

## **Acknowledgement of Country**

Brimbank City Council respectfully acknowledges and recognises the Wurundjeri and Bunurong Peoples as the Traditional Custodians of this land and pays respect to their Elders, past, present and future. The City of Brimbank lands have always been a significant trading and meeting place for Traditional Owners. Council also acknowledges local Aboriginal and Torres Strait Islander residents of Brimbank and their Elders for their ongoing contribution to the diverse culture of our community.

## **Caring for Country**

Aboriginal Victorians have a deep understanding of our environment and landscape, and as such are very aware of changes that have occurred to the natural environment. The Caring for Country approach evolved in Aboriginal culture through stewardship of the land over tens of thousands of years.

Caring for Country is an integrated approach for sustainable management. It encompasses the entirety of Country - its past and future, its people; its flora and fauna; its natural landscapes, waterways and urban formats; its history and culture.

Registered Aboriginal Parties and other Traditional Custodian groups play an important role in working with government and communities to safeguard and pass on knowledge of the Victorian landscape, cultural heritage and cultural land management practices.

Council will actively consult and seek input from traditional custodians and cultural land managers, we will draw upon their knowledge and skills as the custodians and voice of Country.



# **Contents**

Introduction	5
Strategy on a Page	6
Our Vision	7
Vision & Goals	7
Why Biodiversity Matters	8
Our Context	9
What We've Done So Far	11
Our Place in The Big Picture	13
Legislation & Strategy	15
Planning and Regulations	17
Delivering the Vision	18
Indigenous & Urban Biodiversity	19
What We Are Protecting	30
Key Challenges to Biodiversity management	33
Managing Indigenous Biodiversity	35
Map 1:Biodiversity corridors and connectivity	37
Land Management Classification	40
Map 2: Conservation Assets	42
Map 3: Aspiration areas for Biodiversity	43
Map 4: Habitat Connectivity & ESO	44
Areas for indirect influence	44
Threat Management: Pest Plants & Animals	45
Key Terms & Definitions	46
Appendix 1: Species Guilds	47
Appendix 2: Corridor Habitat Typologies	53



## Introduction

Council's vision is for a transformed Brimbank that is beautiful, thriving, healthy and connected. The Brimbank Biodiversity Strategy sets out our Vision, Goals and Objectives for the next ten years relating to how we protect and enhance biodiversity throughout the municipality.

Brimbank is home to extraordinary biodiversity. Grasslands once stretched across Victoria's volcanic plains, supporting rare and threatened species like the Striped Legless Lizard and Growling Grass Frog. Pockets of woodland, wetlands and escarpments continue to quietly sustain life across our suburbs.

Yet this natural richness is under pressure. Urban growth, climate change and fragmented habitats are accelerating biodiversity loss. As native vegetation shrinks and urban areas expand, it becomes harder for wildlife to survive and for people to connect with the natural world.

The Biodiversity Strategy 2025–2035 is Council's response. It builds on the strong foundations laid by the previous Biodiversity Strategy (2012–2022) and Habitat Connectivity Plan (2018–2023), which led to improved planning controls, better land management, and greater community involvement.

Despite this progress, our natural habitats are still at risk. Infill development, increased density and ongoing land use change have led to a loss of vegetation cover and has disrupted wildlife movement across the municipality.

This strategy draws on lessons from the past while responding to current challenges. It sets out clear goals for both public and private land, and guides how Council will protect, restore and reconnect habitats, while supporting the community to do the same.

Above all, this strategy recognises that biodiversity is central to how we create a city that is beautiful, healthy, and thriving for both people and nature.

The new Biodiversity Strategy incorporates the Habitat Connectivity Plan.



While aquatic flora and fauna contribute significantly to Brimbank's biodiversity, this Strategy does not cover instream species such as fish and submerged aquatic plants. The health of waterways and aquatic ecosystems is managed by Melbourne Water under the Healthy Waterways Strategy 2018–2028. Council will continue to collaborate with Melbourne Water to support the protection and management of these systems.



# Strategy on a Page

The Biodiversity Strategy 2025–2035 is Brimbank's longterm roadmap for reversing biodiversity decline and embedding ecological values into everyday decisionmaking. It is designed to be practical, measurable and inclusive, providing clear direction while empowering collective action.

#### Why It Matters

Brimbank supports rare and threatened ecosystems, including grasslands found nowhere else in the world.

Native species are increasingly isolated by roads, buildings and fragmented habitats. Climate change is compounding these pressures, making urban nature more important than ever.

#### Goals for Action

The strategy sets five goals that shape how Council protects, restores and connects nature:

- 1. Protect and Preserve: Safeguard high-value biodiversity areas on public and private land.
- **2. Restore and Recover:** Actively manage and rehabilitate degraded landscapes.
- **3. Connect and Expand:** Re-establish habitat corridors to support species movement and ecological resilience.
- **4. Engage and Empower:** Help communities understand, access and care for the environment.
- **5. Learn and Lead:** Partner with Traditional Custodians, researchers and land managers to improve outcomes.

#### Council's Role

Council acts as land manager, planner, advocate and facilitator. This strategy clarifies where it leads, where it partners, and how it supports others to contribute. Tools like the Conservation Asset Management Framework (CAMF), habitat corridors, and species guilds ensure that efforts are targeted, evidence-based and scalable.

# Supporting Tools and Resources

Detailed appendices provide:

- Land classification frameworks and management priorities
- Mapping of habitat corridors and biodiversity assets
- Guidance on species movement, restoration targets and monitoring indicators

#### A Shared Responsibility

Delivering this strategy will require ongoing collaboration with Traditional Custodians, agencies, private landholders and the wider community. By working together, we can create a Brimbank where nature and community thrive, now and into the future.





# **Why Biodiversity Matters**

Biodiversity is the variety of all life on Earth. Plants, animals, fungi, microorganisms, and the ecosystems they form. It also describes the interactions between species and the environments they depend on. In Brimbank, biodiversity includes both indigenous ecosystems that pre-date European settlement and urban biodiversity that has developed in response to land use change.

A healthy natural environment underpins the liveability of our city. Biodiversity is essential for life, and for the long-term health of our community, economy and climate.

Across Brimbank, biodiversity helps:

- Secure our water supply. While most of our drinking water comes from outside the city, it depends on healthy forests, wetlands and underground aquifers to remain clean and sustainable.
- Clean the air and moderate temperature. Trees and vegetation filter pollutants, absorb heat and provide shade that helps reduce the urban heat island effect. Store carbon and regulate climate. Natural ecosystems, especially grasslands and woodlands, play a vital role in capturing and storing carbon.
- Reduce the impact of extreme weather.
   Vegetation buffers rainfall, prevents erosion, and helps protect built areas from flooding and storm damage.

- Filter and clean water. Wetlands act as natural treatment systems, filtering runoff and improving water quality in local waterways.
- Support pollination. Bees, birds and other pollinators help plants reproduce, supporting both native ecosystems and food production.
- Improve physical and mental health. Access to nature encourages exercise, reduces stress and supports community wellbeing.
- Enrich culture and connection. Nature has always inspired art, traditions, and a sense of belonging.
- Maintain healthy soils. Biodiverse landscapes support stable soils that hold water, cycle nutrients and sustain plant life.

It also holds deep cultural, ecological and spiritual value. For Traditional Custodians, Country is a living system, interconnected, alive and deserving of respect. Protecting biodiversity supports the continuation of this relationship and helps keep cultural knowledge alive.

Across Brimbank, biodiversity exists in many forms. It lives in our remnant grasslands and escarpments, in our creeks and reserves, and in gardens, schoolyards and nature strips. Indigenous species continue to survive, and in some cases thrive, within an urban landscape that is constantly changing.

Protecting and restoring biodiversity is possible and essential. Urban areas can support complex ecosystems and play a critical role in the future of many species. The choices we make now will shape the kind of environment future generations inherit.

## **Our Context**

#### A Unique Urban Landscape

Brimbank sits at the heart of Victoria's basalt plains, one of the most ecologically significant and heavily cleared bioregions in the state. Beneath the built environment lies a landscape shaped by volcanic activity, ancient waterways, and deep cultural knowledge.

The municipality is defined by its escarpments, open grasslands, and the flow of waterways such as such as Kororoit Creek, Taylors Creek and the Maribyrnong River. These features support a wide range of ecosystems, from endangered temperate grasslands to riparian woodlands and ephemeral wetlands. Although fragmented, these systems continue to provide vital habitat for native plants and animals, many of which are now rare or threatened.

Much of Brimbank's remaining biodiversity persists in unexpected places: rail corridors, stormwater channels, roadsides, and pockets of land between homes and industry.

These small but significant spaces are part of a broader ecological network that stretches beyond municipal boundaries.

Today, Brimbank's urban form reflects a mix of residential, commercial, industrial and remnant natural areas. The complexity of this landscape creates both challenges and opportunities. While development has put pressure on ecosystems, it has also created the need (and the potential) for innovative approaches to conservation in cities.

Brimbank is one of the few places in metropolitan Melbourne where critically endangered ecosystems still exist in proximity to urban centres. This makes the protection, restoration and reconnection of these landscapes both urgent and achievable.



**Temperate Grasslands** 



Ephemeral wetlands



Riparian Woodlands

#### **Layers of History**

Before European settlement, the land now known as Brimbank was a connected mosaic of grasslands, woodlands and wetlands. These ecosystems were managed by the Wurundjeri Woi-wurrung and Bunurong peoples of the Kulin Nation, who have cared for Country for tens of thousands of years.

