2020 KALAMUNDA LOCAL BIODIVERSITY STRATEGY

SUMMARY

October 2020

Prepared for the City of Kalamunda
by Nam Natura Consulting

Document Tracking

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Local Biodiversity Strategy 2020 provides the framework for biodiversity consideration in local land use planning, its conservation and management in "Local Natural Areas" across the City. For the purposes of this document, **Local Natural Areas** are defined as natural areas that exist:

- outside Bush Forever Areas that are reserved as Parks and Recreation in the Metropolitan Region Scheme, except for lands identified by the City as 'City's LNAs';
- outside Regional Parks, except for lands identified by the City as 'City's LNAs';
- outside lands managed by the Department of Biodiversity, Conservation and Attractions.

The City of Kalamunda 2020 Local Biodiversity Strategy consists of four parts:

Part 1: Summary – provides an overview of biodiversity in the City and recommended biodiversity conservation actions.

Part 2: Technical Report with detailed descriptions of relevant regulatory and policy frameworks for biodiversity conservation, outline of biodiversity status in the City, the description of methodology used to prioritise Local Natural Areas, results of the prioritisation and recommendations on how to improve biodiversity conservation in the City. Glossary of terms and definitions is included here.

Part 3: Appendices – include maps, tables and other detailed descriptions supporting the information in the Technical Report. Appendix G provides a guide to using the on-line mapping platform with results of natural area prioritisation and connectivity modelling.

Part 4: On-line map viewing platform

CONTENTS

For References and definitions see the Technical Document.

Vision

The City of Kalamunda and its community will protect, manage and value the local biodiversity to ensure lasting legacy for future generations.

WHY IS IMPORTANT TO CONSERVE BIODIVERSITY LOCALLY?

1 To support local community well-being

The City's community highly value the natural environment with 97% of respondents in 2017 and 2019 community surveys said that the City of Kalamunda's bushland, trees and natural vegetation are important. These values are reflected in the Strategic Community Plan, *Kalamunda Advancing 2027*, and the City's Environmental Land Use Planning Strategy (July 2019) which includes the review and update of the City's 2008 Local Biodiversity Strategy as a priority action.

This strong local desire for environmental protection is well supported by scientific research into the benefits of investment into environmental protection, including benefits to human health and community wellbeing, economic activity, moderation of climate or diseases and future research opportunities. Benefits of protecting biodiversity go beyond protecting a 'clean and green' environment.

Replacing the plants, animals and the natural systems they maintain in specific soils, water and climatic conditions with highly simplified landscapes leads to significant degradation of quality of the environment and its capacity to offer the services such as clean air, clean water, renewable resources, pollination of crops, natural pest control and other provisioning or regulating services. There is also a clear link between the diversity of natural areas and their values to improving human wellbeing with natural area retaining high biodiversity providing greater benefits to human health. Many cultural practices developed around specific features of natural areas and to be able to maintain these cultural practices or cultural identities, it is critical to retain the natural landscapes.

Natural areas with high biodiversity provide greater opportunities for future research, diversity in economic opportunities and in artistic expressions.

2 Biodiversity is on lands managed by a range of custodians

While many aspects of biodiversity conservation are regulated via legislation, key findings of the Australia's latest State of the Environment (SOE) Report (2016) included;

- the number of threatened species and ecological communities increased,
- there was no evidence of decreased pressures on biodiversity,
- the cumulative impacts of multiple pressures amplify the threats to biodiversity, and

- the current network of protected areas is not yet comprehensive, representative or adequate[1].

While protection of representative natural areas via establishment of reserves can be legislated, the long-term viability of these reserved representations of biodiversity depends on adequate reserve management and on management of lands surrounding them. In addition, to build resilience and facilitate adaptation of natural areas to the impacts of climate change, the reserved areas need to be connected to allow for the movement of plant material and animals.

3 Biodiversity in the City of Kalamunda is part of a region internationally recognised as hotspot for biodiversity conservation

The South West of Western Australia is internationally recognised as hotspot for biodiversity conservation due to very high richness of plant species, with many being of conservation concern. About half of over 8000 plant species found here are endemic, or do not grow anywhere else in the world. Within the South West, Perth region, which includes the City of Kalamunda, recorded similar levels of species endemism as Fitzgerald region and similar levels of species richness as Stirling Ranges.

One of the unique features of these plants is that about 15% of them are pollinated by birds and mammals instead of insects. Nowhere else in the world had been recorded such a high dependence of plants on birds and animals. And some of these animals are also endemic to this region, including the honey possum which feeds on the nectar of flowering plants such as banksias.

Conserving biodiversity in the City is as important as conserving biodiversity in expansive forested areas outside urban areas.

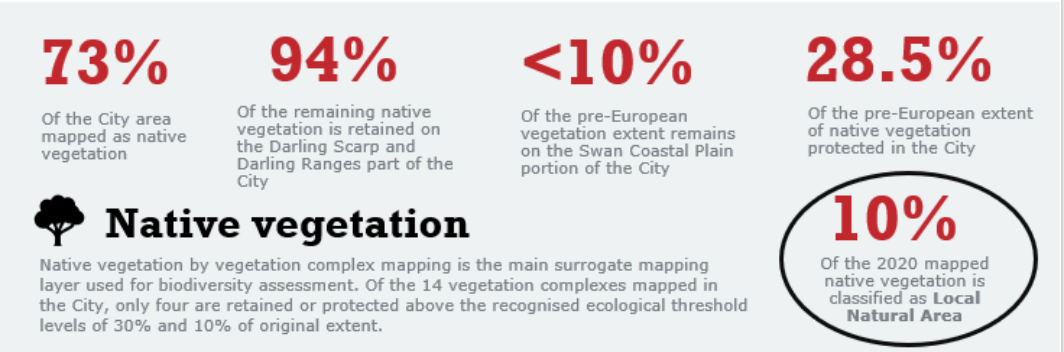
BENEFITS OF A LOCAL BIODIVERSITY STRATEGY

- Increased transparency in decision making, by defining what 'significant' means locally and where 'significant' natural areas are;
- Effective in facilitating early consideration of biodiversity in land use planning;
- Recognised as valid consideration in land use planning as noted by the WA Planning Commission and the State Administrative Tribunal;
- Effective in increasing biodiversity protection;
- Effective in gaining support for resourcing natural area management;
- Effective in engaging community, including private landholders, in conserving biodiversity.

