



# Perth and Peel Green Growth Plan for 3.5 million

Draft Strategic Conservation Plan for the  
Perth and Peel Regions

December 2015



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## How to make a submission

The Western Australian Government is seeking public comment on the draft *Perth and Peel Green Growth Plan for 3.5 million* documents. The Strategic Conservation Plan, Action Plans and State and Commonwealth Impact Assessment Reports will be available for public comment from the 17 December 2015 to 8 April 2016.

Submissions received will be considered by the State Government prior to the preparation of final documents in 2016.

When making a submission please make sure you:

- identify which document your comments relate to;
- include the relevant section or page number;
- clearly state your opinion and the reasons for your opinion;
- where relevant or possible, outline alternatives or solutions to you areas of interest;
- provide any additional information to support your comments; and
- indicate whether you want your submission to be confidential.

Submissions will be treated as public documents unless provided and received in confidence, subject to the requirements of the *Freedom of Information Act 1992*.

Copies of the draft documents for *Perth and Peel Green Growth Plan for 3.5 million* are available on the Department of the Premier and Cabinet website: [www.dpc.wa.gov.au/greengrowthplan](http://www.dpc.wa.gov.au/greengrowthplan)

Written submissions should be sent to:

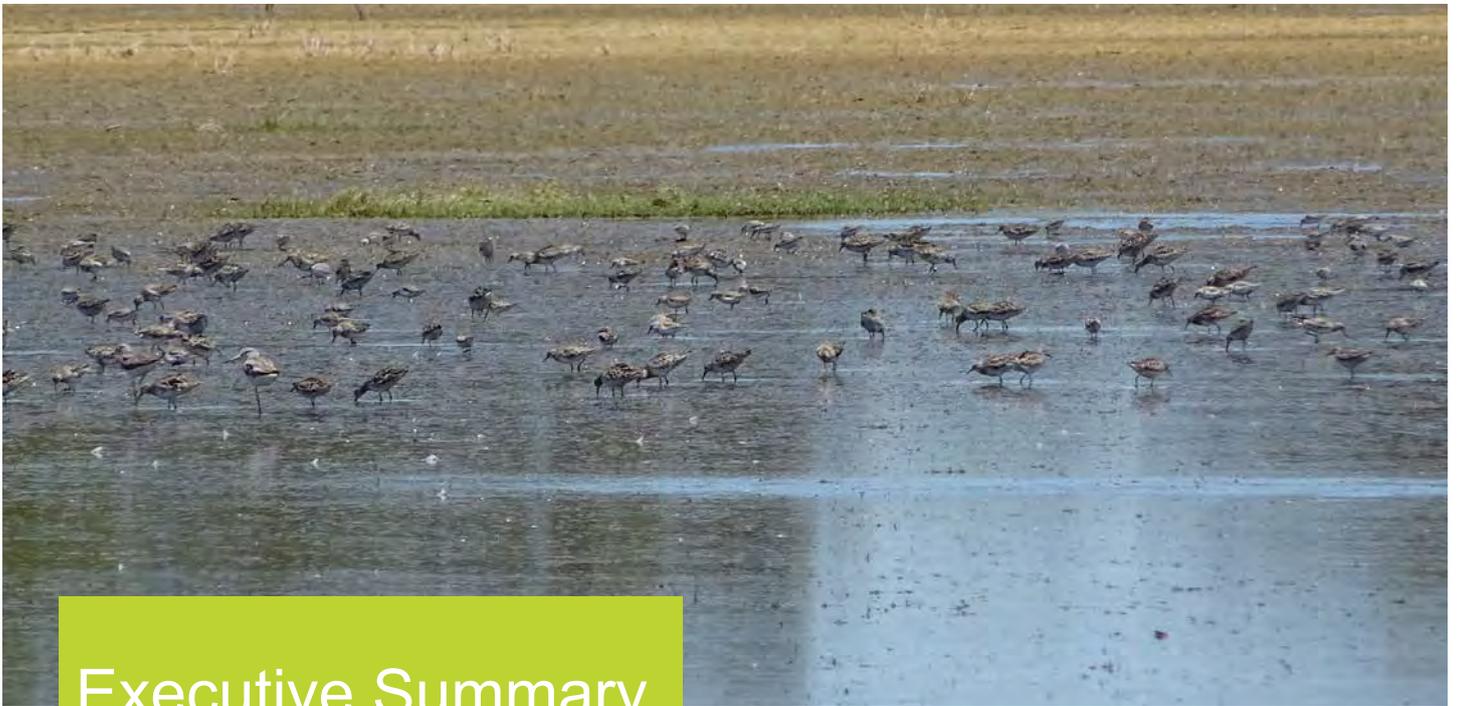
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**All submissions must be received by 5pm on Friday 8 April 2016**  
**Late submissions will not be considered**



## Executive Summary

### **More than two million people live in the Perth and Peel regions**

(Australian Bureau of Statistics 2014), which is projected to grow to 3.5 million people over the next 30 years. The Perth and Peel regions are within one of the world's 35 biodiversity hotspots and support significant numbers of threatened flora and fauna, ecosystems, and important wetlands, which in addition to their unique environmental values underpin a significant part of the regions' lifestyle, culture and identity. A key challenge in delivering a city of 3.5 million people will be to ensure the ongoing protection of environmental systems while integrating the inevitable changes associated with development into existing environmental and landscape features.

To achieve sustainable outcomes in the Perth and Peel regions over the coming decades, it is vital that a strategic and integrated approach be taken to planning for future population growth while protecting the regions' unique environmental values. Unlike conventional planning and environmental assessment processes, the Strategic Assessment of the Perth and Peel regions has allowed development needs and environmental impacts to be considered at a 'whole of city' scale enabling extensive land use optimisation. At the centre of this exercise has been an unprecedented level of coordination across State Government to resolve future land use and policy conflicts and deliver an efficient and sustainable urban form and strong conservation outcomes for the regions' extensive environmental values.

## Strategic Assessment of the Perth and Peel Regions

In July 2011, the Western Australian Ministers for Planning and Environment and the Commonwealth Minister for the Environment agreed to undertake a Strategic Assessment of the Perth and Peel Regions under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The Strategic Assessment is the largest undertaking of its kind in Australia, setting a benchmark for streamlining urban-based environmental approvals processes and delivering unprecedented integration of land use planning and environmental protection and management.

The Strategic Assessment addresses the impact on matters of national environmental significance (MNES) and State environmental values from the future development of the Perth and Peel regions, including urban, industrial, rural-residential and infrastructure development, pine harvesting and basic raw materials extraction.

In addition to addressing Commonwealth requirements for a Strategic Assessment under Part 10 of the EPBC Act, the Strategic Assessment also responds to the interim section 16(e) strategic advice prepared by the Environmental Protection Authority under the *Western Australian Environmental Protection Act 1986* (EP Act).

The Strategic Assessment is comprised of:

- a plan to protect MNES and State environmental values (Strategic Conservation Plan, this document) and a series of associated Action Plans; and
- assessment reports of the impacts on MNES and State environmental values associated with implementing the Strategic Conservation Plan (MNES and State Strategic Impact Assessment Reports).

The Strategic Assessment has been progressed in consideration of 'Directions 2031 and beyond – metropolitan planning beyond the horizon' and has been undertaken in collaboration with the preparation of the *Perth and Peel@3.5million* suite of documents, including the four sub-regional planning frameworks, which outline a vision for future land uses and a more liveable, prosperous, connected, and sustainable community.





This collaborative approach has provided the opportunity to avoid, mitigate and offset the environmental impacts of future development at a strategic scale to ensure the protection of the environment while supporting the growth of the city. The Strategic Assessment, in conjunction with the WAPC's *Perth and Peel@3.5 million* suite of documents and the EPA's strategic advice, is long term planning that will deliver the following key outcomes:

- upfront environmental approval under the EPBC Act for future urban, industrial, rural residential, infrastructure development and basic raw materials (BRM) extraction required to support the planned growth of the Perth and Peel regions to 3.5 million people and the harvesting and removal of the Gnangara, Pinjar and Yanchep pine plantations;
- streamlined State approval processes under the EP Act;
- optimisation of development and environmental outcomes, including:
  - o a more efficient and sustainable urban form;
  - o improved access to strategic deposits of BRM;
  - o significant sequential land use and greater co-location of infrastructure corridors; and
  - o reduced fragmentation of environmental values;
- a comprehensive conservation package that:
  - o sets aside 170,000 hectares of new parks and reserves in Perth and Peel and immediate surrounds;
  - o establishes the Peel Regional Park;
  - o resolves tenure, ownership and management arrangements for Bush Forever sites;
  - o provides for the protection of threatened species, wetlands of international significance and threatened ecological communities;
  - o commits to action to ensure the long term health of the Peel-Harvey and Swan Canning estuaries; and
- reduced delays from environmental approvals and the related cost pressures.

## Strategic Conservation Plan

The Strategic Conservation Plan establishes both long-term certainty for conservation outcomes and development in the Perth and Peel regions. It was developed to provide for the growth of the city to a population of 3.5 million while protecting Perth and Peel's unique biodiversity and environmental systems. This plan forms one part of a strategic assessment process that builds on extensive planning and policy work undertaken across State Government agencies.

The Strategic Conservation Plan seeks to provide certainty around the following development actions ('classes of action') required to support our growing population:

- Urban and Industrial;
- Rural Residential;
- Infrastructure;
- Basic raw material extraction; and
- Harvesting of pines in the Gnangara, Yanchep and Pinjar pine plantations.

The Strategic Conservation Plan and Action Plans F, G and H provide a comprehensive conservation framework that will deliver significant improvements to the protection and management of both MNES and State environmental values, and optimises both development and environmental outcomes in the context of the growth of the regions to 3.5 million people.

Importantly the conservation framework delivers:

- significant upfront avoidance of impacts on environmental values, including avoidance of over 16,400 hectares of impacts to native vegetation (including over 15,700 hectares of Carnaby's cockatoo Swan Coastal Plain feeding habitat) in developing the urban, industrial, rural residential and BRM classes of action, and a system for further avoidance of environmental values over the life of the Plan;
- major expansions to the conservation reserves system in the Perth and Peel regions and surrounds;
- programs to protect threatened species, which will be delivered in partnership with local government, community groups and landholders;
- streamlined environmental approvals to support an efficient urban form; and
- significant sequential land use and co-location of infrastructure corridors to minimise environmental impacts.

The Strategic Conservation Plan is supported by nine Action Plans that detail the implementation processes for how development will proceed, how conservation actions will occur, and how monitoring and reporting will happen.

## Key commitments

The Strategic Conservation Plan outlines a wide range of commitments to provide positive conservation outcomes for both Commonwealth and State environmental values in the Perth and Peel regions.

- **Expanding the conservation reserve system** – The Conservation Program commits to establishing 170,000 hectares of additional conservation reserves, to provide conservation gains to enable the conservation outcomes and objectives for MNES and State environmental values to be met.
- **Protecting river and wetland systems** – Conservation Category Wetlands will continue to be protected and a new wetland buffer policy will be developed and implemented through the land planning process. A substantial package of measures will be implemented to reduce nutrient inflows into and improve water quality in the Swan Canning estuary, and Peel-Harvey estuary and broader Peel–Yalgorup wetland system.
- **Protecting Carnaby’s cockatoo** – Carnaby’s cockatoo is one of the iconic species within the Perth and Peel regions. Commitments relating to the species include the creation of a minimum of 116,000 hectares of additional conservation reserves containing Carnaby’s cockatoo habitat, recreation of habitat in strategic locations including replacing 5,000 hectares of pines, and research and monitoring measures to allow for adaptive management.

- **Commitments to protect Commonwealth matters and State environmental values** – The Strategic Conservation Plan contains a wide range of commitments to protect MNES and State environmental values across the Perth and Peel regions.
- **Implementation and Assurance** – The Implementation Framework outlines a robust and transparent framework for the implementation of environmental outcomes, supported by contemporary policy and regulation and clear responsibilities. The Assurance Framework details a clear monitoring and reporting program to demonstrate how commitments will be met and risks managed.

## Conclusion

The Western Australian Government is committed to ensuring the long term protection of the Perth and Peel regions’ most significant environmental assets, while accommodating significant population growth within the Perth and Peel regions. As a whole, this Plan and the associated Action Plans establish a comprehensive basis for protecting the regions’ unique biodiversity and other environmental values and adapting to and managing the associated challenges into the future.





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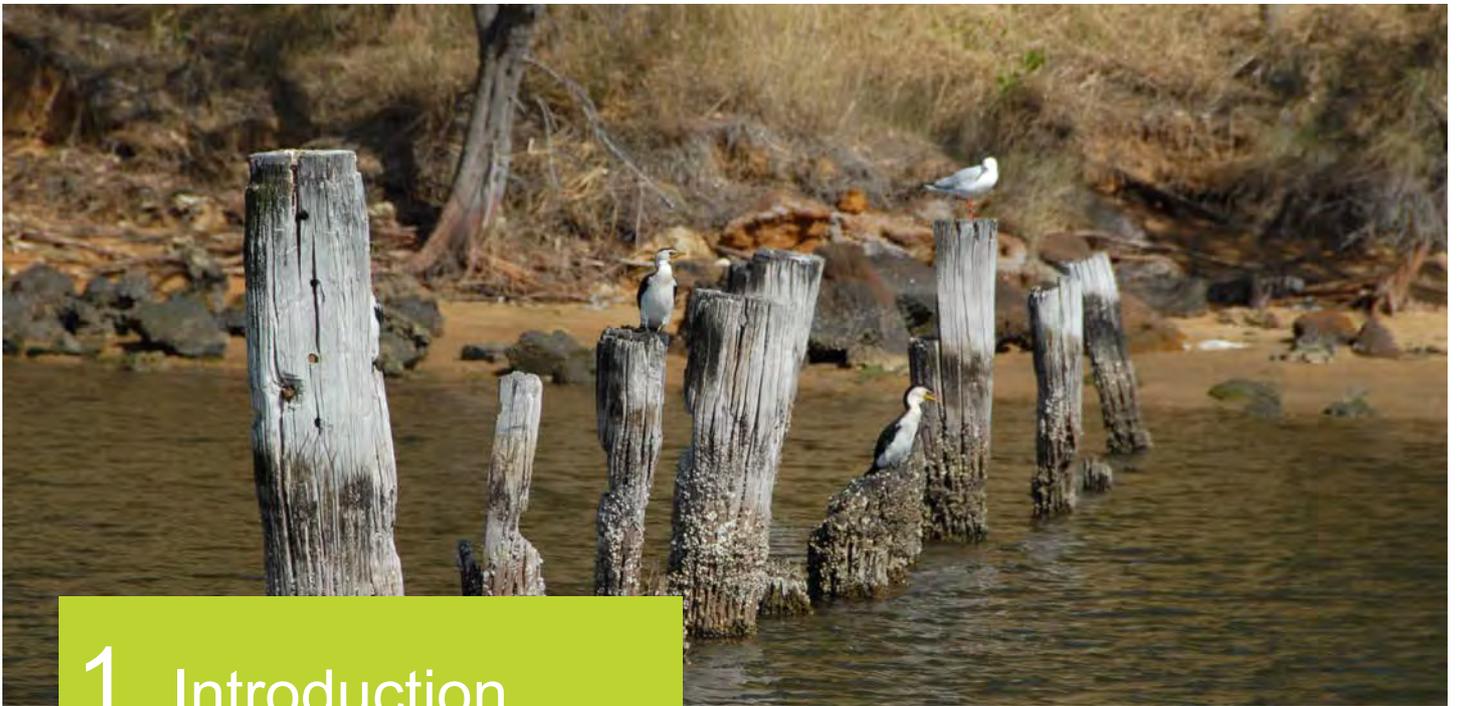
# Abbreviations

Abbreviation	Description
BRM	Basic Raw Materials
CALM Act	<i>Conservation and Land Management Act 1984 (WA)</i>
CAR reserve system	Comprehensive, adequate and representational Conservation reserve system
CCW	Conservation Category Wetlands
DER	Department of Environment Regulation
DMP	Department of Mines and Petroleum
DoE	Australian Government Department of the Environment
DoP	Department of Planning
DoW	Department of Water
DPC	Department of the Premier and Cabinet
EELS	Economic and Employment Lands Strategy
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EPA	Environmental Protection Authority
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>
EPP	Environmental Protection Policy

FPC	Forest Products Commission
IAWG	Infrastructure Agencies Working Group
IUCN	International Union for Conservation of Nature
LAA	<i>Land Administration Act 1997 (WA)</i>
LG	Local Government
LGA	Local Government Area
MNES	Matters of National Environmental Significance
OEPA	Office of the Environmental Protection Authority
Parks and Wildlife	Department of Parks and Wildlife
P&D Act	<i>Planning and Development Act 2005 (WA)</i>
PTA	Public Transport Authority
RSNA	Regionally Significant Natural Areas
SGS	Significant Geological Supply
SIAR	State Impact Assessment Report
WAPC	Western Australian Planning Commission







# 1 Introduction

## 1.1 Overview

The Strategic Conservation Plan establishes long-term certainty for conservation and development within the Perth and Peel regions. It was developed to provide for the growth of the city to a population of 3.5 million while protecting Perth and Peel's unique biodiversity and other environmental values. It is part of a strategic assessment process that builds on many years of planning, policy reform, and conservation work (see Figure 1 – 1 for a map of the area).

The Strategic Conservation Plan sets out a conservation framework that will deliver significant improvements to the protection and management of both State biodiversity and environmental values, and Matters of National Environmental Significance (MNES).

It also provides certainty around the following classes of action:

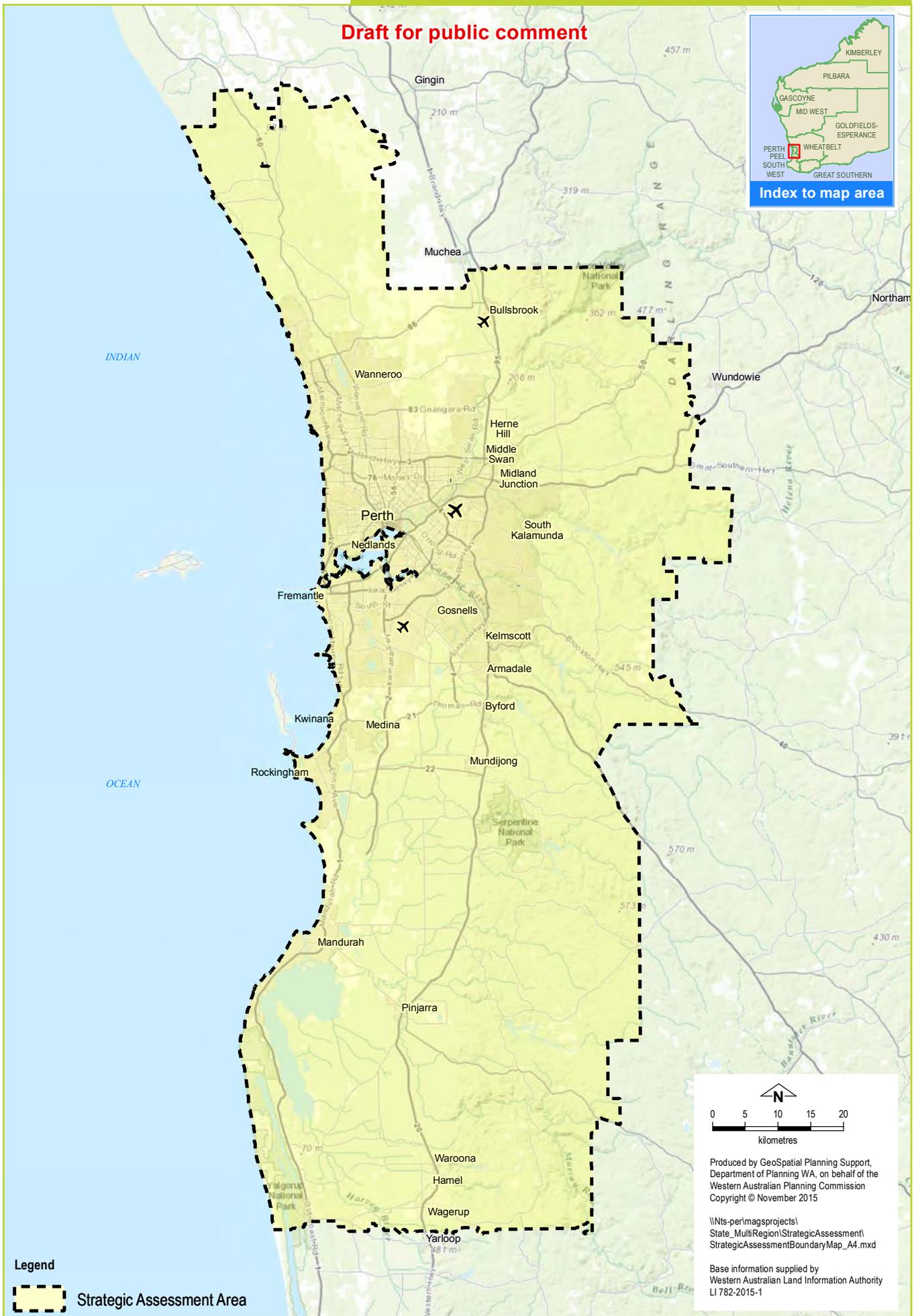
- Urban and Industrial;
- Rural Residential;
- Infrastructure;
- Basic Raw Material (BRM) extraction; and
- Harvesting of Pines (in the Gnangara, Yanchep and Pinjar pine plantations).

The conservation framework and classes of action outlined in the Strategic Conservation Plan are subject to a strategic environmental impact assessment made up of two parts:

1. a strategic assessment of the impacts of the Strategic Conservation Plan on MNES under Part 10 of the *Commonwealth's Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act); and
2. parallel consideration of State environmental values.

The key benefits of this parallel assessment are to provide superior conservation outcomes and increased certainty for development (compared with project by project assessment). The identification of conservation outcomes at a strategic scale for both State and Commonwealth environmental matters enables a well-designed conservation network to be expanded upon and secured. The Strategic Assessment also delivers streamlined assessment processes and reduced costs associated with land and housing supply.

Figure 1 – 1: Map of the Perth and Peel regions



## 1.2 Background to the Strategic Conservation Plan

The Perth and Peel regions are predicted to grow significantly over the coming decades and it is estimated that the population will exceed 3.5 million people by 2050. While this growth brings enormous opportunities, it also increases demand on the State's resources, social and physical infrastructure, services and natural environment.

The Western Australian Government is planning for this future development and population growth. Directions 2031 and beyond (a high level spatial framework and strategic plan) established a vision for the future of the Perth and Peel regions. To realise this vision the Western Australian Planning Commission (WAPC), through the Department of Planning (DoP), has developed a series of detailed draft planning frameworks with a unified, long-term growth strategy for land use and infrastructure. These draft planning frameworks have been developed in collaboration with the Strategic Assessment.

To facilitate the implementation of future land use envisaged in these draft frameworks, the Strategic Assessment seeks to secure greater certainty around the environmental acceptability of future development to support an expanded population, while achieving enhanced outcomes for MNES and State environmental values.

To do so, a parallel strategic environmental assessment process was established to consider both MNES and State environmental values. This comprises:

- the Strategic Assessment of the Perth and Peel regions under Part 10 of the EPBC Act which commenced in July 2011;
- the preparation of strategic advice for the State Minister for Environment under Section 16(e) of the EP Act in relation to:
  - the strategic environmental implications of the proposed future development for a city of 3.5 million people as outlined in the draft sub-regional planning frameworks developed by DoP and WAPC; and
  - the policy and guidance that can be used to optimise subsequent approval processes to ensure environmental outcomes are delivered in the most efficient and timely manner; and
- resolution of a series of strategic land use initiatives and strategic policy issues.

The Strategic Assessment process is being led by the Department of the Premier and Cabinet (DPC) with extensive collaboration with the DoP, the Department of Parks and Wildlife (Parks and Wildlife), the Department of Water (DoW), the Department of Environment Regulation (DER), the Department of Mines and Petroleum (DMP) and the Office of the Environmental Protection Authority (OEPA). Additionally, there has been extensive liaison with the Australian Government Department of the Environment (DoE) for the aspects of the process that relate to the EPBC Act.

The key objectives of this process are to:

- deliver an effective long-term and strategic response to key environmental issues in the Perth and Peel region such as Carnaby's cockatoo habitat loss and water quality in the Peel–Harvey catchment;
- provide greater certainty to industry as to which areas can be developed and what the obligations will be in terms of reducing environmental impacts and providing for environmental offsets;
- provide greater certainty in terms of long-term land supply to meet the needs of a city of 3.5 million; and
- significantly reduce the need for project by project assessment under the EP Act and the EPBC Act in the Perth and Peel region.

The assessment focuses on the potential impacts on MNES and State environmental values associated with the following classes of action:

- Urban and Industrial;
- rural residential;
- infrastructure;
- basic raw materials; and
- harvesting of pines (Commonwealth assessment only).

The Strategic Conservation Plan presents the outcomes of the strategic planning process and incorporates a framework for managing critical issues identified in the Strategic Assessment. It is supported by a detailed implementation framework (see Section 1.5 for more details).

future  
population of  
3.5 million  
people



## 1.3 Description of the Strategic Assessment

### 1.3.1 Strategic assessments under the EPBC Act

The EPBC Act is the Australian Government's key piece of environmental legislation. It aims to protect MNES which include:

- world heritage sites;
- national heritage places;
- wetlands of international importance (Ramsar wetlands);
- nationally threatened species and ecological communities;
- migratory species;
- Commonwealth marine areas;
- nuclear actions;
- the Great Barrier Reef Marine Park; and
- certain water resources (in relation to coal seam gas development and large coal mining development).



This section of the Strategic Conservation Plan is subject to Commonwealth endorsement under the EPBC Act

#### What are strategic assessments?

Strategic assessments (Part 10 of the EPBC Act) offer the opportunity to look at, and potentially approve, a series of new proposals or developments (actions) over a much larger scale and timeframe than project by project assessment (even if the developer is currently not known).

At a broad level, the process occurs in two steps:

1. assessment and endorsement of a 'policy, plan or program'; and
2. approval of actions (or classes of actions) that may be taken in accordance with the policy, plan or program . It is this second step that potentially allows development to proceed across a large area without further need for EPBC Act approval of individual developments (project by project assessments).

Strategic assessments are undertaken by the organisation responsible for implementing the Program (for example, state or territory government, local council, industry group or organisation) in partnership with the Australian Government. They are designed to be a collaborative process that delivers positive outcomes for both parties.

Adapted from the Commonwealth's Guide to strategic assessments.

### 1.3.2 Section 16(e) strategic advice

In 2012, the Environmental Protection Authority (EPA) was asked by the Minister for Environment to provide advice under section 16(e) of the EP Act in relation to:

- the strategic environmental implications of the proposed future development for a city of 3.5 million people as outlined in the Draft Sub-regional Planning Frameworks developed by the DoP and WAPC; and
- the policy and guidance that can be used to optimise subsequent approval processes to ensure environmental outcomes are delivered in the most efficient and timely manner.