Over time, Brimbank's landscape has undergone significant change. Clearing for agriculture, grazing, quarrying and urban expansion drastically reduced the extent of native vegetation. The introduction of livestock and altered fire regimes further degraded ecosystems. Changes to water systems, such as redirecting creeks and draining wetlands, also disrupted many native plant and animal communities.

Today, less than two percent of Victoria's original volcanic plains grasslands remain. Many of the remnants in Brimbank are small, isolated, and

vulnerable to pressures such as invasive species, erosion and illegal access.

In recent years, important steps have been taken to protect what remains. Council's Biodiversity Strategy (2012–2022) and Habitat Connectivity Plan (2018–2023) mapped ecological values, protected key sites, and began restoring connections between fragmented habitats. These strategies also helped raise awareness and supported greater involvement from the community.

Understanding this layered history is essential. It reminds us that biodiversity is shaped not just by natural systems, but by cultural practices, land use patterns and policy choices. This strategy builds on that understanding and aims to guide more inclusive and informed actions into the future.



The vast majority of the municipality was once covered by native grasslands, an ecosystem that covered much of the land from western Melbourne to Portland. Today less than 2% of these grasslands remain.

Brimbank has some remnant high quality grasslands such as Isabella Williams Grassland (pictured).

## What We've Done So Far

### What's Been Achieved

#### Managing 396 hectares for biodiversity

Council-managed conservation areas have grown, supported by targeted management actions such as ecological burns, revegetation, re-introduction of species, and pest control.

#### Developing the Conservation Asset Management Framework (CAMF)

The CAMF helps Council monitor conservation areas effectively. It identifies threats and guides decisions on where resources should be allocated for the greatest ecological benefit.

#### Stronger planning protections

Environmental Significance Overlays (ESOs) were introduced into the Planning Scheme. These overlays now provide clearer protections for important biodiversity on both public and private land.

#### Better habitat in parks and creeks

Parks and waterways now routinely include features like logs and rocks. These elements provide essential food and shelter for insects, reptiles, and fungi, enhancing overall habitat quality.

#### Greater community engagement

Council has increased community involvement significantly. Each year we've supported or hosted around 50 biodiversity-focused activities, including school programs, guided walks, planting days, and local volunteer group events.

### What We've Learned

#### Review and expand planning protections

Some areas with important biodiversity are still missing planning protections. Reviewing the Brimbank Planning Policy Framework will help identify these gaps and guide the development of better planning tools.

#### Improve biodiversity knowledge

We need better data on local flora and fauna to make informed management decisions. Targeted biodiversity surveys will help prioritise actions and allocate resources effectively.

#### Integrate climate considerations

Climate change is affecting local biodiversity. Future planning and restoration works need to directly account for anticipated shifts in rainfall, temperature, and extreme weather patterns.

#### Build community capacity

Our community plays a crucial role, but Council can do more to support them. Enhancing our community programs and providing training, resources, and ongoing monitoring will boost local involvement and strengthen results.

#### Strengthen landscape connections

Linking fragmented habitats is critical to sustaining biodiversity. Enhancing corridors and supporting habitat on private land will improve resilience and help native species thrive across the municipality.



# **Our Place in The Big Picture**

Brimbank's Biodiversity Strategy aligns with a growing global movement to protect and restore nature. Around the world, biodiversity is declining at an unprecedented rate, with significant implications for climate, health, food security and wellbeing. In response, governments at all levels are stepping up their commitments. This strategy ensures Brimbank is part of that shared effort.

# **World stage**

In 2022, 196 countries endorsed the Kunming-Montreal Global Biodiversity Framework. It sets out a vision for living in harmony with nature by 2050, underpinned by targets to protect ecosystems, share benefits fairly, and invest in long-term ecological resilience.

#### A Global Emergency

Humanity has already caused the loss of 83% of all wild mammals and half of all plants. (World Economic Forum Nature Risk Rising)

## **Australia**

Australia's Strategy for Nature 2024–2030 provides a national response to the biodiversity crisis. Its three priorities: Connect all Australians with nature, Care for nature in all its diversity, and Share and build knowledge, are directly echoed in Brimbank's goals and actions.

#### Did you know?

Australia has lost more mammal species to extinction than any other continent.

The number of ecological communities listed as threatened has increased by 20% in the past 5 years. (Australian State of the Environment Report 2021)

Biodiversity is declining faster than we have ever witnessed. Climate change is altering the world's environment to an unparalleled degree across all ecosystems. (Australia's Strategy for Nature 2024-2030)

## **Victoria**

Victoria's Biodiversity 2037 strategy aims to halt species loss and improve ecosystem health across the state. It focuses on building community value for nature and ensuring a healthy environment. This strategy strengthens Brimbank's contribution to those state-wide outcomes.

Victoria's biodiversity continues to decline, and the current level of remedial effort is not sufficient to make up for these losses. (Protecting Victoria's Environment – Biodiversity 2037)

# The Region

Port Phillip and Western Port Regional Catchment Strategy brings together organisations, groups and communities that are active in land, water and biodiversity management in their region. The strategy has 15 themes under the broad categories of Water, Biodiversity, Land, Coasts and marine, Community and Climate.

These international, national and regional directions directly inform the five goals in this strategy, ensuring Brimbank contributes to a broader collective effort.

# **Legislation & Strategy**

The Biodiversity Strategy for Brimbank City Council outlines a plan to protect and improve biodiversity in the area. It follows conservation goals and legal requirements set by the Australian and Victorian Governments.

We are guided by key laws, policies, and operational frameworks at the Federal, State, and local levels. The Strategy must align with these laws and policies while also working with other local strategies to ensure a coordinated approach to managing natural resources.

Legislation	Policy/Strategy				
Federal					
Environment Protection and Biodiversity Conservation Act 1999	<ul> <li>Australia's Biodiversity Conservation Strategy 2010-2030</li> <li>Western Port Ramsar Site Management Plan</li> </ul>				
State					
<ul> <li>Flora and Fauna Guarantee Act 1978</li> <li>Wildlife Act 1975</li> <li>Catchment and Land Protection Act 1994</li> <li>Environment Protection Act 1970</li> <li>Planning and Environment Act 1987</li> </ul>	<ul> <li>Protecting Victoria's Environment - Biodiversity 2037</li> <li>Port Philip and Western Port Regional Catchment Strategy</li> <li>State Environment Protection Policies (Waters of Victoria)</li> <li>Victorian Planning Provisions</li> <li>Guidelines for the removal, destruction or lopping of native vegetation 2017</li> </ul>				
Local					
<ul><li>Local Government Act 2020</li><li>Victorian Planning Provisions</li></ul>	<ul><li>Brimbank Council Plan</li><li>Brimbank Planning Scheme</li></ul>				

#### **Internal Framework**

- Brimbank Council Plan
- Brimbank Environmental Sustainability Policy and Framework
- Green Wedge Management Plan (2010)
- Brimbank Climate Emergency Plan (2020-2025)
- Creating Better Parks Policy update (2016)

- Urban Forest Strategy (2016-2046)
- Cycling and Walking Strategy 2016
- Sports Facility Development Plan 2016, revised in 2018.
- Integrated Water Management Strategy 2025 - 2035

#### Key legislation for biodiversity protections

#### State - Flora and Fauna Guarantee Act 1988

The Flora and Fauna Guarantee Act 1988 (FFG Act) is the key legislation in Victoria for protection of biodiversity. It provides statutory protection for species and communities of threatened flora and fauna, and lists potentially threatening processes, both requiring ministerial approval. The FFG Act also requires Action Statements to be prepared to guide the protection of threatened species or communities, and to address threatening processes.

Amendments to the Act came into effect in 2020, with critical changes including a consistent national approach to assessing and listing threatened species, and the public authority duty. The public authority duty contains an obligation on public authorities and ministers to consider potential biodiversity impacts in all their activities. Types of impacts to be considered include projecting ahead long term, direct and indirect impacts, and cumulative impacts.

#### Federal - Environment Protection and Biodiversity Conservation Act 1999

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places—defined in the EPBC Act as matters of national environmental significance. The 2020 report on the independent review found significant shortcomings with the Act and its administration, and that it requires fundamental reform. National Environmental Standards were at the forefront of the recommendations. The standards are intended to improve environmental protection and guide decision-making.

The Federal Government has announced reforms to the EPBC Act, known as the Nature Positive Plan.

The Plan has been split into three stages, Stage one – including a Nature Repair Market was introduced in 2023. In early 2025, the federal government announced that they had shelved plans to propose laws for a new federal Environmental Protection Agency (EPA) to manage compliance – a Stage two action. There is no indication or timelines of when the delivery of actions in the Nature Positive Plan will be enacted.

# **Planning and Regulations**

Land use planning and regulation are key tools for Brimbank City Council to protect and conserve biodiversity. The State Government sets the overall planning framework for Victoria through the Planning and Environment Act 1978, the Victorian Planning Provisions, and the State Planning Policy.

Within this framework, local Councils can develop and implement their own strategies within the planning scheme, with approval from the Victorian Minister for Planning. Councils manage land use planning, assess planning permits, and enforce compliance. This allows them to integrate statelevel objectives while applying local planning controls to protect environmental values.

The Planning Scheme includes various controls, such as Environmental Significance Overlays, Vegetation Protection Overlays, and Significant Landscape Overlays, to safeguard biodiversity. However, across Victoria, native vegetation continues to be lost at a rate of about 4,000 habitat hectares per year, mainly on private land due to permitted land uses or exemptions. Currently, losses exceed gains from conservation efforts.