[1] Cresswell ID, Murphy H (2016). Biodiversity: Biodiversity. In: Australia state of the environment 2016, Australian Government Department of the Environment and Energy, Canberra, https://soe.environment.gov.au/theme/biodiversity, DOI 10.4226/94/58b65ac828812

STATUS OF BIODIVERSITY IN THE CITY OF KALAMUNDA

The following section summarises several key aspects of biodiversity and their status in the City. More detailed information is provided in the Technical Report and Appendices.



Since the adoption of the 2008 Kalamunda Local Biodiversity Strategy, over 500 hectares[2] of native vegetation has been cleared. Most vegetation loss can be observed on the Swan Coastal Plain portion of the City, but vegetation clearing also occurred in Carmel, Lesmurdie, Walliston and Bickley.

The protection status of native vegetation in the City has not changed since 2008, with 28.5% of the City's pre-European extent of native vegetation retained in Crown reserves with conservation vesting purpose and on private land with a conservation covenant. While over 7,000 hectares[3] of natural areas were reserved as Parks and Recreation in the Metropolitan Regions Scheme over the previous twelve years, the vesting purpose of reserved land has not changed to include conservation and many areas mapped as Parks and Recreation remain on freehold land.

Which areas are protected?

Protected areas considered to be protected in perpetuity are those natural areas that are secured for conservation either as

- Public lands vested for conservation purpose (e.g. nature conservation)
- Indigenous Protected Areas
- Private and public lands where the biodiversity values are secure for conservation under planning scheme provisions, or covenanting (Australian Government 2010).

The City of Kalamunda manages nine reserves with conservation vesting purpose comprising 23 hectares of native vegetation. However, the 2008 Local Biodiversity Strategy sought to increase the protection status of vegetation in 29 City managed

[2] In 2008, 24,081ha of native vegetation remained. In 2020, 23,552ha of native vegetation remained. The 2020 vegetation extent figure is based on the 2020 mapping by the Department of Primary Industries and Regional Development (DPIRD) and City's LNA mapping, which identified additional 102ha of native vegetation not captured in the DPIRD mapping. Then 24,081ha minus 23,552ha equals 529ha. Note, the vegetation loss figure listed in Appendix E does not include the City's LNA mapping.

[3] In 2020, 10,970hectares of native vegetation was mapped as Parks and Recreation (MRS) in the City of Kalamunda.

reserves covering over 260 hectares. This objective of the Strategy was not achieved.

With 28.5% of pre-European extent of native vegetation protected, still several vegetation types mapped in the City are not protected locally. This includes Guildford vegetation complex on the Swan Coastal Plain, Yarragil 2 and Swamp in the Darling Ranges. Forrestfield and Southern River vegetation complexes are also very poorly represented in the City of Kalamunda and in the broader region.

Considering the 2020 retention and protection status of vegetation complexes across their mapped area[4] and locally, seven vegetation complexes are identified as priority and where also opportunities exist for increased protection in the City:

- Forrestfield
- Southern River
- Darling Scarp
- Dwellingup 2
- Murray 2
- Yarragil 1
- Yarragil 2.

Since 2008, new threatened and priority plants and animals were recorded in the City. More importantly, new plants[5], fungi and insects are still being described in the South West of Western Australia. In August 2020, five new jumping spider species were discovered in the City of Kalamunda[6], demonstrating the high biodiversity values of the City's natural areas and the need for adequate consideration of biodiversity when undertaking activities that might impact it.

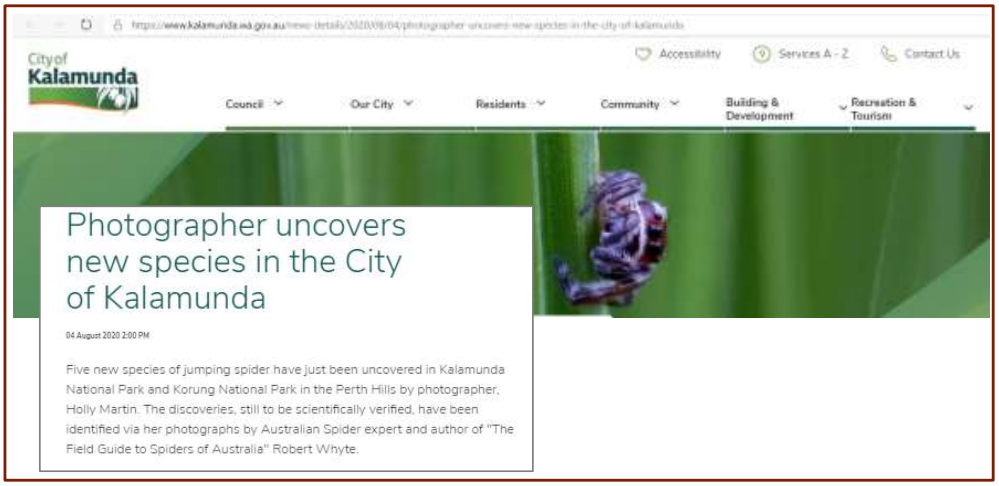
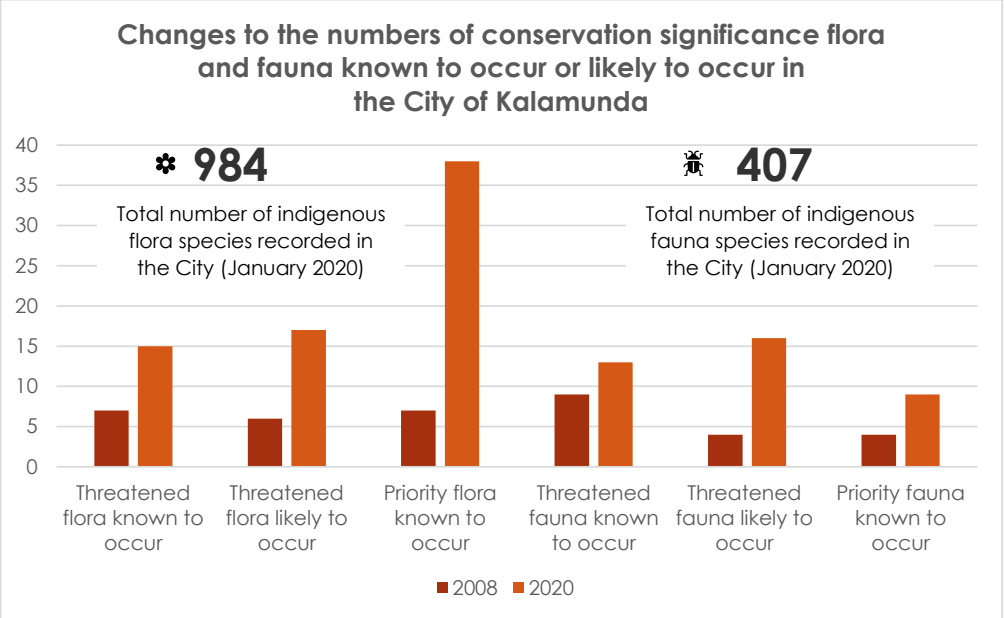