The EPA assesses environmental impacts by reference to key environment factors to provide a systematic approach to organising environmental information for the purpose of environmental impact assessment. The EPA identified the preliminary key environmental factors relevant to the Perth and Peel regions (Table 1 – 1). The State has adopted the EPA's environmental factors as a means of addressing environmental values in the State Impact Assessment.

**Table 1 – 1: EPA environmental factors relevant to the Strategic Assessment**

Theme	Environmental Factor
Land	Flora and vegetation
	Terrestrial fauna
	Landforms
	Subterranean fauna
	Terrestrial environmental quality
Water	Hydrological processes
	Inland waters environmental quality
Air	Air quality
People	Human health
	Heritage
	Amenity
Sea	Marine environmental quality
	Marine fauna
	Benthic communities and habitat
	Coastal processes

The EPA's strategic advice is being provided in two parts: interim advice (released in July 2015), and final advice to be released upon completion of the Strategic Assessment of the Perth and Peel Regions.

The interim strategic advice:

1. outlines the key environmental values and threats that need to be considered for the region to accommodate a population increase to 3.5 million people, noting the cumulative environmental impacts to date;
2. identifies current legislation, policy and guidance that can be used for future approval processes while ensuring the EPA's environmental objectives can be met;
3. recommends strategies and actions to address environmental issues that are likely to arise with an increasing population;
4. provides guidance for future development proposals and scheme amendments so that the EPA's environmental objectives can be met;
5. provides advice and guidance to the WAPC on the environmental implications of the draft sub-regional planning frameworks;
6. recommends changes for incorporation within the final sub-regional frameworks; and
7. provides guidance for the development of implementation, offsets, monitoring, and reporting frameworks for the Strategic Assessment of the Perth and Peel Regions.

The EPA will base their final strategic advice on the Strategic Conservation Plan, Action Plans and associated State Impact Assessment Report describing the predicted impacts of future development and proposed management of State environmental values. The final advice will:

1. examine the direct, indirect and cumulative environmental impacts associated with proposed development within the Perth and Peel regions and comment on the environmental acceptability of those impacts as they relate to the EPA's environmental objectives; and
2. advise on the environmental acceptability of the State's proposed avoidance, mitigation, and offset strategies to minimise the environmental impact of the future development as it relates to the EPA's environmental principles, factors and objectives.

It should be noted that the EPA's advice will be focussed on new areas for development, such as urban expansion areas, new infrastructure and future BRM extraction; and will not relate to development that has previously been considered or approved by the EPA.

## 1.4 Purpose and structure of the Strategic Conservation Plan

### 1.4.1 Purpose

The Strategic Conservation Plan (this document) has two key purposes:

1. it defines the conservation and development outcomes that will be implemented over the life of the plan, including conservation outcomes and objectives for both MNES and State environmental values; and
2. it provides the formal 'plan' for endorsement by the Commonwealth Minister for the Environment under Part 10 of the EPBC Act (see Section 1.5).

### 1.4.2 Structure

#### Figure 1 – 2:

3. The Plan is written in six chapters:
  - Chapter 1 presents an introduction including an overview of the enhanced environmental outcomes in the Perth and Peel region;
  - Chapter 2 summarises the key policy measures and outcomes that have been developed through the strategic assessment process;
  - Chapter 3 specifies the classes of action that are covered by the Strategic Conservation Plan;
  - Chapter 4 presents the conservation framework and the conservation framework that will deliver benefits to both State values and MNES;
  - Chapter 5 provides an overview of the implementation framework; and
  - Chapter 6 provides an overview of the assurance framework.

### 1.4.3 Supporting documents

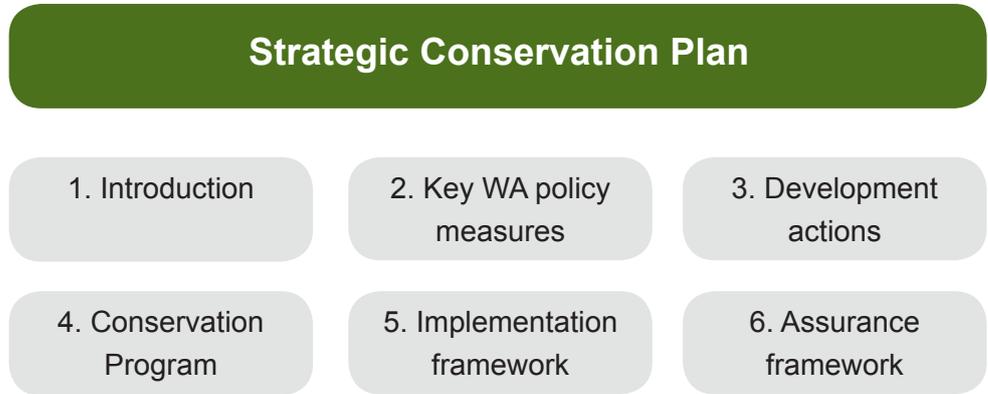
The Plan is supported by nine Action Plans (see Figure 1 – 2) that detail the implementation processes for how development will proceed, the conservation commitments to meet the conservation outcomes and objectives for MNES and State environmental values, and the monitoring and reporting arrangements. They include:

- Action Plans A – E which detail how each Class of Action will be implemented;
- Action Plans F and G which detail the commitments for MNES and State environmental factors;
- Action Plan H which describes the Conservation Program; and
- Action Plan I which describes the assurance plan.

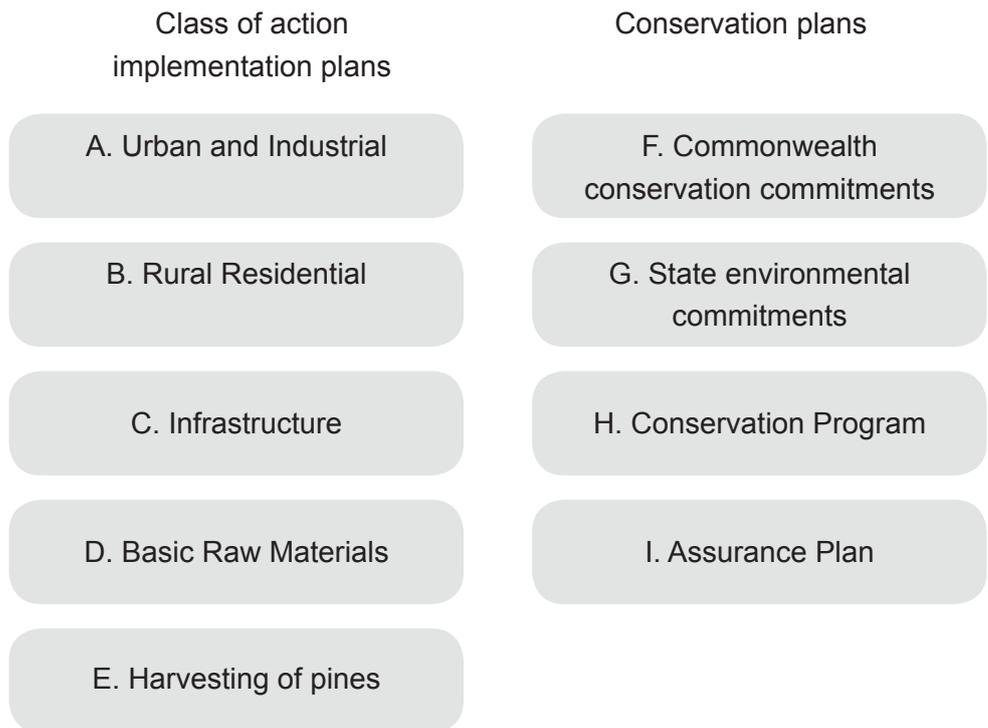


**Figure 1 – 2: Structure of the Strategic Conservation Plan and the supporting Action Plans**

**Over-arching plan**



**Supporting Action Plans**



This section of the Strategic Conservation Plan is the subject of Commonwealth endorsement under the EPBC Act

## 1.5 EPBC ACT elements of the strategic conservation plan

The Strategic Conservation Plan comprises measures for the protection of both State values and MNES. Only certain components of the Plan require endorsement under the EPBC Act by the Commonwealth Minister for the Environment. These include:

- The overall scope of the plan is described in Table 1 – 2; and
- Specific elements of the plan are identified in Table 1 – 3 and marked throughout the document.

### 1.5.1 Scope

The overall scope of the Strategic Conservation Plan is outlined in Table 1 – 2.

Table 1 – 2: Overall scope of the Strategic Conservation Plan for the purpose of endorsement	
Scope	Details
Area	<ul style="list-style-type: none"><li>• The Plan will operate within the area defined in Figure 1 – 1.</li></ul>
Timeframe	<ul style="list-style-type: none"><li>• The Strategic Conservation Plan will operate until 30 June 2047</li></ul>
Responsibility	<ul style="list-style-type: none"><li>• Responsibility for implementation of the Strategic Conservation Plan sits with the Western Australian Government</li></ul>

### 1.5.2 Specific elements

The specific elements of the Strategic Conservation Plan that are subject to EPBC Act endorsement are shown in Table 1 – 3 and marked throughout the document.

Table 1 – 3: Elements of the Strategic Conservation Plan for endorsement under Part 10 of the EPBC Act	
Relevant chapter or section	Component of the Plan
Section 1.5	EPBC Act elements of the Strategic Conservation Plan
Section 3.7	Scope of Commonwealth approval for development activities
Section 4.1	The conservation framework
Section 4.2	Overview of the Conservation Program
Section 4.3	Conservation outcomes and objectives for MNES
Sections 5.2 – 5.6	Implementation framework for the classes of action and the Conservation Program
Chapter 6	Assurance framework

### 1.5.3 Action plans

Three of the supporting Action Plans also require approval by the Commonwealth Minister for the Environment. These plans are critical to protecting MNES and are identified in Table 1 – 4.

Finally, the six other Action Plans are an important part of the package of material, however, they do not require approval by the Commonwealth Minister

for the Environment. They include the Action Plans for each of the classes of action as well as the State commitments Action Plan (see Table 1 – 5). Implementation (and potential amendment) of these plans can occur as long as the MNES conservation outcomes, objectives and commitments are met.

Table 1 – 4: Supporting Action Plans that <i>require</i> approval of the Commonwealth Minister for the Environment	
Action Plan	Purpose
F: MNES conservation commitments	Plan F identifies the conservation commitments for MNES
H: Conservation Program	Plan H outlines the implementation mechanisms for the Conservation Program (including offsets)
I: Assurance Plan	Plan I details the elements of the assurance framework (including monitoring, reporting and compliance assurance)

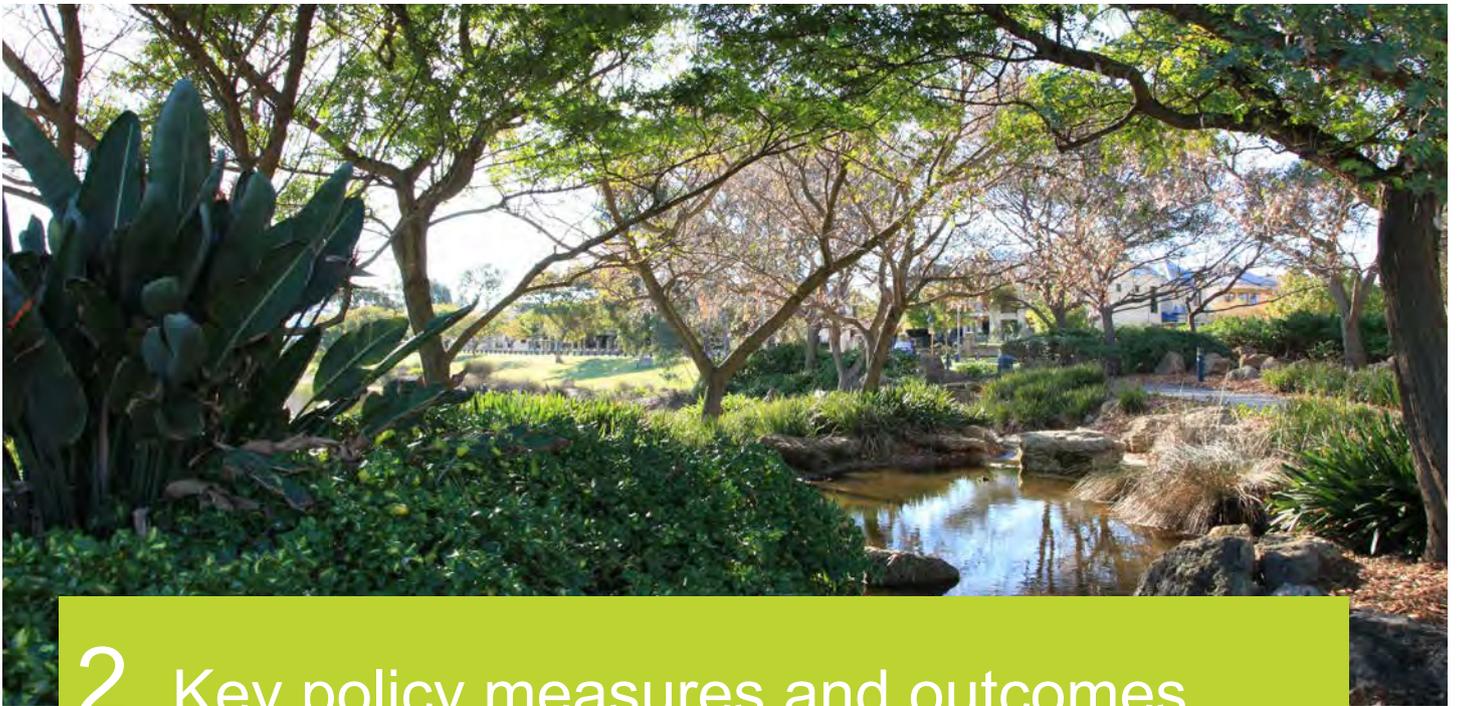
**Table 1 – 5: Supporting Action Plans that *do not require* approval of the Commonwealth Minister for the Environment**

Action Plan	Purpose
A: Urban and Industrial	Plans A–E describe the location, nature and implementation mechanisms for each type of development
B: Rural residential development	
C: Infrastructure	
D: Basic Raw Materials	
E: Harvesting of pines	
G: State environmental values commitments	Plan G identifies the commitments for State environmental values

#### 1.5.4 Terminology

Noting that the Strategic Conservation Plan will be in place for a substantial period of time, references to legislation in this document and the attached Action Plans are provided generally for background information and contextual purposes. Amendments to this legislation over time will not interfere with the applicability or requirements of the Strategic Conservation Plan where those amendments do not affect the conservation outcomes and objectives outlined in this document.

Similarly, references to the names of Commonwealth and Western Australian Government Departments and portfolio agencies are correct as at the time of publication. Any change in the names of these entities will not, of itself, interfere with the applicability or requirements of the Strategic Conservation Plan.



## 2 Key policy measures and outcomes

Development of the Strategic Conservation Plan provided significant opportunities to improve policy measures and outcomes relating to both development and conservation across the Perth and Peel regions. The most important areas of improvement include:

- Enhanced environmental outcomes;
- Planning for a consolidated and connected urban form;
- Infrastructure co-location to minimise environmental impacts;
- Sustainable approaches to the extraction and use of basic raw materials; and
- Streamlining environmental approvals.

## 2.1 Enhanced environmental outcomes

### 2.1.1 Avoidance of environmental impacts

Planning at the scale of the Strategic Assessment Area has enabled consideration of measures to avoid impacts to the environment in the context of the overall landscape. This approach is not available through a project by project assessment process.

There are two key approaches to avoidance of environmental impacts built into the Strategic Conservation Plan:

1. upfront avoidance through the planning phase in developing the plan; and
2. ongoing or further avoidance over the life of the plan.

The combination of these measures has and will result in substantial avoidance of potential impacts to State and Commonwealth environmental matters. Avoidance measures that are particularly significant include:

- significant upfront avoidance of impacts upon environmental values, including avoidance of over 16,400 hectares of impacts to native vegetation (including over 15,700 hectares of Carnaby's cockatoo Swan Coastal Plain feeding habitat) in developing the urban, industrial, rural residential and BRM classes of action, and a system for further avoidance of approximately 4,115 hectares of environmental values over the life of the Plan;
- reducing the area of proposed urban expansion (as proposed in the Draft Outer Metropolitan Perth and Peel Subregional Strategy) by more than a half and increasing the proportion of urban infill;
- prioritising potential expansion areas on mostly cleared land;
- focusing proposed urban and industrial expansion in areas that require less fill (i.e. avoiding low lying areas such as East Keralup) and consequently reducing BRM requirements

and related demand for native vegetation clearing;

- identifying priority BRM nodes and undertaking detailed planning to avoid and minimise environmental impacts where practical while balancing development needs and concentrating extraction, where possible, in already cleared areas or areas with a future sequential use (e.g. industrial);
- limiting growth of new rural residential areas;
- co-locating infrastructure in shared corridors; and
- Establishing a system for further avoidance of impacts to environmental values over the life of the plan, including:
  - adoption of processes for avoidance around infrastructure design;
  - implementing ongoing controls on impact and retention of significant values through the planning process for urban and industrial expansion sites; and
  - implementing a range of detailed commitments that avoid impacts at a site level.

### 2.1.2 Key commitments

In addition to avoiding impacts to important environmental values, the Strategic Conservation Plan incorporates a wide range of commitments to provide positive benefits and protection measures to both Commonwealth and State environmental matters. These key commitments are discussed in further detail in section 4.2 including:

#### Expanding the conservation reserve system

The creation and management of a comprehensive, adequate and representational conservation reserve system (CAR reserve system) is a cornerstone of State wide biodiversity conservation efforts. A major component of the Conservation Program is the commitment to protect an additional 170,000 hectares of areas that contain significant environmental values through the creation of new and expanded conservation reserves.

The creation of these reserves will provide strategic conservation gains to enable the conservation outcomes and objectives for MNES and State environmental values to be met. Together with effective management this expansion in the conservation reserve system will provide certainty regarding the protection of State and Commonwealth listed significant species and ecosystems.

Carnaby's cockatoo is one of the iconic species within the Perth and Peel regions. This commitment to create 170,000 hectares of conservation reserves includes a minimum of 116,000 hectares of reserves containing Carnaby's cockatoo habitat, as well as the recreation of habitat in strategic locations including replacing 5,000 hectares of pines, and research and monitoring measures to allow for adaptive management.

#### Protecting rivers and wetland systems

Wetlands are a critical component of the environment within the Perth and Peel regions. Conservation Category Wetlands (CCWs) will continue to be protected and a new wetland buffer policy will be developed and implemented through the land use planning process. In addition, a review of all Resource Enhancement Category Wetlands will be undertaken to determine which can be protected and managed for the purpose of improving their condition and upgrading their status to a CCW.

A substantial package of measures will be implemented to reduce nutrient inflows into and improve water quality in the Swan Canning estuary, and Peel-Harvey estuary and broader Peel-Yalgorup wetland system as detailed in Action Plans F and G. A particular focus will be reducing the inflow of nutrients through:

- implementing targeted mandatory soil testing, reporting and independent agronomic advice in the Peel-Harvey coastal plain catchment and the Swan Canning coastal catchment under the Soil and Land Conservation Act 1945;
- facilitating the greater uptake of soil products to reduce nutrient runoff and leaching; and
- improving the monitoring and reporting on the health of the system.

A drainage nutrient intervention pilot program will also be implemented in the Peel-Harvey catchment along with a review of the State Planning Policy and Environmental Protection Policy for Peel-Harvey coastal catchment and the introduction of mechanisms under the *Planning and Development Act 2005* to prevent new high nutrient export activities on soils in the coastal plain catchment with a low phosphorus retention capacity. A drainage nutrient intervention program will continue to be implemented in the Swan Canning catchment.

These measures will complement the existing bagged fertiliser regulations, which target primarily urban fertiliser use, that were introduced through the Environmental Protection (Packaged Fertiliser) Regulations 2010.

These measures ultimately seek to reduce nutrient inflows into the Peel-Harvey and Swan Canning systems, including a reduction of by nearly half the phosphorus load in the Peel-Harvey over the lifetime of this Plan.

Measures will also be implemented to manage threats to migratory birds and other shorebirds and their habitat in Peel-Harvey estuary and broader Peel-Yalgorup wetland system including the establishment of Peel Regional Park and related management programs. Peel Regional Park will consist of both a network of land based reserves under the *Conservation and Land Management Act 1984* as well as local government reserves and a marine management area over the Peel-Harvey estuary and its tributaries.

A new body will also be established that will be responsible for overseeing water quality improvements within the Peel-Yalgorup wetland system and a community advisory committee will assist in the management of the Peel Regional Park.

## Protecting Carnaby's cockatoo

Carnaby's cockatoo (*Calyptorhynchus latirostris*, also known as Carnaby's Black-cockatoo) is one of the iconic species within the Perth and Peel regions. Commitments relating to the species include the creation of 170,000 hectares of conservation reserves over the life of the Strategic Conservation Plan, including 116,000 hectares of reserves containing Carnaby's cockatoo habitat, recreation of habitat in strategic locations including replacing 5,000 hectares of pines, and research and monitoring measures to allow for adaptive management.

## Commitments to protect State environmental values and MNES

Action Plans F and G also contain a wide range of other specific commitments to protect the broad range of MNES and State environmental values across the Perth and Peel regions.



## 2.2 Consolidated and connected urban areas

### 2.2.1 Urban consolidation

Over the past 60 years, a series of plans and statutory processes has shaped the growth of the Perth and Peel regions, including identifying and recognising the importance of preserving the local environment.

The strategic assessment process is based on Directions 2031 and beyond: metropolitan planning beyond the horizon (WAPC 2010), a recent planning document that provides a high level spatial framework and strategic plan for the future growth of the metropolitan Perth and Peel regions. This framework guides the detailed planning and delivery of housing, infrastructure and services necessary to accommodate a range of growth scenarios. It is based on the vision:

*“By 2031, Perth and Peel people will have created a world class liveable city: green, vibrant, more compact and accessible with a unique sense of place.”*

The *Directions 2031* spatial framework laid the foundations for a more consolidated and connected city through an urban expansion program designed to create a balance between infill and green field development. To realise the vision encapsulated in Directions 2031, the WAPC (through DoP) has created a series of detailed draft sub-regional planning frameworks with a unified, long-term growth strategy for land use and infrastructure for the Perth and Peel regions. The Draft Perth and Peel@3.5million (WAPC 2015) suite of documents address complex and interrelated challenges to providing for a population of 3.5 million.

These challenges include:

- accommodating significant population growth;
- improving current density infill and managing further greenfield development;
- achieving a connected city growth pattern;
- increasing housing diversity and affordability;
- reducing car dependency;
- achieving efficient use of water resources in a drying climate;
- ensuring the regions’ environmental assets are protected; and
- maintaining liveability.

The suite of documents includes four draft sub-regional planning frameworks (Central, North-West, North-East and South Metropolitan Peel) that address these challenges spatially. Once finalised, the frameworks will become the sub-regional planning frameworks. They will be used by State agencies and local governments to guide residential and industrial development, and supporting infrastructure.



### 2.2.2 Green Network

The Perth and Peel regions have a substantial network of regional open space that is among the largest of a metropolitan area in Australia. It comprises conservation reserves, State forests and regional and district parklands to provide for recreation and public access as well as to support biodiversity, preserve natural amenity and protect valuable environmental resources. In all, this 'Green Network' covers some 363,621 hectares across the four sub-regions of which 74,765 hectares (17.7% of all remaining native vegetation) is secure in National Parks, Nature Reserves, Conservation Parks and other reserves with 'Conservation' included in the purpose.

Careful planning has already provided a level of protection to a series of valuable natural areas across the sub-regions such as Kings Park, Bold Park, Whiteman Park, State Forests and Yanchep and Yalgorup National Parks and areas of significant landscape value including the Swan Valley and the Darling Escarpment, the Swan, Canning, Murray and Serpentine rivers and foreshores and great stretches of natural coastline, lakes and wetlands.

The draft sub-regional planning frameworks propose concentrating new urban zoned areas in areas of cleared land rather than in areas with regionally significant conservation values. In addition, the draft frameworks propose reserving further land and waterways to protect significant environmental values.

Urbanisation has already led to fragmentation of some natural areas, resulting in small patches of remnant vegetation that reduce habitat and isolate populations of native fauna. To strengthen and increase the capacity of these natural areas, the draft sub-regional planning frameworks identify ecological linkages (natural areas that connect these sites to one another) to assist in fauna dispersal and migration.

The combination of these components forms the Green Network. The Strategic Assessment will reinforce and expand on this existing level of protection through changes in land tenure, ownership and management focused on improving conservation outcomes.



## 2.3 Infrastructure co-location and sharing of corridors

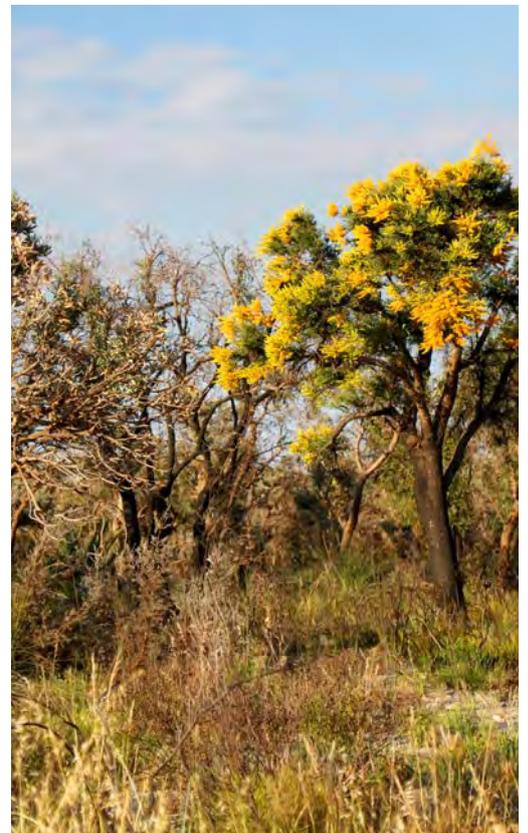
As part of developing the Strategic Conservation Plan, State transport and utilities agencies have worked together to explore a more coordinated and integrated approach to infrastructure planning and implementation. The aim is to minimise the environmental impacts from infrastructure development and create efficiencies in the use of Government resources.

While there are examples of co-location and sharing of corridors in Western Australia, the traditional approach has been for each agency to plan and operate infrastructure corridors for its own purposes, rather than with any broader co-operative cross-agency considerations.

There is potential for significant benefits from coordinating infrastructure planning across all utilities and transport agencies. These include:

- the capacity to achieve co-location and cost efficiencies;
- limiting the need for land acquisition resulting in reduced outlay and increased space for other land uses;
- minimising environmental impacts (particularly fragmentation of remnant bushland);
- reduced offset costs; and
- limiting impacts on private property owners and the wider community.