# **Delivering the Vision**

Turning a vision into action takes more than a plan. It requires coordination, commitment and a shared sense of purpose.

This strategy sets a clear direction for how Brimbank can protect and restore biodiversity over the next decade. It outlines five key goals that will shape how Council makes decisions, where resources are invested, and how success is measured.

These goals are also a call to action. They reflect what is needed across the landscape, and where different people and organisations can make an impact. Council has a leading role, but change depends on many hands working together.

#### What Success Looks Like

Success is more than achieving targets. It's about creating a Brimbank where nature is visible, valued and thriving. In ten years, success will mean:

- Indigenous plants and animals are more widespread and less vulnerable to extinction.
- Local communities feel confident caring for nature in streets, schools and backyards.
- Development enhances, rather than erodes, ecological health.
- Biodiversity is embedded in how we plan, build and care for place.

#### Council's Role

As land managers and stewards of the local environment, Council is committed to increasing the wellbeing of residents. Healthy, abundant biodiversity forms the foundation for a resilient natural environment, which in turn supports the health of our community.

We recognise that indigenous plants, animals and ecosystems have an intrinsic right to exist. When protected and managed appropriately, they provide vital ecosystem services such as clean air and water, natural cooling, and pollination for gardens and food crops.

Council plays several key roles in managing biodiversity:

#### **Statutory Authority**

Council is responsible for reviewing and implementing the Brimbank Planning Scheme, ensuring development aligns with biodiversity protections. As the municipality continues to grow, biodiversity must remain a key consideration in all planning decisions.

#### **Land Manager**

Council owns and manages 1,070 hectares of public open space. It has a legal and ethical responsibility to care for this land, including protecting threatened species and ecosystems and managing noxious weeds and pests. Public access to nature is also a critical part of our community's health and wellbeing.

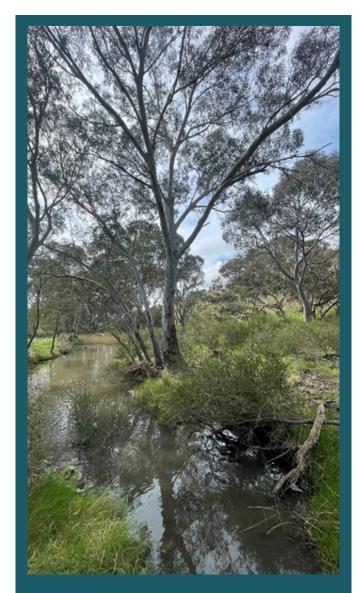
#### **Supporting the Community**

Council delivers a range of initiatives to help the community protect and enhance the local environment. This includes volunteer working bees, guided walks, biodiversity education in schools, and events that support residents in improving biodiversity at home.

#### Advocacy

For biodiversity issues not directly in our control, Council advocates for protection for local and nationwide biodiversity values to other levels of governments and private landholders. Much of Council's ability to protect biodiversity lies within state and federal legislation, Council will advocate for stronger biodiversity protection laws, and their effective implementation and enforcement at all levels of government. Advocacy will also focus on state government to appropriately manage conservation assets and deliver on commitments regarding grassland reserves.

# **Indigenous & Urban Biodiversity**



**Indigenous Biodiversity** 

The suite of plants, animals and ecosystems present prior to European settlement.



**Urban Biodiversity** 

Constructed systems, including variety of indigenous plant species and exotics, that provide for local wildlife.





# Goal 1: Protect & Preserve

Pictured: Invertebrate - Katydid - Keilor Park - Courtesy: Friends of Kororoit Creek

# Safeguard high-value biodiversity areas on public and private land.

Our unique suite of remnant and urban plants and animals will be protected. Brimbank Council manages 1,070 hectares of open space across the municipality, of which 396 hectares are managed primarily for conservation and biodiversity. While this represents less than 10% of the municipality's total land area, Council has an important role to play beyond the boundaries of its own land.

Protecting biodiversity requires more than managing conservation areas. Council must embed ecological considerations into all its services and activities, while championing protection efforts across private and public land. This includes advocating for stronger planning controls and supporting action where biodiversity values are under threat.

## Objectives

#### 1.1

Investigate key species and vegetation communities at highest threat of local extinction and put in place protections and mitigation measures.

#### 1.2

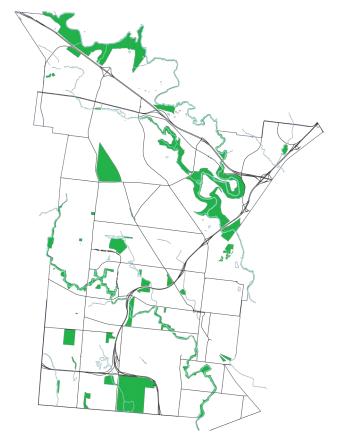
Incorporate the avoid, minimise, mitigate and hierarchy in Council project planning, delivery and ongoing operations and seek to achieve vegetation and habitat gains.

#### 1.3

Improve native vegetation and habitat management outcomes on private land.

#### 1.4

Advocate to state and federal government for stronger legislative protections and improved management of crown/public land for biodiversity.



#### **Example Action:**

# Strategic Assessment of Biodiversity values and Information Database.

To protect local biodiversity, Council must have robust understanding of the distribution of biodiversity, its value, and vulnerability to outside pressures.

This ensures that decision-making is based on sound knowledge and up-to-date evidence.







# Goal 2: Restore & Recover Pictured: Blue Sacred Kingfisher - Courtesy: Friends of Kororoit Creek

#### Actively manage and rehabilitate degraded landscapes.

Brimbank cares for its conservation areas through adaptive management. This style of management aims to reduce long term uncertainty by monitoring the results of past decisions and learning from their outcomes. Adaptive management is the key to achieving improved quality and quantity of biodiversity within the Brimbank municipality and ensuring long term sustainability of species and vegetation communities.

While Brimbank still supports many native plants and animals, much of this is so depleted or fragmented, that human intervention is required to support the ongoing survival of species and ecosystems.

Through a variety of land management techniques such as burning and pest plant and animal control, Council is able to reduce threats and restore these landscapes. Diversity of genetics within species are important for resilience and are considered when revegetating our reserves.

Where we focus our attention is guided by our operational Conservation Asset Management Framework (CAMF). The CAMF identifies ecological assets, assesses their value and condition, and sets service standards. It enables Council to direct effort where it will have the greatest impact.



## **Objectives**

#### 2.1

Improve the condition and extent of native vegetation and habitat within the municipality.

#### 2.2

Evaluate and adapt land management techniques in response to environmental conditions and the impact of climate change.

#### 2.3

Reduce the threat of introduced species and human behaviour on the long-term viability of our plants and animals.

#### 2.4

Seek out and trial new and emerging land management techniques.

#### **Example Action:**

#### **Ecological Burning**

The use of fire is a powerful and effective tool for land management. It can help control weeds, remove excess thatch, and create spaces for plants to regenerate from seed.

Council undertakes annual spring and autumn ecological burning programs.







# Goal 3: Connect & Expand Pictured: Scarlet Robin - Courtesy: Friends of Kororoit Creek

# Re-establish habitat corridors to support species movement and ecological resilience.

Biodiversity can only flourish when landscapes are connected. Brimbank's network of habitat corridors includes nine linear corridors following creeks, rail lines and powerline easements, along with a broader Urban Habitat Corridor that includes backyards, parks, nature strips and other green spaces.

These corridors provide essential links across the landscape, allowing native fauna to move, feed and breed, and native flora to persist and spread. They are especially important in urban areas where habitat is often fragmented.

The restoration and protection of indigenous biodiversity will be prioritised within the nine linear corridors, aiming to reflect, where possible, the ecological conditions that existed prior to European settlement. Locally indigenous species will be used to achieve high diversity and layered vegetation structure that supports native wildlife. Where appropriate, the ecological history of each location should be reflected in planting and design. For example, grassy ecosystems could be reinstated in parklands across the basalt plains.

An Open Space Strategy could function as a prioritisation and resource allocation tool for the Brimbank Corridor, much in the same manner as the Conservation Asset Management Framework functions for the areas of high indigenous biodiversity value.

## **Objectives**

#### 3.1

Enhance habitat corridors to facilitate safe movement of fauna through the landscape.

#### 3.2

Prioritise protection and enhancement of biodiversity within habitat corridors across public and private land.

#### 3.3

Improve urban biodiversity in all public open space

#### 3.4

Encourage habitat creation and protection on private land



#### **Example Action**

#### **Enhancing Habitat**

Incorporation of logs into the landscape can provide shelter and safe passage for lizards.

Image: Kororoit Creek







# Goal 4: Engage & Empower Pictured: Blushing Bindweed - Courtesy: Friends of Kororoit Creek

#### Help communities understand, access and care for the environment.

A strong relationship with nature supports wellbeing, deepens our understanding of place, and encourages community care. In Brimbank, where almost half of residents were born overseas, access to nature can foster a sense of belonging and strengthen the connections between people and place.

As the use of parks and natural areas continues to grow, so too does public interest in how these spaces are cared for. Many residents want to contribute, learn more, and help protect the environment around them.

This goal is about creating meaningful opportunities for people to engage with biodiversity. Whether through habitat gardening, volunteering, learning programs or cultural activities, we want to make it easier for everyone to take part. The more people understand and value local plants and animals, the more they will advocate for their protection.

By supporting community knowledge and participation, Brimbank can build a culture of environmental care that is inclusive, practical and enduring.



#### **Example Action**

### **Engaging Local Schools**

Supporting the learning and creation of habitat gardens within schools can create life-long curiosity and respect for our natural environment.