FIGURE 1: A NEWS ITEM FROM THE CITY OF KALAMUNDA WEBSITE.

[4] Vegetation complexes mapping is based on the pattern of vegetation at a regional scale, reflecting the key determining factors of landform, soils and climate. Two bioregions overlap the City of Kalamunda; Swan Coastal Plain and Jarrah Forest.
[5] According to FloraBase, 95 new plant species were listed in WA each year since year 2000 (https://florabase.dpaw.wa.gov.au/statistics/).
[6] https://www.kalamunda.wa.gov.au/news-details/2020/08/04/photographer-uncovers-new-species-in-the-city-of-kalamunda



Most of the vegetation remaining on the Swan Coastal Plain portion of the City is now mapped as 'threatened ecological community' and listed under the Commonwealth and State legislation. There are eight threatened and one priority ecological communities mapped in the City.

Wetlands and waterways not only provide habitat to specific plants and animals, they also play an important role in connecting other types of natural areas through highly fragmented development areas. This includes Poison Gully, Woodlupine Brook, Crumpet Creek and Yule Brook, all providing very good opportunities for helping the movement of animals and plant material between protected areas.

Degradation of lands within water catchments not only affects the local waterway but also catchments they are contributing to such as the Canning and Swan Rivers. The latest report into water quality within the Yule Brook catchment concluded that a 25% reduction in nitrogen is required to meet its targets set out in the Swan Canning Water Quality Improvements Plan (Government of Western Australia 2016).

WHAT HAS BEEN DONE SO FAR TOWARDS BIODIVERSITY CONSERVATION IN THE CITY OF KALAMUNDA?

When publishing its 2008 Local Biodiversity Strategy, the City was the first local government in Western Australia to adopt a strategy developed in accordance with State Government endorsed methodology for biodiversity conservation planning at local level (Environmental Protection Authority 2008).

The key outcomes from the implementation of the City's first strategy include:

- ✓ the establishment of a team dedicated to the management of natural areas in City vested lands and to supporting community volunteers
- ✓ the growing number of community volunteers engaged in natural area management (the current register of bushcare volunteers lists 47 Friends Groups active in the City)
- ✓ implementing restoration projects in several reserves
- ✓ publication of various resources and fact sheets on best practice bushland management including the *Private Landholder Bushland Information Package* (Shire of Kalamunda 2013), *Plants Out of Place* booklet or the monthly *Greenpage* e-newsletter
- ✓ mapping and assessing the condition of all City's natural areas. This mapping informed the conservation priorities in this updated Local Biodiversity Strategy.

CHALLENGES

All the issues listed in the 2008 Kalamunda Local Biodiversity Strategy as threatening biodiversity in the City of Kalamunda remain relevant in 2020. Habitat loss due to vegetation clearing and degradation continues to be an issue. Rate of vegetation clearing recorded in the City since 2008 was greater than in the previously assessed period; with a rate of 19.6 hectares cleared annually between 2002 and 2008 and a rate of 53 hectares cleared annually between 2008 and 2020.

Habitat loss and habitat fragmentation remain one of the main threats to biodiversity conservation in Australia and elsewhere. While stopping vegetation clearing is not feasible, influencing development design to minimise the need for vegetation clearing and strategically planning for connectivity between retained natural areas can reduce the impact of future development.

Weeds, feral animals, plant diseases, inappropriate fire regimes, changed hydrological regimes and human use of natural areas that is incompatible with biodiversity conservation all affect the capacity of natural areas to retain biodiversity. Management of some of these threats within isolated reserves can be of limited effect if they are not managed on adjoining lands. Therefore, prioritising efforts, encouraging, and adopting best practice across all activities with the potential to affect biodiversity needs to become a standard.

It is anticipated that known threatening processes will be exacerbated due to the impacts of climate change. To reduce these impacts, it is recommended increasing the resilience of natural areas by managing the known threats and establishing a well-connected network of natural areas.

WHAT CAN BE DONE TO IMPROVE THE BIODIVERSITY CONSERVATION STATUS?

To achieve the City's vision for biodiversity, five key objectives have been identified which can be linked to specific actions and deliverables. In implementing the Local Biodiversity Strategy, the City of Kalamunda seeks to achieve the following objectives:

1. *To increase the protection **status of priority natural areas in the City**, including on local government managed or owned lands, and on private land;*
2. *To appropriately manage local natural areas **to reduce threats,** considering the identified local biodiversity conservation priorities**;***
3. *To increase the viability and resilience of natural areas by **establishing buffers and ecological linkages**; considering the impacts of climate change;*
4. *To integrate biodiversity considerations across all areas of City's business and operations;*
5. *To achieve long term community engagement in biodiversity management.*

WHERE ARE THE PRIORITIES FOR BIODIVERSITY CONSERVATION AND OPPORTUNITIES FOR INCREASED PROTECTION?