The Western Australian Government will continue to prioritise co-location and sharing of corridors as the Strategic Conservation Plan is implemented. A whole-of-government policy framework will be developed to promote co-location and to ensure that conservation and environmental values are addressed early in the planning and implementation processes.



## 2.4 Basic Raw Materials

Historically, Perth and Peel have had a ready supply of local basic raw materials (BRM) including sand, clay, rock and limestone. This has resulted in comparatively low construction costs and transport impacts, but has also led to BRM-intensive construction and development practices that are not sustainable in the long term.

Aside from depletion, local BRM supplies are now becoming increasingly constrained by the growth of the city and important environmental considerations. The need to reduce future BRM requirements is an important part of the planning for future urban and industrial areas.

Development of the Strategic Conservation Plan provided an important opportunity to undertake policy reform focused on:

- providing greater certainty for the industry and improving efficiency of the regulatory system;
- improving the integration of BRM extraction with land use planning; and
- improving environmental outcomes associated with BRM extraction.

The key components of this reform are outlined below.

### 2.4.1 Significant Geological Supply nodes and master planning

A key component of the Strategic Conservation Plan is the identification of Significant Geological Supply (SGS) nodes which are areas that support regionally significant BRM resources. The SGS nodes were identified by DMP based on resource size and quality and planning considerations. Most of the nodes already contain clusters of operating quarries and are located within 50 kilometres of Perth.

Master planning was undertaken within the nodes to determine which areas should be protected for their environmental values and which areas were suitable for BRM extraction. This process considered factors such as:

- biodiversity and other environmental values, including habitat connectivity;
- resource quality and availability;
- opportunities for sequential land use; and
- proximity to sources of demand.

Substantial avoidance of environmental impacts has resulted from both the identification and master planning of the SGS nodes.

## 2.4.2 Better integration of BRM with land use planning

Better integration of BRM with land use planning has occurred through providing greater clarity around sequential land use and avoiding new urban and industrial areas that require excessive fill.

### Sequential land use

Sequential land use is designed to enable alternative land uses (e.g. industrial areas) on appropriately mined and rehabilitated BRM extraction sites. Better planning and staging of activities can reduce the likelihood of land use conflict by recognising multiple needs and beneficial opportunities early, and strategically mitigating adverse impacts on the environment.

Further work will be undertaken to investigate regulatory barriers and coordinated management of sequential land use (such as licencing for BRM extraction within urban zoned private land). Sequential land use and the staging of land release, as identified through the draft sub-regional planning frameworks, will improve land use efficiency and the coordination of resource extraction. It also allows for engineering advice in the determination of finished ground levels and ultimately reduces impacts on the environment through reduced demand for BRM extraction and the associated impacts, including native vegetation clearing.

## Reducing fill requirements through land use planning

One of the factors considered in developing the draft sub-regional planning frameworks was the importance of avoiding areas that would require excessive fill to develop (e.g. flood prone land). Removing these areas from the development footprints has substantially reduced the future demand for BRM and associated impacts from this extraction, including native vegetation clearing.

## 2.4.3 Alternatives to BRM

Reducing demand for BRM can be achieved through facilitating a market-driven uptake of substitute products, such as waste-derived materials and investing in less BRM intensive development requirements. The development of end-of-waste criteria and waste-derived fill specifications currently underway is recognised as a government priority.

A regulatory framework that supports and encourages the use of waste-derived materials is being progressed through the Department of Environment Regulation's end-of-waste project. The framework will include specifications for the production and use of different waste-derived materials where its use does not pose an unacceptable risk to the environment or public health. The reform is aimed to address barriers that currently restrict the introduction of waste by-products entering the market as an alternative to BRM.

## 2.5 Streamlining environmental approvals

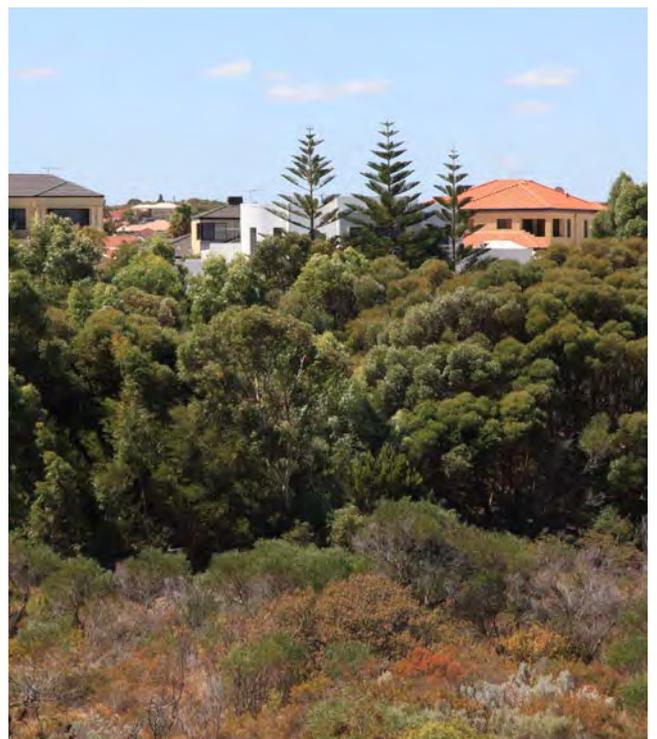
The Strategic Assessment will significantly streamline environmental assessment and approvals processes. Once the Strategic Assessment is in operation, Part 9 of the EPBC Act will effectively be ‘switched off’ for the classes of action and the State will be responsible for managing impacts on MNES arising from the classes of action in accordance with the Strategic Conservation Plan and Action Plans through State approval processes.

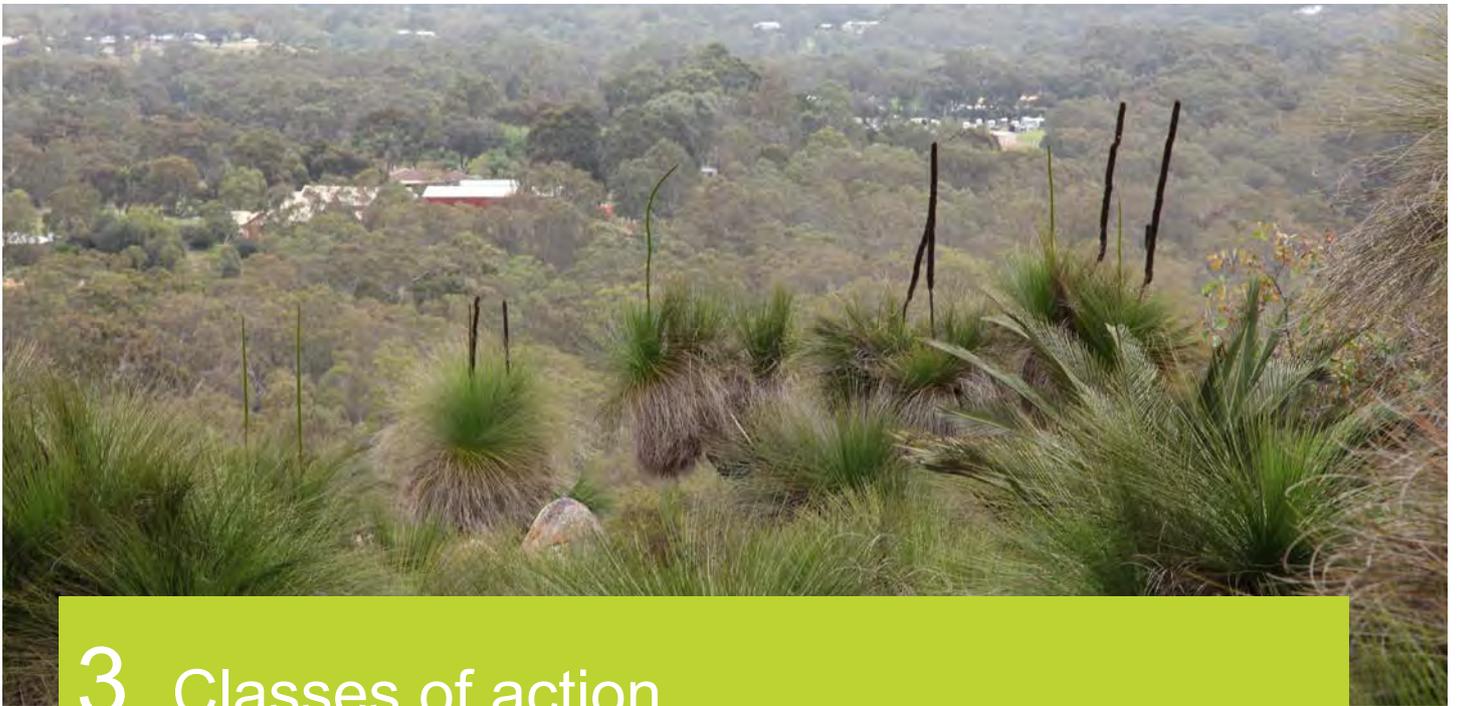
The implementation of the conservation commitments relating to State environmental factors under the Strategic Conservation Plan and Action Plans also provide the potential to reduce the role of Part IV of the EP Act in relation to the classes of action and instead rely on delivery of the conservation commitments through other processes. For example, land use planning processes under the *Planning and Development Act 2005* and clearing provisions under Part V of the EP Act.

Under this approach, for proposals under Part IV Division 1 of the EP Act, the EPA would typically only have a role in assessing environmentally significant proposals that are outside of or inconsistent with the classes of action, section 16(e) advice and conservation commitments. It is also possible in providing its section 16(e) advice the EPA may identify specific proposals under the classes of action about which it has outstanding environmental concerns. These proposals or developments must still be referred to the EPA. Part IV Divisions 1 and 2 of the EP Act may also be used where a proposal has already been assessed and approved and is regulated under a Ministerial Statement (for example, existing quarries within the expansion areas).

For scheme and scheme amendments under Part IV Division 3 of the EP Act, it is proposed that planning schemes (for urban, industrial, rural residential, primary and other regional roads) that are consistent with the subregional structure plans, classes of action, EPA’s section 16(e) advice and conservation commitments, need not be referred to the EPA for assessment under Part IV Division 3 of the EP Act. This may take advantage of the current planning reforms that propose to amend the P&D Act so that only schemes and scheme amendments of classes not prescribed in the regulations made under the EP Act will have to be referred to the EPA.

It should be noted that prior to finalising the Strategic Assessment, the State intends to undertake further analysis to determine the most effective approach to achieving greater streamlining of State planning and environmental approvals processes while maintaining strong environmental outcomes.





### 3 Classes of action

This chapter describes the classes of action that are covered by the Strategic Conservation Plan. They are:

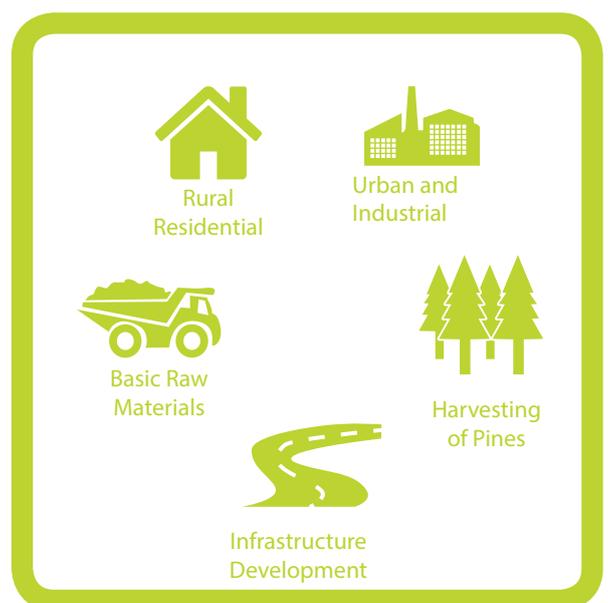
- Urban and Industrial;
- Rural Residential;
- Infrastructure Development;
- Basic Raw Material extraction; and
- Harvesting of Pines (in the Gnangara, Yanchep and Pinjar pine plantations).

A general description of each of these actions is provided below (Sections 3.1 to 3.6) and further details (including legislation, planning, governance, management processes and implementation mechanisms) are provided in Action Plans A to E.

The scope of development activities subject to Commonwealth endorsement and approval (including relevant exclusions) are described in Section 3.7.

The environmental impacts of these actions will

be avoided, mitigated and offset through the conservation framework outlined in Chapter 4. Related to Chapter 4 is Action Plan H (the Conservation Program), which outlines how significant improvements to the protection and management of both State and Commonwealth matters of environmental significance will be delivered.



## 3.1 Urban and Industrial

### 3.1.1 Urban

The urban component of the Urban and Industrial Class of Action provides for the development of specified urban areas, including areas that are already zoned under the Metropolitan or Peel Region Schemes for this purpose but not yet developed, as well as areas that are yet to be zoned, but intended for urban purposes.

The Class of Action incorporates existing, new and proposed urban development areas to support a city of 3.5 million people. This includes (but is not limited to) homes and associated employment, education, shopping, commercial, health and civic facilities, light industry, as well as local recreation, open space, conservation and cultural areas. This activity and development will include the continued use of existing urban land and buildings, the redevelopment of existing urban areas and the development of new urban areas.

At the Region Scheme level, the following zonings and reserves may be appropriate to support implementation of the urban component of the Urban and Industrial Class of Action:

- Urban;
- Urban Deferred;
- Urban Expansion;
- Central City Area;
- Regional Centre;
- Civic and Cultural;
- Public Purpose; and
- Parks and Recreation.

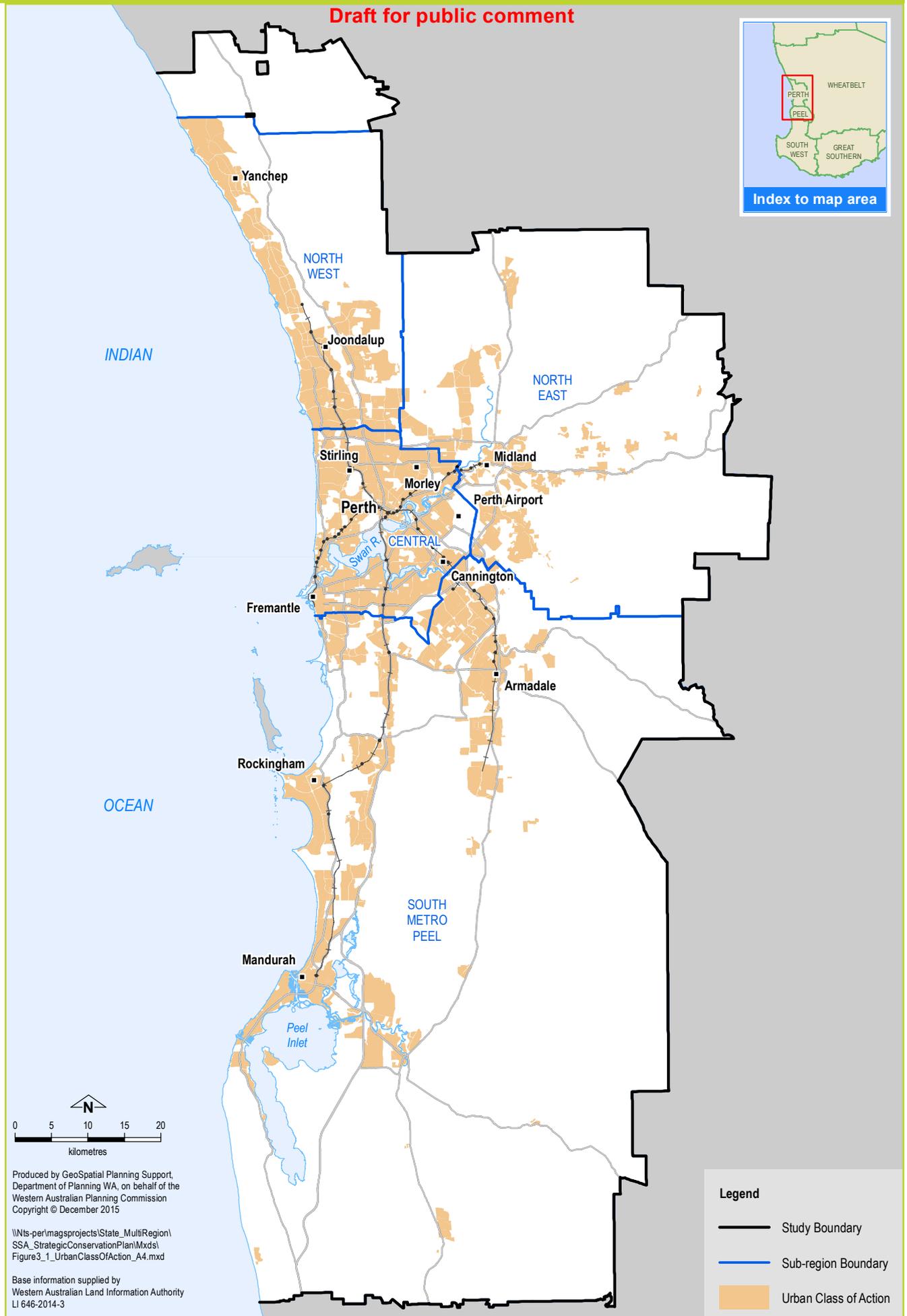
The Class of Action also includes the provision of essential local infrastructure within the footprint to support development such as local roads and utilities (e.g. for water, sewage and electricity building supply) not covered under the Infrastructure Class of Action (see Section 3.4).

The spatial area for urban development is shown in Figure 3 – 1. For the purpose of conducting an impact assessment, the spatial area of the urban component of the Urban and Industrial Class of Action has been defined by identifying the appropriate land areas, zones and reserves based on the *Perth and Peel@3.5million* draft sub–regional planning frameworks.

Details about the location and implementation of the Class of Action are provided in Action Plan A, while Action Plans F (MNES Conservation commitments) and G (commitments for State environmental values) provide details as to the specific avoidance and mitigation required for this Class of Action. Where relevant, offset requirements will be established through the Conservation Program (Action Plan H).



**Figure 3 – 1: Urban development under the Urban and Industrial Class of Action**



### 3.1.2 Industrial

The industrial component of the Urban and Industrial Class of Action provides for the development of specified industrial areas, including areas that are already zoned for this purpose but not yet developed, areas that are already zoned for this purpose but which may be redeveloped, and new areas of land currently in other land use that will be rezoned and developed for industrial purposes.

The Class of Action incorporates existing, redeveloped and new industrial areas required to support a future city of 3.5 million people. This includes, but is not limited to, industrial manufacturing activity, services and wholesale businesses, storage, distribution of goods and associated uses. These areas will accommodate the construction and use of buildings for these activities.

At the Region Scheme level, the following zonings and reserves may be appropriate to support implementation of the industrial component of the Urban and Industrial Class of Action:

- Industrial (including proposed new Industrial zone areas or ‘expansion’ and ‘investigation’ sites as identified in the draft sub–regional frameworks);
- Special Industrial (a single site located in Kwinana);
- Public Purpose;
- Railways;
- Port Installation; and
- Parks and Recreation.



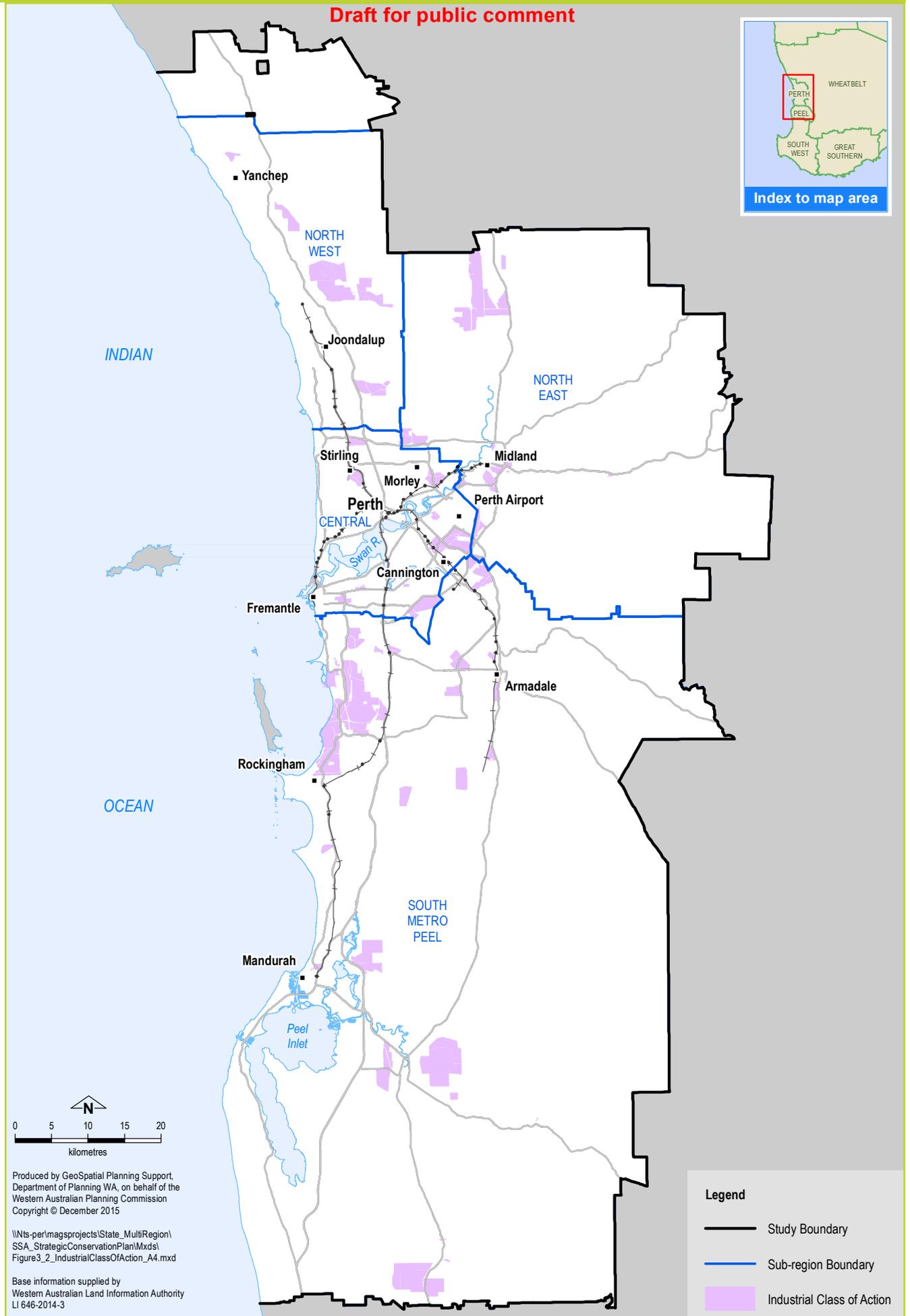
The Class of Action also includes the provision of essential local infrastructure to support development within the footprint such as local roads and utilities (e.g. water, sewage and electricity building supply) not covered under the Infrastructure Class of Action. It also includes provision for waste disposal services and areas within the footprint.

The indicative area for industrial development is shown in Figure 3 – 2. For the purposes of conducting the impact assessment, the spatial area of the industrial component of the Urban and Industrial Class of Action has been defined through identifying the appropriate region scheme zones, as they will exist in the Metropolitan and Peel Region Schemes. These areas are also mirrored in the four draft sub–regional planning frameworks.

Details about the location and implementation of the industrial component of the Urban and Industrial Class of Action are provided in Action Plan A, while Action Plans F (MNES Conservation commitments) and G (commitments for State environmental values) provide details as to the specific avoidance and mitigation required for this Class of Action. Where relevant, offset requirements will be established through the Conservation Program (Action Plan H).



Figure 3 – 2: Industrial development under the Urban and Industrial Class of Action



### 3.3 Rural Residential Development

The Rural Residential Class of Action provides for the development of specified new areas of rural residential subdivision/development, including areas that are already zoned for this purpose but not yet subdivided. Rural residential lots are generally between one and four hectares in size and are primarily used for rural lifestyle and/or hobby farming activities.

Rural residential areas will accommodate the construction and use of a dwelling and associated outbuildings, on-site effluent disposal, as well as clearing required for development, bush fire protection and access. Hobby farming and lifestyle activities (such as the keeping of horses) may also occur.

These areas will also accommodate areas of open space and the provision of essential local infrastructure within the footprint to support rural residential development such as local roads and utilities (including water and electricity supply) not covered under the Infrastructure Class of Action.

The objective of the Rural Residential Class of Action is to:

- provide for lots sized in the range of 1 hectare to 4 hectares;
- provide opportunities for a range of limited rural and related ancillary pursuits on rural-residential lots where those activities will be consistent with the amenity of the locality and the conservation and landscape attributes of the land; and
- set aside areas for the retention of vegetation and landform or other features which distinguish the land.

