toadlet.

Buloke mistletoe, Powerful Owl

Our landscape approach has identified eight priority focus areas where Windharp Horizons will implement on-ground actions and interventions to aid in conservation, connection, landscape rehabilitation and improved production.

Each focus area has been assigned a 'flagship' species. The flagship species will not only serve to represent the specific priority area but will also serve as a tool to attract funding, create graphics and visuals and symbolise the broader ecosystem and the other species and processes it encompasses.

WEDGE-TAILED EAGLE

COLLABORATION WITH TRADITIONAL OWNERS AND CULTURAL LANDSCAPES

1

GROWLING GRASS FROG

WATERWAYS

5

PLAINS WANDERER

GRASSLANDS CONSERVATION AND MANAGEMENT

2

BULOKE

NATIVE SEED SUPPLY

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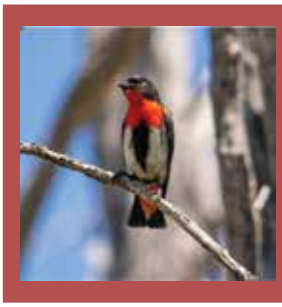

MISTLETOE BIRD

NORTHERN BIOLINK

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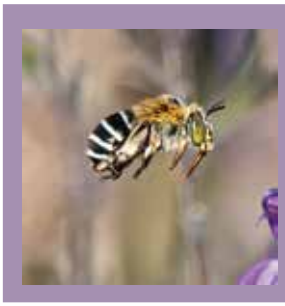

BLUE BANDED BEE

SUSTAINABLE AGRICULTURE

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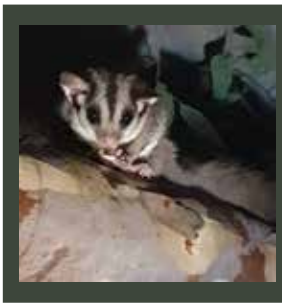

SQUIRREL GLIDER

SOUTHERN BIOLINK

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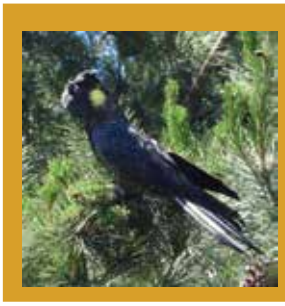

BLACK COCKATOO

RESEARCH AND EDUCATION

8

PRIORITIES


Walkers Lake

PRINCIPLES

Windharp Horizons has developed this plan in order to achieve the Landscape Vision for 2043. In doing so, a set of guiding principles will govern the way we approach activities, regardless of the locality or type of on-ground activity. These principles are:

Natural value
Regardless of size, use or ecosystem type, all land has intrinsic value because of the nature and habitat that resides there. In our region's highly fragmented landscape, there is a variety of protected forest, small remnant patches and poor-quality woodland. These all represent potential to improve the health and resilience of our region. We value the entire landscape.

Connectivity
To conserve and ensure the long-term preservation and genetic diversity of native flora and fauna, landscape connectivity is paramount. This will be developed in the form of habitat corridors and bio-links. Further, we will focus on connecting people to the environment to ensure our landscape is appreciated and protected.

Resilience
The activities we undertake will be designed to assist the ability of the natural landscape, its ecosystems and the species that inhabit them, to withstand and recover from climatic stressors and extreme weather events. This includes our communities – we are part of nature.

Thriving communities
We want our communities to thrive, by being built on regenerative businesses, increasing personal and community health. We will make a better environment to live in, and one that is profitable and sustainable – underpinned by social capital and licence.

Scientific approach
When designing approaches and on-ground projects, we will use evidence to inform decisions. By using science, and what we've learned or developed in the past, we can remain informed of future opportunities and threats.

Primary School Plantout

Healing Country
When caring for Country, we will follow the knowledge and wisdom of the Traditional Owners. We will seek to come together with purpose, in order to share their cultural insights.

Sustainability
Our actions will be sustainable – financially and environmentally. We will value our employees, volunteers and partnerships.

THREATS TO OUR VISION

The threats highlighted in the following table present the complex, interconnected challenges facing environmental management and sustainable agriculture in our region. It is in combatting these challenges that Windharp Horizons seeks to ensure that our landscape is resilient, biodiverse and productive.