Numerous characteristics are used to describe the biodiversity of an area. This can make the assessment of conservation priorities challenging. To assist with determining which areas should be investigated as a priority for conservation across the City, several mapping layers were developed:

1 Natural Area Prioritisation – classifies vegetated areas in the City by the number of number of biodiversity characteristics represented within an area. The prioritisation model uses 31 criteria[7] that consider how representative or rare the vegetation is, the presence of significant plants, animals, wetlands, how large the remnant vegetation patches are and whether they are connected to other patches of vegetation. The higher the number of characteristics known within an area the higher its relative conservation priority (Figure 2).

2 Local ecological linkages – prior mapping the opportunities for connecting protected natural areas and those that are recommended to be formally protected, the levels of vegetation connectivity in the City of Kalamunda were modelled[8]. The vegetation connectivity modelling allowed to test feasibility of mapped ecological linkages across the City (Figure 3).

3 Biodiversity Conservation Priorities – categorises Local Natural Areas according to opportunities to protect biodiversity. This mapping is designed to assist with the identification of relevant land use planning and other actions to improve biodiversity status within Local Natural Areas. There are 12 Biodiversity Conservation Priority categories, one that identifies reserves that are recommended to be re-classified as conservation reserves instead of their current purpose.

[7] See Section 5.1.1 of the Technical Report for the full description of the prioritisation criteria.
[8] Methodology used is described in Section 5.1.2 of the Technical Report and Appendix D.

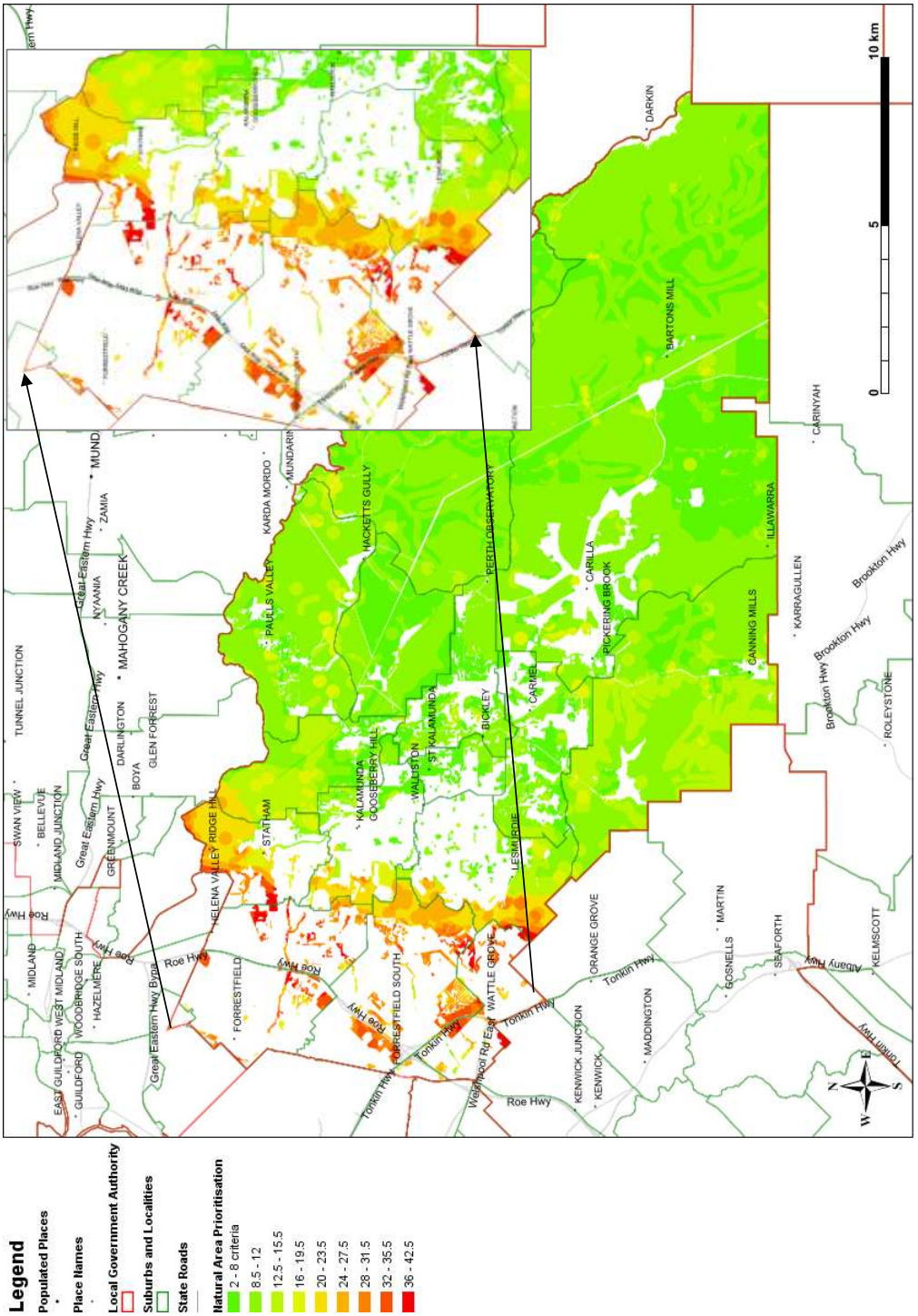


FIGURE 2: NATURAL AREA PRIORITISATION (2020) HIGHER NUMBERS IDENTIFY AREAS WITH MULTIPLE BIODIVERSITY VALUES.