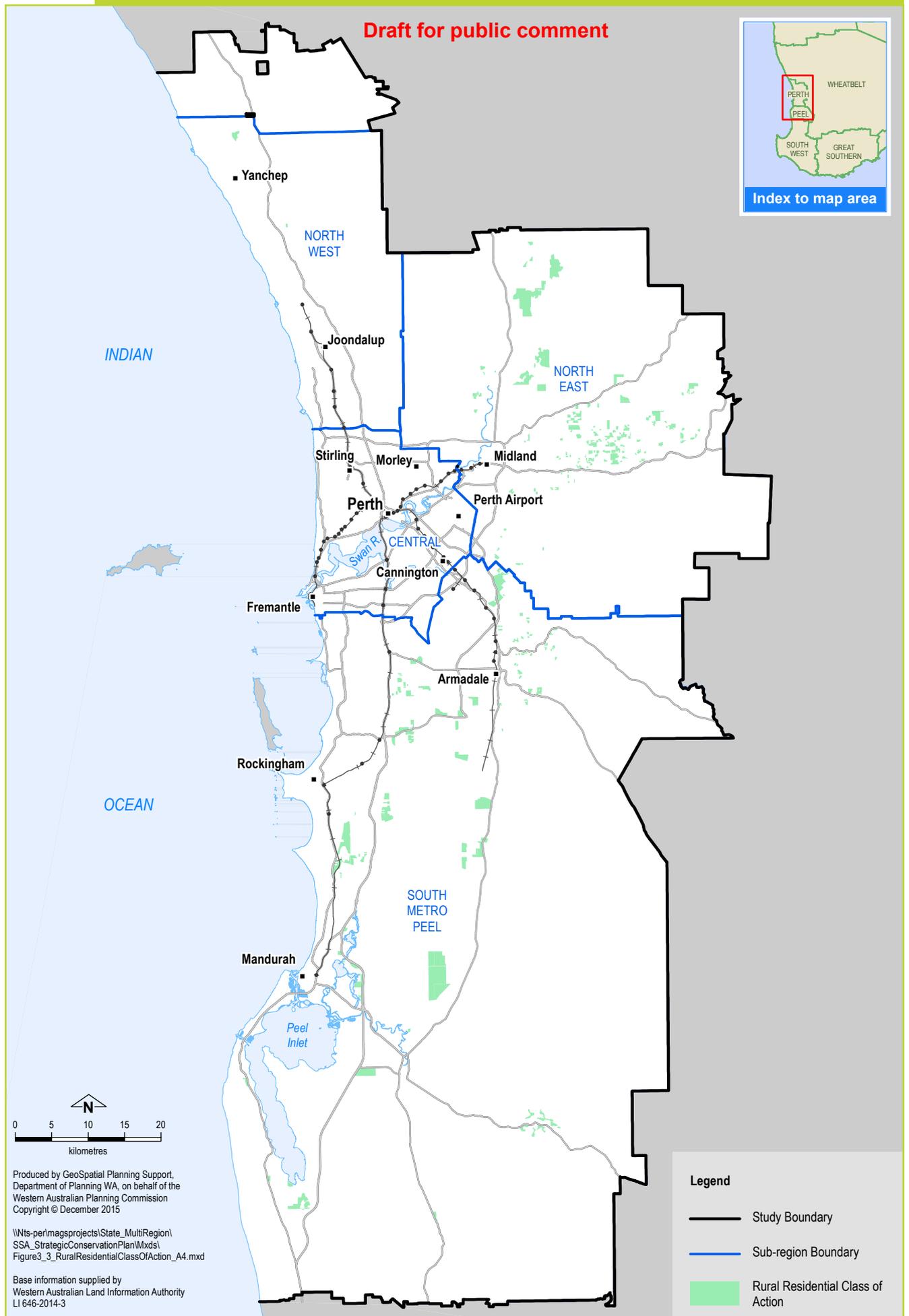


The Rural Residential Class of Action does not apply to lots that are already developed or estates/precincts which have already have the majority of lots already created, and areas zoned:

- rural enterprise – a zone featuring both light industrial and ancillary residential purposes. This includes land zoned for kennel and other similar uses;
- rural land – land identified in an endorsed strategy or zoned for rural or agricultural land uses under a local planning scheme or strategy. This includes land zoned for rural/agricultural uses that is between 1–4 hectares;
- rural smallholdings – a sub-set of rural living and a land use zone where lots are developed as an estate. Land parcels range from 4–40 hectares in size. May also be known as rural retreat;
- special residential zone – a residential zone used in some local planning schemes for land parcels in the size range of 2000 m<sup>2</sup> to one hectare; and
- rural strata – a concept that involves subdividing a rural property into a number of residential strata lots, with the balance of the property being retained and operated as a farm. The farm is generally owned and operated by the owners of the residential lots.

The areas for rural residential subdivision/development are shown in Figure 3 – 3. Details about the location and implementation of the Rural Residential Class of Action are provided in Action Plan B, while Action Plans F (MNES Conservation commitments) and G (commitments for State environmental values) provide details as to the specific avoidance and mitigation required for this Class of Action. Where relevant, offset requirements will be established through the Conservation Program (Action Plan H).

Figure 3 – 3: Location of the Rural Residential Class of Action



### 3.4 Infrastructure

The Infrastructure Class of Action incorporates major transport and public utility infrastructure which will be constructed or upgraded within the Strategic Assessment Area to support an increase in population to 3.5 million. It provides for the development and operation of major transport, power and water infrastructure. This excludes minor 'door to door' local distributor and service infrastructure feeding from and to this major infrastructure. Such minor infrastructure is to be established as part of development of the urban, industrial and rural residential classes of action.

The development of infrastructure will occur in both greenfield and brownfield (already cleared) locations. Upgrades to existing infrastructure may involve expansion within existing reserves/corridors/sites or widening into areas adjacent to existing infrastructure.

The Infrastructure Class of Action includes the development and maintenance of access routes, activities associated with installation/building, and operational inspection and maintenance of the infrastructure components.

The planning for this infrastructure is at various stages, therefore the exact location of activities will be determined through the processes outlined in Action Plan C. The final location and alignment of infrastructure is subject to a future process of refinement following detailed planning and design to further avoid and minimise impacts to State and Commonwealth environmental values.

The indicative locations and alignments of infrastructure are shown in Figure 3 – 4.

Details about the location and implementation of Infrastructure Class of Action are provided in Action Plan C, while Action Plans F (MNES Conservation commitments) and G (commitments for State environmental values) provide details as to the specific avoidance and mitigation required, and where relevant, offset requirements will be established through the Conservation Program (Action Plan H).

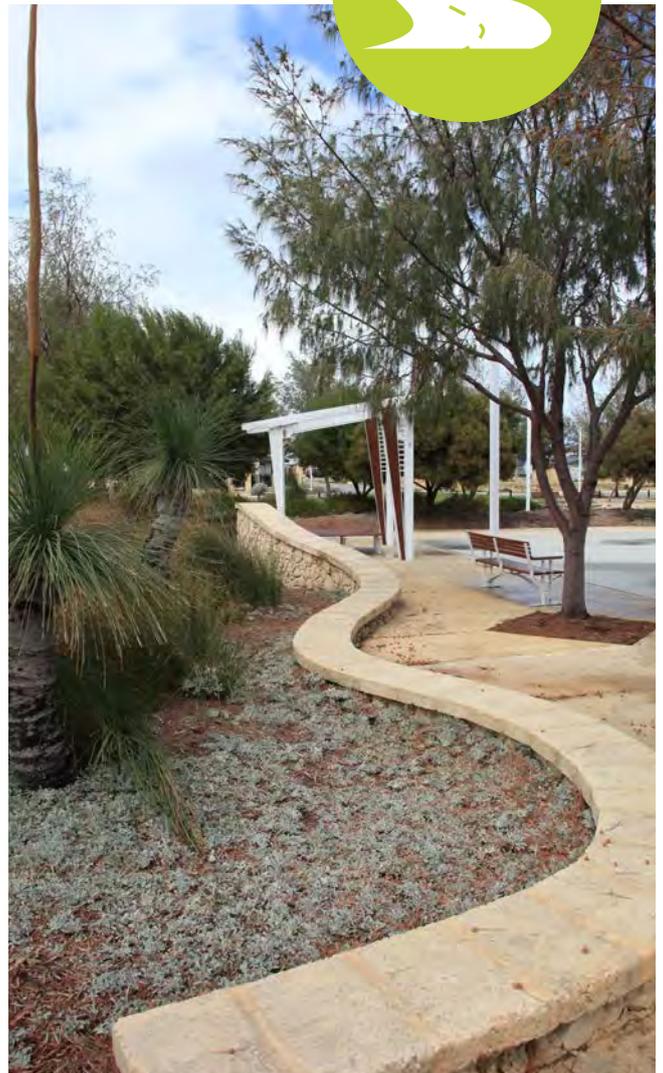
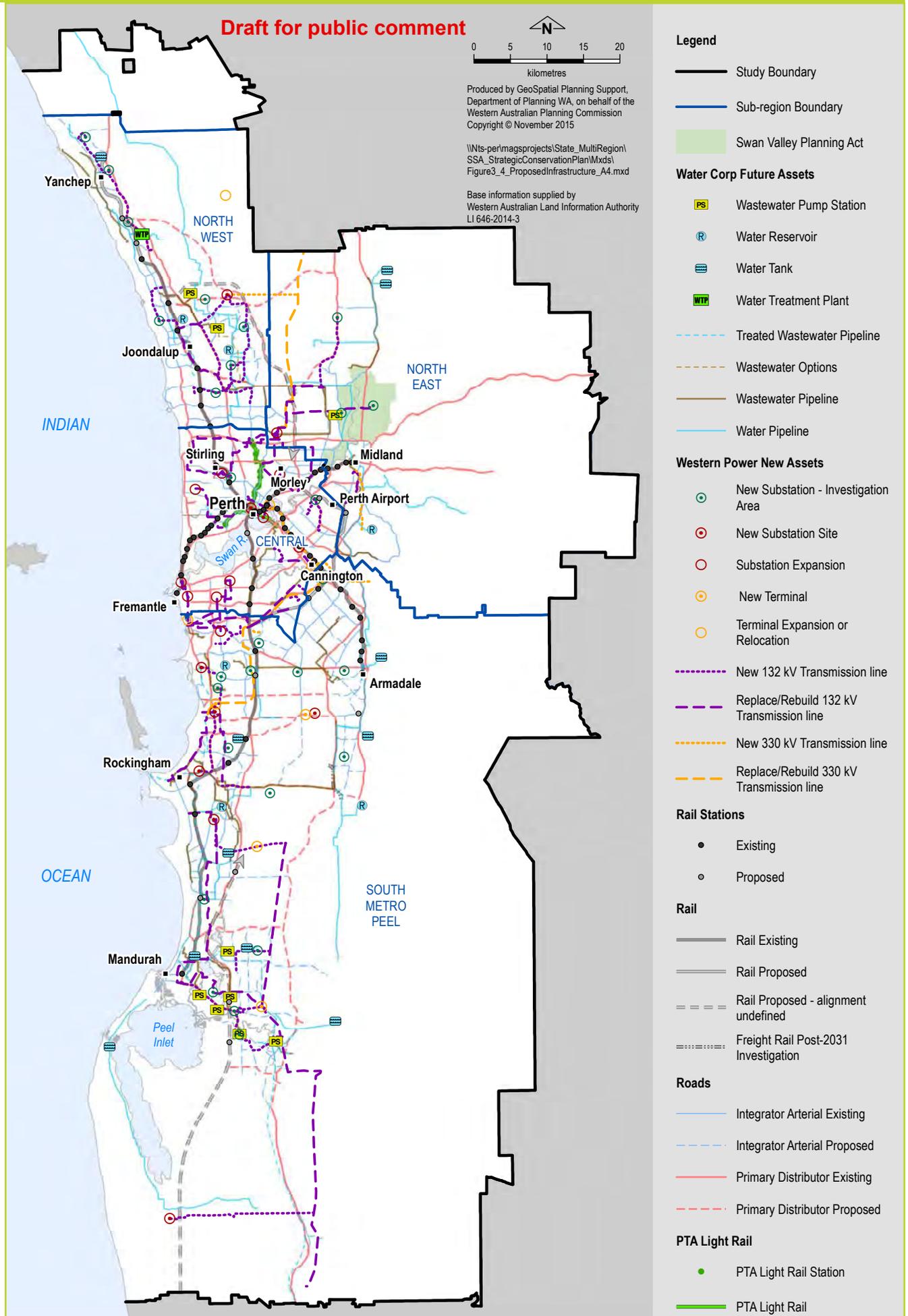


Figure 3 – 4: Indicative locations and alignments of the Infrastructure Class of Action



### 3.5 Basic Raw Materials

The Basic Raw Material (BRM) Class of Action provides for the extraction of the BRM needed for the development of the Perth and Peel regions to support a population of 3.5 million. This includes (but is not limited to) sand, limestone, clay and hard rock.

For the purpose of this Class of Action, 'extraction' has the same meaning as 'mining operations' as defined in the *Mining Act 1978*. This activity includes site works, excavation, construction of ancillary infrastructure, and processing of BRM onsite.

This Class of Action only includes new extraction areas and expansion of existing quarries within specified locations as defined in Figure 3 – 5. These areas include:

**Future Resource Extraction Areas:** Those areas coloured green on the spatial maps indicate areas where BRM extraction will be approved subject to compliance with required measures, including rehabilitation and offsets (as per the program in Action Plan H) and other statutory extraction-related approvals.

**Further Investigation Areas:** Those areas coloured amber on the spatial maps where there is currently insufficient information to define either a Future Resource Extraction Area or Exclusion Area. Further investigation (including the identification of Commonwealth and State environmental values) is required to determine if these areas or parts of them are suitable as Future Resource Extraction Areas.

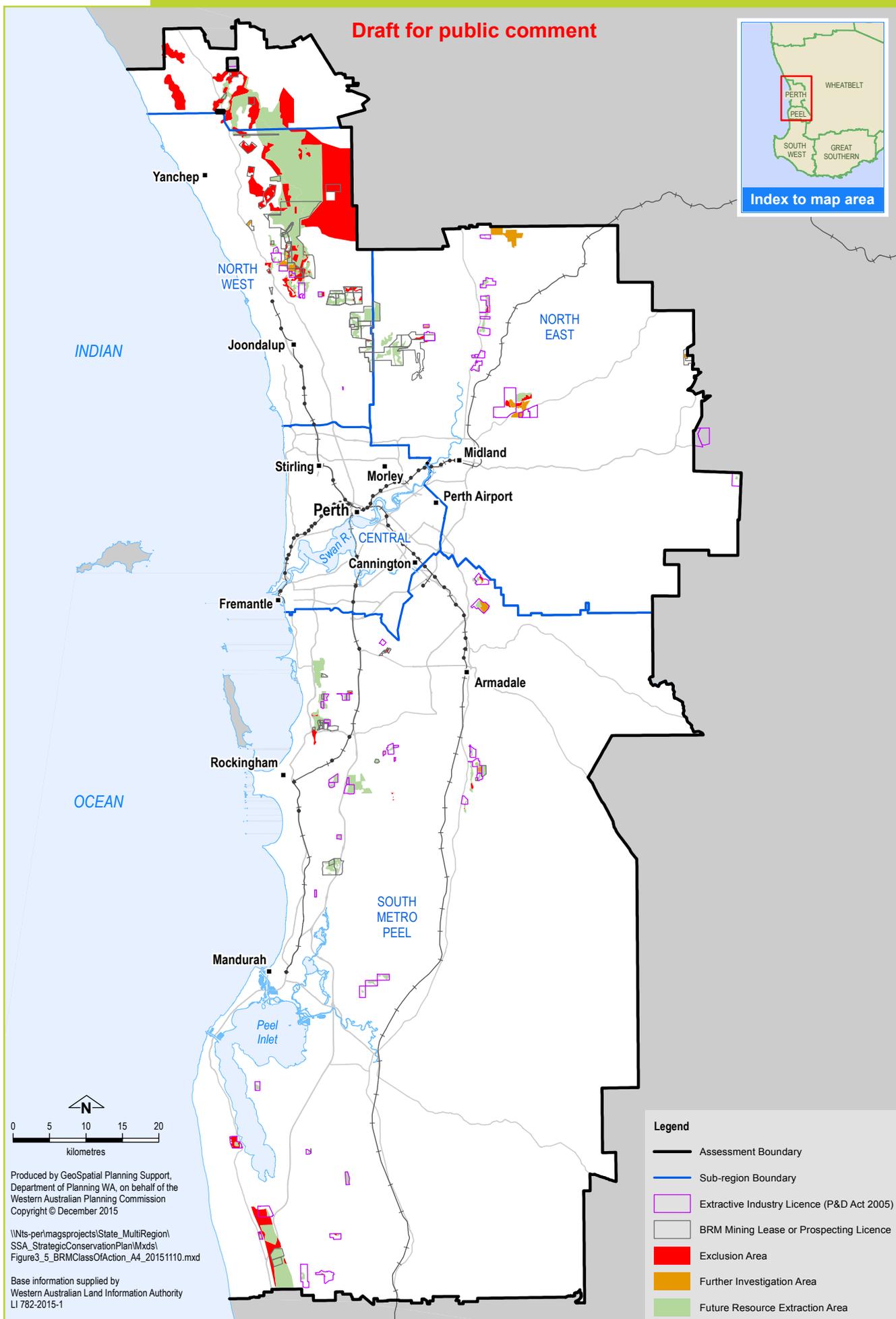
**Exclusion Areas:** Those areas coloured red on the spatial maps, where for the purpose of meeting the objectives of the Strategic Conservation Plan, there will be no ground disturbing activities associated with BRM resource extraction.

It is recognised that there are other potential sources of BRM within the Strategic Assessment Area that have not been included within the Class of Action. Proposals to extract these resources will require separate assessment and approval under existing State and Commonwealth processes. The Spatial Plan showing future resource extractions areas, further investigation areas and exclusion areas is shown in Figure 3 – 5.

Details about the location and implementation of the BRM Class of Action are provided in Action Plan D, and where relevant, offset requirements will be established through the Conservation Program (Action Plan H).



Figure 3 – 5: Location of the Basic Raw Materials Class of Action



### 3.6 Harvesting of Pines

The Strategic Conservation Plan provides for the harvesting of up to 23,000 hectares of pines from the Gnangara, Pinjar and Yanchep pine plantations and subsequent re-use of these lands for other purposes.

Harvesting activities predominately relate to the removal of *Pinus pinaster* with some small areas of *Pinus radiata*. The process of harvesting involves but is not limited to:

- construction of access tracks through plantation areas (if and where required);
- felling and cutting trees; and
- extracting, sorting and transporting of logs.

Areas of pine harvesting will be subject to a range of future land uses including:

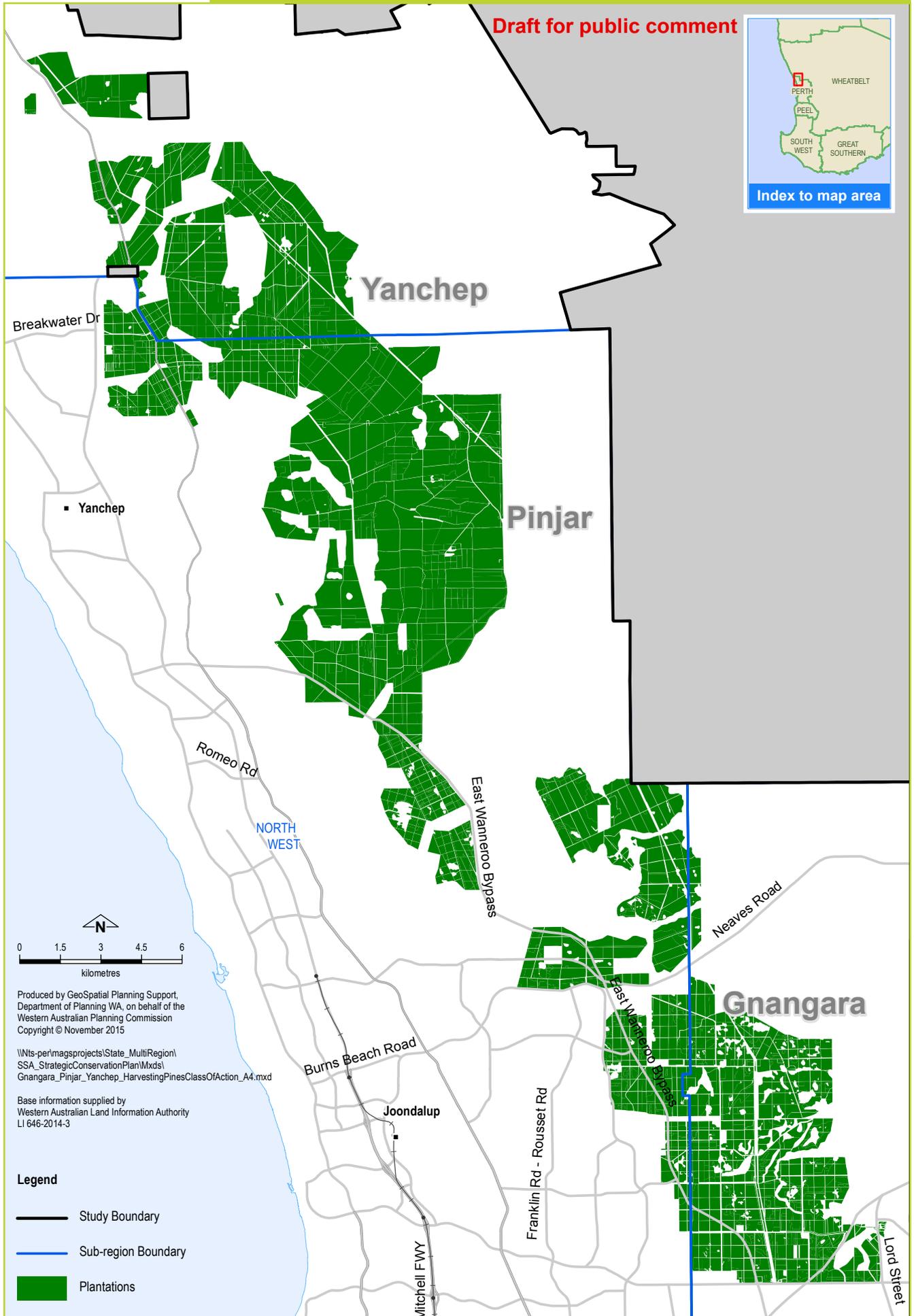
- replanting of no less than 5,000 hectares of pines;
- management for multiple uses including conservation by Parks and Wildlife and to maximise groundwater recharge and maintain groundwater protection for public drinking water source.;
- change in tenure and land use. This will likely include rezoning to urban and industrial land (described in Action Plan A); and
- use for BRM extraction (described in Action Plan D) followed by continued management by Parks and Wildlife or change in tenure and land use.

Details around post-harvesting land use are provided for in Action Plan E to the extent they are not covered by other classes of action. Related conservation commitments are described in Action Plan E (Harvesting of pines), Action Plan F (MNES Conservation objectives and commitments) and Action Plan G (objectives and commitments for State environmental values).

The area to which this Class of Action applies is confined to the Gnangara, Pinjar and Yanchep pine plantations, and is shown in Figure 3 – 6.



Figure 3 – 6: Pines Harvesting Class of Action



### 3.7 Scope of Commonwealth approval for classes of action

Approval from the Commonwealth is being sought for the classes of action within the Strategic Assessment Area as described in Section 3.7.1. Exclusions from these activities are identified in Section 3.7.2.

#### 3.7.1 Classes of action

Class of Action	Scope	Spatial Extent
Urban and Industrial: Urban	<p>All activities associated with urban development. This includes, but is not limited to, homes and associated employment, education, shopping, commercial, health and civic facilities, light industry, as well as local recreation, open space, conservation and cultural areas.</p> <p>This activity and development will include the continued use of existing urban land and buildings, the redevelopment of existing urban areas and the development of new urban areas.</p>	As spatially mapped in the <i>Perth and Peel@3.5 million</i> sub-regional planning frameworks
Urban and Industrial: Industrial	<p>All activities associated with industrial development. This includes, but is not limited to, industrial manufacturing activity, services and wholesale businesses, storage, distribution of goods and associated uses. These areas will accommodate the construction and use of buildings for these activities.</p> <p>This includes areas that are already zoned for this purpose but not yet developed, areas that are already zoned for this purpose but which may be redeveloped, and new areas of land currently in other land use that will be rezoned and developed for industrial purposes.</p>	As spatially mapped in the <i>Perth and Peel@3.5 million</i> sub-regional planning frameworks
Rural Residential	<p>All activities associated with rural residential development. Rural residential areas will accommodate the construction and use of a dwelling and associated outbuildings (in many instances located within a specified building envelope), on-site effluent disposal, as well as clearing required for development, bush fire protection and access. Hobby farming and lifestyle activities (such as the keeping of horses) may also occur.</p> <p>These areas will also accommodate areas of open space and the provision of essential local infrastructure to support rural residential development such as local roads and utilities not covered under the Infrastructure Class of Action.</p>	As spatially mapped in <i>Perth and Peel@3.5 million</i> sub-regional planning frameworks

### 3.7.1 Classes of action continued.

Class of Action	Scope	Spatial Extent
<p>Infrastructure</p>	<p>All activities associated with the designation, development and operation of major public utility and transport infrastructure that will be constructed or upgraded within the Strategic Assessment Area to support an increase in population to 3.5 million. This excludes minor ‘door to door’ local distributor and services infrastructure feeding from and to this major infrastructure established as part of development of the urban, industrial and rural residential classes of action. The development of infrastructure will occur in both greenfield and brownfield (already cleared) locations.</p> <p>Upgrades to existing infrastructure may involve expansion within existing reserves/corridors/sites or widening into areas adjacent to the existing infrastructure.</p> <p>This Class of Action includes the development and maintenance of access routes, activities associated with installation/building and operational inspection and maintenance of the infrastructure components.</p> <p>The planning for this infrastructure is at various stages, therefore the exact location of activities will be determined through the processes detailed in Action Plan C. Exact siting will depend on environmental, social, engineering and economic constraints identified during the detailed planning phases of each project.</p>	<p>As indicated in Figure 3 – 4</p>
<p>Basic Raw Material (BRM) Extraction</p> <p><b>NB.</b> This section will be continued on the next page</p>	<p>All activities directly or indirectly associated with extraction of BRM including the removal, processing and transport of building fill and construction material, including sand, limestone, clay, gravel and hard rock. For the purpose of this Class of Action, ‘extraction’ has the same meaning as ‘mining operations’ as defined in the <i>Mining Act 1978</i>.</p> <p>This activity also includes rehabilitation, site works, construction of ancillary infrastructure, and processing of BRM onsite. Proposals conforming to this Class of Action will still require statutory access and extraction–related approvals as outlined in Action Plan D.</p> <p>This Class of Action only includes new extraction areas and expansion of existing quarries within specified locations as mapped spatially in Figure 3 – 7. The Class of Action has been created using the following area classifications:</p> <ul style="list-style-type: none"> <li>• <b>Future Resource Extraction Area:</b> Those areas coloured green on the spatial maps areas where BRM extraction will be approved subject to compliance with required measures, including rehabilitation and offsets through Action Plan H;</li> </ul>	<p>As spatially mapped in Figure 3 – 5</p>

### 3.7.1 Classes of action continued.

Class of Action	Scope	Spatial Extent
<p>Basic Raw Materials (BRM) extraction</p> <p><b>NB.</b> This section was continued from the previous</p>	<ul style="list-style-type: none"> <li>• <b>Further Investigation Area:</b> Those areas coloured amber on the spatial maps where there is currently insufficient information to define either a Future Resource Extraction Area or Exclusion Area. Further investigation (including the identification of Commonwealth and State environmental values) is required to determine if these areas or parts of them are suitable as Future Resource Extraction Areas.</li> <li>• <b>Exclusion Areas:</b> Those areas where, coloured red on the spatial maps, for the purpose of meeting the objectives of the Strategic Conservation Plan, there will be no ground disturbing activities associated with BRM resource extraction.</li> </ul>	As spatially mapped in Figure 3 – 5
<p>Harvesting of Pines (in the Gnangara, Yanchep and Pinjar pine plantations)</p>	<p>All activities directly or indirectly associated with the harvesting of pines in the Gnangara, Yanchep and Pinjar plantations. Harvesting activities predominately relate to the removal of <i>Pinus pinaster</i> with some small areas of <i>Pinus radiata</i>.</p> <p>The process of harvesting involves but is not limited to:</p> <ul style="list-style-type: none"> <li>• construction of access tracks through plantation areas (if and where required);</li> <li>• felling and cutting trees; and</li> <li>• extracting, sorting and transporting of logs.</li> </ul>	As spatially mapped in Figure 3 – 6

### 3.7.2 Exclusions

The scope of the Strategic Conservation Plan does not include the following activities within the Strategic Assessment Area:

- activities that have been previously approved under the EPBC Act;
- activities on Commonwealth land;
- marine development activities (including offshore developments, ports and port extensions and marina developments);
- desalination plants;
- agricultural or horticultural activities other than on rural residential land; and
- other rural residential development activities (outside of those described in the Rural

Residential Class of Action see s 3.3), including (as previously defined in Section 3.3):

- rural enterprise;
- rural land;
- rural;
- special residential zone; and
- rural strata.
- Other mining and or exploration activities (outside of those described in the BRM Class of Action).