## **Objectives**

#### 4.1

Provide a diverse range of opportunities for community members to actively protect and restore our environment in the public and private realm.

#### 4.2

Encourage and support the community to spend more time in and connect with our natural environment.

#### 4.3

Increase community understanding and appreciation of our flora and fauna, and the importance of local ecosystems.

#### 4.4

Equip and empower our diverse communities to become agents of positive environmental change.





# Goal 5: Learn & Lead

Pictured: Scaly Buttons - Courtesy: Friends of Kororoit Creek

# Partner with Traditional Custodians, researchers and land managers to improve outcomes.

Traditional Custodians have cared for Country for tens of thousands of years. Their knowledge, values and leadership are essential to restoring and protecting local ecosystems. Council is committed to working in partnership with Traditional Owners and First Nation community members, recognising both their cultural authority and the depth of ecological knowledge they bring.

At the same time, good decision-making relies on data, evidence and shared learning. We need to better understand how our biodiversity is changing, what actions are working, and where to focus effort next.

This goal is about listening, measuring, adapting and leading by example. It supports an ongoing process of learning and improvement that involves the whole community.



#### **5.1**

Strengthen collaboration with Traditional Owners and First Nation community members in biodiversity planning and developing land management practices.

#### **5.2**

Respect and celebrate our diverse cultural and ecological heritage through education and signage.

#### 5.3

Improve our understanding of the current state of Brimbank's remnant and urban biodiversity through monitoring and research.

#### 5.4

Build partnerships with local and regional organisations to align strategies and share knowledge.



#### **Example Action**

#### yaluk barring park

Which means 'river trail' in the Woi-wurrung language of the Wurundjeri people

Working with the Narrap (Country) team- the Wurundjeri rangers and Melbourne Water, large areas of the park will be restored and revegetated to create habitat linkages throughout the reserve.

# What We Are Protecting

Brimbank supports a unique suite of ecosystems and species, many of which are rare or threatened.

Understanding what exists today is essential for planning, protecting and restoring our natural assets into the future.

The below tables outline the key vegetation types and threatened species recorded in Brimbank, based on current biodiversity data and Council monitoring.

#### **Ecological Vegetation Classes (EVCs)**

EVCs are the standard unit for classifying native vegetation in Victoria. They describe plant communities based on floristic, structural and ecological characteristics.

The table below lists the EVCs identified within Brimbank, along with their bioregional conservation status.

Ecosystem Name	Victorian Bioregional Conservation Status (DSE 2005)	Federal EPBC Act Status	Estimated % cover pre-1750	Estimated % cover currently managed for biodiversity by Council
Brackish Wetland	Endangered			0.53
Escarpment Shrubland	Endangered			75.8
Floodplain Riparian Wood- land	Endangered			10.87
Heavier-soils Plains Grass- lands of the VVP	Endangered	Critically Endangered		44.98
Plains Grassy Woodland	Endangered	Critically Endangered		16.33
Creekline Grassy Wood- land	Endangered			21.05
Plains Grassy Wetland	Endangered			0.2
Riparian Woodland	Endangered			6.58
Stream Bank Shrubland				22.19
Tall Marsh				0
Plains Woodland				4.32

# Threatened Flora and Fauna in Brimbank

Brimbank is home to a number of rare and threatened species, protected under state and federal legislation. The following list includes species recorded within the municipality or its immediate surrounds.

#### Flora

563 indigenous plant species occur within the City of Brimbank municipality. Of these, approximately 47 species have not been recorded since 1997. The below species found in the municipality are considered rare or threatened under the federal Environment Protection and Biodiversity Conservation Act 1999 (EPBC)

Species	Federal EPBC Act Status	
Spiny Rice Flower (Pimelea spinescens subsp. spinescens)	Critically Endangered	
Small Golden Moths (Diuris basaltica)	Endangered	
Sunshine Orchid (Diuris fragrantissima)	Endangered	
Button Wrinklewort (Rutidosis leptorhynchroides)	Endangered	
River Swamp Wallaby-grass (Amphibromus fluitans)	Vulnerable	
Large-headed Fireweed (Senecio macrocarpus)	Vulnerable	

The municipality also supports species listed under the Flora and Fauna Guarantee Act including Buloke *Allocasuarina luehmannii,* Large-headed Fireweed *Senecio macrocarpus* and Tough Scurf-pea *Cullen tenax.* 

#### Fauna

Approximately 196 animal species that occurred naturally prior to European settlement have been recorded within Brimbank. Of these, 121 species have been recorded since 1997 and so are presumed to still inhabit or frequent the municipality. The below are species found in the municipality that are considered vulnerable under the Federal EPBC Act.

Species	Federal EPBC Act Status
Golden Sun Moth (Synemon plana)	Vulnerable
Striped Legless Lizard (Delma impar)	Vulnerable
Growling Grass Frog (Litoria raniformis)	Vulnerable
Australian Grayling (Prototroctes maraena)	Vulnerable

It is important to acknowledge that many of our indigenous fauna species can persist in non-native vegetation, and disturbed areas. Habitat connectivity and access to food plants and shelter is critical for the survival of these species.

### **Biodiversity Hotspots in Brimbank**

• Isabella Williams Memorial Reserve

High-quality native grassland and habitat for the Striped Legless Lizard.

Cairnlea Grasslands

Supports seasonal wetlands and populations of Golden Sun Moth.

• Kororoit Creek Corridor

Key linear habitat with significant riparian vegetation and connectivity potential.

• Taylors Creek Escarpment

Critical escarpment woodland and refuge for multiple EVCs.

#### **Land Coverage and Biodiversity Management**

The following table summarises the extent of land within the municipality that is managed for open space and biodiversity purposes. It highlights Council's areas of direct influence, as well as the contribution of Crown land to the overall ecological landscape of Brimbank.

Item	Area (Ha)	Percentage (%) (Total Municipal Area)
Brimbank City Council (total municipal area)	12,339	100.0%
Total Council managed open space (inclusive of current Conservation Assets)	1070	8.7%
Council open space managed for the purpose of biodiversity –' Conservation Assets'	396	3.2%
Crown Land managed for biodiversity	651	5.3

# **Key Challenges to Biodiversity management**

#### **Managing Biodiversity on Private Land**

Urbanisation presents distinctive challenges in managing biodiversity on private land. The autonomy and rights of landowners can lead to inconsistent land management practices, hindering cohesive conservation efforts. Additionally, the fragmented nature of private land ownership makes it difficult

to implement comprehensive and coordinated conservation strategies across larger landscapes. The further development of relationships with private landholders is important as numerous ecologically significant sites and land along biodiversity corridors fall under private ownership.

#### **Community Perception**

Differing views on the value of biodiversity can impede efforts to gain widespread support for urban biodiversity initiatives. When urban biodiversity is not recognised as valuable or essential, preservation efforts may lack the necessary enthusiasm and

commitment. By promoting a deeper understanding and appreciation of the importance of urban biodiversity, Council can foster stronger support for its conservation and create a more sustainable urban environment.

#### **Invasive Fauna**

Urban biodiversity in Brimbank faces a challenge posed by invasive fauna. These non-native species

disrupt the delicate balance of the local ecosystem, creating detrimental impacts on biodiversity.

#### Weeds

Weedy species, both invasive and native, pose a significant threat to biodiversity. They can outcompete indigenous plants, reducing their population and diversity. Rapid growth and reproduction allow them to form dense monocultures, disrupting urban ecosystems by altering habitats and reducing food

for native fauna. Weedy species may not offer the same ecological benefits as indigenous plants, further impacting native fauna diversity and weakening the resilience of urban ecosystems. Weed management is an important and ongoing action for this strategy.

#### Altered water systems

Redirected stormwater, drainage works and historical wetland loss—has impacted the structure and function of aquatic and riparian ecosystems. Many of Brimbank's creeks and waterways now face pressure

from erosion, pollution and bank instability. Increased waterflow from hard surfaces can negatively impact native grasses and wildflowers ability to compete against weeds.

#### Legislative constraints

In Victoria, there are planning protections placed on areas of significance and native vegetation offset policy aims to achieve No Net Loss (NNL), meaning gains from offsetting must be at least equivalent to development losses. However, across Victoria, native vegetation continues to be lost at a rate of about 4,000 habitat hectares per year, mainly on private land due to permitted land uses or exemptions. Council must work within the context of the planning scheme, restricting the ability to protect biodiversity, particularly that of local significance.

Clause 52.17 of the Victorian Planning Provisions requires a planning permit for the removal, destruction, or lopping of native vegetation. The clause aims to protect and conserve native vegetation,

reduce land and water degradation, and maintain habitat for flora and fauna through an "avoid, minimise, and offset" decision-making framework. Responsibility for the ongoing protection of vegetation retained under this clause typically rests with the landowner. However, challenges frequently arise in ensuring the long-term management and ecological viability of these areas post-development. The success of retained vegetation is highly dependent on its initial condition, the design and configuration of the vegetation reserve, and the long-term ownership and management arrangements. A Council operational policy position may assist to address these issues. An adopted Policy position should be subject to a regular (5 year) review.

#### Climate Change

The biodiversity emergency and the climate emergency are intrinsically linked. Temperature rises are already impacting biodiversity and ecosystems. Conversely, the destruction of ecosystems results a reduction of their ability to store carbon, leading to a further feedback effect on climate change.