THREATS	DESCRIPTION
Land degradation	Soil erosion, salinity, compaction from agriculture and overgrazing
Biodiversity loss	Habitat loss and fragmentation due to land clearing and inappropriate land management practises impacting on native species
Invasive species	Proliferation of pest plants, animals and pathogens disrupting ecosystems
Water scarcity	Reduced rainfall and groundwater depletion affecting agriculture and habitats
Climate change	Hotter, drier climate and increasing frequency and severity of natural disasters (eg. fire, flood, drought)

THREATS	DESCRIPTION
Broad-acre and intensive farming	Large-scale farming and intensification reduces biodiversity (fragment habitats, and limit land for native species) and contributes to soil health decline (nutrient depletion and chemical pollution) and loss of soil biology
Land use and development pressures	Mining and infrastructure projects altering landscapes, contributing to habitat fragmentation, degrading land and risk of pollutants
Financial and legislative barriers	Insufficient funding and resources limit conservation efforts and contribute to inadequate environmental protections
Population and community	An aging, shrinking population reduces the workforce for agriculture and conservation efforts
Emerging challenges and knowledge gaps	Emerging pathogens and biosecurity threats risk spreading disease among plants and animals

INTERVENTIONS

Windharp Horizons will use various intervention mechanisms to combat those threats to our landscape. Primarily, these contribute to a holistic approach of partnerships, education and on-ground works, taking place on both private and public land.

Farm trial sites
Demonstration and trial sites for sustainable agriculture and carbon projects provide practical insights for land managers and encouragement for them to take further action.

Soil tests and moisture assessment
Soil testing and soil moisture monitoring is required to ensure that land managers have the necessary information to make decisions about their future agricultural activities.

Carbon sequestration
Facilitated entry into carbon and environmental markets is seen as an essential pathway to climate adaptation and resilience for our region.

Revegetation
Revegetation is the cornerstone of all that Landcare has achieved to date. Working with land managers on public and private land, we will identify priority sites for restoration through revegetation activities.

Habitat restoration
We will endeavour to provide additional habitat (using both natural and artificial means) to allow targeted native species to thrive.

Fencing
Exclusion fencing will be used, where necessary, to enhance the effectiveness of revegetation or erosion control efforts, or for the specific protection of native species.

Pest and weed management
Eradication or management of identified pests and weeds is crucial to the success of selected intervention efforts, and this is incorporated into each of the Windharp Horizons project areas. The development of works crews to conduct pest and weed management tasks is therefore essential to meet the 2043 vision.

Education
Education provides the foundation for ensuring positive long-term outcomes for our landscape. This includes the facilitation of community learning on topics ranging from cultural knowledge to natural systems to sustainable agriculture and the importance of each in attaining a healthy and resilient future.

Research
Underpinning knowledge is the ability of Windharp Horizons to engage with its partners on research and citizen science projects to inform attitudes and ideas about achieving our vision.

Cultural practices
Traditional knowledge on aspects of climate resilience, land management (for example, cultural fire) and the environment are vital to expand our understanding of the landscape.

Walkers Lake

SUPPORT MECHANISMS

In addition to direct interventions - designed to conserve, protect or enhance habitats and ecosystems - there is a need to conduct activities which will facilitate or inform the intervention option chosen. Such support mechanisms include:

Dedicated learning & operating hub
Dedicated and local learning facilities will enhance the process by which Windharp Horizons can present educational opportunities to school and community groups, and to its employees and volunteers.

Employment opportunities
A range of specialist roles are required to build capacity and natural resource management knowledge within our region. These include facilitators, operations managers, works crews and educators.

Volunteer recruitment
To achieve the 2043 vision, our organisation requires volunteers. We have a plan to increase our volunteer base by an additional 700 community members. A key method of attracting and rewarding volunteers is through the conduct of a biennial festival – our 'award-winning' Galngga Nature Festival.

Volunteer observation


Paddock walk

Species surveys
Using the latest technology, and best practice techniques, Windharp Horizons will work with partners to conduct a variety of surveys. These include eDNA, remote cameras, aural sensors, and observational surveys. Underpinning knowledge is the ability of Windharp Horizons to engage with its partners on research and citizen science projects to inform attitudes and ideas about achieving our vision.

ACTIONS

Farm walk at Rich Avon East

FLAGSHIP SPECIES

Through extensive workshops, collaboration, and expert input, we have identified eight priority areas for conservation and regenerative agriculture in the region. These priorities can be addressed individually or combined to achieve multiple outcomes. By using this approach, we aim to incorporate a wide range of projects that enhance our environment, making the most of the resources and opportunities available to achieve our vision. The eight priorities are as follows, though not in any specific order.

Goldfields Grevillia

1 COLLABORATION WITH TRADITIONAL OWNERS AND CULTURAL LANDSCAPES

FLAGSHIP SPECIES: WEDGE-TAILED EAGLE

The Indigenous Connection to Country is central to the Windharp Horizons project vision of rehabilitating fragmented landscapes, with the project seeking mutually beneficial partnerships with Traditional Owners (TOs) for project guidance and delivery.