## 4 Conservation framework

The Strategic Conservation Plan incorporates measures to protect and manage key environmental values. A fundamental component of this is an conservation framework that aims to clearly outline what needs to be delivered to ensure that acceptable outcomes can be achieved for Commonwealth and State matters of environmental significance.

This chapter provides:

- an outline of the conservation framework;
- an overview of the Conservation Program;
- the conservation outcomes and objectives for MNES; and
- the environmental outcomes and objectives for State matters.

## 4.1 The conservation framework

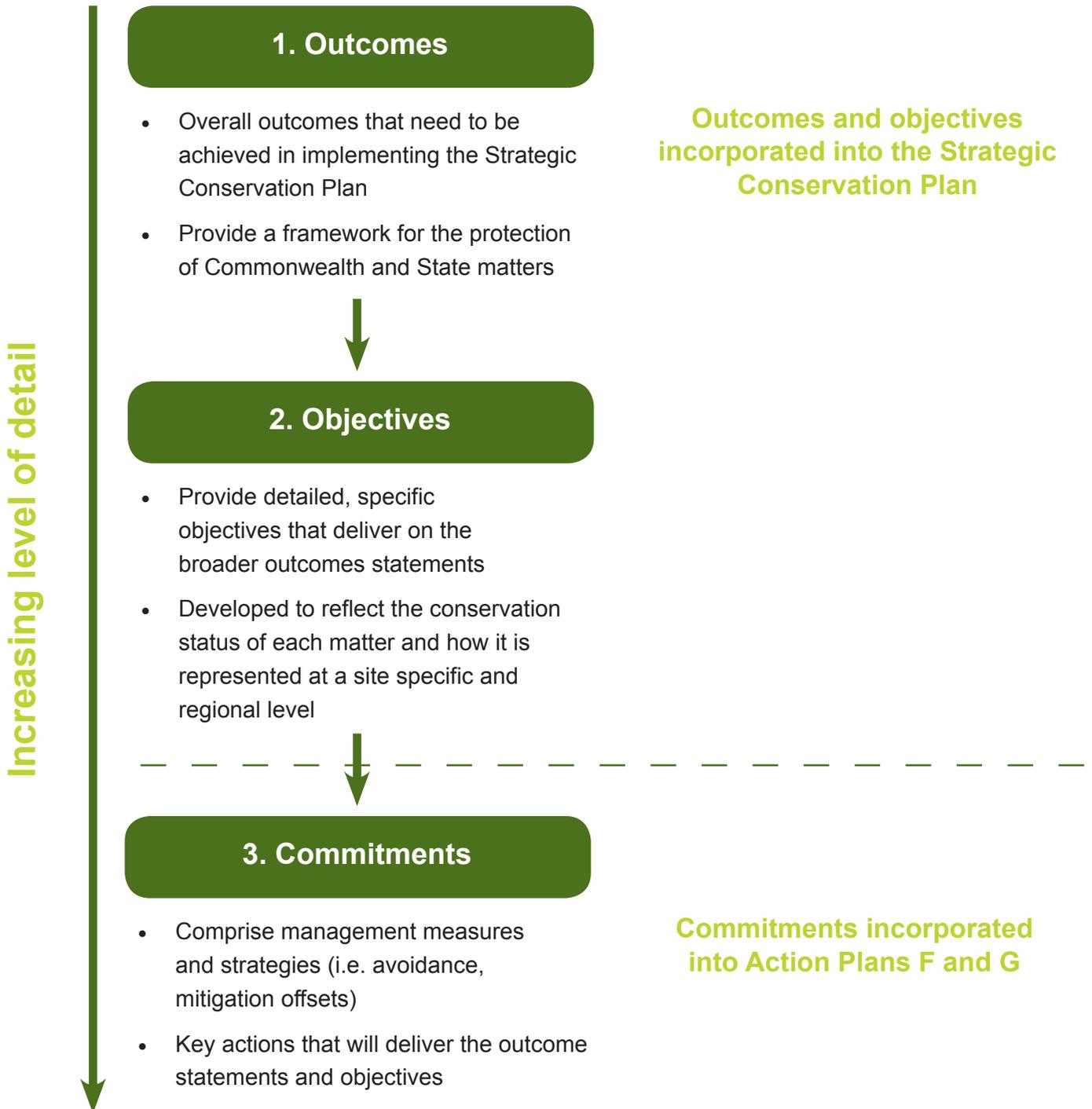
The conservation framework is based around a hierarchy of three levels (see Figure 4 – 1):

- 1. Outcomes:** Describe the overall outcomes that need to be achieved in implementing the Strategic Conservation Plan. They provide a broad framework for the assessment and address the key statutory requirements under Commonwealth and State legislation. They include ‘conservation outcomes’ for MNES and ‘environmental outcomes’ for State values;
- 2. Objectives:** In addition to the outcome statements, objectives were developed for each specific Commonwealth MNES determined to be assessed (e.g. individual threatened species, wetlands of international importance) and State environmental values grouped in accordance with the EPA’s environmental factors (e.g. flora and vegetation, terrestrial fauna, air quality). The objectives are more specific and detailed and identify what is required in order for the broader outcomes to be achieved. They were developed to reflect the status of each individual matter/factor and how it is represented at a site specific and regional level. They include ‘conservation objectives’ for MNES and ‘environmental objectives’ for EPA environmental factors; and

- 3. Commitments:** Commitments are defined for each MNES and State environmental value being assessed as a product of the impact assessment. They comprise the management measures and strategies (e.g. further avoidance measures, mitigation, and protection of habitat) that will be delivered under the Strategic Conservation Plan. They are the key actions that will deliver the outcomes and are required to achieve the objectives.

They include ‘conservation commitments’ for MNES and ‘environmental commitments’ for State environmental values. The commitments are specific, detailed and measurable. These include commitments to protect specific sites supporting MNES or State environmental values (as detailed in Action Plans F and G), as well as commitments which comprise the Conservation Program (such as creating new conservation reserves and undertaking revegetation) that are detailed in Action Plan H and address the impacts of the classes of action.

The outcomes and objectives are presented in this chapter of the Strategic Conservation Plan. The specific commitments for MNES and State environmental values are presented in Action Plans F and G respectively. The commitments comprising the Conservation Program are set out later in this document and Action Plan H. The outcomes, objectives and commitments are supported by Action Plan I, which provides the monitoring and assurance framework.



## 4.2 Overview of the Conservation Program

The Strategic Conservation Plan includes a Conservation Program that will deliver significant improvements to the protection and management of both State biodiversity and environmental values, and MNES. The program is described in detail in Action Plan H.

The Conservation Program incorporates:

- expanding the conservation reserve system;
- implementing on-ground management;
- protecting wetland systems;
- improving water quality in the Swan Canning and Peel-Harvey systems; and
- improving knowledge of State and Commonwealth environmental matters.



#### 4.2.1 Expanding the conservation reserve system

The creation and management of a comprehensive, adequate and representational conservation reserve system (CAR reserve system) is a cornerstone of State wide biodiversity conservation efforts. Over the lifetime of the Strategic Conservation Plan, an additional 170,000 hectares of areas that contain significant environmental values will be protected through the creation of new and expanded conservation reserves.

The creation of these conservation reserves will provide strategic conservation gains to enable the conservation outcomes and objectives for MNES and State environmental values to be met. Together with effective management, these additional conservation reserves will provide certainty regarding the protection of State and Commonwealth listed significant species and ecosystems. This substantial improvement to the State's CAR reserve system will be achieved through the protection and ongoing management of large intact bushland and wetland areas, which will also assist in preventing other species and ecological communities and biodiversity values from becoming threatened.

A total of 80,000 hectares will be established immediately following the endorsement of the Strategic Conservation Plan, including expansions to Moore River National Park, Yalgorup National Park and Yeal Nature Reserve and the Seabird Conservation Park. An additional 18,000 hectares of conservation reserves will be created in every five year period following the endorsement of the Strategic Conservation Plan up to a total of a further 90,000 hectares. For further information see Action Plan H.

The 170,000 hectares will include establishing secure tenure, ownership and management arrangements for Bush Forever sites and establishing the Peel Regional Park, including related land purchase and reservation and management arrangements.

The 170,000 hectares of additional conservation reserves is additional to the:

- areas that will be retained and managed for conservation through the land use planning processes within the urban, industrial, rural residential and infrastructure classes of action as set out in Action Plans F and G; and
- the marine management area for the Peel-Harvey estuary and tributaries.

Carnaby's cockatoo is one of the iconic species within the Perth and Peel regions. The 170,000 hectares of new conservation reserves will include a minimum of 116,000 hectares of reserves containing Carnaby's cockatoo habitat.

The 170,000 hectares will be protected and managed under the *CALM Act* and comprise of Conservation Park, National Park or Nature Reserve, except in the following circumstances:

- where, as part of the South West Native Title Settlement (SWNT Settlement) overlap exists with parcels of land that have been selected by South West Aboriginal Land and Sea Council (SWALSC), are under review by SWALSC for selection or have been identified by SWALSC. In these instances, the areas will be offered to the Noongar Boodja Trust as reserves under the *Land Administration Act 1997 (LAA)* with Management Orders solely vested in the Trust that have Noongar Cultural and Social benefits and Conservation in the purpose; and
- where the area is more suited to being managed by a local government or other statutory body (e.g. Botanic Parks and Gardens Authority) and the local government or statutory body is willing to take on the management of the reserve. In these instances the areas will be reserved under the LAA with a management order limited to a conservation purpose and other compatible purposes.

#### 4.2.2 Implementing on-ground management

On-ground management measures are critical to delivering the conservation objectives for MNES and State environmental values and assisting in preventing other species, ecological communities and biodiversity values from becoming threatened. The Conservation Program will deliver the following on-ground management activities:

- revegetation (re-establishment of native vegetation in degraded areas) and rehabilitation (repair of ecosystem processes) focused on improving habitat quality for multiple species and restoring or improving habitat connectivity and ecological linkages across the landscape;
- replanting projects (e.g. urban forest project) to increase the occurrence of plant species able to be used by cockatoos for feeding and roosting and to increase tree canopy cover across developed areas;
- management actions in areas that are protected and managed for conservation to address threats such as weeds, disease, uncontrolled access, fire and or feral animals for the purpose of improving habitat condition and quality; and
- measures to improve cockatoo breeding and associated feeding habitat at known breeding sites. The program may include fencing and protecting remnant habitats, breeding hollow repair and supplementation through provision of additional breeding boxes, revegetation of food plants and rehabilitation of feeding habitat, and control of nest competitors.

Further information is provided in Action Plans F, G and H



### 4.2.3 Protecting wetland systems

Wetlands are a critical component of the environment within the Perth and Peel regions. Conservation Category Wetlands will continue to be protected and a new wetland buffer policy will be developed and implemented through the land use planning process. In addition, a review of all Resource Enhancement Category Wetlands will be undertaken to determine which can be protected and managed for the purpose of improving their condition and upgrading their status to a Conservation Category wetland.

Measures will also be implemented to manage threats to migratory birds and other shorebirds and their habitat in Peel-Harvey estuary and broader Peel-Yalgorup wetland system including the establishment of Peel Regional Park and related management programs. Peel Regional Park will consist of both a network of land based reserves under the *Conservation and Land Management Act 1984* as well as local government reserves and a marine management area over the Peel-Harvey estuary and its tributaries. A community advisory committee will assist in the management of the Peel Regional Park.

Further information is provided in Action Plans F, G and H.

### 4.2.4 Improving water quality in the Swan Canning and Peel-Harvey systems

Key measures will be implemented to reduce nutrient inflows into and improve water quality in the Swan Canning estuary, and Peel-Harvey estuary and broader Peel-Yalgorup wetland system as detailed in Action Plans F, G and H, including:

- implementing best practice farm fertiliser management for the Swan Canning and Peel-Harvey coastal catchments including soil testing and provision of independent agronomic advice;
- facilitating the greater uptake of soil products to reduce nutrient runoff and leaching; and
- improving the monitoring and reporting on the health of the system.

A long term drainage nutrient intervention program will also be implemented in the Peel-Harvey catchment along with a review of the State Planning Policy and Environmental Protection Policy for Peel-Harvey coastal catchment and the introduction of mechanisms under the *Planning and Development Act 2005* to prevent new high nutrient export activities on soils in the coastal plain catchment with a low phosphorus retention capacity.

These measures will complement the existing bagged fertiliser regulations, which target primarily urban fertiliser use, that were introduced through the Environmental Protection (Packaged Fertiliser) Regulations 2010.

These measures seek to significantly reduce nutrient inflows into the Peel-Harvey and Swan Canning systems, including reducing phosphorus run-off into each system by nearly 50% over the lifetime of this Plan. A new body will also be established that will be responsible for overseeing water quality improvements within the Peel-Yalgorup wetland system.

#### **4.2.5 Improving knowledge of State and Commonwealth environmental matters**

The Conservation Program will provide for improved knowledge of State and Commonwealth environmental matters. General monitoring of the environment and implementation of the Strategic Conservation Plan will be carried out (as outlined in Chapter 6 and Action Plan I).

In addition, there are a range of specific commitments to improve knowledge through research (e.g. on threatened cockatoo species) and detailed monitoring (e.g. for migratory shorebirds). Further detail regarding these commitments is provided in Action Plans F and G.

#### **4.2.6 Delivering environmental outcomes through the land planning process**

In addition to the expansion of the reserve system, other specific commitments with respect to MNES and State environmental values will be met through the land planning process. For further information see Action Plans A and B. Detailed planning and design of urban, industrial and rural residential areas will designate areas supporting important environmental values for retention. For further information regarding the related commitments see Action Plans F and G.

### 4.3 Conservation outcomes and objectives for MNES

The conservation outcomes and objectives for MNES are presented below. The conservation commitments are provided in Action Plan F.

#### 4.3.1 Conservation outcomes

It is intended that the conservation outcomes for MNES indicated in Table 4 – 1 will be achieved through the implementation of the Strategic Conservation Plan.

**Table 4 – 1: Conservation outcomes for MNES**

MNES	Conservation outcome
Listed threatened species and ecological communities	The viability and conservation status of listed threatened species and ecological communities in the Perth and Peel regions is maintained, and where possible improved, with measures and actions consistent with any approved Commonwealth recovery plans, threat abatement plans or conservation advice.
Listed migratory species	The values of the Perth and Peel regions to listed migratory species are maintained, and where possible improved, with measures and actions consistent with Australia's international obligations.
Wetlands of international importance	The ecological character of wetlands of international importance within the Perth and Peel regions is maintained, with measures and actions consistent with Australia's international obligations.
World and National Heritage	The values of World and National Heritage places within the Perth and Peel regions are maintained, with measures and actions consistent with Australia's international obligations or relevant National Heritage commitments.

### 4.3.2 Conservation objectives

Conservation objectives have been set for each of the key MNES identified through the assessment process as having a high or moderate reliance on habitat in the Strategic Assessment Area (as per the method described in Part B of the Commonwealth IAR). It is intended that these objectives will be achieved through implementation of the Strategic Conservation Plan including the commitments presented in Action Plan F. The MNES for which objectives have been set include:

- listed threatened species and ecological communities;
- listed migratory species;
- wetlands of international importance; and
- World and National Heritage.

### **Conservation objectives for listed threatened species and ecological communities**

Given the large number of threatened species and ecological communities within the Perth and Peel, specific objectives for each of the threatened species and ecological communities determined to have a high or moderate reliance on the Strategic Assessment Area. These are presented in the following tables:

- Table 4 – 3: Threatened ecological communities;
- Table 4 – 4: Threatened fauna; and
- Table 4 – 5: Threatened flora.

A key concept that applies to threatened species and ecological communities is one of ‘long-term viability’. This is Table 4 – 2.

**Table 4 – 2: Definition of long-term viability**

Term	Definition
Threatened species – definition of ‘long-term viability’	<p>Long-term viability occurs where a threatened species continues to persist and where remaining populations have the following aspects:</p> <ul style="list-style-type: none"> <li>• successfully reproducing individuals and maintenance of population size;</li> <li>• maintenance of genetic diversity;</li> <li>• an extent of occurrence comparable (or improved) to present conditions; and</li> <li>• available habitat comparable (or improved) to present conditions.</li> </ul>
Threatened ecological communities – definition of ‘long-term viability’	<p>Long-term viability occurs where a threatened ecological community continues to persist and where remaining areas have the following aspects:</p> <ul style="list-style-type: none"> <li>• key defining biological characteristics of that community;</li> <li>• functioning abiotic processes affecting the condition/extent/nature of the community (e.g. hydrological processes, fire regimes);</li> <li>• an extent of occurrence comparable to present conditions; and</li> <li>• available habitat comparable to present conditions.</li> </ul>

**Table 4 – 3: Threatened ecological communities**

Name	EPBC status	WA Status	Conservation objectives
Aquatic Root Mat Community in Caves of the Swan Coastal Plain	Endangered	Not listed, Critically Endangered (as Endorsed by the WA Minister for the Environment)	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the ecological community within the Strategic Assessment Area through continued protection and management within the Yanchep National Park.</li> <li>Manage offsite threats to the ecological community within the Strategic Assessment Area.</li> </ul>
Assemblages of plants and invertebrate animals of tumulus (organic mound) springs of the Swan Coastal Plain	Endangered	Not listed, Critically Endangered (as Endorsed by the WA Minister for the Environment)	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the ecological community within the Strategic Assessment Area.</li> <li>Increase the extent of the ecological community within secure conservation tenure within the Strategic Assessment Area.</li> <li>Manage offsite threats to the ecological community within the Strategic Assessment Area.</li> </ul>
Claypans of the Swan Coastal Plain	Critically Endangered	Listed as four separate Endangered threatened ecological communities (as endorsed by the WA Minister for the Environment) and Priority ecological community	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the ecological community within the Strategic Assessment Area.</li> <li>Increase the extent of the ecological community within secure conservation tenure within the Strategic Assessment Area.</li> <li>Manage offsite threats to the ecological community within the Strategic Assessment Area.</li> </ul>
<i>Corymbia calophylla</i> – <i>Kingia australis</i> woodlands on heavy soils of the Swan Coastal Plain	Endangered	Not listed, Critically Endangered (as Endorsed by the WA Minister for the Environment)	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the ecological community within the Strategic Assessment Area.</li> <li>Increase the extent of the ecological community within secure conservation tenure within the Strategic Assessment Area.</li> <li>Manage offsite threats to the ecological community within the Strategic Assessment Area.</li> </ul>
<i>Corymbia calophylla</i> – <i>Xanthorrhoea preissii</i> woodlands and shrublands of the Swan Coastal Plain	Endangered	Not listed, Critically Endangered (as Endorsed by the WA Minister for the Environment)	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the ecological community within the Strategic Assessment Area.</li> <li>Manage offsite threats to the ecological community within the Strategic Assessment Area.</li> </ul>
Sedgeland in Holocene dune swales of the southern Swan Coastal Plain	Endangered	Not listed, Critically Endangered (as Endorsed by the WA Minister for the Environment)	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the ecological community within the Strategic Assessment Area.</li> <li>Increase the extent of the ecological community within secure conservation tenure within the Strategic Assessment Area.</li> <li>Manage offsite threats to the ecological community within the Strategic Assessment Area.</li> </ul>
Shrublands and Woodlands of the eastern Swan Coastal Plain	Endangered	Not listed, Endangered (as Endorsed by the WA Minister for the Environment)	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the ecological community within the Strategic Assessment Area.</li> <li>Increase the extent of the ecological community within secure conservation tenure within the Strategic Assessment Area.</li> <li>Manage offsite threats to the ecological community within the Strategic Assessment Area.</li> </ul>
Shrublands and Woodlands on Muchea Limestone of the Swan Coastal Plain	Endangered	Not listed, Endangered (as Endorsed by the WA Minister for the Environment)	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the ecological community within the Strategic Assessment Area.</li> <li>Increase the extent of the ecological community within secure conservation tenure within the Strategic Assessment Area.</li> <li>Manage offsite threats to the ecological community within the Strategic Assessment Area.</li> </ul>
<i>Corymbia calophylla</i> – <i>Xanthorrhoea preissii</i> woodlands and shrublands of the Swan Coastal Plain	Endangered	Not listed, Critically Endangered (as Endorsed by the WA Minister for the Environment)	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the ecological community within the Strategic Assessment Area.</li> <li>Manage offsite threats to the ecological community within the Strategic Assessment Area.</li> </ul>
Thrombolite (microbialite) Community of a Coastal Brackish Lake (Lake Clifton)	Critically Endangered	Not listed, Critically Endangered (as Endorsed by the WA Minister for the Environment)	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the ecological community within the Strategic Assessment Area.</li> <li>Continue to protect and manage the occurrence of the ecological community within Yalgorup National Park.</li> <li>Manage offsite threats to the ecological community within the Strategic Assessment Area.</li> </ul>
Thrombolite (microbial) community of coastal freshwater lakes of the Swan Coastal Plain (Lake Richmond)	Endangered	Not listed, Critically Endangered (as Endorsed by the WA Minister for the Environment)	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the ecological community within the Strategic Assessment Area.</li> <li>Continue to protect and manage the occurrence of the ecological community within Rockingham Lakes Regional Park.</li> <li>Manage offsite threats to the ecological community within the Strategic Assessment Area.</li> </ul>

Table 4 – 4: Threatened fauna

Scientific name	Common name	EPBC status	WA status	Conservation objectives
<b>Birds</b>				
<i>Botaurus poiciloptilus</i>	Australasian Bittern	Endangered	Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the Australasian Bittern within the Strategic Assessment Area through the protection of known habitat and maintenance of a mosaic and diversity of potential wetland habitats for use by the species.</li> </ul>
<i>Calidris ferruginea</i>	Curlew Sandpiper	Critically Endangered; Marine; Migratory	Vulnerable	<ul style="list-style-type: none"> <li>Ongoing use of the Strategic Assessment Area by the species.</li> <li>Maintain and where possible enhance Curlew Sandpiper habitat.</li> <li>Reduce disturbance at key feeding and roosting sites.</li> </ul> <p>'Ongoing use' means that areas remain as habitat in which Curlew Sandpiper has been recorded and where the habitat is not lost permanently due to development actions.</p> <p>'Key feeding and roosting sites' are those site at which the species has been recorded in numbers exceeding 0.1% of the flyway population.</p>
<i>Calyptorhynchus banksii naso</i>	Forest Red-tailed Black-Cockatoo	Vulnerable	Vulnerable	<ul style="list-style-type: none"> <li>Ensure the continued use of the Strategic Assessment Area by the species.</li> <li>Avoid and protect habitat in the Strategic Assessment Area that is required to maintain the north-western extent of the species distribution and population.</li> <li>Maintain habitat connectivity across the Strategic Assessment Area between the north-eastern and southern extent of the species' range.</li> <li>Undertake research to improve knowledge about the species and inform conservation effort and management in the Strategic Assessment Area.</li> </ul>
<i>Calyptorhynchus baudinii</i>	Carnaby's Black-Cockatoo, Short-billed Black-Cockatoo	Endangered	Endangered	<ul style="list-style-type: none"> <li>Maintain habitat for the species to ensure ongoing use of the Strategic Assessment Area including: <ul style="list-style-type: none"> <li>habitat within the Swan Coastal Plain IBRA region;</li> <li>habitat within the Jarrah Forest IBRA region; and</li> <li>key resources that provide for feeding, breeding and roosting.</li> </ul> </li> <li>Undertake actions that address the loss of feeding habitat within areas of pine plantations.</li> <li>Undertake actions that contribute to the conservation of habitat outside of the Strategic Assessment Area.</li> <li>Maintain habitat connectivity to facilitate species movement within and outside the Strategic Assessment Area.</li> <li>Undertake research to improve knowledge about the species and inform conservation effort and management in the Strategic Assessment Area.</li> </ul>
<i>Numenius madagascariensis</i>	Eastern Curlew	Critically Endangered; Marine; Migratory	Vulnerable	<ul style="list-style-type: none"> <li>Ongoing use of the Strategic Assessment Area by the species.</li> <li>Maintain and where possible enhance important habitat.</li> <li>Reduce disturbance at feeding and roosting sites.</li> </ul> <p>'Ongoing use' means that areas remain as habitat in which migratory shorebirds have been recorded and where the habitat is not lost permanently due to development actions.</p>
<i>Rostratula australis</i>	Australian Painted Snipe	Endangered; Marine; Migratory	Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area through the protection and maintenance of a mosaic and diversity of suitable wetland habitats for use by the species.</li> </ul>

**Table 4 – 4: Threatened fauna continued**

Scientific name	Common name	EPBC status	WA status	Conservation objectives
<b>Mammals</b>				
<i>Bettongia penicillata ogilbyi</i>	Woylie	Endangered	Critically Endangered	<ul style="list-style-type: none"> <li>Prevent impacts to known habitat in the Strategic Assessment Area.</li> <li>Maintain the potential for the species to occur within the Strategic Assessment Area.</li> </ul>
<i>Dasyurus geoffroii</i>	Chuditch, Western Quoll	Vulnerable	Vulnerable	<ul style="list-style-type: none"> <li>Minimise potential threats from future development to maintain the long-term viability of the Chuditch within the Strategic Assessment Area.</li> <li>Protect and maintain a connected network of known and potential habitat within the Strategic Assessment Area.</li> </ul>
<i>Pseudocheirus occidentalis</i>	Western Ringtail Possum	Vulnerable	Vulnerable	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the Western Ringtail Possum within the Strategic Assessment Area by protecting and maintaining a connected network of known and potential habitat within the Strategic Assessment Area.</li> </ul>
<i>Setonix brachyurus</i>	Quokka	Vulnerable	Vulnerable	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area through the protection and maintenance of a connected network of known and potential habitat.</li> </ul>
<b>Reptiles</b>				
<i>Pseudemydura umbrina</i>	Western Swamp Tortoise	Critically Endangered	Critically Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area by continuing to protect and manage populations at Ellenbrook Nature Reserve and Twin Swamps Nature Reserve.</li> </ul>
<b>Insects</b>				
<i>Leioproctus douglasiellus</i>	A short-tongued bee	Critically Endangered	Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area through protecting and maintaining known habitat.</li> <li>Ensure adequate representation of potential habitat outside of classes of action.</li> <li>Gain a better understanding of the potential importance of the Perth–Peel area to the species in order to inform management and conservation planning.</li> </ul>
<i>Neopasiphae simplicior</i>	A native bee	Critically Endangered	Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area through protecting and maintaining known habitat.</li> <li>Ensure adequate representation of potential habitat outside of classes of action.</li> <li>Gain a better understanding of the potential importance of the Perth–Peel area to the species in order to inform management and conservation planning.</li> </ul>