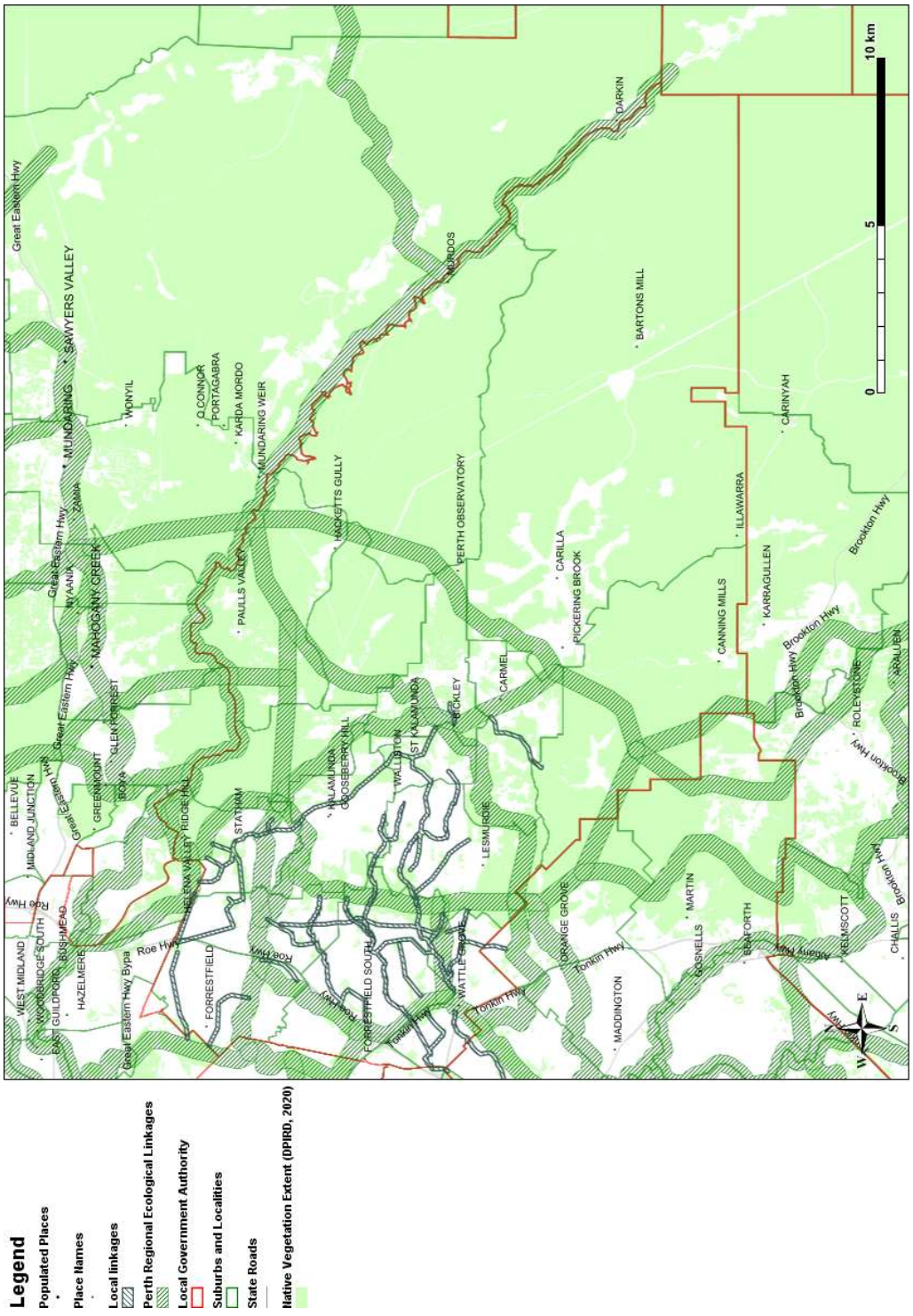


FIGURE 3: REGIONAL AND LOCAL ECOLOGICAL LINKAGES.