With interest growing for engaging TO's on Country, by both public and private landholders, existing on-Country plans outline several geographic areas of significance within the BNGLN region. These areas are prioritised for their cultural, ecological, and economic importance. Specific areas have been identified for joint management, such as Kara Kara National Park for its quantity of Box-Ironbark forest and woodland.

OBJECTIVES

Support and promote TO Cultural expression as we 'walk together on Country'

Support TO's to be on Country for Indigenous practices

Support TO's with the development and implementation of fire management plans

Identify financial/employment opportunities for TO's within our projects

Develop joint resources for utilisation within our programs

Educate land managers on the significance of the Cultural Connection to Country

Exemplify the benefits of cultural practice for native vegetation and land management

Informing and improving community attitudes towards Culture on Country

ACTIONS & OUTCOMES

Three cultural courses developed; 60 sessions delivered

18 cultural burns conducted on Country

Cultural education centre built on Country

Two TO Ranger employment positions created

2 GRASSLANDS

FLAGSHIP SPECIES: PLAINS WANDERER

Grasslands, particularly in Victoria's Wimmera Plains, are critically endangered, with less than one per cent of their original habitat remaining due to agricultural development, urbanisation and invasive species. These ecosystems provide essential habitats for grassland-dependent species. The Plains Wanderer, a critically endangered bird, relies heavily on native grasslands and has experienced rapid population decline due to habitat destruction. Key regions identified for conservation and rehabilitation in the Wimmera include the Buloke-Northern Plains and Kalkee Plains in our region's west. To rehabilitate these regions, actions such as targeted grazing, prescribed burns and fencing are crucial. Restoration efforts will focus on protecting biodiversity hotspots, improving ecosystem health and enhancing habitat connectivity.

OBJECTIVES

Survey and develop monitoring projects alongside key partners

Develop key actions for protecting and rehabilitating grasslands including installing fencing to prevent overgrazing.

Support responsible pastoralism strategies and pilots, including controlled grazing

Protect and enhance remnant vegetation

Increase connectivity between remnant grassland patches

ACTIONS/OUTCOMES

- 20 educational sessions delivered to Land Managers
- 2000 bird surveys
- 200 frog surveys
- 304 eDNA surveys
- 120 camera surveys
- 40 flora surveys
- 100 hectares of native grassland sown

3 NORTHERN BIOLINK

FLAGSHIP SPECIES: MISTLETOE BIRD

OBJECTIVES

Increase habitat connectivity in the northern half of the BNGLN area of operations with a focus on safeguarding and improving intact remnant vegetation, such as Buloke woodlands

Promote bio-links that enhance ecosystem health and agricultural productivity, facilitating wildlife movement, improving soil quality and supporting sustainable farming practices

Protect paddock trees, which offer critical habitat, improve biodiversity, aid soil conservation, and enhance pollination and pest control

Educate land managers on the significance of the Northern Biolink

In a landscape dominated by dryland cropping, our goal is to reduce habitat fragmentation by protecting and improving intact remnants and linking isolated patches, particularly the Buloke Woodlands through a landscape biolink. Linking scattered Crown Land reserves in this way, across agricultural, private, and public land (including suitable roadsides), will assist the preservation and restoration of Buloke woodlands, which are ecologically significant and support various plants, birds and invertebrates.

ACTIONS/OUTCOMES

- 512.5 hectares of revegetation, 212,500 seedlings, 300kg seed
- 2000 bird surveys
- 200 frog surveys
- 304 eDNA surveys
- 120 camera surveys
- 40 flora surveys
- 20kms protective fencing
- Work crews established
- 800ha weed treatment
- 200 nest boxes installed

4 SOUTHERN BIOLINK

FLAGSHIP SPECIES: SQUIRREL GLIDER

We envision a connected landscape stretching from Dadswell's Bridge on our western border (Wimmera CMA) to Kooyoora State Park on our eastern border, forming the Southern Biolink. We will connect Kara Kara National Park and St Arnaud South Reserve with Dalyenong, Morrl Morrl, Bolangum and Tottington Nature Conservation Reserves through biolinks across agricultural and private land, including suitable roadsides.

OBJECTIVES

Increase habitat connectivity in the southern half of the BNGLN area of operations

Assess the species still present in the Southern Biolink using visual observations, aural sensing, remote photogrammetry, and eDNA analysis

Develop a sanctuary for native species, in preparation for the reintroduction of animals into the Kara Kara National Park

ACTIONS/OUTCOMES

- 725 hectares of revegetation, 425,500 seedlings, 300kg seed
- 2000 bird surveys
- 200 frog surveys
- 304 eDNA surveys
- 120 camera surveys
- 40 flora surveys
- 40kms protective fencing
- Work crews established
- 800ha weed treatment
- 400 nest boxes installed
- Native Animal Sanctuary

5 WATERWAYS

FLAGSHIP SPECIES: GROWLING GRASS FROG

Waterways make up only a small portion of Victoria's landscape, yet historically they have been a major focus in the success of the economy, community, and environment.
Healthy waterways are vital for biodiversity, supporting various plant and animal species. A connected ecosystem ensures that aquatic and terrestrial habitats interact, promoting the movement of species and nutrients.
Our region is bounded by the Avon-Richardson Rivers in the west, and the Avoca River in the east.