Table 4 – 5: Threatened flora

Scientific name	Common name	EPBC status	WA status	Conservation objectives
<i>Acacia anomala</i>	Grass Wattle, Chittering Grass Wattle	Vulnerable	Vulnerable	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> <li>Continue to manage populations in existing protected areas.</li> </ul>
<i>Acacia aphylla</i>	Leafless Rock Wattle	Vulnerable	Vulnerable	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> <li>Continue to protect and manage populations within Beelu National Park.</li> <li>Focus conservation efforts on larger populations with greater potential for long-term survival.</li> </ul>
<i>Andersonia gracilis</i>	Slender Andersonia	Endangered	Vulnerable	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area by continuing to protect and manage the existing population located within Greater Brixton Street Wetlands.</li> </ul>
<i>Anthocercis gracilis</i>	Slender Tailflower	Vulnerable	Vulnerable	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> <li>Continue to protect and manage the populations within John Forrest National Park and Marrinup State Forest.</li> </ul>
<i>Banksia mimica</i>	Summer Honeypot	Endangered	Vulnerable	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> <li>Improve the security of tenure and management of populations within the Strategic Assessment Area.</li> </ul>
<i>Caladenia huegelii</i>	Grand Spider-orchid	Endangered	Critically Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> <li>Focus conservation efforts on larger populations with greater potential for long-term survival.</li> <li>Improve the security of tenure and management of populations within the Strategic Assessment Area.</li> </ul>
<i>Calytrix breviseta</i> <i>subsp. breviseta</i>	Swamp Starflower	Endangered	Critically Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area by protecting and managing the existing populations within the Greater Brixton Street Wetlands.</li> </ul>
<i>Conospermum undulatum</i>	Wavy-leaved Smokebush	Vulnerable	Vulnerable	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> <li>Focus conservation efforts on larger populations with greater potential for long-term survival.</li> <li>Improve the security of tenure and management of populations within the Strategic Assessment Area.</li> </ul>
<i>Darwinia apiculata</i>	Scarp Darwinia	Endangered	Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> </ul>
<i>Darwinia foetida</i>	Muchea Bell	Critically Endangered	Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> </ul>
<i>Diuris drummondii</i>	Tall Donkey Orchid	Vulnerable	Vulnerable	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> <li>Continue to protect large populations of the species within the Strategic Assessment Area such as that which occurs within Korung National Park and manage those populations for conservation.</li> </ul>
<i>Diuris micrantha</i>	Dwarf Bee-orchid	Vulnerable	Vulnerable	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> </ul>
<i>Diuris purdiei</i>	Purdie's Donkey-orchid	Endangered	Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> </ul>
<i>Drakaea elastica</i>	Glossy-leaved Hammer-orchid, Praying Virgin	Endangered	Critically Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> </ul>
<i>Drakaea micrantha</i>	Dwarf Hammer-orchid	Vulnerable	Endangered	<ul style="list-style-type: none"> <li>Monitor the species within the Strategic Assessment Area.</li> </ul>
<i>Eleocharis keigheryi</i>	Keighery's Eleocharis	Vulnerable	Vulnerable	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> </ul>

**Table 4 – 5: Threatened flora continued**

Scientific name	Common name	EPBC status	WA status	Conservation objectives
<i>Eucalyptus argutifolia</i>	Yanchep Mallee, Wabbling Hill Mallee	Vulnerable	Vulnerable	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> <li>Improve the security of tenure and management of important populations within the Strategic Assessment Area.</li> </ul>
<i>Eucalyptus balanites</i>	Cadda Road Mallee, Cadda Mallee	Endangered	Critically Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area by continuing to protect and manage the existing population at Wungong.</li> </ul>
<i>Grevillea althoferorum</i> subsp. <i>fragilis</i>	None	Endangered	Critically Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area by continuing to protect and manage the existing population in the Bullsbrook Nature Reserve.</li> </ul>
<i>Grevillea christineae</i>	Christine's Grevillea	Endangered	Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area by continuing to manage the existing population at Bells Rapid Park.</li> </ul>
<i>Grevillea curviloba</i> subsp. <i>curviloba</i>	Curved-leaf Grevillea	Endangered	Critically Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> </ul>
<i>Grevillea curviloba</i> subsp. <i>incurva</i>	Narrow curved-leaf Grevillea	Endangered	Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area by continuing to protect and manage the existing population.</li> </ul>
<i>Grevillea flexuosa</i>	Zig Zag Grevillea	Vulnerable	Vulnerable	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area by continuing to protect and manage the existing population.</li> </ul>
<i>Lasiopetalum pterocarpum</i>	Wing-fruited Lasiopetalum	Endangered	Critically Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area by continuing to protect and manage populations within the Serpentine National Park.</li> </ul>
<i>Lepidosperma rostratum</i>	Beaked Lepidosperma	Endangered	Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> <li>Focus conservation efforts on larger populations of the species with a greater chance of long-term survival.</li> </ul>
<i>Macarthuria keigheryi</i>	Keighery's Macarthuria	Endangered	Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> </ul>
<i>Ptilotus pyramidatus</i>	Pyramid Mulla Mulla	Critically Endangered	Critically Endangered	<ul style="list-style-type: none"> <li>Protect the population of the species within the Greater Brixton Street Wetlands.</li> </ul>
<i>Synaphea</i> sp. Fairbridge Farm (D.Papenfus 696)	Selena's Synaphea	Critically Endangered	Critically Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> </ul>
<i>Synaphea</i> sp. Pinjarra (R.Davis 6578)	Club-leafed Synaphea	Critically Endangered	Critically Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> </ul>
<i>Synaphea stenoloba</i>	Dwellingup Synaphea	Endangered	Critically Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> <li>Improve the security of tenure and management of populations within the Strategic Assessment Area.</li> </ul>
<i>Tetralia australiensis</i>	Southern Tetralia	Vulnerable	Vulnerable	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area by continuing to protect and manage populations within conservation reserves.</li> </ul>
<i>Thelymitra dedmaniarum</i>	Cinnamon Sun Orchid	Endangered	Critically Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> </ul>
<i>Thelymitra stellata</i>	Star Sun-orchid	Endangered	Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area.</li> </ul>
<i>Trithuria occidentalis</i>	One-sexed Hydatella	Endangered	Critically Endangered	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area by continuing to protect and manage the existing population within nature reserves.</li> </ul>
<i>Verticordia fimbrialepis</i> subsp. <i>fimbrialepis</i>	Shy Featherflower	Endangered	Vulnerable	<ul style="list-style-type: none"> <li>Maintain the long-term viability of the species within the Strategic Assessment Area by continuing to protect and manage the existing population within Jarrahdale State Forest.</li> </ul>

## Conservation objectives for listed migratory species

Conservation objectives for migratory shorebirds are presented below.

**Table 4 – 5: Threatened flora continued**

Name	EPBC status	Conservation objectives
Migratory shorebirds	Listed migratory	<ul style="list-style-type: none"> <li>Ongoing use of the Strategic Assessment Area by the 28 migratory shorebird species that have previously been recorded.</li> <li>Ongoing use of all important habitat areas across the Strategic Assessment Area by migratory shorebird species.</li> <li>Protection and maintenance of a mosaic and diversity of wetland and coastal habitats for use by these bird species.</li> </ul> <p>'Ongoing use' means that areas remain as habitat in which migratory shorebirds have been recorded and where the habitat is not lost permanently due to development actions</p>

## Conservation objectives for wetlands of international importance

Conservation objectives for the three wetlands of international importance that occur in the Strategic Assessment Area are presented below.

**Table 4 – 5: Threatened flora continued**

Name	EPBC status	Conservation objectives
Becher Point Wetlands	Ramsar listed	<p>Maintain the ecological character of the Becher Point Ramsar site via the ongoing presence of the following characteristics:</p> <ul style="list-style-type: none"> <li>A suite of approximately 60 discrete, small wetlands in inter-dunal swales.</li> <li>Geological sequence of wetland ages with corresponding evolution of wetland characteristics.</li> <li>Seasonal wetting of inter-dunal swales</li> <li>Water quality that is not saline, acidic or eutrophic.</li> <li>Vegetation dominated by native plants and very low abundance of Typha.</li> <li>No loss of Sedgeland in Holocene dune swales of the southern Swan Coastal Plain TEC.</li> </ul>
Forrestdale and Thomsons Lakes	Ramsar listed	<p>Maintain the ecological character of the Forrestdale and Thomsons Lakes Ramsar site via the ongoing presence of the following characteristics:</p> <ul style="list-style-type: none"> <li>A regular cycle of wetting and drying.</li> <li>Shallow water depths.</li> <li>Water quality that is not saline, acidic or eutrophic.</li> <li>Vegetation dominated by native plants.</li> <li>Suitable foraging, roosting and breeding habitat for water birds (incl. migratory species).</li> <li>Presence of Threatened Ecological Communities, rare and priority flora species, migratory shorebirds.</li> </ul>
Peel–Yalgorup System	Ramsar listed	<p>Maintain the ecological character of the Peel–Yalgorup Ramsar site via the ongoing presence of the following characteristics:</p> <ul style="list-style-type: none"> <li>Large and diverse complex of ecosystem types including shallow estuaries, coastal saline lakes and freshwater marshes.</li> <li>Populations of plants and animals important to maintaining the biodiversity of the Swan Coastal Plan bioregion, include threatened species and communities.</li> <li>An actively growing thrombolite community.</li> <li>Water quality that is equivalent to or better than current and/or recent historical conditions.</li> <li>Suitable habitat to support a range of species during critical life cycle stages, including breeding and moulting waterbirds; over-wintering migratory shorebirds; and breeding fish and crustaceans.</li> <li>Very high abundance of waterbirds and migratory shorebirds, sufficient to meet Ramsar listing criteria.</li> <li>Breeding, nursery and feeding habitat for numerous fish and crustacean species.</li> </ul>
Fremantle Prison (former)	World Heritage National Heritage	<ul style="list-style-type: none"> <li>Continue to manage the Fremantle Prison (former) to maintain its World and National Heritage values.</li> </ul>
The Goldfields Water Supply Scheme	National Heritage	<ul style="list-style-type: none"> <li>Continue to manage the Goldfields Water Supply Scheme to maintain its National Heritage values.</li> </ul>

## 4.4 Environmental outcomes and objectives for State environmental values

The environmental outcomes and objectives for State environmental values are presented below. The environmental commitments are provided in Action Plan G.

### 4.4.1 Environmental outcomes

The following environmental outcomes for State environmental values (grouped into categories) are intended to be achieved through implementation of the Strategic Conservation Plan.

**Table 4 – 6: Environmental outcomes for categories of State environmental values**

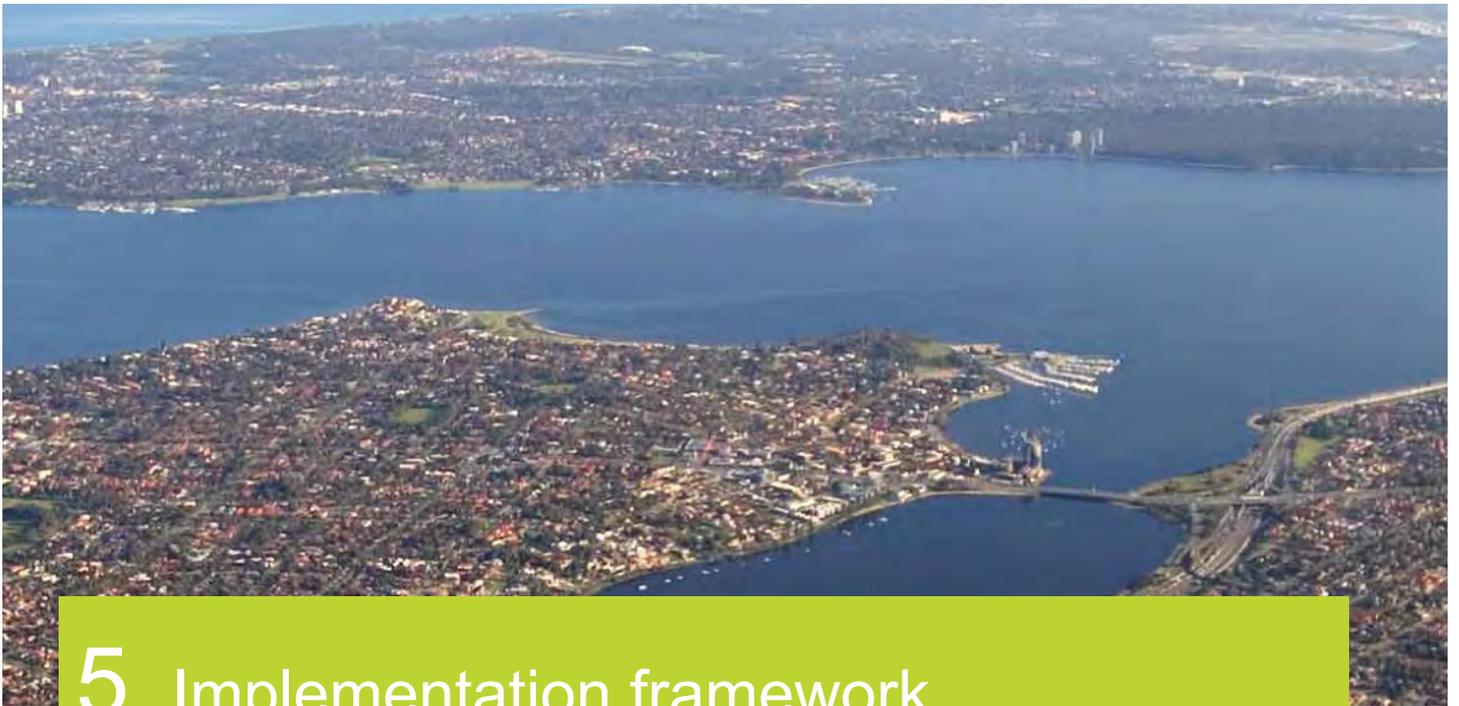
State environmental value categories	Environmental outcome
Land	Biodiversity in the Perth and Peel regions is conserved and contamination and pollution of land is prevented
Water	The availability and quality of water is maintained or improved
Air	Air quality is maintained or improved
People	The health, heritage and amenity of the population of Perth and Peel is maintained
Sea	The quality of the marine environment is maintained or improved

### 4.4.2 Environmental objectives

Environmental objectives have been set for State environmental values grouped in accordance with the EPA's environmental factors. Commitments presented in Action Plan G are intended to ensure these objectives are met.

**Table 4 – 7: Objectives for EPA environmental factors**

EPA environmental factor	Environmental objective
<b>Land</b>	
Flora and vegetation	To maintain representation, diversity, viability and ecological function at the species, population and community level.
Terrestrial fauna	To maintain representation, diversity, viability and ecological function at the species, population and assemblage level.
Landforms	To maintain the variety, integrity, ecological functions and environmental values of landforms.
Subterranean fauna	To maintain representation, diversity, viability and ecological function at the species, population and assemblage level.
Terrestrial environmental quality	To maintain the quality of land and soils so that the environmental values, both ecological and social, are protected.
<b>Water</b>	
Hydrological processes	To maintain the hydrological regimes of groundwater and surface water so that existing and potential uses, including ecosystem maintenance, are protected.
Inland water environmental quality	To maintain the quality of groundwater and surface water, sediment and biota so that the environmental values, both ecological and social, are protected.
<b>Air</b>	
Air quality	To maintain air quality for the protection of the environment and human health and amenity, and to minimise the emission of greenhouse and other atmospheric gases through the application of best practice.
<b>People</b>	
Human health	To ensure that human health is not adversely affected.
Heritage	To ensure that historical and cultural associations, and natural heritage, are not adversely affected.
Amenity	To ensure that impacts to amenity are reduced as low as reasonably practicable.
<b>Sea</b>	
Marine environmental quality	To maintain the quality of water, sediment and biota so that the environmental values, both ecological and social, are protected.
Marine fauna	To maintain the diversity, geographic distribution and viability of fauna at the species and population levels.
Benthic communities and habitat	To maintain the structure, function, diversity, distribution and viability of benthic communities and habitats at local and regional scales.
Coastal processes	To maintain morphology of the subtidal, intertidal and supratidal zones and the local geophysical processes that shape them.

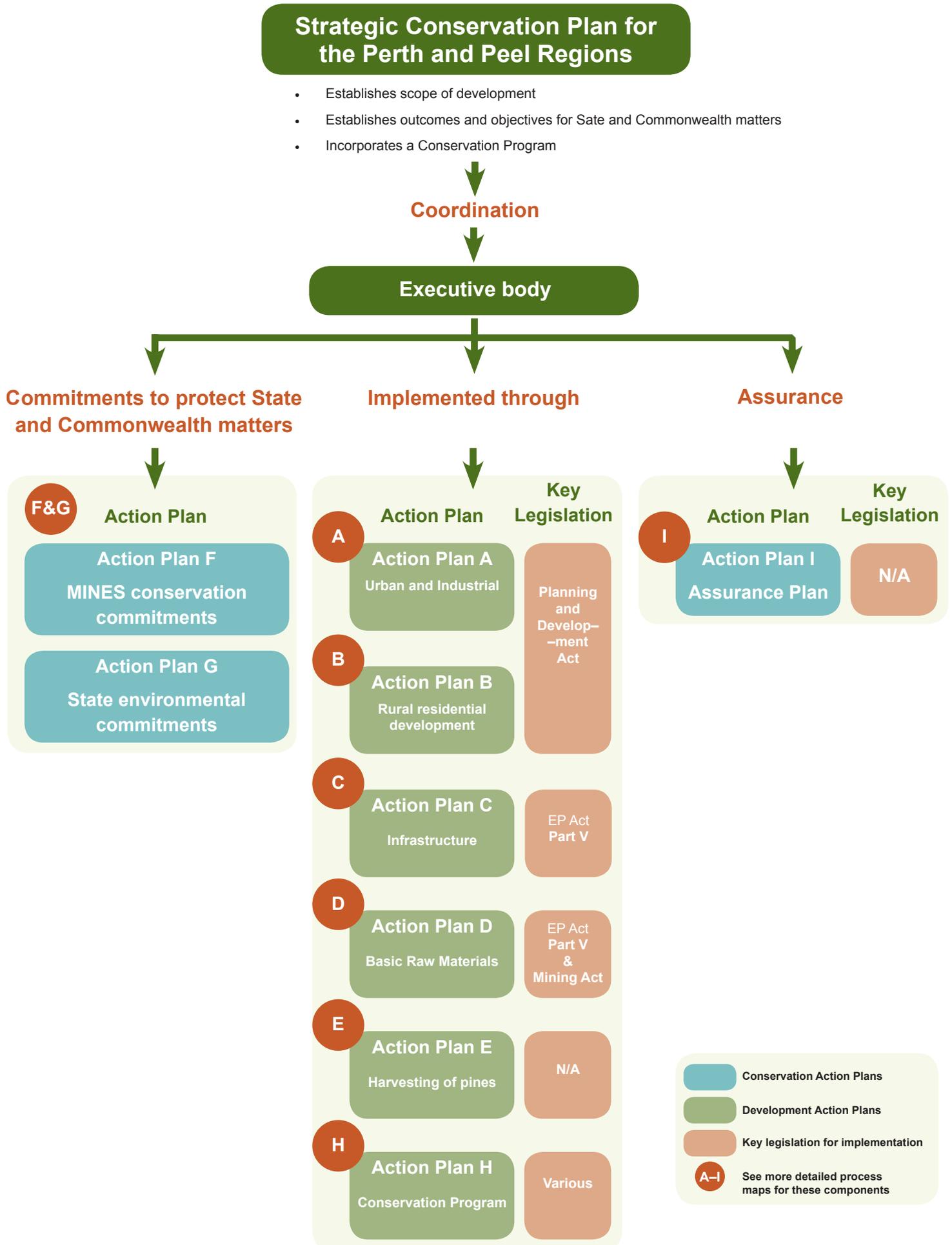


## 5 Implementation framework

This Chapter describes the implementation framework for the Strategic Conservation Plan (see Figure 5 – 1). It outlines:

- governance arrangements;
- implementation processes for each Class of Action (including the role of related Action Plans);
- implementation processes for the Conservation Program (including the role of Action Plan H);
- the high-level delivery mechanisms for achieving outcomes, objectives and commitments; and
- funding arrangements.

Figure 5 – 1: Implementation framework for the Strategic Conservation Plan



## 5.1 Governance

The responsibility for implementing the Strategic Conservation Plan lies with the Western Australian Government.

A governance framework has been developed that sets out the roles and responsibilities of key Ministers, State Agencies and other stakeholder bodies with respect to implementing the Strategic Conservation Plan and ensuring that the outcomes and objectives relating to MNES and State environmental values are met.

Implementation will be coordinated by an overarching Executive body reporting to a select group of State Government Ministers. The Executive body will commence operations following endorsement of the Strategic Conservation Plan by the Commonwealth Minister for the Environment. This body will facilitate partnerships with local government associations, government and non-government service providers, developers, landowners, Noongar groups and other community representatives in effectively delivering the Strategic Conservation Plan. It will have responsibility for the implementation, review and revision of the Action Plans of the Strategic Conservation Plan.



## 5.2 Information and guidance

The various Action Plans provide guidance on the implementation of the classes of action and the Conservation Program. Furthermore, at or prior to the implementation of the Strategic Conservation Plan, the Western Australian Government will undertake a series of awareness and information activities for stakeholders to assist with effective implementation. Information activities will be targeted at decision makers in State and Local Governments, as well as all relevant 'on ground' stakeholders whose activities may be affected by the Strategic Conservation Plan. Activities will focus on raising awareness and providing information on the objectives and commitments of the Strategic Conservation Plan and the roles and responsibilities of the various stakeholders in ensuring its effective implementation.

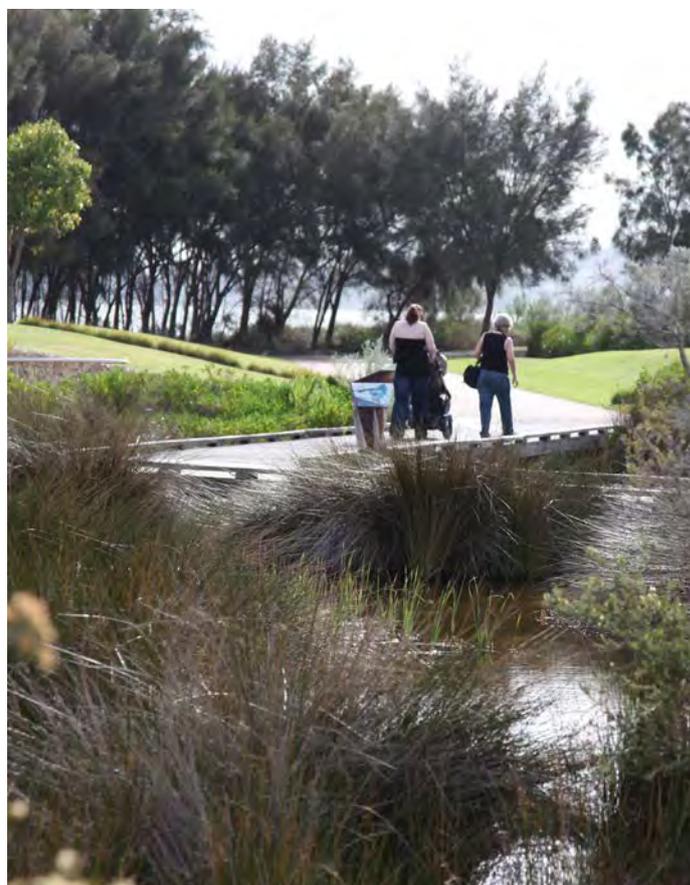
Included in these activities will be:

- local governments;
- State Government agencies;
- agencies and utilities responsible for transport, electricity and water;
- development companies and associations;
- BRM operators; and
- interested community groups.

Information activities that will be provided include:

- website containing all documents;
- direct briefings, meetings and seminars;
- guidance material and factsheets; and
- publication of high quality maps and GIS layers for decision makers.

In consultation with relevant stakeholders the State Government will develop detailed guidance on the planning processes and other requirements to be put in place to ensure effective implementation of the Strategic Conservation Plan. The State Government will continue to engage with stakeholders throughout the life of the Strategic Conservation Plan to ensure that objectives and commitments will be met.



### 5.3 Urban, industrial and rural residential development

The *Planning and Development Act 2005* (P&D Act) is the primary legislative instrument governing development and subdivision in Western Australia. Its stated purposes are to provide for an efficient and effective land use planning system in the State, and to promote the sustainable use and development of land in the State. The P&D Act will enable urban, industrial and rural residential development under the Strategic Conservation Plan, and ensure the relevant conservation and environmental commitments are met. Approved development is to be consistent with Action Plan A – Urban and Industrial and Action Plan B – Rural Residential Development.

Preparation of the urban, industrial and rural residential classes of action for the Strategic Conservation Plan has been undertaken in coordination with the preparation and review of the draft sub–regional planning frameworks to ensure alignment and consideration of environmental values. Once the sub–regional structure plans have been finalised, the Strategic Conservation Plan commitments will be embedded at each subsequent level in the planning hierarchy to ensure that environmental considerations and commitments are captured and addressed through the planning system.

The planning framework under the P&D Act provides for the coordinated provision of services, infrastructure, land use and development, and provides a guide to the intended pattern of future development of an area. Planning documents are developed at either the strategic or statutory level, depending on the scale, and help guide State and local government decision makers in the assessment of rezoning, subdivision and development applications. The hierarchy of planning documents generally consist of the following:

- regional planning and infrastructure frameworks;
- sub–regional structure plans;
- district structure plans;
- local structure plans and activity centre plans;
- local development/subdivision plans.

A key step in the planning and approval process will be the amendment of the Metropolitan and Peel Region Schemes to give effect to the outcomes of the spatial and data analysis of environmental values with respect to urban, industrial and rural residential development areas (as shown in the draft sub–regional planning frameworks). This will generally occur in unison with applications for structure planning and rezoning, driven by development proposals.

Land that is suitable for development will be rezoned for purposes intended to promote development including urban or industrial. Appropriate public purpose reserve classifications will also be given to land identified as suitable for road and rail infrastructure, and for recreational and conservation purposes.