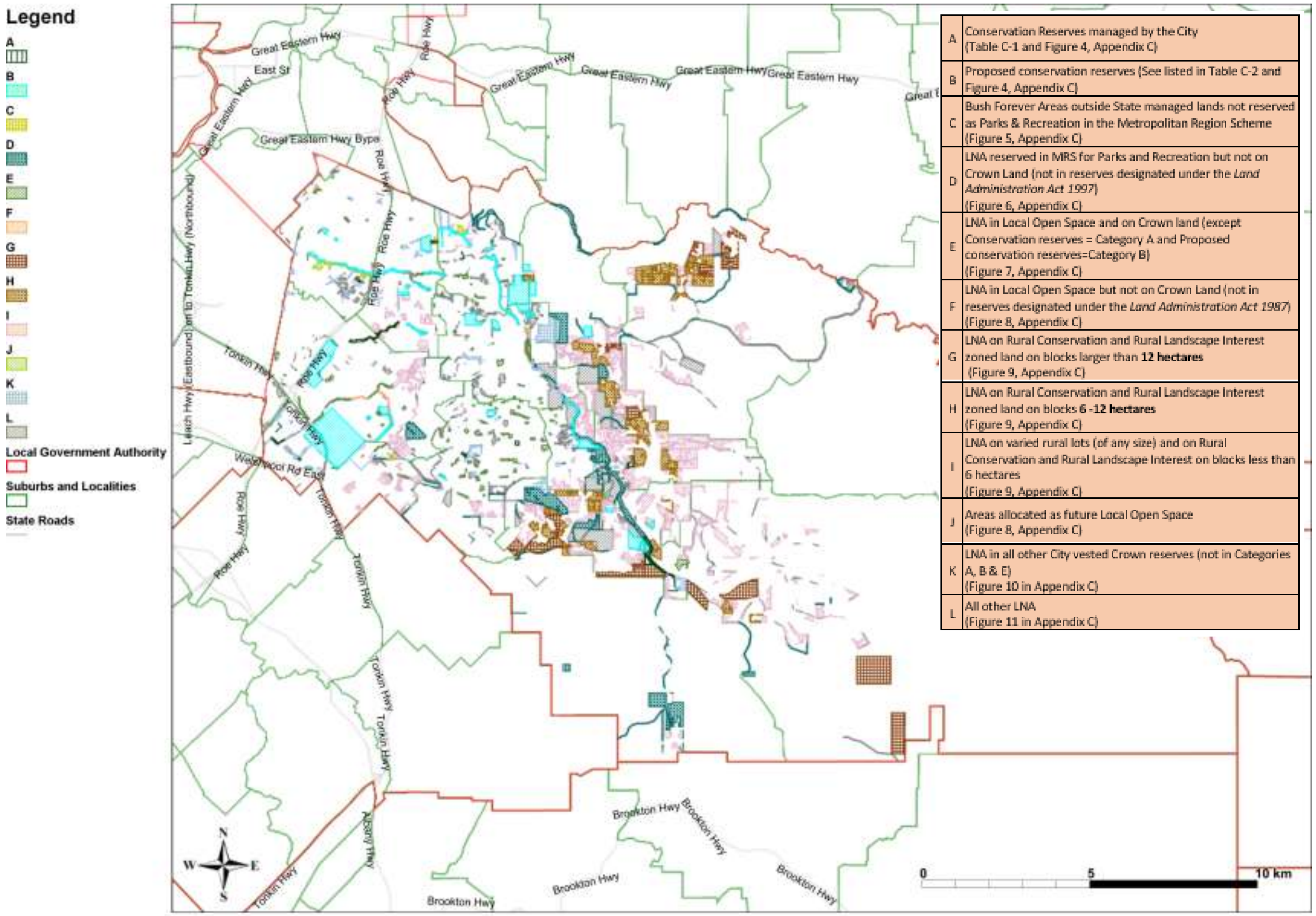


FIGURE 4: BIODIVERSITY CONSERVATION PRIORITY CATEGORIES

Integration of these mapping layers into the City's Local Planning Strategy and the proposed local planning policy will provide one of the key tools for achieving the biodiversity conservation objectives.

The results of the Natural Area Prioritisation (NAP) also inform the prioritisation of lands managed by the City for management. Combining the NAP score with a score for viability for each of the City's more than 200 Local Natural Areas allowed the ranking of these areas (Appendix E). The management priorities will be further informed by the type and severity of threats and community values considerations.

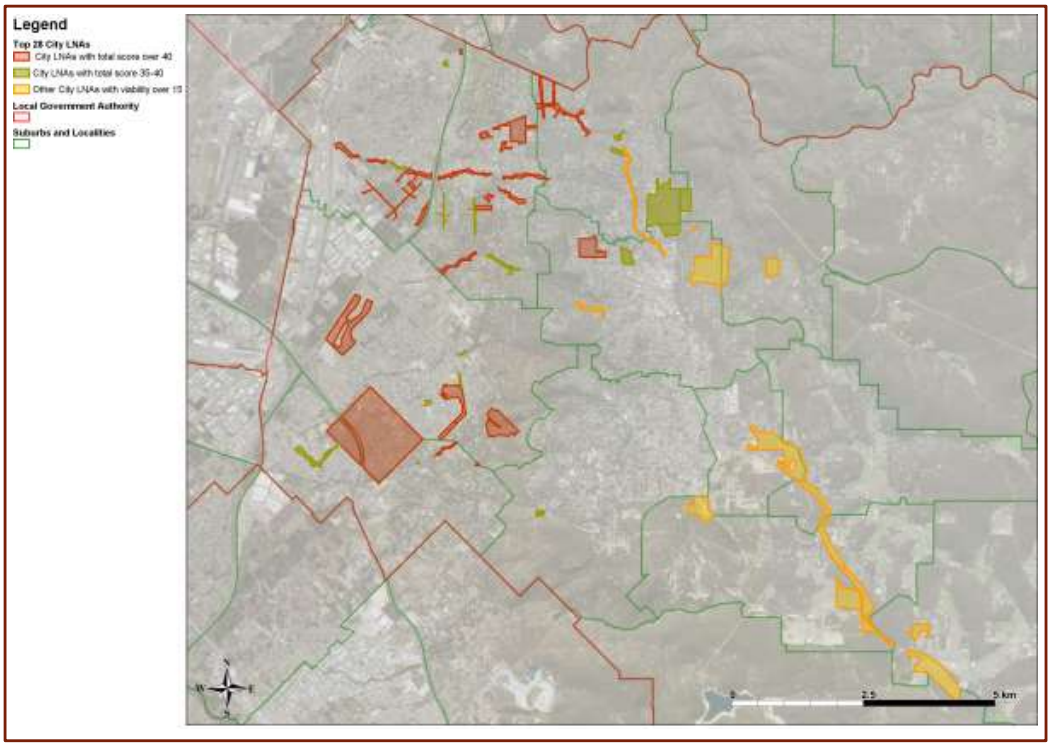


FIGURE 5: TOP PRIORITY CITY MANAGED LOCAL NATURAL AREAS BASED ON ECOLOGICAL CRITERIA AND VIABILITY.

The range of tools that are recommended to be implemented to achieve the Local Biodiversity Strategy objectives are summarised in Figure 6 and outlined in the Action Plan and described in more detail in the Technical Report (section 5).