Biodiversity is vulnerable to climate change and poses significant risks and challenges for our natural environment. The scale and rate of projected climate change has the potential to overwhelm the capacity of current ecosystems to adapt and sustain function. With warming temperatures, comes more frequent and extreme weather events and shifts in seasonal cycles. These changes can temporarily, or permanently destroy habitats, and the ability of our flora and fauna to persist into the future.

#### **Climate Pressure on Nature**

Climate change is already impacting biodiversity in Brimbank.

- Since 1960, Greater Melbourne has warmed by 1.2-1.4°C.
- Rainfall has decreased since the 1950s, especially in spring and winter.
- We're seeing more heatwaves, higher fire danger days, and intense storms.
- This disrupts flowering, breeding and migration patterns in local species.
- Climate change also amplifies other threats like pest spread, water stress, and habitat loss.

Healthy ecosystems help buffer climate impacts. When they're lost, the risk grows.

# Managing Indigenous Biodiversity

Brimbank manages conservation reserves through a Conservation Asset Management Framework (CAMF).

This is a live operational document to formally identify, value and provide ongoing management standards for conservation assets. The purpose of the Framework is to ensure assets with the greatest ecological significance and condition and/or conservation potential are identified, protected and enhanced, ensuring functional ecosystems that support indigenous plant communities and species.

Identification and documentation is based on a set of criteria, including the presence of rare or threatened species or vegetation communities, the number and variety of indigenous species, the cover of species, and its connection to open space within the municipality. Sites are given a value, and an associated required service level standard. An assessment of services provided for each site is undertaken, and resources are allocated accordingly.

The key elements of the CAMF are:

### Know

- Identify
- Document
- Value

## Plan

- Service Level Standards
- Service Level Assessments
- Are we reaching service levels?

## **Prioritise**

- Collate and review required actions
- Site Management Plans
- Allocate resources based on prioritisation
- Determine actions within current resourcing

## Do

• Works plan development and implementation

## **Evaluate**

- Assess site progression
- Evaluate success of actions
- Adaptive management
- Evaluate if resourcing adequate

#### **Purpose of CAMF**

The CAMF is designed to:

- Identify and categorise areas of ecological value across the municipality.
- Monitor the extent and condition of biodiversity assets.
- Guide appropriate land management responses based on threat levels and asset condition.
- Allocate resources efficiently by targeting interventions where they can have the most impact.

# yaluk barring park

yaluk barring Park, formerly known as Sydenham Park is our largest reserve. The park was renamed in March 2024, Yaluk Barring means 'river trail' in the Woiwurrung language of the Wurundjeri people.

The reserve is bound by Calder Freeway to the south / southwest and Jacksons Creek to the north, wrapping around the east of the Keilor Public Golf Course. It supports a wide variety of wildlife including kangaroos, wallabies, wombats and a wide variety of birds. Within the reserve, Jacksons Creek and

Deep Creek meet to form the Maribyrnong River. The waterways and landscape provide an abundance of natural resources and has recently been recognised as a place of Aboriginal Cultural Significance to the Wurundjeri people due to the density of archaeological artifacts found in the reserve. yaluk barring Park is managed by the Sydenham Park Restoration Plan, a different management plan from the Conservation Asset Management Framework.



# Biodiversity corridors and connectivity

Brimbank's landscape contains a network of biodiversity corridors that play a vital role in maintaining and enhancing ecological connectivity across the municipality. These corridors support the movement, reproduction, and survival of local flora and fauna in an otherwise fragmented urban environment.

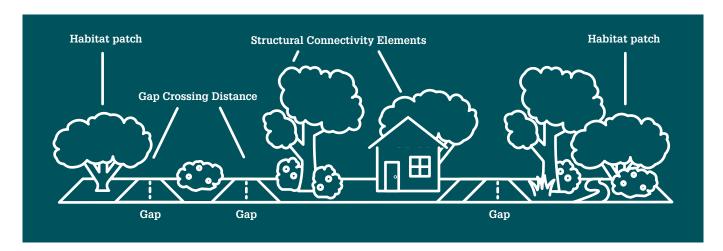
The Brimbank Habitat Connectivity Plan 2018–2023 (the Plan) analysed the local landscape and identified how corridors could be better managed to support wildlife movement. While this strategy incorporates key principles from the Plan, detailed technical information about species-specific movement patterns has been excluded. The Plan, including the technical details and the research supporting it, is still relevant today. Council will continue to be guided by these technical details in the Plan.

Brimbank's goal is to preserve existing ecological links and re-establish lost ones, helping to ensure the safety and sustainability of our indigenous plants and animals.

### **Corridor Components**

Corridors consist of several elements that function together to support connectivity:

- Habitat patch: A defined area with suitable indigenous vegetation and habitat structure that can support specific species.
- Gap: Areas without habitat or structural features, such as built-up zones or major roads, that can disrupt movement.
- Structural connectivity elements (stepping stones): Smaller, temporary areas with appropriate vegetation or features that allow species to move between larger patches. These are found in spaces such as waterways, road reserves, rail corridors and residential gardens, and may include logs, rocks, trees or long grass.
- Gap-crossing distance: The maximum distance a particular species is likely to travel between two stepping stones or habitat patches.



#### Fauna and habitat

To manage habitat corridors for native animals, we have simplified vegetation types and species needs:

- Native animals were organized into 'species guilds' based on their habitat and movement patterns ('long dispersal' or 'short dispersal'). Each guild is represented by a flagship species, with a list of others sharing similar movement needs. See Appendix 1.
- Ecological Vegetation Classes (EVCs) were grouped into broad habitat categories. Each Habitat Corridor in Brimbank has typical habitat types. See Appendix 2.

# What Makes a Place a Habitat?

The quality and suitability of habitat depend on more than just open space. Several key elements work together to support native flora and fauna:

- Indigenous plant species: Local ecosystems are shaped by long-standing relationships between native plants and animals. Many species are mutually dependent and rely on specific vegetation types to survive.
- Vegetation quality: Healthy, diverse plant communities provide food, shelter and breeding grounds.
- Plant structure: A mix of groundcover, shrubs and trees creates vertical layering, supporting a wide range of species. Ideal structure is informed by benchmarks for relevant Ecological Vegetation Classes (EVCs).

- Fauna activity: Native animals play vital roles in maintaining habitat, from seed dispersal to pollination and soil aeration.
- Non-living features: Logs, rocks, bare earth and varied landforms offer shelter, basking sites and important microclimates.
- Climate: Rainfall, temperature and wind patterns influence which species can thrive in an area.
- Soil: Soil structure, moisture, nutrient levels and acidity affect both vegetation growth and underground ecosystems.

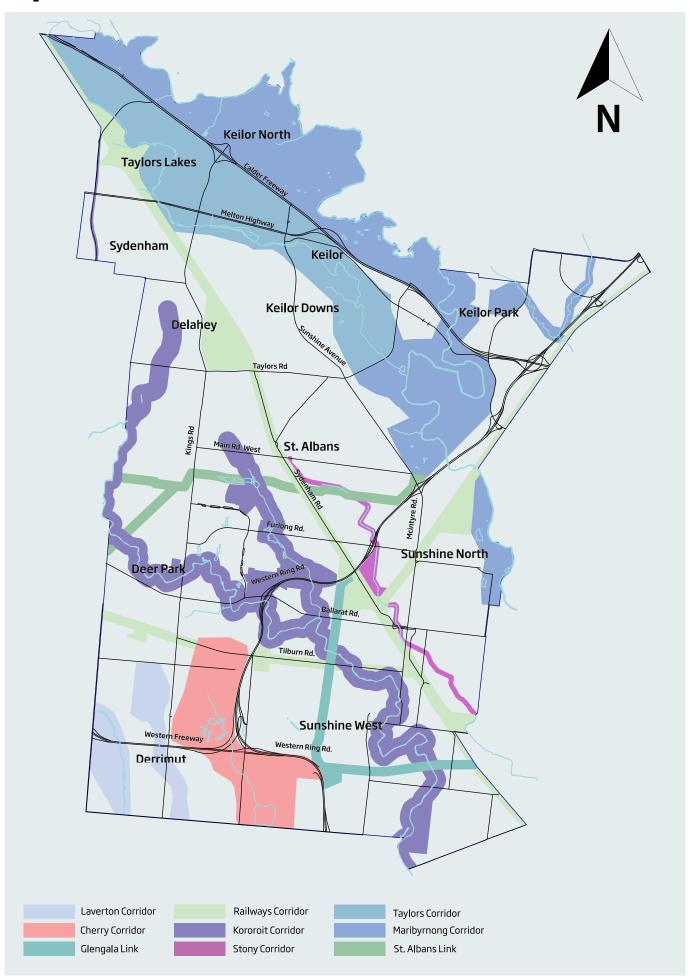
### **Biodiversity Corridors in Brimbank**

Brimbank's biodiversity corridors were selected based on existing landscape connections and local ecological knowledge. Each corridor contains habitat suitable for indigenous species and varies in condition, vegetation type and degree of connectivity. Together, they form a strategic network that links conservation areas, remnant habitats and restored landscapes across the municipality.

Nine linear corridors have been identified across Brimbank. These corridors follow key features such as creeks, rail lines and powerline easements, providing essential pathways for wildlife movement, seed dispersal, and ecological resilience in a highly urbanised setting. A key part of this network is the Urban Matrix Corridor, which spans the entire municipality. It supports species that do not rely on continuous land-based corridors but benefit from habitat stepping stones across built-up areas. These may include parks, gardens, rail reserves and roadside vegetation, using a mix of native and exotic species.