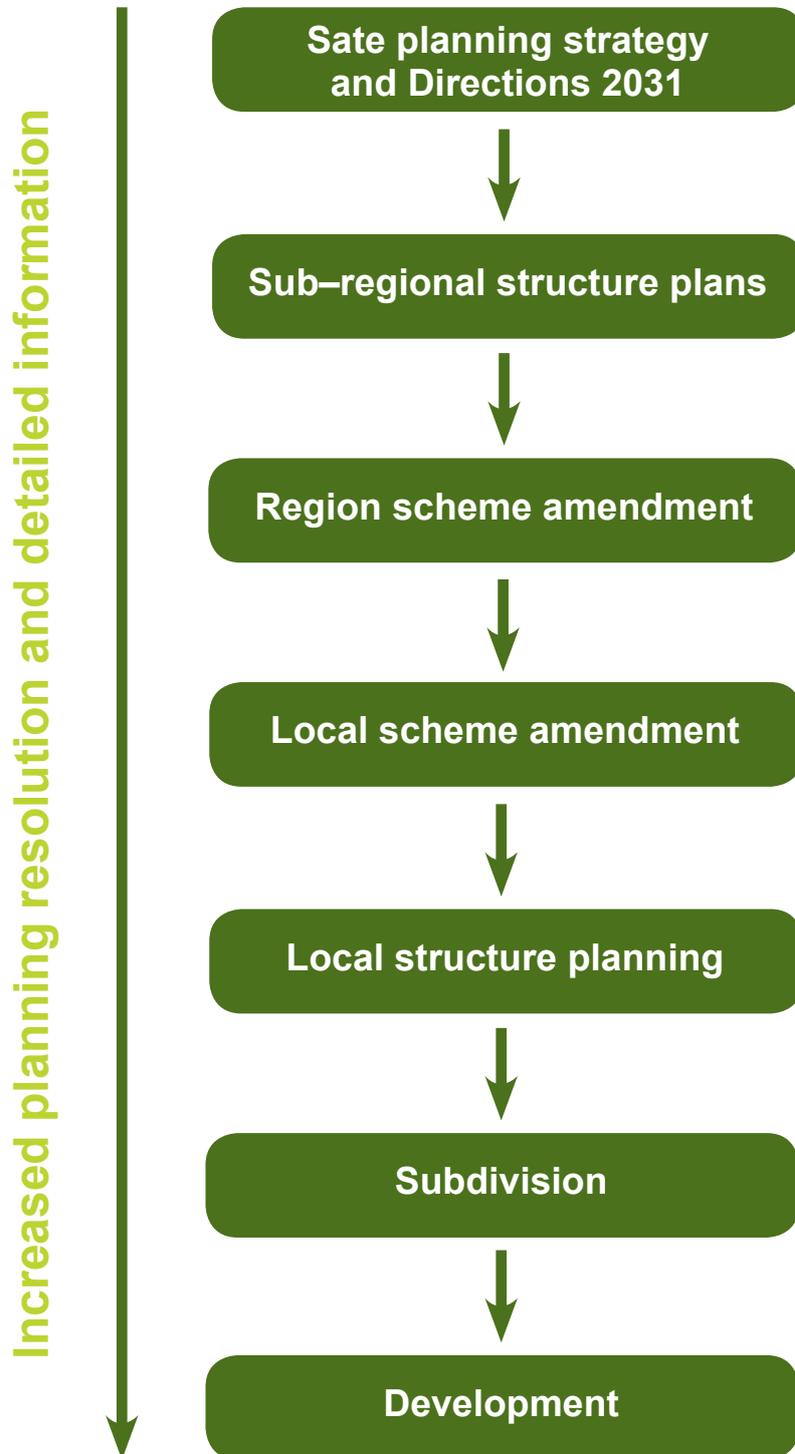
Following changes to the region schemes, local planning scheme amendments will also be required to implement statutory controls at a local level, including further refining the zonings and classifications and incorporating provisions for structure planning prior to subdivision and development. The hierarchy and sequencing of the planning process is shown in Figure 5 – 2 below.

With respect to urban and industrial expansion areas, further, more detailed, planning will be undertaken to inform the structure planning process and designate areas of open space, in addition to Regionally Significant Natural Areas, for the purpose of retention and protection of remnant vegetation that supports MNES and State environmental values.

With respect to already zoned but as yet undeveloped urban and industrial land, proponents will need to meet specific commitments articulated in the Strategic Conservation Plan (Action Plans F, G and H) as well as implement any EP Act advice or conditions provided through existing planning and approvals processes.

**This section of the Strategic Conservation Plan is the subject of Commonwealth endorsement under the EPBC Act**

Figure 5 – 2: Hierarchy and sequencing of the planning process



## 5.4 Infrastructure development

The implementation of the Infrastructure Class of Action will be managed through the State's planning and approvals framework provided by the P&D Act and EP Act. Following high level identification of future infrastructure needs, the final location and alignment of infrastructure is subject to a future process of refinement following detailed planning and design to further avoid and minimise impacts to MNES and State environmental values. Through this process, the State will promote the establishment of multi-use corridors wherever feasible to avoid or minimise environmental impacts.

Under the Strategic Conservation Plan, the State will approve infrastructure development through the EP Act, which will ensure that developments are consistent with the relevant conservation and environmental commitments. As described in Action Plan C, the intent is that this will involve a streamlined approach to permits issued under Part V Division 2 of the EP Act (clearing of native vegetation) or, where required, an Environmental Impact Assessment under Part IV Division 1 of the EP Act. For other types of infrastructure, easement processes under the Land Administration Act will continue to apply.

For major road and rail reservations (where reservation is required in a region scheme) a similar process to that for the Urban and Industrial Class of Action is proposed. That is, it is proposed that schemes and amendments that are consistent with the Infrastructure Class of Action, EPA's section 16(e) advice and conservation commitments would need not be referred to the EPA for assessment under Part IV Division 3 of the EP Act. Clearing within the scope of the Class of Action (which is not exempt) will require a clearing permit application, unless the clearing meets the definitions under any purpose permit previously obtained. Clearing permit applications under Part V Division 2 of the EP Act are assessed using a risk-based approach against the clearing principles in Schedule 5 of that Act. Infrastructure applications will also be assessed against the conservation and environmental objectives and commitments in Action Plans F and G.

It is proposed that where commitments contained in the Strategic Conservation Plan are the kind that can be applied by the CEO of the Department of Environment Regulation (DER) as conditions to a clearing permit, the clearing permit process be used to implement the Strategic Conservation Plan commitments.

A description of the legislative and policy framework that governs the planning and delivery of infrastructure in the Perth and Peel regions is included in Action Plan C.

**This section of the Strategic Conservation Plan is the subject of Commonwealth endorsement under the EPBC Act**

## 5.5 Basic Raw Materials

The extraction of BRM is regulated under both the *Mining Act 1978* (the Mining Act) and Part V Division 2 of the EP Act (clearing of native vegetation). The State will use these legislative instruments to approve BRM extraction projects under the Strategic Conservation Plan.

BRM extraction on Crown land or Reserve land is regulated by the State Government and BRM extraction on private land is regulated under planning and local government laws. Regardless of the type of land holding, all extractive industry proposals are subject to the provisions of the EP Act for clearing of native vegetation.

The regulation of BRM extraction on Crown land or Reserve land is administered by the Department of Mines and Petroleum (DMP) in accordance with the Mining Act. Clearing of native vegetation on Mining Act tenure is currently assessed and regulated by DMP under delegation from DER under Part V Division 2 of the EP Act.

Approvals for extractive industries that occur on private (freehold) land are covered under the P&D Act and the *Local Government Act 1995*. State Planning Policies administered under the P&D Act set out the matters which are to be taken into account and given effect to by the WAPC and local governments in considering zoning, subdivision and development applications for extractive industries including buffer requirements to sensitive land uses and sequential land uses.

Clearing of native vegetation for the extraction of BRM on private land is regulated by DER under the EP Act Part V Division 2. As of November 2015, there are currently changes before Parliament in the Mining Act Amendment Bill 2015 that will require BRM on Mining Act tenure to be assessed under the Mining Act, as opposed to the EP Act. The proposed amendments specifically adopt the clearing principles from Schedule 5 of the EP Act and therefore DMP would base its assessment of clearing on the same environmental considerations.

As is the case for infrastructure, a streamlined approach to the clearing of native vegetation under Part V Division 2 of the EP Act will be adopted with respect to BRM extraction. It is proposed that where commitments contained in the Strategic Conservation Plan are the kind that can be applied by the CEO of DER as conditions to a clearing permit, the clearing permit process be used to implement the Strategic Conservation Plan commitments. Permit applications will be assessed against the conservation and environmental objectives and commitments of Action Plans F and G.

Following the completion of the extractive operation on Crown land, rehabilitation of the site is covered by the provisions of the Mining Act and *Mining Rehabilitation Fund Act 2012*. Rehabilitation is a requirement of clearing permit conditions for freehold tenure.

With respect to BRM extraction areas that have been previously approved under the EP Act, any previous EPA advice or assessment or clearing permit conditions will remain in place and a proponent will be required to implement these. An application to expand existing sites within the Class of Action will be dealt with through the processes detailed in Action Plan D.

It is recognised that there are other potential sources of BRM within the Strategic Assessment Area that have not been included within the Class of Action. Proposals to extract these resources will require assessment under existing State processes.

A description of the legislative and policy framework that governs future BRM extraction in the Perth and Peel regions is included in Action Plan D.

**This section of the Strategic Conservation Plan is the subject of Commonwealth endorsement under the EPBC Act**

## 5.6 Harvesting of pines

Under the Strategic Conservation Plan, it is proposed that the area containing the Pinjar, Yanchep and Gnangara pine plantations will support a number of land uses in order to balance competing considerations of Carnaby's cockatoo habitat, water needs, BRM extraction, timber requirements and urban/industrial land development. As a result, a number of regulatory instruments will be relevant in managing this area into the future including the *Conservation and Land Management Act 1984*, the *Land Administration Act 1997* and the P&D Act.

The harvesting and removal of the pine plantations is already being undertaken as per the terms of the *Wood Processing (Wesbeam) Agreement Act 2002*. Existing parties approved by the State to harvest pines will not require any future approval.

Applicable policies and regulation and the roles and responsibilities of the various agencies in implementing and regulating the future harvesting of pines, the future management of State Forest 65 and the transfer of areas of State forest to freehold for future urban and industrial purposes are described in detail in Action Plan E.

There is an associated offset and mitigation package developed to compensate for impacts from the harvesting of pines. This approach is detailed in Action Plan E – Harvesting of Pines and Action Plan H – Conservation Program.

This section of the Strategic Conservation Plan is the subject of Commonwealth endorsement under the EPBC Act

## 5.7 Delivery of outcomes, objectives and commitments

The Strategic Conservation Plan aims to deliver the outcomes, objectives and commitments for State environmental values and MNES through three principle measures: avoidance of impacts, mitigation of impacts, and implementation of the Conservation Program (see Figure 5 – 3).

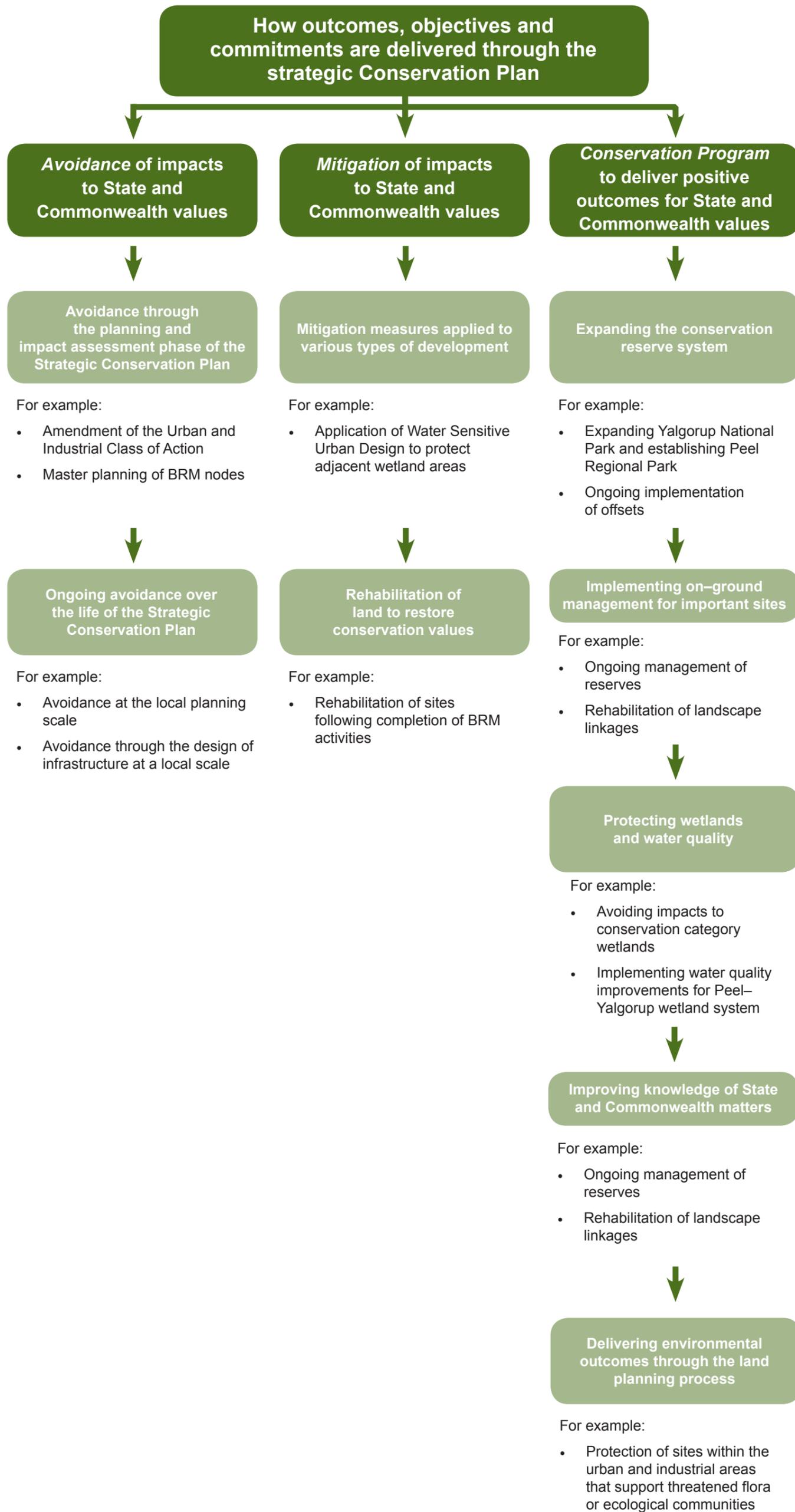
The detailed implementation mechanisms are described in Action Plans A–E and H and include:

- **Avoidance** of impacts through:
  - upfront avoidance during the planning and impact assessment phase of the Strategic Conservation Plan; and
  - ongoing avoidance over the life of the Strategic Conservation Plan.
- **Mitigation** of impacts through:
  - application of mitigation measures to the various types of development; and
  - rehabilitation of land to restore conservation values.
- **Implementation of the Conservation Program** to deliver positive outcomes for State and Commonwealth environmental values which includes:
  - expanding the conservation reserve system;
  - implementing on-ground management;
  - protecting wetlands and improving water quality; and
  - improving knowledge of State and Commonwealth environmental matters.



This section of the Strategic Conservation Plan is the subject of Commonwealth endorsement under the EPBC Act

Figure 5 – 3: Delivery of outcomes, objectives, and commitments through the Strategic Conservation Plan



### 5.7.1 Avoidance of impacts

There are two key components to avoidance of environmental impacts that were built into the Strategic Conservation Plan:

1. Avoidance embedded within the design of the individual classes of action and impact assessment phase; and
2. Ongoing avoidance over the life of the Strategic Conservation Plan.

#### **Avoidance embedded within the design of the classes of action and impact assessment phase**

The avoidance of environmental impacts during the design phase and the impact assessment phase of the Strategic Conservation Plan occurred for each of the classes of action. The processes and outcomes of this avoidance are described in both the Commonwealth and State Impact Assessment Reports. Section 2.1 summarises the outcomes of these avoidance processes.

#### **Ongoing avoidance over the life of the plan**

Ongoing avoidance of environmental impacts over the life of the Strategic Conservation Plan will be a critical tool for meeting the outcomes and objectives from MNES and State environmental values. Ongoing avoidance measures will be applied to:

- Urban and industrial development (see Action Plan A);
- Rural residential development (see Action Plan B); and
- Infrastructure (see Action Plan C).

### **Urban and Industrial**

Ongoing avoidance within the urban and industrial classes of action will occur through implementation of detailed planning for new sites.

This process will involve examining potential urban and industrial expansion precincts in significant detail including determining what measures could be put in place to protect/avoid environmental values. The planning will result in designation of areas of open space to retain/protect these values to be consistent with environmental policy and legislation and the commitments of Action Plan F and G.

### **Rural residential**

As with urban and industrial, proposed rural residential development areas will be subject to a planning process to define areas to be avoided for rural residential lots and put aside in open space.

### **Infrastructure**

The final location and alignment of infrastructure is subject to a future process of refinement following detailed planning and design to further avoid and minimise impacts to environmental values. This will include consideration of opportunities to reduce the development footprint through co-location of infrastructure (e.g. shared corridors).

## 5.7.2 Mitigation of impacts

Mitigation of impacts to State and Commonwealth environmental values incorporates:

- Application of various management measures to address potential indirect impacts to be applied:
  - in further planning and design of future development;
  - for implementation during development activities; and
  - for ongoing implementation.
- Rehabilitation of land to rectify direct impacts associated with development under the classes of action and restore ecological function and values as much as practicable over time.



## Management measures

Application of measures to manage impacts of development is a standard part of the planning process at the State level. Mitigation measures include (among other things):

- appropriate supporting investigations and studies prior to development to inform planning and design of projects to reduce environmental risk (e.g. groundwater and acid sulfate soil investigations);
- appropriate planning and design of projects according to policy and guidance to reduce potential impacts (e.g. Water Sensitive Urban Design measures in urban and industrial to reduce water quality and erosion issues, fencing to avoid fauna mortality on roads);
- management measures to be applied during construction activities to reduce the risk of impacts occurring (e.g. on-site fauna management, dieback and weed hygiene measures); and
- ongoing activities to address potential indirect impacts of development, including:
  - fragmentation and edge effects;
  - introduction of weeds and/or pests;
  - issues associated with dust and/or noise;
  - changed fire regimes;
  - disturbance related to increasing numbers of people; and
  - alterations to groundwater and/or surface water.

Action Plans A–E outline the consideration and incorporation of appropriate mitigation measures.

## Rehabilitation

Rehabilitation of land to restore ecological functions and values as far as practicable is another important mechanism to contribute to the long-term delivery of the conservation outcomes and objectives. This is 'on-site' rehabilitation and should not be confused with rehabilitation or restoration works in conservation reserves as part of the on-ground management component of the Conservation Program.

Action Plans A–E of the Strategic Conservation Plan detail the general situations in which rehabilitation will occur. A portion of the direct impacts of disturbance associated with development under the classes of action will be addressed through rehabilitation for the following type of projects:

- BRM extraction projects, which will be rehabilitated progressively or at point of closure of operations;
- infrastructure projects where permanent above ground structures are not required (e.g. pipelines);
- infrastructure projects for which the ongoing development footprint is not as large as the required construction footprint and therefore disturbed areas not required for permanent structures can be revegetated (e.g. railway and road corridors and reserves, high voltage power lines);
- urban and industrial development where clearing of remnant vegetation has been necessary but for which there is an opportunity for revegetation following completion of construction activities; and
- as part of street scaping of new urban, industrial and rural residential subdivisions, native plants and trees that replace some lost values from clearing may be utilised.

### 5.7.3 Conservation Program

Action Plan H details the components of the Conservation Program that will be used to deliver conservation gains over the life of the Strategic Conservation Plan. The Conservation Program will be implemented via:

- the expansion of the conservation reserve system;
- implementing on-ground management of conservation reserves;
- execution of Carnaby's cockatoo conservation actions;
- a program of activities to improve the long term health of the Peel-Harvey and Swan Canning waterways and wetlands; and
- delivery of an environmental offsets program.

## 5.8 Funding mechanisms

Funding mechanisms for implementation of the Strategic Conservation Plan and Action Plans are being developed.

Funding mechanisms are likely to include contributions from proponents applied through the approval processes that apply to each Class of Action under Action Plans A to D.

Further information on funding measures relating to the implementation of the Strategic Conservation Plan and Action Plans will be released for public comment over the coming months.



## 6 Assurance framework

### 6.1 Roles and responsibilities

It is the responsibility of the Western Australian Government to implement the Strategic Conservation Plan and ensure development and conservation activities are undertaken in a manner consistent with the Plan. This includes compliance with any endorsement by the Commonwealth Minister for the Environment provided under Section 146 of the EPBC Act.

Persons or organisations undertaking development activities described in Chapter 3 are responsible for ensuring that they comply with the applicable Class of Action descriptions and approval. The Western Australian Government will, through the implementation framework (section 5.1), aim to ensure that clear information is published to inform all parties of their responsibilities and obligations under the Strategic Conservation Plan and relevant Action Plans. The Commonwealth Government will support the Western Australian Government, upon request, to ensure this information is correct and current with regards to the EPBC Act.

The Commonwealth Government remains responsible for legislative compliance activities under the EPBC Act.

## 6.2 Purpose

The purpose of this assurance framework is to ensure that the Action Plans are delivered effectively and that the outcomes and objectives set out in this Strategic Conservation Plan for both State and Commonwealth environmental values are achieved. The assurance framework will ensure that:

1. persons likely to undertake a relevant activity within the Strategic Assessment Area (Figure 1 – 1) are informed of the Strategic Conservation Plan, how it may affect them, and what they must do to comply with the relevant classes of action approval;
2. an appropriate monitoring regime is in place to inform adaptive management;
3. adaptive management occurs through the updating of Action Plans as required; and
4. information on implementation is made publicly available in a timely manner, and reviews on the effectiveness and efficiency of implementation are transparent.

The assurance framework is comprised of the following elements:

- monitoring and compliance assurance program;
- annual reporting;
- five yearly review; and
- dispute resolution.

An overview of these elements is provided below and illustrated in Figure 6 – 1. The details of the assurance framework are provided in Action Plan I.

## 6.3 Monitoring program

A monitoring program will be implemented in order to determine if the:

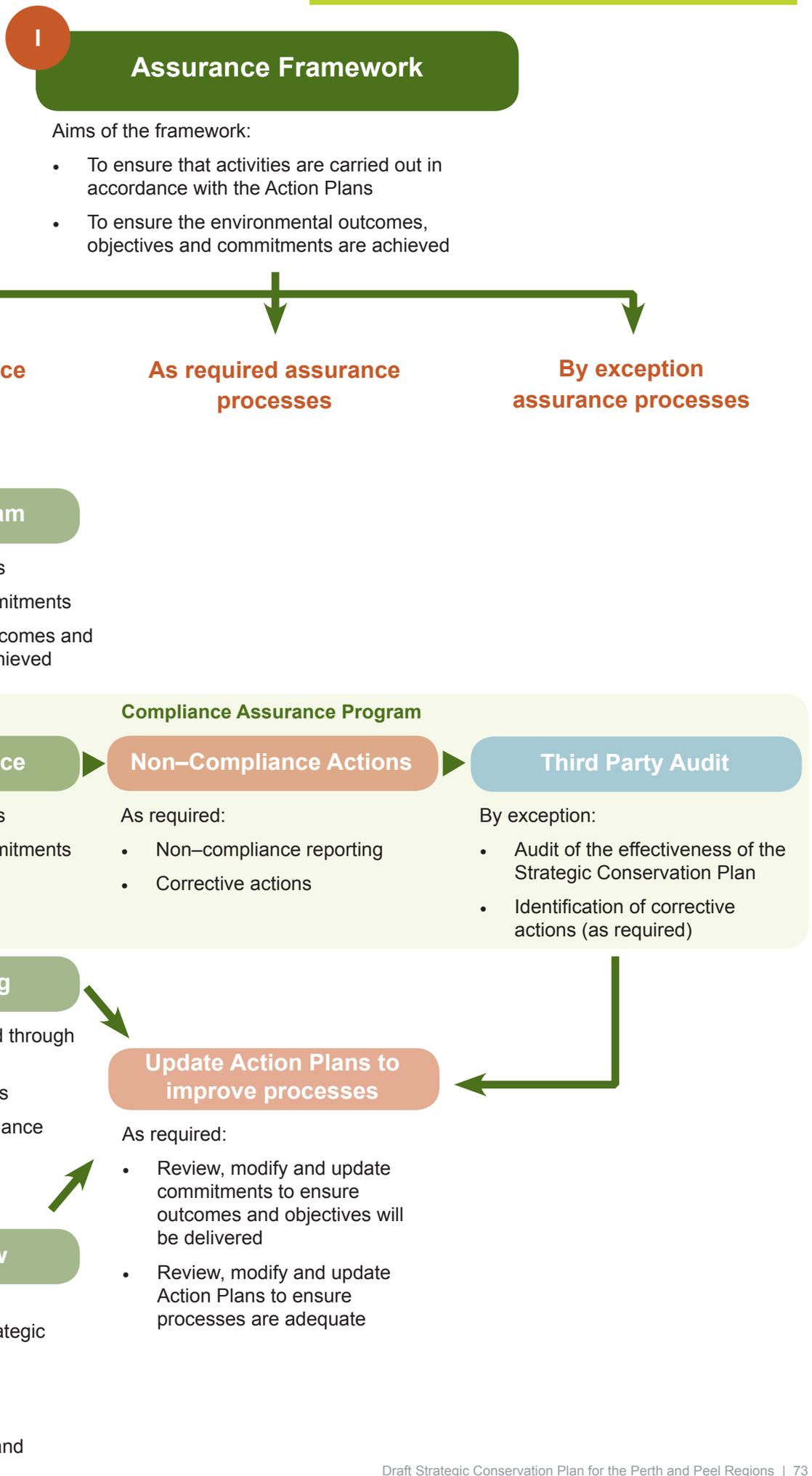
- activities detailed in the Action Plans are being implemented (compliance assurance monitoring); and
- outcomes, objectives and commitments of the Strategic Conservation Plan are being achieved (environmental condition monitoring).

The monitoring program will address (but not be limited to):

- progress in development activities (Action Plans A to E);
- progress in implementing the conservation and environmental commitments (Action Plans F and G);
- progress in implementing the Conservation Program (Action Plan H);
- the status of environmental outcomes and objectives for State environmental values (see Chapter 4); and
- the status of conservation outcomes and objectives for MNES (see Chapter 4).

The results of the monitoring program will feed directly into the compliance assurance program, annual reporting and the five yearly reviews.

Figure 6 – 1: Assurance framework



## 6.4 Compliance assurance program

The Western Australian Government will implement a compliance assurance program to ensure the effective implementation of the Strategic Conservation Plan and that the activities within the Action Plans are carried out appropriately by State agencies, local governments and proponents. The details of this compliance program are outlined in Action Plan I.

### 6.4.1 Compliance–assurance reporting

The State Government will notify the Commonwealth Government of:

- **process failure:** any matter that may affect the ability of a person to comply with a Class of Actions approval; and/or
- **outcomes failure:** any matter that may affect the ability of the Western Australian Government to implement the Strategic Conservation Plan.

Notification will occur within seven business days of identifying the issue. The Western Australian Government will then establish an appropriate response to address the issue in consultation with the Commonwealth.