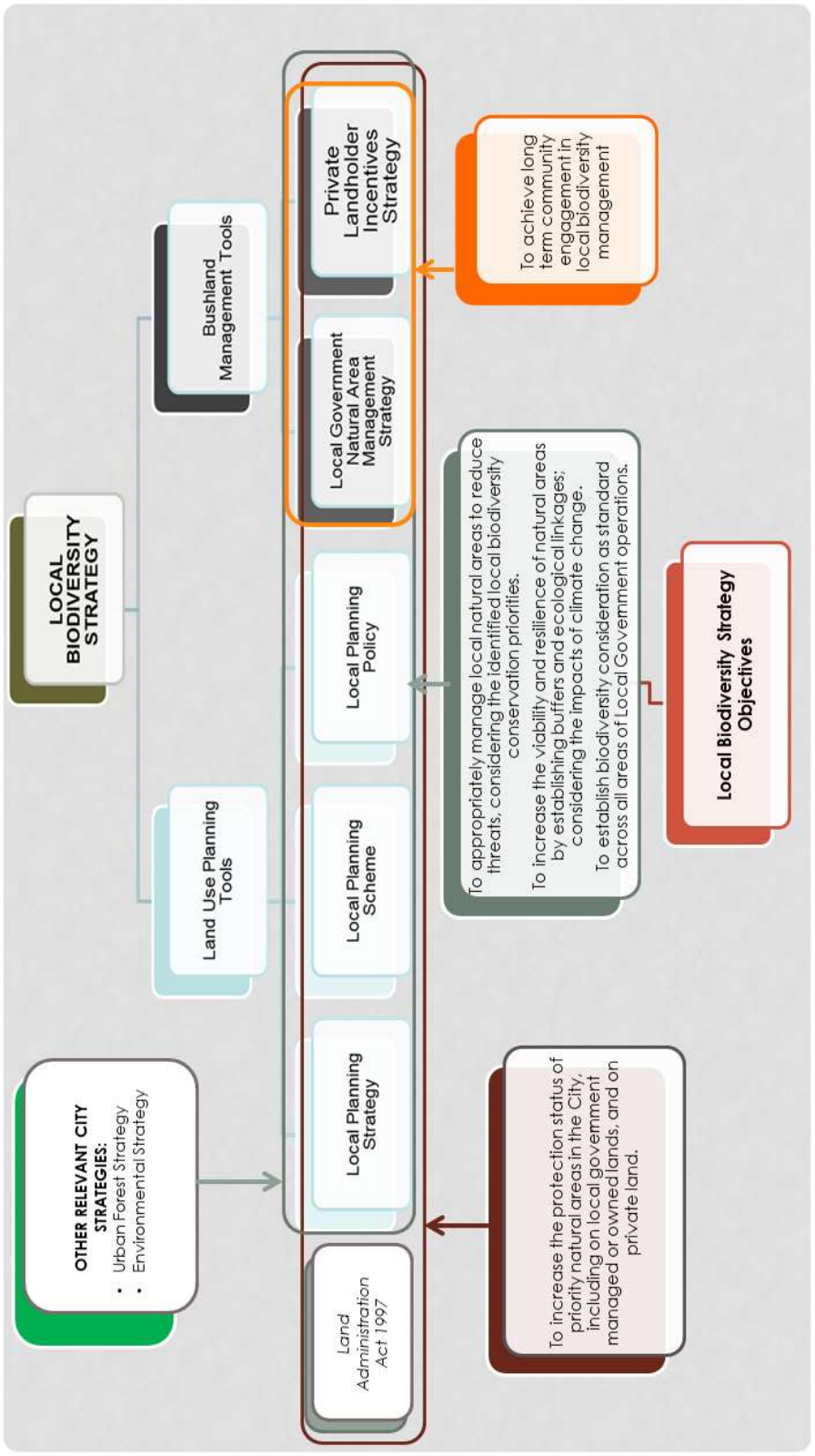


FIGURE 6: AN OVERVIEW OF TOOLS TO BE USED TO MEET THE LOCAL BIODIVERSITY CONSERVATION OBJECTIVES.

HOW WILL PROGRESS TOWARDS IMPROVEMENTS BE MEASURED?

To allow monitoring the effectiveness of the proposed implementation mechanisms and the levels of implementation, adoption of targets specific to each objective of the City's Local Biodiversity Strategy is recommended. The recommended targets and references to sections of the Technical Document which discuss how to achieve them is listed below.

Local Biodiversity Strategy Objectives	**Targets to be achieved by 2031**	**How to achieve them?**
To increase the protection status of significant biodiversity in the City, including on local government managed or owned lands, and on private land.	1.1 Formally protect at least additional 500 ha of native vegetation in the City, increasing the protection of at least 30% of the City's natural areas.	Implementing recommendations in Section 5.2.1, Table 12
To appropriately manage local natural areas to reduce threats, considering the identified local biodiversity conservation priorities.	2.1 All local conservation reserves vested in the City are managed in accordance of an approved management plan	Develop and adopt a bushland management strategy for all City vested Local Natural Areas – see section 5.2.2
	2.2 Conservation signage is installed at all conservation reserves	
	2.3 Continuous decrease in weed cover and feral animal distribution is recorded in all conservation reserves managed by the City	
	2.4 No new dieback infestations are recorded within the City's conservation reserves	
To increase the viability and resilience of natural areas by establishing buffers and ecological linkages; considering the impacts of climate change.	3.1 Each high conservation value natural area is connected to at least three other significant natural areas through a network of ecological linkages	Implementation of protection and restoration of natural areas and replating of native vegetation within the regional and local ecological linkages – see Sections 5.2.2
	3.2 Revegetate at least 250 ha of degraded or cleared land using local species to increase the native vegetation cover in the Swan Coastal Plain portion of the City to at least 10% of its area (about 650hecatres)	
	3.3 At least 50% increase in local tree species in streets and parks of Swan Coastal Plain portion of the City.	

Local Biodiversity Strategy Objectives	**Targets to be achieved by 2031**	**How to achieve them?**
To establish biodiversity consideration as standard across all areas for biodiversity conservation.	4.1. Local Biodiversity Strategy objectives are integrated into the City's land use planning tools	Integration into City's Local Planning Strategy, Local Planning Scheme and adoption of Local Planning Policies -See Section 5.2.1
	4.2 All staff use the City's environmental checklist procedures prior project planning and development.	Relevant to staff responsible for infrastructure projects' planning and delivery, City infrastructure and lands management - See Section 5.2.3
	4.2 All City staff and contractors working on City managed lands follow the best practice dieback and weed hygiene protocols	See Section 5.2.3
To achieve long-term community engagement in local biodiversity management	5.1 All current community groups are active and actively participating in the management of natural areas in the City	See Section 5.2.1 and 5.2.4.
	5.2 At least 70% of native vegetation mapped on rural lands is retained	
	5.3 10% increase in participation in the City's environmental initiatives	

ACTION PLAN

Priority: High – complete by 2022-23
Medium – complete by 2023-2025
Low – complete by 2031

Action	Priority	Responsibility	(Key) Performance Indicator- provide justification for the proposed KPIs	Contributing to target
1 Integration into the land use planning framework				
1.1 Integrate Local Biodiversity Strategy objective, targets and mapping into the City's local planning strategy	High	Strategic and Regulatory Planning Services	WAPC endorses the City's local planning strategy with adequate provisions for local biodiversity (including mapping and targets)	4.1
1.2 Confirm the conservation values of the selected Land Administration Act 1997 reserves proposed for change of purpose, or change of classification of reserve to Conservation and Passive Recreation in the local planning scheme (BCP B)	High	City to engage adequately qualified consultant or City's Coordinator Conservation and Environment	All reserves assessed using the NAIA templates and report on recommendations for reserve purpose change made.	4.1
1.3 Scheme Amendment to change the classification of selected high conservation value reserves vested in the City to Conservation and Passive Recreation	High	Strategic and Regulatory Planning Services	All selected reserves with confirmed high conservation values classified for Conservation and Passive Recreation	4.1
1.4 Introduce a Special Control Area overlay for implementation of ecological linkages	High	Strategic and Regulatory Planning Services	Local Planning Scheme Amendment adopted by the Council and the WAPC	4.3