All corridors are tenure-blind. That means they cross public and private land, roadways, utility easements and open space. Council can influence biodiversity outcomes through how it manages its own land, supports private landholders, and applies planning tools.

**Map 1: Habitat Corridors** 



# **Land Management Classification**

Brimbank's corridors run through a patchwork of land uses, from crown reserves and utility corridors to urban parks and private backyards. Understanding and classifying these areas is critical for targeting biodiversity interventions effectively.

Our municipality offers a complex matrix of land that contributes to ecological connectivity. These include remnant patches of native vegetation, formal parks and gardens, waterways, rail and powerline easements, and both private and public land. Council's ability to influence outcomes across these diverse settings depends on land ownership, existing use, and conservation value.

To guide decision-making, Council classifies land based on current ecological attributes and the degree of management control.

When managing our land, Brimbank takes the precautionary principle: That where there are threats or potential threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

#### **Conservation Assets**

Council managed areas of high indigenous biodiversity have been identified using our Conservation Asset Management Framework. These are managed primarily for conservation and are referred to as Conservation Assets.

These areas occur within all the linear habitat corridors, as well as isolated reserves within the urban biodiversity corridor (which covers the whole municipality). Management of these reserves aims to achieve restoration to the pre-European settlement EVCs and provide specifically for the needs of native fauna.

As Council land, we have a direct influence on the biodiversity of these areas.

Other areas in the municipality are managed primarily for biodiversity within the municipality are Crown land reserves. These areas are of significant size and are an integral part of the municipality's biodiversity. Crown land in Brimbank is managed by both Parks Victoria, and a Committee of Management.

## **Biodiversity Assets**

Parks, reserves and areas of land that support high conservation values, often requiring legal protections through state or federal legislation. These areas are currently being managed in a manner to protect values, but not direct and targeted conservation restoration management. This may include grassland areas within transmission lines or parks, that are being managed through sensitive mowing regimes, or a seasonal wetland in a local park protected through fencing.

These areas include all the non-built areas within the lineal habitat corridors, and isolated areas within the Urban Biodiversity Corridor areas. Management aims to prevent further degradation and achieve small gains in diversity. Council aspires to manage these areas primarily for conservation taking into account our communities need for a diversity of open space land use. Management and planning for these sites must consider impacts on biodiversity, and opportunities for enhancement. Particular focus to be on the retention of connectivity, the use of indigenous plants and plant diversity, and the plant structure to reflect target EVCs.

River corridors are primarily managed by Council or Melbourne Water, allowing for direct influence on biodiversity. In contrast, linear corridors, such as those along transmission lines and railways, are managed for other purposes, giving Council less direct control. In these cases, Council will identify opportunities to enhance biodiversity as a co-benefit and collaborate with, or advocate to, relevant land managers to achieve this.

#### **Urban Biodiversity Assets**

Council parks, reserves and areas of land that have opportunities within current management to enhance biodiversity through retention of high habitat areas, and deliberate garden design incorporating high species diversity and a multi-layered structure.

These areas occur within the Urban Biodiversity Corridor. Management aims to emulate the pre-European EVC suite of plants and structure. Indigenous plant species will be prioritised where appropriate.

As Council land, we have a direct influence on the biodiversity of these areas.

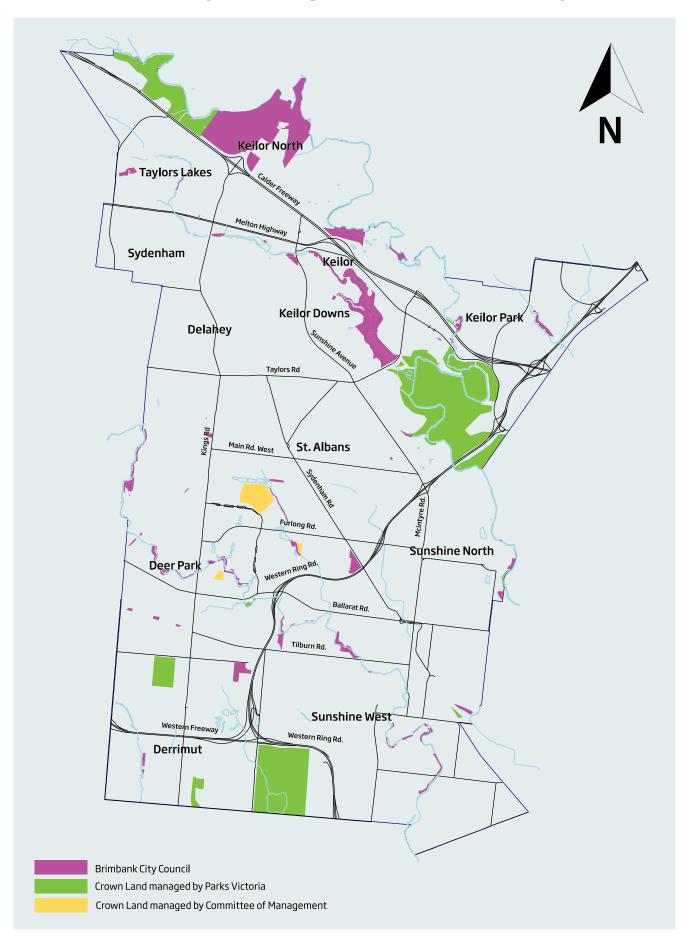
#### **Targeted Enhancement Areas**

Built areas within habitat corridors will be targeted for enhancement programs, such as community habitat gardening. Options to value add with biodiversity will be considered with Council projects. In line with the planning scheme, particular attention will be paid to biodiversity considerations within the Habitat Corridors. Brimbank policies and plans such as the Significant Tree Policy, Urban Forrest Strategy and Green Wedge Management Plan will be applied to support biodiversity.

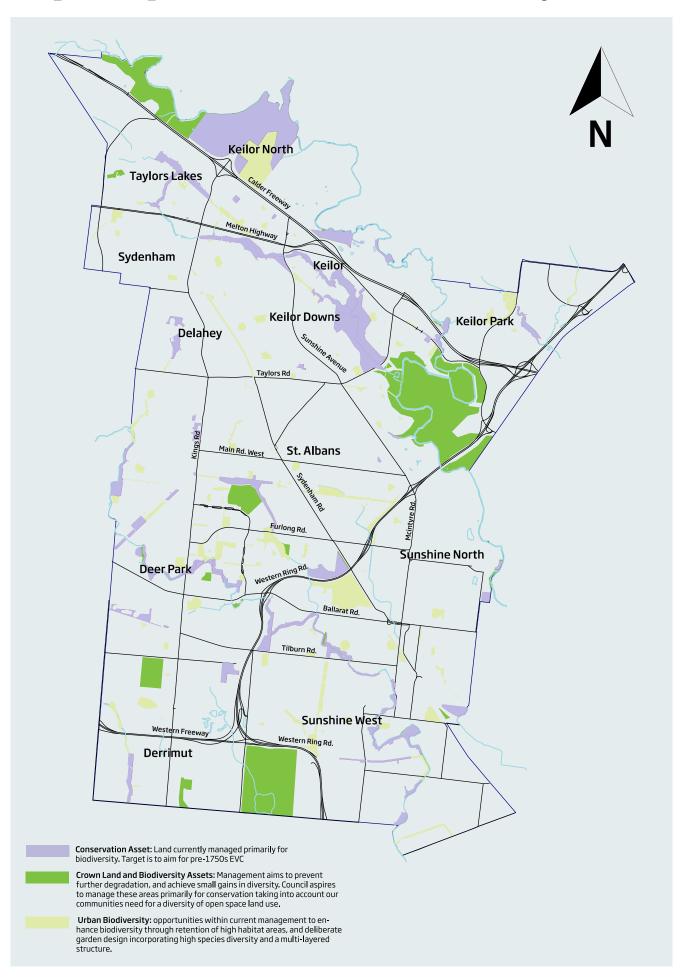
The areas that are identified as corridors will be targeted for protections to maintain or increase the habitat value and remove barriers for plant and animal use where possible. Changes of land use and development in these corridors will take impact of biodiversity into account in the planning and delivery of projects.

Crown Land Managed by Parks Victoria	Crown Land Managed By Committee of Management
Organ Pipes National Park	Iramoo Grassland
Brimbank Park	Pimelea Grassland
Derrimut Grassland Nature Reserve	Featherheads Grassland
Mt. Derrimut Grasslands	

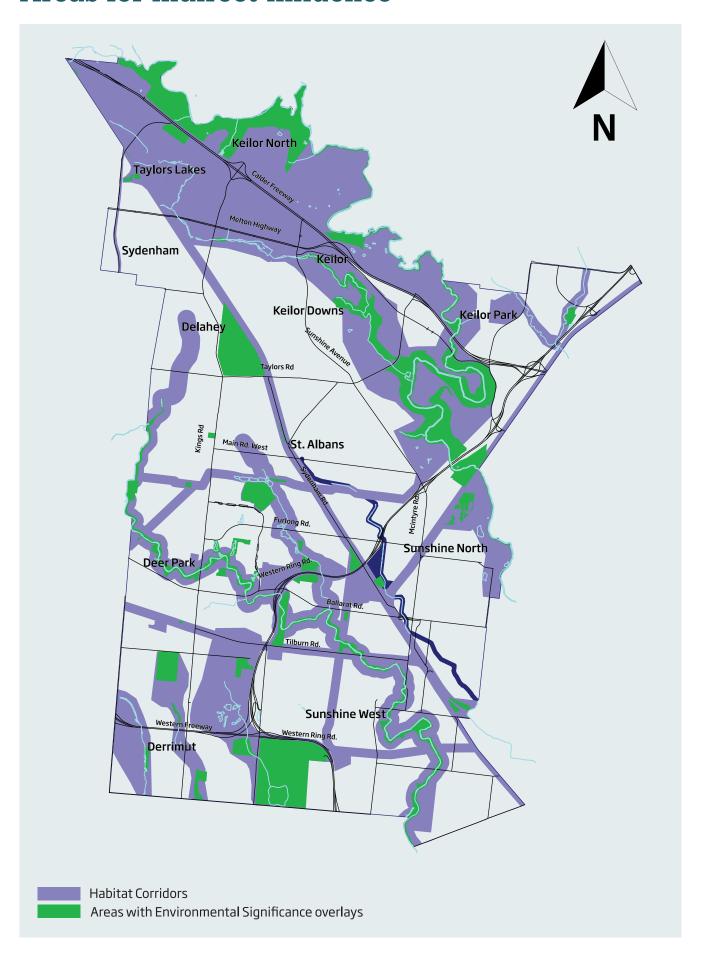
# Map 2: Conservation Assets – areas currently managed for Biodiversity