OBJECTIVES

Enhance the health of waterways and their catchments to support native plants and animals, providing recreational opportunities and economic benefits. Collaborate with Traditional Owners and the North Central CMA to manage vegetation and improve in-stream habitats

Identify and prioritise interventions for waterways, including fencing protection, conducting rehabilitation around artificial and natural waterpoints and riparian zones, and water quality monitoring

Research, monitor and improve habitat for the Growling Grass Frog and other wetland species

Rehydrate the landscape to improve water quality and availability, enhance biodiversity, and increase soil health

ACTIONS/OUTCOMES

- 125.5 hectares of revegetation, 127,500 seedlings
- 12 workshops and training days
- 4 on farm trial sites
- 60kms protective fencing
- 127.5ha weed treatment
- 40 soil moisture probes

6 NATIVE SEED SUPPLY
FLAGSHIP SPECIES: BULOKE

The Windharp Horizons region is home to a diverse array of plant species, including critically endangered and unique varieties. A dependable seed supply is crucial for rehabilitation efforts, enabling the growth of tube-stock and direct seeding for re-vegetation, habitat reconnection, riparian stabilisation, erosion and salinity prevention and revitalising declining habitats. Maintaining a steady supply of foundational species is vital for effective revegetation projects. Additionally, preserving locally adapted genetic variations and promoting genetic diversity are key to safeguarding endangered plant species.

OBJECTIVES

Ensure future sustainable seed availability and supply, by embedding seed sourcing into all projects, prioritising local seeds unless specific project requirements dictate otherwise

Establish seed orchards to increase genetic material availability, enabling controlled harvesting

Create a Windharp Horizons seed bank in partnership with Seeding Victoria to ensure a consistent seed supply and protect local species from extinction

Cultivate locally indigenous and critically endangered species in a newly developed nursery to provide vital resources for restoration projects

ACTIONS/OUTCOMES

- 20 hectares of seed orchards
- 40 seed collecting workshops
- 2 PT positions created
- 200 trained volunteers
- Drying facility
- Seed storage facility

7 SUSTAINABLE AGRICULTURE

FLAGSHIP SPECIES: BLUE-BANDED BEE

Agriculture is the dominant land use in BNGLN, where perhaps 80% of the land is used for agriculture. This heavy reliance on agriculture shapes the landscape and economy of the Network, making natural resource management and sustainable agriculture critical for long-term productivity and environmental health.
The collaborative ethos of 'farmers helping farmers' has played a vital role in fostering innovation, facilitating the adoption of techniques that enhance soil health, reduce costs, and improve resilience across the region.

OBJECTIVES

Promote regenerative agriculture to restore soil health and enhance biodiversity through sustainable farming techniques

Host events to demonstrate regenerative methods, such as no-till farming and cover cropping

Partner with research organisations to test and demonstrate regenerative agriculture practices

Restore native grasslands through grazing management

Facilitate entry into carbon credits, biodiversity offsets, and water quality trading for income diversification

ACTIONS/OUTCOMES

1,520 hectares of revegetation, 1.5 tonne seed

1,520 hectares of Carbon sequestration projects

100+ events: seminars, mental health workshops and field days

3 on farm trial sites

1 Sustainable Ag facilitator (0.5)

8 RESEARCH AND EDUCATION

FLAGSHIP SPECIES: BLACK COCKATOO SPECIES

Windharp Horizons has prioritised 'Research and Education' as a key initiative for fostering lasting environmental change across generations. This focus encompasses all community members, starting with Junior Landcare and extending to various levels of environmental engagement, ranging from general interest in conservation and natural resource management to economic and financial considerations for landholders and local councils.

OBJECTIVES

Increase public interest for creating and sustaining a healthy local environment

Increase education opportunities for community members, landholders and students for natural asset preservation, conservation, revegetation and sustainable agriculture

Develop a Landcare hub for consultation, education and training, and a museum for resources and tourism

Increase the volunteer capacity for Landcare in our region through the development of Junior Landcare, school programs and volunteer events

ACTIONS/OUTCOMES

- 400 volunteers trained, 300 students complete JL program
- Dedicated Landcare Research Hub and Museum
- 40 training events
- Biennial nature festival
- 20 research partnerships
- 3 part time roles created (each at 0.2 FTE)

INVESTMENT STRATEGY

A variety of investment opportunities were explored in the development of this Plan, some of which are still emerging (e.g., environmental markets). In time, diverse funding sources will enable opportunities for vertical stacking; multiple interventions on a single farm (farm scale) and horizontal stacking; interventions replicated across multiple properties (landscape scale).