Action	Priority	Responsibility	(Key) Performance Indicator- provide justification for the proposed KPIs	Contributing to target
1.5 Develop a number of Local Planning Policy/Policies	High	Strategic and Regulatory Planning Services	Local Planning Policy adopted by the Council All new subdivisions and streetscape upgrades in accordance with the landscaping strategy (80% of plants used are local species) At least 70% of vegetation remaining in BCPs G,H, I retained	4.1
1.6 Implement recommendations for vegetation retention and protection on lands identifies as BCP L	Ongoing	Strategic and Regulatory Planning Services	Contribute to the achievement of 5% of pre-European vegetation extent protected and 10% native vegetation cover on the Swan Coastal Plain portion of the City	4.1
1.7 Update the 'Biodiversity Asset' mapping in the City's Public Open Space Strategy (2018)	High	Strategic and Regulatory Planning Services	The updated Biodiversity Assets POS mapping integrated into the City's Intramaps and used to inform land use planning	4.1
2 Local Government Natural Area Management				
2.1 Confirm the indicative ecological values, condition and management issues in all natural areas proposed to be managed for conservation	High	Environmental Services team or suitable consultant	All current and new natural areas assessed and prioritised according to ecological values and management issues	4.2 and 4.3
2.2. Develop a strategic 5 year management master plan for all conservation reserves	Medium	City to engage adequately qualified consultant Or in-house by the Conservation team	Strategic Management Plan adopted by the Council	4.2, 4.4 and 4.5
2.3 Develop and implement best-practice procedures for all City staff and contractors working and accessing	Medium-High	Coordinator Conservation and Environment /Engineering	Best practice procedures part of induction of new staff, part of contractual agreements for all works	4.2 and 4.4

Action	Priority	Responsibility	(Key) Performance Indicator- provide justification for the proposed KPIs	Contributing to target
natural areas and managing infrastructure assets		Services/Community Infrastructure	potentially within or near protected natural areas	
2.4 Develop and Implement the LNA reserve management master plan	Ongoing	Coordinator Conservation and Environment /Community Infrastructure	At least 80% of LNA reserves being actively managed by 2031	4.2, 4.4 and 4.5
2.5 Undertake periodic fauna monitoring and keep records of all incidental fauna observations for all natural areas.	Ongoing	Conservation and Environment Team	All viable natural areas will show current records of threatened and priority fauna where they would have occurred prior fragmentation	4.2 and 4.5
2.6 Report any new records to DPAW	Ongoing	Conservation and Environment Team	DPAW records of fauna in the City are up-to-date	4.1
2.7 Develop and implement a revegetation plan for all degraded lands within ecological linkages	Medium	Coordinator Conservation and Environment /Community Infrastructure	At least 50% of mapped degraded area in conservation reserves are revegetated by 2031	4.3
2.8 Develop and implement a City wide landscaping program (including public open space, compensation basins and streets)- overlapping with the City's Urban Forest Strategy	High	Coordinator Conservation and Environment /Engineering Services/Community Infrastructure/Development Services	By 2031, at least 50% of street and park trees are local species	4.3
3 Private landholder and community volunteers support				
3.1 Facilitate private landholder consultation to identify the most desirable incentives for biodiversity conservation on private land	High	Coordinator Conservation and Environment /Community Services	At least 20% of private landholders on rural zoned lands actively engaged in the survey	4.2

Action	Priority	Responsibility	(Key) Performance Indicator- provide justification for the proposed KPIs	Contributing to target
3.2 Prepare and implement a private landholder incentives package to support biodiversity conservation on private rural lands.	Medium	City to engage adequately qualified consultant/ Coordinator Conservation and Environment	Private landholders incentive strategy adopted by the council At least 70% of native vegetation mapped on rural lands is retained in 2031	4.2
3.3. Deliver local plant subsidy scheme, targeting properties within ecological linkages	Medium	Conservation and Environment Team	60% of land owners within each linkage actively participated in the scheme	4.3
3.4 Support community volunteers and private landholders: • Information on management • Volunteer insurance • Free training • Promotion of bushcare activities • Volunteer recognition	Ongoing	Conservation and Environment Team	90% of the current community groups are active and actively participating in the management of natural areas in the City in 2031 XX new groups formed	4.5
4 Communication and Local Government capacity building				
4.1 Integrate all Local Biodiversity Strategy mapping into the City's information system	High	Development Services	Mapping accessible to all City services	4.4
4.2 Develop an interactive portal for residents with information on how they can support biodiversity locally: • Responsible cat and dog ownership • Bee keeping • Nest boxes – birds, bats, insects • Wildlife care in bushfire emergencies	Medium	Coordinator Conservation and Environment /Corporate Services	10% annual increase of community activity on the portal	4.2, 4.3 and 4.5

Action	Priority	Responsibility	(Key) Performance Indicator- provide justification for the proposed KPIs	Contributing to target
• Sustainable landscaping – linked to ecological linkages • Map uptake of the implemented initiatives				
4.3 Facilitate discussions with local Aboriginal leaders to investigate opportunities for their involvement in promoting the cultural values of natural areas in the City	High	Community Services/ Coordinator Conservation and Environment		4.2, 4.4 and 4.5
4.4. Develop a monitoring and reporting schedule	High	Coordinator Conservation and Environment / Development Services/Corporate Services	Bi-annual report on progress with implementation of the Local Biodiversity Strategy and on the status of biodiversity in the Shire presented to the Council and the community	4.4 and 4.5
4.5 Undertake a review of the feasibility and effectiveness of the proposed implementation actions every 5 years.	Medium	Coordinator Conservation and Environment / Development Services	Results of the review with recommendations on further actions presented to the Council	4.4 and 4.5
4.6 Form partnerships with not-for-profit groups to facilitate reserve management and environmental education	Ongoing	Coordinator Conservation and Environment /Community Infrastructure	At least one long-term (5years) working partnership formed	4.2 and 4.3

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