# **Map 3: Aspiration areas for Biodiversity**



# Map 4: Habitat Connectivity & ESO Areas for indirect influence



# Threat Management: Pest Plants & Animals

#### Weeds

Exotic and invasive plant species significantly impact local biodiversity. They outcompete native vegetation, reducing food and habitat for wildlife, depleting water availability, and altering soil composition. Many also produce more biomass than native species, creating increased fuel loads and elevating fire risk.

To manage weeds across the municipality, Council implements the following mitigation strategies:

- Targeted Weed Control Strategic removal of highrisk invasive species.
- Native Vegetation Restoration Replanting native species to suppress weeds and rebuild habitat.
- Early Detection & Monitoring Regular inspections to detect and respond to emerging weed threats.
- Community Education & Engagement Supporting private landholders to manage invasive species on their land.
- Collaboration with Land Managers Coordinated weed management with state agencies, conservation groups and public landholders.

#### **Pest Animals**

Introduced pest animals impact our biodiversity through predation (cats and foxes preying on wildlife), competition for food and shelter resources, herbivore damage to habitat, and spreading diseases.

Council prioritises pest animal management in areas of highest biodiversity values, where the most damage is observed, and the likelihood of success is highest. Primary focus of pest animal control across the municipality is to reduce the likelihood of these species to thrive. Where possible, the removal of harbour, often in the form of weeds or dumped rubbish is effective. In the cases of foxes, removing the availability of food (overflowing bins, dog food bowls etc) is also effective.

Council has a legal responsibility under the state Government Victorian Catchment and Land Protection Act 1994 (CaLP Act) Under the Victorian Catchment and Land Protection Act 1994 (CaLP Act), to manage declared noxious weeds and pest animals on their land.

Declared noxious pests present within Brimbank include foxes and rabbits, as well as Serrated Tussock and other introduced 'Needle Grasses' and Opuntia species (cactus).

# **Key Terms & Definitions**

**Habitat Connectivity:** The connections available in the landscape for flora and fauna to access resources and to retain natural patterns of movement.

**Biodiversity:** the variety of life on earth and the natural patterns they form. This includes the variety of species, the variety within species (genetic diversity) and the variety of ecosystems.

Flora: plants.

Fauna: animals.

**Corridor:** geographical area that allows safe movement through the landscape.

**Ecosystem:** an ecosystem is a community of living organisms in conjunction with the non-living components of their environment, interacting as a system.

**Ecological Vegetation Classes (EVCs):** a way of classifying vegetation communities. There are state government descriptions which benchmark the species composition, the amount of cover and layers (storeys) of vegetation, and structural elements.

**Species guild:** a group of animals with similar habitat and movement needs.

**Dispersal:** how far an individual tends to travel across the landscape.

**Stepping stones:** smaller areas with the right structure for a species, usually used temporarily, which provide a connection for species to reach larger patches.

**Structural connectivity elements:** the parts of a habitat that create the right structure for a species; vegetation, rocks, logs, etc.

**Habitat patch:** an area of habitat which has the right structure and indigenous vegetation for a species.

**Ephemeral wetland:** wetland that is often dry but occasionally fills with water.

**Overwintering:** a period of time in the cooler months when species are inactive, taking shelter on land under structural connectivity elements.

**Indigenous plants and vegetation communities (EVCs):** the plants and vegetation that naturally occurred in Brimbank prior to European settlement.

**Indigenous fauna and habitat:** the animals and habitat that naturally occurred in Brimbank prior to European settlement.

**Urban biodiversity:** the suite of native animals and their associated habitat that now occurs in Brimbank as a result of European settlement and urbanisation.

The associated habitat can be either indigenous, native or exotic vegetation. If it supports native animals (through providing foraging, roosting or breeding/nesting resources), then it is considered to be part of the urban biodiversity matrix.

**Indigenous vegetation:** Native plants that have existed in the region for a long time.

**Native vegetation:** Plants that are native to Australia but may not have originally come from the Brimbank area.

**Exotic vegetation:** Non-native plants introduced through human activities.

# **Appendix 1: Species Guilds**

# **Species Guilds**

Guilds are based on fauna species natural habitats and requirements to move safely through the landscape. Each guild has a flagship species and a list of others with similar needs. By managing species in guilds, we can achieve good value from our investment and benefit multiple species with the same set of actions.

Brimbank's indigenous fauna species were researched and grouped into 'species guilds' based on their natural habitats and home range ('long dispersal' or 'short dispersal').

Species were then assessed by a panel of experts to determine their connectivity requirements. This assessment included the maximum distance most of

the species in each guild can tolerate between patches of habitat and how far they could travel between patches using stepping stones.

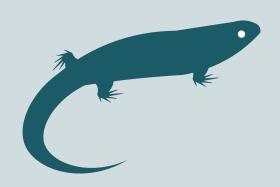
Each guild is represented by a flagship species and accompanied by a list of other species with similar needs for landscape movement. Some species live in multiple types of habitats and may appear in more than one guild.

For each of the five broad habitat groups, two species guilds represent a long and short home range.
Brimbank has ten guilds, each named after their flagship species which is shown in the table below.

# **Escarpment Guilds**

**Habitat type: Escarpment** 

**Description: Short disperser** 



## Flagship species:

Cunningham's Skink (Egernia cunninghami)

#### Profile:

Lives in escarpment habitat, especially rocky areas along waterways.

Is a social animal who lives in groups.

Eats insects, snails, fruit and leaves.

Requires a habitat patch at least every 80m and stepping stones every 5m.

Significant barriers: areas of bare ground without rocks and logs for protection.

# Some other species in guild:

Blue Tongue Lizard (reptile)

Jewel Spider (spider)

Golden orb-weaver (spider)

Habitat type: Escarpment

**Description: Long disperser** 



### Flagship species:

Blue-Banded Bee (Amegilla cingulate)

#### **Profile:**

Lives in shrubby habitats, especially places with pollen producing flowers and rock crevices.

Eats nectar.

Requires a habitat patch or stepping stone at least every 300m, this is the maximum distance one will travel from its nest to forage.

Significant barriers: vegetation clearing, urban development.

# Some other species in guild:

Australian Painted Lady (butterfly)

Fat-tailed Dunnart (mammal)

Wedge-tailed Eagle (bird)

Swamp Wallaby (mammal)

# **Grassy Habitat Guilds**

**Habitat type: Grassy Habitat** 

**Description: Short disperser** 



## Flagship species:

Striped Legless Lizard (Delma impar)

#### **Profile:**

Lives in grassland habitat with natural structure, especially with cracking soils and rocks.

Eats insects.

Prefers a habitat patch at least every 5m and stepping stones every 2m.

Significant barriers: Grassland clearing, rock removal and soil disturbance.

# Some other species in guild:

Australasian Pipit (bird)

Golden Sun Moth (insect)

Little Whip Snake (reptile)

Tussock Skink (reptile)

Habitat type: Grassy Habitat

**Description: Long disperser** 



## Flagship species:

Black-Shouldered Kite (Elanus axillaris)

#### **Profile:**

Lives in grassy habitat, with an open structure.

Eats insects.

Prefers a habitat patch at least every 300m and stepping stones every 250m.

Significant barriers: Introduced predators, large roads.

# Some other species in guild:

Brown Songlark (bird)

Fat Tailed Dunnart (mammal)

Nankeen Kestrel (bird)

Yellow-rumped Thornbill (bird)

Plains Wanderer (bird)

Red-chested Button-quail (bird)

Stubble Quail (bird)

Eastern Brown Snake (reptile)

# **Wet Habitat Guilds**

**Habitat type: Wet Habitats** 

**Description: Short disperser** 



## **Flagship Species:**

Growling Grass Frog (Litoria raniformis)

#### Profile:

Lives in wet habitat, especially slow flowing creeks and wetlands with grassland and shrubland habitat.

Eats insects and other frogs.

Requires a habitat patch at least every 500m and stepping stones every 100m.

Significant barriers: heavily shaded areas, large roads and urban developments.

# Some other species in guild:

Brown Toadlet (frog)

Common Froglet (frog)

Southern Water Skink (reptile)

Scared Kingfisher (bird)

Australian Reed-Warbler (bird)

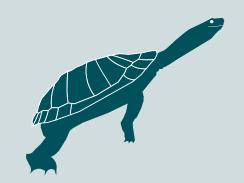
Dusky Moorhen (bird)

White-faced Heron (bird)

Little Egret (bird)

**Habitat type: Wet Habitats** 

**Description: Long disperser** 



### Flagship Species:

Eastern Long-neck Turtle (Chelodina longicollis)

#### **Profile:**

Lives in wet habitats, and is especially adaptable to urban areas.