Initially however, and in order to commence and program the suite of actions and interventions to achieve the Windharp Horizons vision, we will focus on Philanthropic and Government funding. This will provide the human resources and structure for ongoing planning and design at the 'on ground works' level. The reason for this approach is two-fold: the current prevailing conditions and immaturity of of environmental markets, and that high land value in cropping country presents a barrier to market entry without the application of significant subsidies. There is also a degree of land manager uncertainty with Carbon markets: for example, do they retain or on-sell the benefits?

Notwithstanding, it is our firm belief that there are future options for market access and entry across our landscape, and that Corporate Social Responsibility and environmental markets will ultimately play a significant role in achieving our vision. Such investment will have the potential to be supplemented through business opportunities in environmental education, seed collection and eco-tourism markets.

PHILANTHROPIC & GOVERNMENT GRANTS

We will continue to seek traditional funding sources, such as government and philanthropic grants to deliver small-scale on farm projects that align with our priorities, such as fencing and restoration of riparian areas, scattered remnants and paddock trees, as well as funding community-led NRM training and events.

LOCAL ECONOMY & REGIONAL PARTNERSHIPS

The local economy and community will be beneficiaries of this Plan, and therefore key to sustainable investment. We will look for opportunities to collaborate with our partners to deliver landscape scale projects that deliver interventions across multiple properties within our landscape. For example, by consulting with organisations such as Bush Heritage and Cassinia Environmental, we may be able to prioritise areas and seek local service delivery and consulting to develop the Southern Biolink (priority 4).

Additionally, we will support community business and social enterprises that support project interventions (such as establishment of a local seedbank or works crew enterprise) that could benefit from increased local activity (such as tourism activities).

UNLOCKING VALUE IN ENV. MARKETS

Environmental markets enable land managers to earn income by providing ecosystem services like carbon sequestration, biodiversity conservation, or water quality improvement. To help land managers access these opportunities, Windharp Horizons partnered with Regen Farmers Mutual, a farmer-led cooperative that supports its members in navigating these markets. They also facilitate collaborative projects, allowing multiple farmers to pool smaller parcels of land, reducing administrative costs and increasing returns for participants.

While there are numerous current and emerging environmental markets, many of the Windharp Horizons project priorities outlined in this Plan have the potential to engage with these markets. We will actively monitor developments and educate the committee and members to leverage any new opportunities such as the Victorian Carbon Farming Program. Key areas to monitor include:

Carbon Credits
Farmers can earn carbon credits through practices that sequester carbon dioxide, such as reforestation and no-till farming. These credits can be sold to businesses seeking to offset emissions or retained by farmers for insetting their own emissions.

Biodiversity Offsets
Landholders earn credits for enhancing biodiversity, which can be sold to developers needing to offset their environmental impact.

Native Vegetation Credits
landowners can restore or maintain native vegetation to earn credits that comply with regulations on vegetation loss.

Water Quality Trading
Farmers can improve water quality through better land management, earning credits to trade with those offsetting environmental impacts on waterways.

Soil Health Incentives
Programs rewarding practices like cover cropping are emerging, as focus shifts to sustainable agriculture.

Ecosystem Services Payments
Farmers can receive payments for managing land to enhance ecosystem services such as pollination and natural pest control.

Agroforestry Credits
This market rewards the integration of trees into agricultural landscapes, benefiting carbon sequestration and biodiversity.

SUPPLY CHAIN

Farmers and landholders are participants in supply chains that are experiencing significant changes in the reporting requirements for Environmental, Social and Governance (ESG) areas. Our program can demonstrate regenerative methods and explore how farmers can communicate their product story for reward from their suppliers.