### 6.4.2 Third party audit

In the unlikely event of a serious systemic failure in the implementation of the Strategic Conservation Plan, the Western Australian Government will commission an independent third party audit to understand the causes of the issue and identify the appropriate corrective actions.

Should an audit be required, the State and Commonwealth Governments will work together to agree on:

- appointment of the third party auditor;
- the terms of reference for the audit; and
- the cost sharing arrangements for the audit.



## 6.5 Annual reporting

The Western Australian Government will prepare and publish an annual report outlining implementation performance achieved in the previous year, measured against the requirements of the Strategic Conservation Plan. This report will be completed within six months of the end of each financial year.

The annual reports will comprise (at a minimum):

- information on progress in implementing the:
  - development Action Plans A–E; and
  - delivery of the conservation commitments
- any compliance assurance issues (as defined in section 6.4.1), and the State's response; and
- the annual report will be provided to the DoE and to the EPA.

## 6.6 Five year review

Every five years, the Western Australian Government will undertake a comprehensive review of the Strategic Conservation Plan. The purpose of the review will be to:

- assess progress in achieving the outcomes and objectives for both MNES and State environmental values; and
- assess the effectiveness and efficiency of State systems and processes in achieving these outcomes and objectives.

The five yearly review will (at a minimum):

- examine the efficiency and effectiveness of the Action Plans (and associated systems/processes);
- progress in achieving the outcomes and objectives;
- identify improvements and corrective actions required to ensure outcomes and objectives will be achieved; and
- assess implementation of improvements and corrective actions from previous reviews.

The review will be undertaken in accordance with a set of terms of reference developed in consultation with the Commonwealth Government. A report will be developed to outline the results of the review process. This report will be provided to the DoE and EPA and will also be made publicly available.

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## Draft Perth and Peel Green Growth Plan for 3.5 Million – City of Joondalup Submission

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### Comments on draft Strategic Conservation Plan for the Perth and Peel Regions

- The City of Joondalup supports the State Government's efforts to streamline planning approvals processes in order to achieve greater environmental outcomes from development. However the suite of documents under the draft *Green Growth Plan* seems unnecessarily complicated with duplication between the various action plans.
- Despite the large number of documents included within the draft *Green Growth Plan*, a lack of detail regarding specific inclusions of the plan, still remains. This has made formulating a submission challenging in terms of identifying specifically how the draft plan will affect the City of Joondalup's strategic planning for future growth within the region. Earlier provision of the detailed mapping (released late March) and refined set of areas proposed as 'broad commitments and values' would have greatly assisted in formulating informed submissions.

Additionally the lack of an implementation and funding plan has meant that the City of Joondalup is unable to provide a fully informed submission as the implications of the draft *Green Growth Plan* on the City's local natural environment and strategic planning, are largely unknown. The City of Joondalup seeks clarity from the State Government in relation to mechanisms that will be employed to implement the commitments within the draft *Green Growth Plan*.

- It is understood that the Funding Plan will be released later in 2016, however it is difficult to fully ascertain the impacts of the implementation of the draft plan on the City of Joondalup without considering the funding models and how these will be applied. Clarity regarding the funding instruments that will be utilised to implement the Green Growth Plan should also be provided. Specific details regarding the acquisition of private land and the financial contributions that will be available should be included within the Funding Plan.
- Overall there has been limited consultation with key stakeholders and land managers regarding specific actions that are included within the draft plan and related action plans. For example the draft *Green Growth Plan* suggests 'improvements in land tenure arrangements' for areas that the City of Joondalup manages, however no specific consultation, regarding these changes, has been undertaken with the City of Joondalup. Again without specific information relating to these changes (such as what is meant by 'improvement in land tenure') it is difficult for the City to provide informed feedback on the proposals.
- The release of spatial mapping at the end of March 2016 was too late in the consultation process. The release of this mapping should have aligned with the release date of the draft *Green Growth Plan*. Additionally the mapping is difficult to utilise and lacks the required detail and associated data to enable it to be used as a decision making tool. The City of Joondalup has undertaken extensive review of the mapping, however due to the lack of information and inconsistencies with other spatial formats; the City has had to cross reference mapped areas with its own GIS system. This has been a time consuming process that could have been avoided if the State Government had provided local governments with more detailed information.

- The areas identified as 'broad conservation commitments and values' in the mapping released with the Strategic Conservation Plan has created significant uncertainty for both conservation and development outcomes, contrary to the aim of the document. Uncertainty has surrounded these areas for a number of years, however, the draft plan has extended this uncertainty, given it fails to refine these areas to specific commitments and instead broadens these areas to cover sites that previously did not require environmental assessment, such as Carnaby's Cockatoo habitat less than one hectare in size.

Furthermore the mapping has been undertaken at a desktop level which has resulted in a number of areas within the City of Joondalup being identified as 'broad conservation commitments' where there may not be suitable vegetation for retention due to the type, condition size and/or location of the vegetation.

The City supports the commitment of the State Government to partner with local government in refining these commitments and recommends that this work be undertaken urgently in order to refine these areas to ensure that only the vegetation suitable for retention, necessary for conservation purposes and in appropriate locations is included within the proposed conservation program. Given the protection of these environmental values is a regional issue, it is recommended that this refinement be undertaken with consideration of regional outcomes and not on a local government by local government basis. The City of Joondalup also requests that the State Government undertake consultation with private land owners within the City to ensure that land owners are aware of the implications of the proposals within the draft Green Growth Plan and how this will affect future development within the region.

In addition, and most significantly, it is recommended that the uncertainty created in areas of strategic importance to the Perth and Peel region by the broad desktop mapping is immediately resolved. This includes all areas within the Joondalup Strategic Metropolitan Centre be immediately removed from the 'broad conservation commitments and values', with the exception of regionally significant environmental areas of Central Park (eastern portion) (Lot 1101) and Lakeside Park.

- Furthermore the City of Joondalup requests that active park areas that have been identified as 'broad conservation commitments' retain the current 'Parks and Recreation' zoning in order to recognise the sites' main purpose as a regional sporting ground rather than a conservation area. Bushland within the City's active parks would continue to be managed to ensure the ecological values of the area are maintained.
- The detailed *Green Growth Plan* mapping, includes Lot 1032 (City of Joondalup) and a minor portion of the adjacent Lot 9000 (Water Corporation) as 'broad conservation commitments'. These lots are within Ocean Reef Marina Development area. The City of Joondalup does not support the inclusion of the above lots as 'broad conservation commitments due to the following:
  - The Ocean Reef Marina Development is currently undergoing statutory planning approval processes, including a Metropolitan Regional Scheme (MRS) amendment and structure planning.
  - The proposal was referred to Department of the Environment under the provisions of the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) and received a 'not assessed' decision.

- To mitigate the residual impacts of the Ocean Reef Marina Development, the City of Joondalup is committed to a Negotiated Planning Outcome that results in an appropriate conservation outcome with consideration of State Planning Policy 2.8 and the public advice of the EPA regarding the MRS amendment.
- The draft *Green Growth Plan* proposes that current environmental offsets, required through the development approval process, will be replaced with cash in lieu developer contributions, to be used by the State Government to fund the costs associated with implementing the conservation commitments of the draft *Green Growth Plan*. However it is not understood how these funds will be distributed or whether financial developer contributions will be locally applied. Greater detail and further consultation on this point should be considered.
- The City of Joondalup seeks clarification on the issue of environmental offsets for development not subject to the draft *Green Growth Plan*. If developable land, such as City free hold land, is reclassified as conservation through the implementation of the *Green Growth Plan*, what options will be available, if, in the future the City is required to provide environmental offsets to mitigate the effects of development outside of the draft *Green Growth Plan* classes of action.
- It is of concern that the draft *Green Growth Plan* does not include mechanisms to address changes in local environmental context. For example once up front approval is provided within a particular location it is unclear what the requirements would be if regionally significant or Matters of National Environmental Significance (MNES) were found within the site prior to commencement of development. It is also unclear if environmental monitoring and surveys will be required prior to the commencement of development in such areas, to confirm significant species do not occur on site.
- Clarification is sought from the State Government regarding the status of current development that is planned within Bush Forever sites. For projects that have an amendment to the MRS in progress, to modify the zoning of the part of the Bush Forever site (such as the Ocean Reef Marina Project), and have been assessed under the EPBC Act, with a decision that the proposed clearing does not require assessment under that Act, will the draft *Green Growth Plan* be applied retrospectively to these developments?
- The draft *Green Growth Plan* sets a number of actions that propose to use the statutory planning and approval process to protect or avoid clearing of specific vegetation on land already zoned urban. However, it is unclear exactly what statutory planning instruments will be used to enforce the criteria for retaining fauna habitat and vegetation complexes outlined in Action Plans F and G. Additionally, it is unclear who will be responsible for implementing these planning processes.

### **Comments on draft Action Plan A- Urban and Industrial**

- The general principles of draft Action Plan A are supported by the City of Joondalup. However, it is unclear how these principles will be implemented in practice, and the City has serious concerns regarding the areas shown as 'broad conservation commitments and values' in the Joondalup Strategic Metropolitan Centre.
- The Urban Development Action Plan recognises the importance of the Joondalup Strategic Metropolitan Centre in supporting the expansion of the Perth and Peel Region to 3.5 Million people. The Joondalup Strategic Metropolitan Centre is the largest and most significant centre in the North-West Sub-Region (NWSR). The centre provides

homes, employment, education, shopping, commercial, health and civic facilities, light industry, as well as local recreation, open space, conservation and cultural areas to the NWSR as well as the wider Perth and Peel Regions.

Action Plan A also recognises the importance of infill and intensification of land already zoned urban, such as that currently occurring in the Joondalup Strategic Metropolitan Centre. However, despite these statements the broad desktop mapping provided as part of the draft *Green Growth Plan* consultation period designated the majority of the vacant development sites remaining in the Joondalup Strategic Metropolitan Centre as part of the plans 'broad conservation commitments and values'. These areas are all currently zoned 'Central City Area' under the *Metropolitan Region Scheme* and 'Centre' under the City's *District Planning Scheme No. 2*. They are also covered by a State Government endorsed statutory plan and comprise the few vacant infill development sites remaining in the centre. The development of these vacant sites is essential to the next stage of development in the centre, as it moves to intensify and create strategic employment and housing opportunities for the North-West Sub-Region (NWSR).

The NWSR is proposed to have the highest population growth of any sub-region and will continue to have a highly professional labour force. The State's draft *Perth and Peel @ 3.5 Million* document makes it clear that greater employment self-sufficiency needs to be created in the NWSR, partly through the provision of strategic employment in the Joondalup Strategic Metropolitan Centre. This decentralisation of strategic employment is essential if transport congestion is to be controlled and adequate services are to be provided for the population of the North-West Sub-Region.

The recent high intensity development of vacant sites in the Joondalup Strategic Metropolitan Centre has demonstrated its ability to provide the strategic employment necessary to support the NWSR and broader Perth Region. This next stage of the centres intensification is ongoing and detailed proposals have already been developed, and in some cases approved, for all of the areas shown in the mapping as 'broad conservation commitments and values'. The inclusion of the remaining vacant sites in the Joondalup Strategic Metropolitan Centre as part of the 'broad conservation commitments and values' areas will create significant uncertainty for investors and developers in the centre. In this respect the City's role in achieving the objectives of a number of statutory and strategic planning documents already endorsed by the State Government will be greatly limited.

A summary of the statutory documents already in place that guide development within the Joondalup City Centre are listed below:

- *State Planning Policy 4.2: Activity Centres for Perth and Peel*
- *North-West Corridor Structure Plan (1992)*
- *Directions 2031 and beyond*
- *Joondalup City Centre Development Plan and Manual (JCCPDM)*
- *Draft Joondalup City Centre Structure Plan*

Directions 2031 sets out the network and hierarchy of activity centres for both Perth and Peel and, with the overarching *State Planning Policy - Activity Centres for Perth and Peel* (SPP 4.2), under which Joondalup is highlighted as a strategic metropolitan centre within the Perth metropolitan area. A key objective of the policy is to create activity centres to a sufficient development intensity to support increased range in employment, sustainable public transport, housing density and opportunities for walking and cycling. It is noted that a key goal of *Directions 2031* is to achieve 47% of future housing within existing residential areas. Following the recent re-coding of a number of key areas within the City

to accommodate higher residential densities, along with the rapid growth of the east Wanneroo and the City of Wanneroo's coastal strip, the Joondalup Strategic Metropolitan Centre faces the challenge of servicing an increased population. Certainty regarding development potential within the Centre is essential if the necessary intensification of development is to be delivered to provide the necessary employment and services of the growing population.

The City of Joondalup therefore requests that all areas within the Joondalup Strategic Metropolitan Centre be immediately removed from the 'broad conservation commitments and values', with the exception of regionally significant environmental areas Central Park (eastern portion) (Lot 1101) and Lakeside Park.

- Action Plan A states that for broad conservation commitments, there is some flexibility in the protection of environmental values while achieving conservation outcomes. The document also states that criteria will be developed to assist the selection of retention areas and the statutory planning decision-making process to allow for pragmatic outcomes to be achieved. However, the inclusion of the 'broad conservation commitments and values' at this stage, before the further refinement mentioned has occurred, has created significant uncertainty for owners, developers, investors and local government. As is mentioned above, including the remaining vacant sites in the Joondalup Strategic Metropolitan Centre as part of these 'broad conservation commitments and values' areas is particularly concerning given that the uncertainty this creates will undermine the objectives set in a number of State Government statutory and strategic planning documents.

The City supports the commitment of the State to partner with local government in identifying further opportunities for avoidance of impacts and the delivery of specific conservation commitments. However, it is essential that this partnership occur immediately in order to ensure the necessary outcomes are achieved not just for the environment, but the Perth and Peel regions more generally.

Given the protection of these environmental values is a regional issue, it is recommended that this refinement be undertaken broadly and not purely on a local government by local government basis.

It is also recommended that a process be established to ensure that once refinement has occurred, that the modified mapping be released for public comment before being included in the Green Growth Plan. Without refinement it is both unclear how the necessary protection of these environmental values will be achieved and what the impact will be on the ability to develop land currently holding those values.

- Action Plan A states that one of the main streams by which the plans commitments will be met is by using the planning processes, stating that "*where a commitment occurs on land that has potential for subdivision and development, there is opportunity to implement conservation outcomes through statutory planning processes.*" The planning process proposed to implement this (shown in Figure 4-3) is supported. However, there is little detail in the draft *Green Growth Plan* outlining how this will be implemented in practice. It is particularly unclear for the areas shown as 'broad conservation commitments' in the mapping released part way through the *draft Green Growth Plan* consultation period. The majority of these areas are already zoned for urban development and are covered by a State Government endorsed plan.

Currently, in these circumstances, the *Planning and Development Act 2005*, along with the associated planning regulations, state planning policies and local planning schemes, do not require such environmental commitments to be considered as they are covered

by the separate environmental legislation at both the State and Federal level. For example, the *Planning and Development Act 2005* does not specifically include the clearing or removal of vegetation in the definition of development and therefore development approval is not necessarily required for the removal of a small number of trees on private land zoned 'Commercial'.

The broad planning process improvements proposed in the action plan are strongly supported, including expansion of the concept of pre-lodgement to major development applications and the development of a continually updated GIS database for environmental attributes of Commonwealth and State importance. However, these changes alone will not facilitate the proposed commitments to be delivered through the statutory planning process. Further detail regarding the amendments that are proposed to statutory planning systems to enable implementation of these actions is requested to clarify how additional environmental values can be retained through the development process, given the current planning legislation.

### **Comments on draft Action Plan C- Infrastructure**

- The draft Infrastructure Action Plan would appear to focus on Greenfield development expansion and less on infill development. Significant infill development will need to occur to provide for the increase in population to 3.5 million. It is important that the draft plan provide guidance and clarification regarding the future construction and upgrade of transport systems within infill areas. Environmental factors such as noise generation, air quality and urban sustainability requirements would need to be considered.
- The draft plan provides for the expansion of existing conservation reserves as part of Phase 1 to the north of Two Rocks. The expanded conservation reserves would therefore become a natural barrier for further expansion of the northern corridor. This would lead to positive outcomes for downstream transport systems such as major road and rail networks which are currently under pressure.
- The long term conservation program as highlighted by the draft plan would involve improved protection for Bush Forever sites. Although the majority of the City of Joondalup's road network is now complete, there will be a requirement to maintain or improve existing infrastructure that may involve some land clearing.

It is therefore important that local government has the ability to maintain or undertake improvements of existing infrastructure within conservation reserves as part of the draft *Green Growth Plan*. The existing clearing permit arrangements by Department of Environmental Regulation tend to support public works within these areas to enable relatively minor clearing to occur without offsets. Maintaining the current approval process will be essential for maintenance and upgrade purposes going forward if the areas are reclassified to a higher conservation status, this would include the proposed dual use pathway from Burns Beach to Mindarie.

- In reference to figure 3.4 and figure 19 - Proposed Infrastructure Western Power, there would appear to be little impact to the City in relation to future infrastructure alignments. The plan does however indicate a new HV transmission line and substation in the vicinity of Marmion Avenue and the City's northern boundary. Based on the information provided, it is difficult to identify the actual location for the facilities or gauge the extent of the environmental and amenity impacts involved. Clarification on the location and associated impacts of this planned infrastructure is requested.

- In reference to Figure 13 - Proposed Infrastructure Roads, there are no new major road alignments identified within the City's jurisdiction. The proposed alignment for Whiteman - Yancheep Highway is acknowledged and is considered a worthy proposal to reduce downstream congestion on the major road network to the south.
- In reference to Figure 22 - Waste Water Infrastructure Neerabup Groundwater Source Expansion is highlighted within the plan and appears to be a new water main located in the vicinity of Connolly Drive and Moore Drive. Recent Water Corporation work within the area would indicate that this project is possibly underway.
- Clarification is sought as to the level of clearing that would be expectable in areas classified as 'Conservation'. Essential service lines (gas, power etc) are located within a number of the City's natural areas and on occasion limited clearing is required to maintain these lines. Would there be provision for this work to receive approval if a reserve was zoned as 'Conservation' or included under the proposed expanded state conservation system?

### **Comments on draft Action Plan E- Pines Harvesting**

- The City of Joondalup recognises the need to remove pines to reduce draw on groundwater resources and enable recharge and water for environmental uses , however removal of food source for Carnaby's Cockatoo will have significant impact on the species. Planting at a rate of 500 ha per year is not sufficient to mitigate the impacts as there will be a lag in available food source due to plantings taking 10-40 years to reach maturity. It is recommended that the removal of the pines be staged over a period of time that would enable establishment of a reliable foraging source for the Carnaby's Cockatoo.
- The draft *Green Growth Plan* recognises that there will be a reduced environmental outcome for MNES (Carnaby's Cockatoo) due to the clearing of pine plantations (page 16). It is questioned how a decline in protection for a species protected under the Environmental Protection Biodiversity Conservation Act can be an acceptable outcome, given the environmental objectives of the draft *Green Growth Plan*.
- Draft Action Plan E states that no funding mechanisms are required to implement the Plan, however it is unclear how monitoring and research for the Carnaby's Cockatoo can be delivered without additional funding sources being identified. It is recommended that funding be specifically allocated to monitoring initiatives such as the annual cocky count program initiated by Birdlife Australia WA.

### **Comments on draft Action Plan F- Conservation Commitments**

- Action Plan F (Table 1 No. 32 p. 17) refers to limiting clearing of feeding habitat within the classes of action to no more than 9,700 ha of Swan Coastal Plain feeding habitat; and avoiding clearing of known roosting and confirmed and possible breeding sites demonstrated to be viable within urban, industrial and rural residential areas. However, it is unclear from this and the other action plans how the statutory planning and approval processes are proposed to be used to apply these proposed conservation commitments. Further detail regarding these mechanisms is requested to provide clarification of how

additional environmental values can be retained through the development process, given the current planning legislation. For example, the *Planning and Development Act 2005* does not specifically include the clearing or removal of vegetation in the definition of development and therefore development approval is not necessarily required for the removal of a small number of trees on private land.

- Action Plan F (Table 1 No.32 p. 17) refers to known roosting and confirmed and possible breeding sites demonstrated to be viable. However, it is unclear what criteria will be used to determine which sites are possible breeding sites and which sites are viable.
- Action Plan F (Table 1 No. 33 p. 17) outlines that Carnaby's Cockatoo habitat disturbed by infrastructure construction is to be rehabilitated. However, it is not clear who will be responsible for this rehabilitation; when it should occur; and how this requirement is proposed to be applied and enforced through the planning system.
- The City of Joondalup has reviewed the detailed mapping provided by the Department of Premier and Cabinet in March 2016. The City cross referenced sites from the spatial mapping with internal records to compile a list of affected sites within the City of Joondalup. Specific comments regarding each area included as a specific or broad conservation commitment, within the City of Joondalup, has been prepared by the City. This information can be provided to the Department of Premier and Cabinet upon request.
- In relation to individual reserves within the City of Joondalup, that have been included within the draft *Green Growth Plan* mapping as part of the expanded conservation system or as a specific or broad conservation commitment or value, the City of Joondalup supports increasing the conservation status of City managed Bush Forever major conservation and high value reserves to retain regionally significant bushland and Carnaby's Cockatoo habitat, provided areas in the Joondalup Strategic Metropolitan Centre are not included, given the strategic importance of this activity centre for the North-West Sub-Region.

### **Action Plan G - State Environmental Objectives and Commitments**

- Action Plan G lists a number of actions that propose to use the land use planning system to protect or avoid clearing of specific vegetation on land already zoned urban. However, it is unclear how the statutory planning and approval process will be amended in order for this action to be effectively implemented.
- Action Plan G (Table 1 No. 14 p. 8) outlines that opportunities for retention of remnant vegetation representative of vegetation complexes <30%, within areas already zoned urban but undeveloped, will be identified. However, it is unclear how and when these opportunities will be identified.

Given the protection of vegetation complex is a regional issue, it is recommended that these detailed investigations be undertaken for the entire extent of the vegetation complex and not on a local government by local government basis.

It is also recommended that a process be established to ensure that once all of opportunities for retention are identified that they be released for public comment before being included in the Green Growth Plan. Without identifying the opportunities for retention of vegetations complexes <30% it is both unclear how the protection of the

vegetation complex will be achieved and what the impact will be on the ability to develop land currently holding those vegetation complexes.

- A number of areas within the City of Joondalup have been included within the draft *Green Growth Plan* as reserves with broad conservation commitments. For bushland areas that surround passive open space and parks, it is unclear whether there will be provision for the conservation area to be separated from recreational areas. The *draft Green Growth Plan* states “recreation that does not harm natural ecosystems is allowed, but other activities are usually not permitted” Further detail regarding the acceptable uses within these areas is required.
- Further to the comments made on Action Plan F, clarification regarding what constitutes a “viable patch of vegetation complex” referred to in Action Plan G (Table 1 No. 13 p. 8) is required.

### **Comments on draft Action Plan H- Conservation Program**

- The concept of expanding the state’s conservation reserves system is commended, however further detail is required regarding the specific mechanisms that will be implemented to protect areas of regionally significant vegetation. The City of Joondalup supports local natural areas receiving greater protection, especially for those areas classified as high and medium priority reserves (as classified through the Perth Biodiversity Project). However further details regarding the future zoning and land tenure arrangements for these areas are required. Additionally the City would support a review of the areas to be included as local nature reserves to ensure all areas of high value vegetation are provided with a level of protection.
- Additionally further detail regarding the ‘improved tenure arrangements for metropolitan regional parks, and improved protection and management of select State owned Bush Forever sites’ is sought. It is unclear what types of mechanisms will be used to provide ‘improved protection’ given the continued clearing of bushland already contained within Bush Forever.
- A number of Bush Forever areas within the City of Joondalup have been identified for inclusion within the expanded conservation reserve system. For Bush Forever sites that are currently classified as Parks and Recreation and have multiple land uses within the site, it is proposed that mechanisms be put in place to enable the bushland area to be excised from the overall lot to enable the bushland area to be classified as conservation and enable the current recreational uses of the site to remain.
- Clarification and further detail is required regarding changes to tenure arrangements within Yellagonga Regional Park It is recommended that further discussions regarding this initiative are held with the Regional Park’s co-managers the City of Joondalup, City of Wanneroo and the Department of Parks and Wildlife.
- The City of Joondalup supports the establishment of a network of conservation reserves from Yellagonga Regional Park to Yanchep National Park. The draft plan includes an action which states that ‘Neerabup National Park will be expanded by 560 ha providing long term security for Bush Forever sites and ecological linkages south of Yellagonga Regional Park’. Further details are sought on where the additional land will be acquired from and how current tenure arrangements will be affected.

- The City supports the inclusion of the Tamala Conservation Park within the expanded conservation reserve system. As the Establishment Plan for the area was developed in 2012, and the area is currently receiving minimal management, it is recommended that this area be included within the 170,000 hectares being set aside as conservation reserves, in the first stage of the implementation of the draft *Green Growth Plan*. Clarification on the timeframe for the establishment of this park is also requested.
- The development of a new wetland buffer policy and the review of the current wetland classifications are supported in order to provide greater protection of wetlands. The upgrading of Resource Enhancement Wetlands to Conservation Category Wetlands is also encouraging.
- The draft action plan includes management responses aimed at improving the water quality of wetlands within the Perth and Peel region; however there seems to be an emphasis on wetlands within the southern portions of the region. It is recommended that other wetland systems, such as the Yellagonga Wetlands also receive enhanced management to improve water quality and biodiversity values. The Yellagonga Wetlands, including Lake Joondalup, Beenyup Swamp, Walluburnup Swamp and Lake Goollelal, represent some of the last remaining freshwater systems in the Perth Metropolitan Area. Additionally consideration should be given to expanding the ongoing monitoring program to other regionally significant wetlands, not just Ramsar Wetland\* sites.
- In reference to the increased conservation status being applied to wetlands within the Perth and Peel region it is requested that consideration to be given to nominating the Yellagonga Wetlands System a Ramsar recognised site. The chain of linear wetland is one of the last remaining fresh water systems along the swan coastal plain and contains significant migratory bird species and supports large numbers of water and birds. The City has reviewed the *Criteria for Identifying Wetlands of International Importance* and is confident that the Yellagonga Wetlands meet the requirements for being nominated as a Ramsar wetland of international importance.
- Action Plan H (Section 3.2) refers to providing appropriate fencing and other capital works throughout new conservation reserves. It is recommended that this also be extended to existing conservation reserves.
- Action Plan H (Section 3.4) commits to the rehabilitation of degraded Carnaby's Cockatoo habitat, and planting of new habitat in partnership with local government in regional open space. It is recommended that this action be extended to include local reserves and road reserves. There is potential for this to also be applied to all landscaping undertaken by subdividers and developers in particular areas. This could be required through a state planning policy and implemented through conditions on subdivision and development approval.

\* Wetlands containing representative, rare or unique wetlands, or wetlands which are important for conserving biological diversity. Once designated, these sites are added to the Ramsar Convention's List of Wetlands of International Importance and become known as Ramsar sites.