Eats fish, frogs, crustaceans, mice and many other things.

Requires a habitat patch at least every 5000m and stepping stones every 1000m.

Significant barriers: degraded habitat, especially where food is scarce, drought.

# Some other species in guild:

Rakali (mammal)

Buff-banded Rail (bird)

Platypus (mammal)

Australian Pelican (bird)

Australian White Ibis (bird)

Australian Wood Duck (bird)

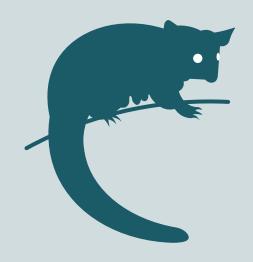
Southern Myotis (bat)

Tiger Snake (reptile)

# **Woodland Guilds**

Habitat type: Woodland

**Description: Short disperser** 



## Flagship species:

Sugar Glider (Petaurus breviceps)

### **Profile:**

Lives in woodland habitat, especially old trees with hollows (or nest boxes) and acacias.

Eats insects, nectar and pollen.

Requires a habitat patch at least every 150m and stepping stones every 75m.

Significant barriers: land clearing, introduced predators.

# Some other species in guild:

Diamond Firetail (bird)

Fuscous Honeyeater (bird)

White-Throated Treecreeper (bird)

Yellow-faced Honeyeater (bird)

Eastern Yellow Robin (bird)

Laughing Kookaburra (bird)

Eastern Freetail Bat (bat)

Habitat type: Woodland

**Description: Long disperser** 



## Flagship species:

Rufous Whistler (Pachycephala rufiventris)

#### **Profile:**

Lives along rivers and creeks, especially where it can burrow safely into banks to nest.

Eats fish, crustaceans, insects and amphibians.

Prefers a habitat patch at least every 1000m and stepping stones every 75m.

Significant barriers: altered river banks, loss of perches for hunting, poor water quality.

# Some other species in guild:

Common Wombat (mammal)

Common Ringtail Possum (mammal)

Nankeen Night Heron (bird)

Swift Parrot (bird)

Southern Myotis (bat)

Eastern Spinebill (bird)

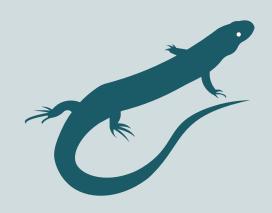
Spotted Pardalote (bird)

Swamp Wallaby (mammal)

# **Generalist Guilds**

Habitat type: Generalist

**Description: Short disperser** 



## Flagship species:

Common Garden Skink (Lampropholis guichenoti)

#### **Profile:**

Lives in many habitats, especially gardens with rocks, logs and leafy debris.

Eats flies, ants, moths and cockroaches.

Requires a habitat patch at least every 5m and stepping stones every 2m.

Significant barriers: open areas with no shelter, use of pesticides, cats.

# Some other species in guild:

Weasel Skink (reptile)

Lesser Long-eared Bat (bat)

Yellow-Bellied Sheathtail Bat (bat)

Blue-banded Bee (inspect)

Willie Wagtail (bird)

Superb Fairy-wren (bird)

New Holland Honeyeater (bird)

White-plumed Honeyeater (bird)

Welcome Swallow (bird)

Marbled Gecko (reptile)

Striped Marsh Frog (frog)

Habitat type: Generalist

**Description: Long disperser** 



### Flagship species:

Australian Magpie (Cracticus tibicen)

#### **Profile:**

Lives in many habitats, especially open woodlands and open space.

Insects.

Requires a habitat patch at least every 5000m and stepping stones every 500m.

Significant barriers: treeless environments.

# Some other species in guild:

Eastern Grey Kangaroo (mammal)

Black Falcon (bird)

Grey-headed Flying Fox (bat)

Sulphur Crested Cockatoo (bird)

Long-billed Corella (bird)

Noisy Miner (bird)

Red wattlebird (bird)

Magpie-lark (bird)

Crested Pigeon (bird)

Australia Raven (bird)

Short Beaked Echidna (mammal)

# **Appendix 2: Corridor Habitat Typologies**

Railways Corridor		
Focus Species Guilds	Location	Information
Focus Species Guilds	A mostly linear corridor with complete municipal connection to the northwest, southeast, west and northeast along three rail lines.  It includes rail reserves and some large adjacent grasslands.	This corridor was open grassy plains, with sparse ephemeral wetlands.  Current Landscape  Largest remaining corridor of grasslands (native and exotic), which is critical for maintaining species and recreating connections to other areas.  Key Habitats  Grassland/s  Wet Habitats  Challenges  Rail corridor not controlled by Brimbank Council.  Primary function of corridor is transport, not biodiversity.

Taylors Corridor		
Focus Species Guilds	Location	Information
Focus species Guilds	The upstream section of Taylors Creek, from Brimbank's northern boundary, extending southwest to the Maribyrnong Corridor.  In addition to the riparian strip, it has significant utility easements and open spaces; and it provides an east-west municipal connection to the Railways Corridor.	This corridor was open grassy plains, with sparse ephemeral wetlands at the headwaters, leading into deeply incised valley with escarpment shrublands.  The corridor extends beyond the river valley to encompass grassy plains.  Current Landscape
		The high extent of grassy ecosystems is a key feature, that separates it from the Maribyrnong Corridor. Upper creek area highly modified with series of man-made lakes and heavily landscaped gardens. Downstream in incised valley has a rehabilitated tip site, and also some surprisingly in tact indigenous vegetation.  Key Habitats  Escarpment  Grassland/s  Wet Habitats
		Challenges  Roads creating discontinuity, narrow creek lines in some areas.

Maribyrnong Corridor		
Focus Species Guilds	Location	Information
	The Maribyrnong Corridor is the broadest and covers a large area, includes Steele Creek and lower Taylors Creek. It extends along the north-eastern boundary of the municipality, then narrows as it heads to the south where Brimbank meets the Maribyrnong and Moonee Valley municipalities.	An area with deeply incised valleys, where the Jacksons Creek meets with Deep Creek to form the Maribyrnong. A diverse corridor with riparian corridors, open woodland, sparse shrublands and grasslands  Current Landscape  This corridor has a relatively large proportion of land managed for conservation. It includes Organ Pipes National Park, yaluk barring Park and Brimbank Park. Much of the area is zoned Green Wedge, and which has restrictions on the density of developments, and contains many hobby farms and market gardens.  Key Habitats  Wet habitats  Bescarpments  Woodlands  Challenges  Large swathes of private land, with competing land uses.  Inaccessible steep escarpments making pest plant and animal control difficult.

Kororoit Corridor		
Focus Species Guilds	Location	Information
	The Kororoit Corridor encompasses Kororoit Creek, Jones Creek and part of Calder Park Drive. The corridor connects to the Railways Corridor at its northern extent, runs south along Brimbank's boundary and winds its way to the south.  The upstream section of Taylors Creek, from Brimbank's northern boundary, extending southwest to the Maribyrnong Corridor.	Original Landscape  Open riparian woodland along the waterway, with rocky escarpments and grasslands above.  Current Landscape  Highly valued by the community, the corridor has a combination of remnant ecosystems, planted trees, open mown spaces and parks and playgrounds.  Key Habitats  Woodland
		<ul> <li>Escarpments</li> <li>Grassy Habitats</li> <li>Wet Habitats</li> <li>Challenges</li> <li>Highly used community space, with sometimes competing land uses.</li> </ul>

Stony Corridor		
Focus Species Guilds	Location	Information
	From the rail corridor in St Albans to Brimbank's boundary	Original Landscape
	with the City of Maribyrnong in Sunshine. The corridor follows	Grasslands and open riparian woodlands.
	an altered course as most of the creek has been modified.	Current Landscape
	creek has been modified.	Most of Stony Creek has been highly modified, channelised or even piped underground
	English of	Key Habitats
		<ul> <li>Woodlands</li> </ul>
		Grassy habitats
		Challenges
		Contaminated land, chanelised and
		piped waterways.
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Cherry Corridor		
Focus Species Guilds	Location	Information
	The Cherry Corridor consists of remnant areas of Cherry Creek and its headwaters and wetlands. It begins in Derrimut and runs through industrial areas in the south of Brimbank before crossing the Western Ring Road and meeting the City of Wyndham municipal boundary to the south.	The natural landscape of this corridor is mostly grassy and wet habitats.  Current Landscape  Much of the area has been developed for industrial use, it still includes significant grasslands and wetland systems, such as Paramount Grassland and Derrimut Nature Conservation Reserve.  These are large protected areas in close proximity that provide opportunities to improve the safety for fauna moving through them.  Key Habitats  Escarpment  Grassland/s  Wet Habitats  Challenges  Primarily industrial precinct - with hidden corridor and reduced passive surveillance.

Laverton Corridor		
Focus Species Guilds	Location	Information
	The Laverton Corridor is relatively short in length and begins to the south of Deer Park. This corridor consists of two converging streams that run parallel through Laverton and eventually join into one when they reach the City of Wyndham.	Original Landscape  Mainly grassy creeklines, with ephemeral and permanent wetlands.  Current Landscape  Narrow corridor through residential and industrial land.  Key habitats  Woodland  Escarpments  Grassy Habitats  Wet Habitats  Challenges  industrial precinct - with hidden corridor and reduced passive surveillance.



# **Brimank City Council**

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