Harvest at Callawadda

INVESTMENT MECHANISMS

PROGRAM	DESCRIPTION	INVESTMENT RETURN (including non-econonmic returns, see example below in red)	INVESTMENT SCALE (description of what activities, monitoring, auditing, etc.)
TACTICAL PROPERTY-BASED INCENTIVES			
Government Grants	An arrangement for the provision of non-repayable financial assistance gifted by one party to another	No financial return - Current Investor return lies in the co-benefit and impact investment (social, environmental) outcomes of the granting program.	e.g., Annual Victorian Landcare Grants
Philanthropic Grants	An arrangement for the provision of non-repayable financial assistance gifted by one party to another	No financial return - Current Investor return lies in the co-benefit and impact investment (social, environmental) outcomes of the granting program.	
Tax incentives	An offset or deduction that reduces the taxes owed by a person or entity.	Receive income taxation concessions when you enter into conservation covenant for your land - Current Investor return lies in the co-benefit and impact investment (environmental) outcomes of the granting program. Tailored business loans to helps agribusiness customers invest in eligible on-farm practices and technologies that reduce emissions, and/or build resilience against climate-related risk - Current/Emerging	Protect and rehabilitate remnant vegetation. Requires environmental management plan, annual surveys and reporting for at least 10 years. Environmental asset protected and managed in perpetuity. All interventions that promote biodiversity and/or sequestor carbon. Requires baseline reporting (e.g., Natural Capital Accounts)
STRATEGIC LANDSCAPE SCALE GRANTS/INCENTIVES			
Government/philanthropic grants	Multi-agency, landscape scale arrangement for the provision of non-repayable financial assistance gifted by one party to another	No financial return - Current Investor return lies in the co-benefit and impact investment (social, environmental) outcomes of the granting program.	e.g., Victorian Carbon Farming Program hosted by North Central CMA
Supply shed agreements	Using a standardised framework to verify the environmental outcomes of a good or service.	Financial return to be developed - Emerging. Financial return to be developed - Emerging.	
Local Economy	Collaborating with local partners to deliver landscape scale projects that deliver interventions across multiple properties.		
ENVIRONMENTAL MARKET INCENTIVES			
Native Vegetation Credit Register (Victoria)	Landholders and investors can generate native vegetation credits by committing to long-term conservation and management of native habitats.	"Prices for native vegetation credits vary based on location, the type of ecosystem being preserved, and market demand. Ranges from small-scale to large scale projects. Landholders who generate credits are	"Protect and rehabilitate remnant vegetation. Requires environmental management plan, regular surveys and reporting for at least 10 years. Environmental asset protected and managed in perpetuity."
Soil Carbon - e.g., Loam Bio, Environmental plantings	Soil carbon projects involve changes in land management practices to increase the amount of carbon stored in soil. Practices might include improved grazing, crop rotation, or reduced tilling.	"Soil carbon sequestration projects generate ACCUs which are a tradeable product. Initial investments might range from AUD $100,000 to several million, depending on the size of the land and the techniques employed. These projects often require long-term commitment (20+ years) - Current"	
"Nature Repair Market (Australia) * Carbon and Biodiversity Method * Enhancing remnant vegetation"	Putting a value on the benefits of an ecosystem service via monetising these benefits as “credits”, which may then be sold or traded on a voluntary or compliance market (e.g. Nature Repair Act	"Landholders who restore or protect native ecosystems will be issued Nature Repair Certificates. The certificates represent quantifiable biodiversity outcomes, and can be sold to businesses or other entities seeking to meet environmental, social, and governance (ESG) goals - Emerging"	

ENABLING COORDINATION

To implement the above Landscape Priorities and Actions, the Windharp Horizons program will initially require two resources:

Landscape Coordinator
Responsible for coordinating implementation of the landscape project plans for each focus area and connecting them with the interventions and strategies

Business Development Officer
Responsible for driving execution of the investment strategies (building the Windharp brand; securing support from local economy stakeholders/partners; connecting with investors and monitoring environmental market opportunities)

We estimate that establishment of these roles in the first two years of operation of the program will require $220,000 to establish a portfolio of funded landscape projects.

PROJECTS

The Windharp Horizons Team has developed in depth project plans for each of our eight priority areas. These have provided the foundation for the 2043 vision actions and outcomes provided in the 'Actions' section of this plan. As an example of the work planned to be undertaken, the following three projects are summarised.

SOUTHERN BIOLINK

Windharp Horizons identifies that habitat fragmentation is a major threat to landscape health. Accordingly, it is one of our eight key focus areas. Conservation efforts will focus on connecting isolated remnants on private land, to the national and regional parks in the southern area of our region. Having a solid understanding of the species we have in the region is of vital importance to implementing effective management actions.

Project Description
The Squirrel Glider, threatened by habitat loss and invasive pests, serves as a flagship for our southern biolink efforts. We will emphasise the importance of the species to facilitate community engagement and habitat restoration efforts.

Our on-ground rehabilitative efforts will prioritise the restoration of box-iron bark and heathy dry forest, connecting fragmentary and isolated patches within the landscape to the Kara Kara National Park and smaller NCRs.

Community involvement and education will be central to the restoration of habitat. We aim to engage local populations through an array of citizen science activities to raise awareness of the significance of the southern biolink.

Timeline
Landscape and biolink enhancement - progressive implementation to 2043.
Sanctuary developed – commencing 2025, completed 2028
Works Team established - 2025

Outputs
The key focus is the revegetation of a minimum of 725 hectares of degraded landscape, through seedling planting (425,000 seedlings) and direct seeding (300kgs of native seed). Repair works will be conducted on 72.5 hectares of erosion gullies and fencing will be installed to protect 200 hectares of private land. 400 nest boxes will be built by local organisations and installed across the landscape, while citizen science activities will provide data from over 2500 surveys for research use. A 20-hectare site on private land will be developed as a sanctuary, focussing on reintroduction of Squirrel Gliders to the landscape. A works team will be established for pest and weed management to conduct over 40 hectares of weed control annually.

Estimated Project Cost
$4,671,377 (over 20 years)

WATERWAYS

Windharp Horizons recognises the vital role of waterways in our predominantly dry landscape, which is why waterway management is prioritised as one of our eight key focus areas. Conservation efforts will focus on restoring vital connections and ensuring waterways function as integrated systems. Understanding our region's waterway systems is essential for implementing effective management actions.

Project Description
The Growling Grass Frog, a species threatened by habitat loss and pollution, serves as a flagship for our waterway conservation efforts. By safeguarding its breeding habitats, we emphasise the importance of community engagement and habitat restoration. Our approach includes ongoing research and monitoring to assess waterway health, focusing on data collection related to water quality, vegetation, pest populations, and pollution.

Our rehabilitative efforts will prioritise the restoration of degraded waterways and the establishment of permanent or semi-permanent water bodies essential for the Growling Grass Frog. Extensive buffer zones with tall vegetation will protect against predators, while submerged and floating plants will safeguard eggs and tadpoles. Grass and shrub cover along banks will provide refuge for emerging froglets.

Community involvement and education will be central to our waterway management strategy. We aim to engage local populations through workshops, volunteer programmes, and educational campaigns to foster stewardship and raise awareness of the significance of healthy waterways. Water retention in the landscape is a key focus.

Timeline
Waterway enhancement - progressive implementation to 2043.
Waterway training - commenced in 2025, mentorships completed 2030
Avon Plains Lakes development plan – completed 2026
On-farm demonstration sites - established by 2027

Outputs
30 kms of natural waterways will be enhanced and protected, including the conduct of pest and weed management in those river segments, based upon the conduct of extensive on-ground survey work. 60kms fencing will be installed to protect identified watercourses with 127,500 seedlings planted. We will work with the Mulloon Institute to provide water retention and dam management workshops for regional land managers, with ongoing training and mentoring provided for 60 landowners over the first 6 years of the program. Additionally, the Avon Plains Lakes will provide a focus for community consultation efforts to understand our catchment, in order to improve management of potential threats. Four on-farm demonstration sites will be established to showcase a range of interventions to retain water in the landscape.

Estimated Project Cost
$2,380,349 (over 20 years)

SUSTAINABLE AGRICULTURE

Agricultural activity is the predominant land use within our region. Accordingly, farmers are vitally important to the success of Windharp Horizons. We intend to focus on the tradition of 'farmers helping farmers' as we move into a more complex agriculture system, with challenges such as climate change, competing land use change, reliance on chemical and synthetic inputs and labour shortages.

Project Description
We will conduct implement several programs designed to support our region's commitment to sustainable agriculture. These initiatives will not only promote environmentally friendly practices but also help our flagship species, the Blue Banded Bee, to thrive alongside agricultural activities in our landscape.
These programs include promotion of regenerative agriculture with the aim of restoring soil health and enhancing biodiversity through sustainable farming techniques. The Kara Kara Regenerative Agriculture Group (KKRAG) will facilitate farmer collaboration and knowledge exchange on regenerative practices by hosting workshop and field day events to demonstrate regenerative methods, such as no-till farming and cover cropping. The group will also develop and provide training courses and workshops to bring on ten new regenerative agricultural farmers annually. The foundation of this will be the development of several test sites, underpinned through partnerships with several research organisations to test and refine regenerative agriculture practices. A focus of the project will be to assist farmers to develop 80 hectares of Carbon projects annually.

Timeline
Sustainable Agriculture training – ongoing to 2043
On-farm demonstration sites - established by 2027

Outputs
By 2043, we aim to have 1520 hectares of farmland allocated to carbon sequestration projects. Over 100 land managers will be supported to move to incorporate regenerative agriculture methods into their enterprises in the first ten years of the project. Over 140 events will be conducted over the course of the program, focussing on sustainable farming, carbon and environmental markets, and mental health.

Estimated Project Cost
$4,518,943 (over 20 years)

LANDHOLDER CASE STUDY

Landholders are essential to delivering the Plan. Having a variety of opportunities and incentives that work for them is vital. Paul Sheridan and Luke Batters are representative of the local landholders and farmers who will help drive our Plan.

We will continue to seek traditional funding sources, such as government and philanthropic grants to deliver small-scale on farm projects that align with our priorities, such as fencing and restoration of riparian areas, scattered remnants and paddock trees, as well as funding community-led NRM training and events.

PAUL SHERIDAN

Our family farm is located 16kms north of Donald, consisting of various soil types from sand to red duplex, with heavy clays towards Lake Buloke.

Our journey began with a salinity issue from the main channel that ran through a section of the farm. In the 1970's my father planted trees along the channel and in the adjacent paddocks, tall wheat grass was planted to use the seeping water and provide perennial pastures. Thus, the interest in the combination of economics and land care principles started.

Finding our most efficient pasture for our drier environment was a journey. After exploring the potential for saltbush by visiting other farms in 1995, we planted 30,000 old man saltbush. This saltbush was found to be a reliable maintenance feed reserve, and spurred on by the millennial drought, we now have 270 hectares of saltbush, divided into 30 paddocks, with over half a million plants.

Given rotational grazing, with 7–8-month recovery, the native grasses and other species have been given the opportunity to thrive and set seed – the spider and bird life changes are amazing.

Our latest interest on land recently purchased is to improve native pasture through autumn cool burning and sowing native grasses. We have employed a botanist for guidance, and these changes are developing well as we look to the future and the opportunity for biodiversity credits.

Sheep amongst the Saltbush plantation

We are working toward economic returns coinciding with ecology and biodiversity outcomes. At the moment, we are seeing that this makes for a more resilient and productive pasture and farming method on grazing country.

I've found being involved in the Windharp project very informative and challenging. Being in a group setting and learning of others farming journeys has been interesting. The speakers that we have been exposed to have been very thought provoking, especially as we think to how we as farmers manage the changing future.

As a result of Windharp learnings, we will be making farm management changes, and I would recommend the program to all farmers.

LUKE BATTERS

After growing up on a farm north of St. Arnaud I had developed a general interest in the outdoors and an awareness of food production in the synthetic broadacre farming system. After schooling and study I progressed to a farmer advisory role and become further entrenched in the agricultural bulk food supply chain. A stint in hospitality enabled me to shift my focus toward food consumption and understand some of the drivers that consumers regard as important.

When I returned to the family farm i then recognized that current food production and the supply chain is not in the best interests of human health and the environment. I became passionate about changing not only our own farming practices but the broader landscape as well.

My vision is to farm productively without the use of synthetic inputs, where insects can thrive and pollinate seed crops and other flora and fauna proliferate in a healthy landscape like many years ago. What if farming was to return to days where produce was sold direct to consumers, and the numbers returning to farming operations and communities flourish through a general wholistic approach to life.

Converting from a synthetic farming operation to a regenerative operation takes time, and changes must be made slowly. First by reducing fertilizer inputs; then introducing biology onto seed; cutting chemicals where appropriate; and generally monitoring the health and requirements of plants. This becomes a proactive approach rather than treating symptoms as they arise. Gullies are being fenced off with trees, grasses and ponds central to that regeneration. Over the last five years I have conducted regular trials with biology friendly products, which has allowed me to gain a greater understanding to converting to a regenerative farming operation.

Windharp Horizons has been crucial in expanding my vision through collaboration with other passionate landholders and industry leaders.


Tubestock planting at Callawadda

MONITORING AND IMPACT FRAMEWORK

Using the 4 Returns Framework, the Windharp Horizons Working Group has selected some high-level indicators to monitor as the Plan is implemented. We will develop specific monitoring and learning plans for each funded project.

Measuring and communicating progress will allow us to tell our impact story and adapt our management as necessary.

IMPACT	INDICATOR	TARGET	STATUS 2024
Inspiration	Shared vision	1	1
	Organisations/partners involved	50	12
	Community workshops/training days	220	2
	Showcase sites	8	0
IMPACT	**INDICATOR**	**TARGET**	**STATUS 2024**
Social	New farmers/landholders participating	200	10
	Landholders undertaking additional action	400	10
	Community organisations created	5	1
	Employment created (FTE)	7	0.4
IMPACT	**INDICATOR**	**TARGET**	**STATUS 2024**
Natural	CO2 Sequestered (tCO2e)	>300,000 t	0
	Ha farmland under new practices	150,000	0
	Km waterway improved	30	0
	Km habitat corridors added	64	0
	Habitat restored (ha)	1375	0
	Habitat protected (ha)	240	0
	Endangered species assisted	20	0
IMPACT	**INDICATOR**	**TARGET**	**STATUS 2024**
Financial	Business plans/proposals developed	265	17
	Investment Proposals submitted ($)	32,927,238	277,756
	Natural Capital Asset funding ($)	13,583,331	0
	Enabling Funding secured ($)	19,343,907	90,156
	Local finance mechanisms created	20	1

WINDHARP HORIZONS

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